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## FEATURES OF THE LABOUR MARKET IN ROMANIA AND THE REACTION TO THE CURRENT CRISIS

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**Abstract:** *The paper presents some of the features of the labour market in Romania and the impact of the economic crisis on these. It aims to identify problems facing the labour market in Romania, in the current European context in order to find sustainable development solutions. The current crisis has reinforced some existing imbalances in the Romanian labour market, requiring additional efforts to achieve a level of development of labour market like the Western countries. In this situation, strategies and policies for employment in Romania must be developed in line with the other macro-economic and European strategies and policies.*

**Key words:** labour market, economic crisis, employment, demographic decline, in work poverty

**JEL Classification:** J11, J21, I3

### 1. Introduction

Romania has been trying for over a century to build a society to reproduce the general features of Western societies - democratic, capitalist and developed a paid work society, a society of free formal labour (Weber, 1968).

Labour market forming has a procedural character, within which there is carried out restructuring, professional development, essential changes in the provision of technical work. The depth, rhythm, scope, their costs that characterize different stages of labour market and allow the achievement of the targets of modern, efficient labour market. Successes or limitations which are recorded in the labour market are similar to those that define the reform of the Romanian economy as a whole.

Thus, even though Romania has emerged from the post-communist transition, it does not cease to be a society in transition. This new Romanian transition model aims to transform the Romanian society according to the Western societies, especially by those in Western Europe. (Pasti, 2006).

To analyze the labour market in Romania it is important to know its characteristics and trends in the context of economic, demographic, regional and social transformation. The labour market in Romania is faced with certain demographic imbalances arising from the decline of legislative instability, of the weak correlation between educational supplies with market demands. All these put their imprint on employment and labour efficiency in Romania. The current financial and economic crisis has reinforced some existing imbalances in the labour market, requiring additional efforts to achieve a level of development of the labour market like the Western countries.

### 2. Features in the labour market in Romania

Labour market status of Romania reflects the influences of macro-economic indicators. Knowledge of this state favors the formulation of solutions for better management of the labour market and enables realistic predictions about its evolution.

Finding solutions that contribute to the development of Romania's labour market should start from identifying the factors that influence employment and its effectiveness the current economic context. Among these factors there are noted: demographic trends and population trends of the total active population, migration of young specialists, atypical cases of occupational structures, labour productivity and poverty developments and the effects of the current crisis.

#### 2.1. *The impact of Romania's population decrease on the labour market*

*Romania's population is declining and according to the latest estimates on its evolution it will continue to drop, at least until the year 2050, as seen from Figure 1. The research points out that the aging process affects: the balance between generation, employment, social protection systems, especially pensions and social assistance, health care system and, by extension, the public and private expenditure.*

The demographic decline in Romania has its major roots in the decline of birthrates and aging population. The direct consequence is the reduction in the general rate of activity. Forecasts show that in the year 2050, per 100 active citizens, there will be 149 inactive persons, and the population over 65 will exceed 5 million, compared to 3 million, as it is currently.

Figure 1

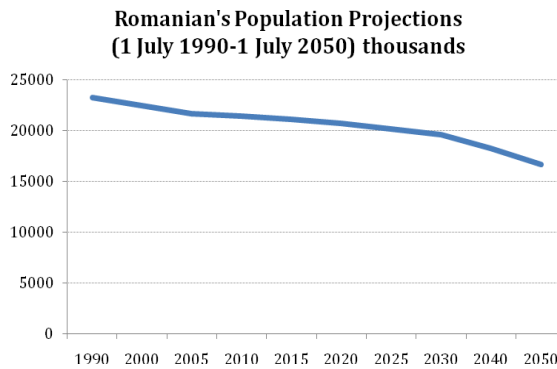
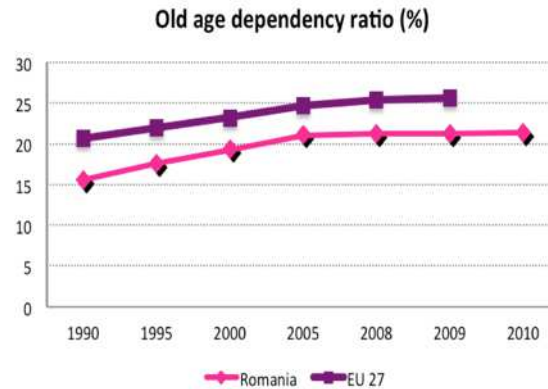


Figure 2



Source: <http://epp.eurostat.ec.europa.eu>; [www.insse.ro](http://www.insse.ro); <http://www.ince.ro/ccd.html>

A significant impact on the labour market it will also have the decrease of strong young population, aged 3-20 years, which will be reduced from 5 million people, as it is currently to 2.7 million for the year 2050, according to the data provided by the National Institute of Economic Research, Demographic Research Centre *Vladimir Trebici*. Vasile Ghetau, the Director of the demographic research center, warns in his work *The demographic decline and the future of Romania's population*, on the effects felt, due to lower population. These will consist of specific economic problems, on the one hand on the decrease of work force and on the other hand on the insufficient economic resources necessary to sustain the elderly.

The relationship between employment, employees and retirees, influences the labour market equilibrium in a significant proportion, taking into account the principle that pensions are paid by contributions from those working. The ratio of average number of pensioners and unemployed, on the one hand and the employed population and the number of employees on the other hand, expresses the pressure on the revenue that manifests on those who work or the dependency ratio. This rate of dependence in the last years shows an increasing pressure growing on the shoulders of the workers, following the trend of an aging population and increasing number of pensioners (sometimes illegally). This is observed in the figure no. 2 which shows the elderly dependency ratio in EU 27 and in Romania and in the period 1990-2010. Given the aging population recorded in most European countries, the dependency ratio of elderly people is increasing in Romania, as well as in UE 27.

This decrease in the population registered in most European countries is the result of a fertility rate that will not increase, according to the estimates by demographer Nicholas Eberstadt. The analysis of the process "turned gray" of the population in the developed countries lately, has not only meant to highlight the main trends that have come with their causal reasoning, but also to design the security issues that will generate these demo-economic-social mutations democratic elections in the public and private elections. (Eberstadt,1998).

In Romania today, such a report of the social security, for at least one active person to a retired shows that we are in a profound crisis of the social security, which not only has the solution in pension reform, but in the recovery ratio of retired people and productive ones by encouraging direct and strong jobs growth, particularly in the private business sector through policies that promote investments.

On other hand, reducing the university population and the increasing migration of young people requires a rethinking of the system of higher education.

### **2.2. The influence of migration on the labour market in Romania**

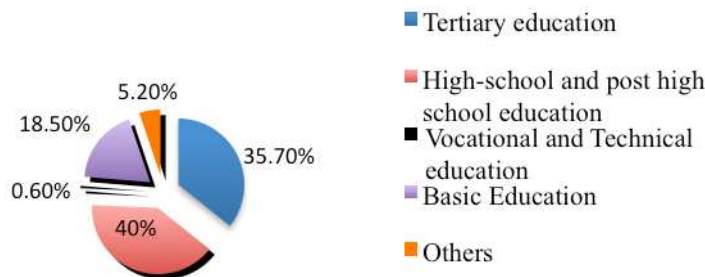
During the last years the migration of young people and Romanian specialists has grown amid imbalances in the labour market in Romania. Thus those who migrate look for better living conditions and real possibilities of professional affirmation.

The amplification of emigration of skilled young people (*brain drain*) has an important impact on the employment in our country. Basically, Romania invests in training these young people, but labour market does no longer benefit from this investment because many of these young people do not return to work in Romania.

According to the National Institute of Statistics, most of the people who emigrated permanently (in 2009) are of working age population category, especially when speaking about young people and young families. Among these, large shares have those with university degree especially those aged between 30 and 40 years (31%). Destination countries are in EU, but also Canada and the U.S.

The chart below shows the situation of emigrants in 2009 by level of education. It is noted that the largest share belongs to the emigration of high school and university graduates. This can create some imbalances in the labour market in Romania, on the long term, because of the deepening shortage of specialists in certain fields.

**Figure 3. Emigrants by levels of education, in 2009**



Source: The National Institute of Statistics, Romania, [www.insse.ro](http://www.insse.ro)

On the other hand, it is taken into account the large number of those who leave to work abroad temporarily, affecting the number of active population in Romania. In terms of the revenue collected by the Romanians went to work abroad, this is a positive phenomenon, but the long term negative effects can occur in terms of local development delay. As a result of the current economic crisis, the numbers of the persons who left and the money sent by them in the country recorded a decline. According to a study done by the Migration Policy Institute, as a result of the current crisis it was reduced the number of those leaving to work abroad. The immigrant workers are more exposed to losing their jobs than local workers, because they often work in industries most exposed to the consequences of recession, namely construction and the field of hotel. For this reason, the money sent by the Romanian people working abroad to their families has decreased. Most of the money sent by the workers abroad to their families are intended for current expenses such as maintenance, food, clothing, which does not contribute to investment, which would support the healthy growth and development

### **2.3. Atypical situations of the employment structure in the main national activities**

If we analyze the structure of employment in sectors (agriculture, industry and services) we observe a high rate of population employed in agriculture, under a very low contribution of this sector to GDP. In the last years the farming population has decreased, but its share remains high compared with the results obtained, with recorded efficiency. Romania is currently a major importer of food products, compared to in the past when it was exporting such products, given that agricultural land has not been substantially reduced and the farming population is still large.

According to some specific studies compared to the agricultural area registered in EU countries, Romania has the advantage of a much larger agricultural area, namely 62% of the total country area. The arable land area of 9.4 million hectares, which is 0.45 hectares per capita, Romania ranks 5 in the European Union. However, Romania still has subsistence agriculture, 35% of the farmland owned to small and very small farms that have less than 5 hectares and is predominantly of family type and involves the production of goods for self-consumption.

The agriculture labour market differs greatly from that of the industrial or service sectors due to the sector specificity which consists in seasonal work, lack of employment alternatives, the development of agriculture. In general, the seasonal nature of agricultural production, climatic conditions and difficult access of farmers to financial resources provided by the capital markets (stock exchanges, commercial banks) and the reduced attraction of European funds kept the Romanian agriculture to low efficiency. This can be seen in the graphics below which show an increased share of the population employed in agriculture, compared with the contribution of this sector to GDP. For example, in 2008, the employed population was of 27.6%, while the contribution of this sector to GDP was only 6.69%.

And in terms of the evolution of the number of people working in industry there can be seen an atypical situation in Romania, since in the last decades of the past century in all groups of low and medium developed countries, the employed population in industry increased its share by 2 - 3 percentage points, while the employed population in the industry in Romania has reduced its share from 43.4% in 1990 to

28.3% in 2001, reaching 29.7% in 2008. It also lowers the contribution of industry to GDP, as a result of ineffective implementation of reforms in the industry.

Figure 4

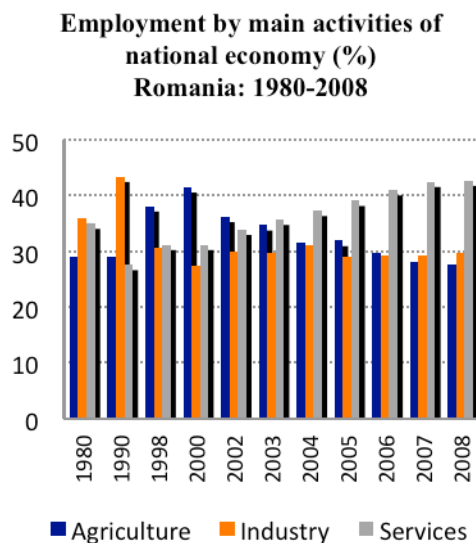
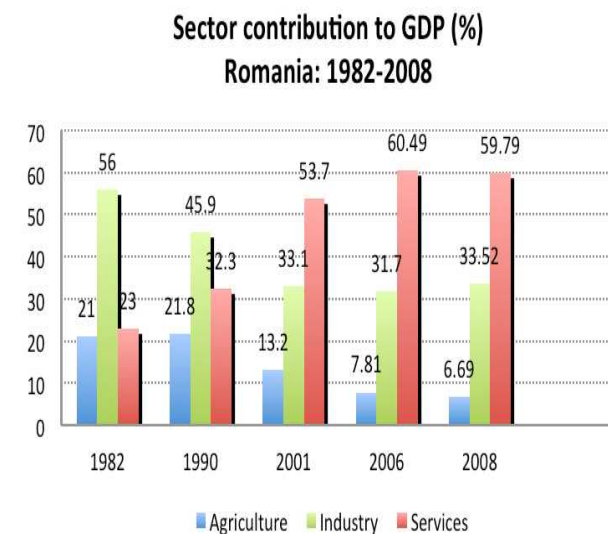


Figure 5



Source: Romanian Statistical Yearbook: 2002-2009 & The World Bank, World Development Report, 1984

Indeed there is an increase in employment in the service sector and an increase in this sector's contribution to GDP. But this development of services sector has not achieved the same way that manifested itself in the developed countries. According to global trends, the economic development requires focus on superior training services, but in the last years Romania has developed services sector that uses low-skilled workers. The increase of the contribution of the services sector in GDP is based on the development of financial, trade services and those without higher qualifications.

#### 2.4. The evolution of labour productivity and in-work poverty

Increasing the labour productivity is one of the most important solutions of the developing a healthy economy; it depends very much on the quality of workforce. That is why employment policies strategies should follow increasing investment in human resources, investments in training young people and adults, providing access to all the relevant information on education and training opportunities.

Labour productivity is the key to the economic growth, to the increased wealth. Given that the labour productivity depends heavily on quality jobs, it expresses the efficiency with which is used the factor of employment, or in other words, the labour market efficiency. The workforce has a significant impact on productivity; its positive dynamics can be assured if action is taken simultaneously in the following major directions:

- ✓ education, training and improvement of the workforce, access to general knowledge and technological knowledge to create conditions for a systemic, creative way of thinking;
- ✓ conditions for recovery of work capacity by payroll, appropriate, recreational work program;
- ✓ stimulating and motivating the employees;
- ✓ providing a social climate conducive to performance: health, safety.

In the table below it is shown the labour productivity per person employed, expressed as GDP to purchasing power standard (PPS) per an employed person compared with the EU27. GDP per person employed is intended to provide an overview of the productivity of national economies in relation to the EU 27 average. Thus, if a country's index is greater than 100 it means that there is an above average productivity of the European Union (in EU 27), and vice versa.

Among the countries listed in table, we see that Germany, France and Italy have a productivity of a person employed higher than the EU average. Other countries, Hungary, Poland, Bulgaria and Romania are below the EU average. In general, Romania has experienced an increase in labour productivity per worker in period under review. However, the productivity gap with the EU 25 is high, being -55.4 percentage points in 2009. A significant difference also records Bulgaria (-63,4 p.p.). The other countries have labour productivity closer to the EU 25, the difference being 31.1 percentage points for Hungary and 38.4 p.p. for Poland.

In terms of the labour productivity, an important aspect is the correlation between its size and wage. The economist Edmund S. Phelps, Nobel laureate in economics in 2006, emphasized in his paper *Rewarding*



work. How to restore participation and self-support to free Enterprise, the importance of earning a respectable salary to promote self-worth and responsibility. He shows that such earnings have increased slowly for those at the bottom of wage scale, even more as productivity has come to rely more on knowledge and skills and increasingly less on physical work.

**Table 1. Labour productivity per person employed (%)**

	1998	2000	2002	2004	2006	2007	2008	2009
<b>UE 27</b>	100	100	100	100	100	100	100	100
<b>UE 25</b>	105	104,8	104,5	104,2	103,8	103,6	103,3	103,4
<b>Germany</b>	112,6	108	106,3	108,1	109,1	108,4	107,2	105,1
<b>France</b>	126,4	125	125,4	120,6	121,1	121,3	120	120,9
<b>Italy</b>	130,2	126	117,6	112,1	109,9	110,5	111,5	111,8
<b>Hungary</b>	58,1	57,8	64,9	67,5	67,8	68	71,4	72,3
<b>Poland</b>	50,6	55,2	58,6	61,5	60,7	61,9	61,9	65
<b>Romania</b>	...	23,6	29,3	34,4	39,5	43,2	48,7	48
<b>Bulgaria</b>	27,2	31,1	33,8	34,6	36,2	37,3	39,3	40

Source: EUROSTAT, <http://epp.eurostat.ec.eu.int>

In the Romania of the last years due to the economic growth before the crisis there was an exponential increase in wages, but without any correlation with the productivity. For example, the labour productivity growth in industry in 2004-2009 was lower than the net average wage growth. The adoption of such measures made that in the coming years when the economy was affected by the crisis, to reach the unsustainability of wage increases. (Voinea, 2010).

EU Member States recognized that holding a job is not always sufficient to escape poverty: a particular family structure, such as one with two or more dependants and only one earner, or low earnings, resulting from a range of labour market problems including recurrent unemployment, inability to find fulltime work and low wage rates, are at the origin of the problem of the so-called “in-work poverty”, “working poor” or “risk of poverty in work”.

‘Risk of poverty’ refers to having an income below 60% of the national median. Income is measured in relation to the household in which a person lives and covers the income of all household members, which is shared equally among them after being adjusted for household size and composition.

Romanian national statistics do not include studies on the extent and characteristics of the working poor. However, there are various institutional approaches to poverty, as well as policies, programs and legal instruments to tackle the problem. It is estimated that more than two million people in the Romanian economy are working in and living on subsistence agriculture, and can therefore be termed as ‘working poor’. Minimum wage regulations play an important role in combating the risk of poverty in Romania. To this end, the social partners reached a tripartite agreement on the growth of the gross national minimum wage over the period 2008–2014.

Three important factors may have an effect on the number of working poor in EU during the recession:

1. the first is the wage cuts that occurred in a number of European countries (Bulgaria, the Czech Republic, Estonia, Hungary, Ireland and Lithuania). In general, wages have been cut in companies, partly as a result of reduced working hours, which have been compensated only in some cases. Meanwhile, wages of public sector employees have been frozen (Bulgaria) or cut (Ireland, Romania), or minimum wages have not been increased (Estonia).

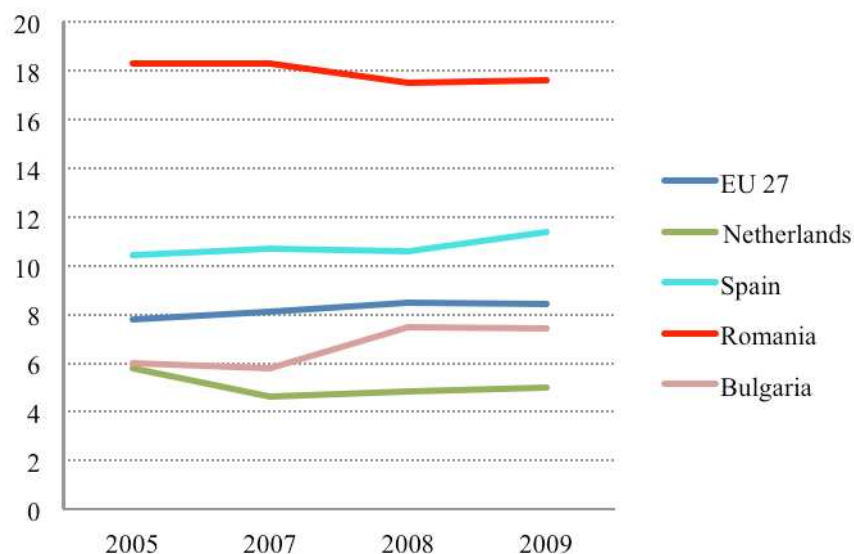
2. the second factor is the reduction in working time, which has been common around Europe (Bulgaria, the Czech Republic, Estonia, Greece, Hungary, Ireland, Malta, Slovenia and Sweden). Measures such as cutbacks in working time or the introduction of a four-day week may have a negative impact on the in-work poverty risk.

3. thirdly, the number of working poor is believed to be increasing due to the rise in unemployment, which affects workers in a direct way as well as households.

In view of the impact of the economic crisis on vulnerable employment and labour productivity, working poverty is likely to have increased as well. For many families, however, work does not provide an income sufficient to lift them out of poverty.

The risk of poverty in work in Romania is higher than in EU countries being around 18%, towards the EU average (8%).

**Figure 6. In work at risk of poverty rate (%)**



Source: EUROSTAT, <http://epp.eurostat.ec.eu.int>

The dominance of the working poor in certain sectors of the economy are - in Bulgaria, in the textiles, clothing, leather and footwear industries; in Spain, in agriculture and fishery, as well as in hotels and restaurants and the cleaning industry; in Ireland, in the wholesale and retail trade sector and in personal service activities; in Romania, in subsistence agriculture.

In Bulgaria, Ireland, Luxembourg, Norway, Portugal and Romania, trade unions have provided explicit proposals on how to reduce the number of working poor and/or low-paid workers. In Romania, the priority of trade unions has been to maintain the number of jobs and to negotiate the highest minimum wages possible.

### 3. The effects of the current crisis

Following the crisis, the tensions in the labour market in Romania have been boosted, affecting the structures and mechanisms. Labour demand decreased significantly due to reduced investment, market exit or reduced volume of business activity, a drop in demand for goods. Reducing the budget for shopping has led many companies to produce less, to reconsider any expansion and lay off a significant part the staff to minimize costs. This has led to increased unemployment, given that those who work hardly support the pensions and welfare insurance. On the other hand, the labour supply registers major structural imbalances: occupational-professional, regional, age group, skill categories.

To these aspects there are also added the labour market issues arising from legislative instability, impaired organization of the labour offices and training centers, and the lack of correlation between the employment policies and other macroeconomic policies, but also the poor adaptation of supply to the labour demand in terms of training and market needs.

The tensions in the labour market interfere with the institutional and legislative tensions, with negative consequences on the medium and long term. While the new labour legislation has been improved, in practice it proves to be insufficient and inconsistent in relation to the labour market dynamics. The labour market in Romania does not yet have all the legal requirements designed to prevent blockages, distortions or disruptions and to ensure the normal formation and its functioning.

The strategic partnership of the labour market is fragile and weak under the organizational aspect. The Offices of employment and training centers are not able to cover all aspects of demand and supply flows, mediation, training, employment retraining.

Regarding the macroeconomic and employment policies in general, in Romania it is necessary funding a mechanism of synchronicity with the European model. The challenges that concern the labour market in Romania are contributing to the employment targets set at the Lisbon European Council for establishing a

structure of employment based on the increase of productivity, adopting a growth model based on the employment growth and especially on increasing work efficiency and competitiveness of labour.

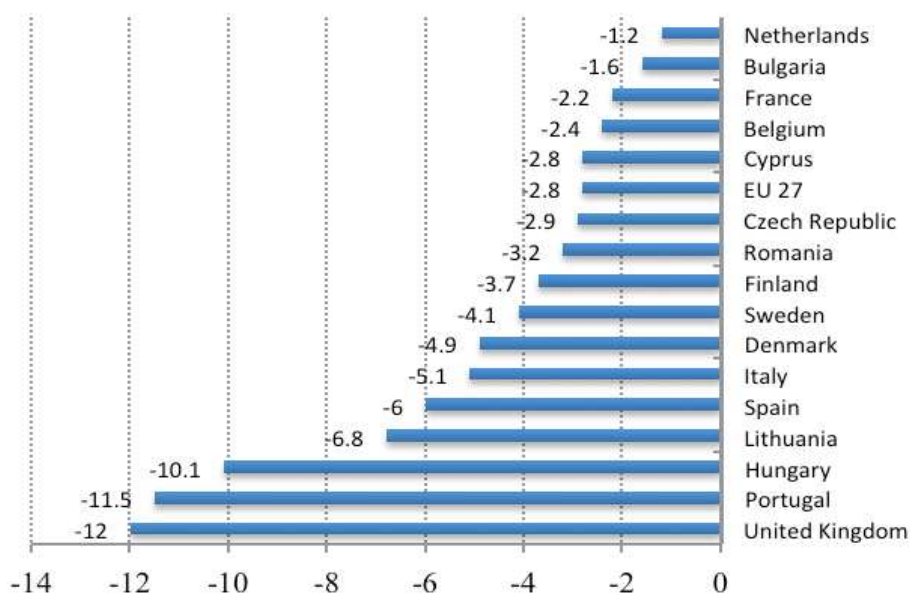
The new Europe 2020 EU Strategy sets a series of principles for action and targets to be achieved on the horizon of the next decade. The main emphasis is still on the development and enhancement of human factor.

Romania is still in last place in the European Union at the main indicators of development. According to a study of the Romanian Academy, Romania could reach the performance level of the European Union on the main economic indicators (if the pace of development of EU countries remains the same) in 2030.

According to the Euro-barometer 74/2011, Romanians are mostly pessimistic regarding the development in the future job market. 48% of Romanian respondents considered that financial and economic crisis will continue, and 29% believe that the impact on employment has already reached the top.

A new insight on the magnitude of the crisis is delivered by the ‘S-time distance method’. The negative employment developments in 2008 and 2009 made the employment rates revert to the levels of several years ago. How far back is quantified by the S-time distance. Each country regresses a different number of years, as shown in next figure.

**Figure 7. Effect of the crisis on employment rates, number of years reversion**



Source: European Economic Statistics, 2010, Eurostat <http://epp.eurostat.cec.eu.int>

This S-time distance measure has some interesting properties: it takes account of each country’s past and it is neutral to country size. S-time distance reported here is based on employment rates. Results based on employment levels rank countries similarly (albeit not identically), except for countries with strong migration flows like Poland, Romania, the UK and Spain, or very small countries.

According to this measure, the EU country most affected is the United Kingdom, which fell back to the employment rates of 12 years ago.

The UK, Ireland, Lithuania, Latvia and Spain all had strong employment creation over the last decade (some of them linked to migration) and are now quickly undoing the progress made. Portugal and Hungary had limited employment growth in recent years, hence any crisis hit puts them back many years. The less affected countries are Luxembourg, Germany and Poland, which are still growing in terms of employment rates.

From this point of view, Romania loses 3.2 years, in terms of employment rate.

**4. Conclusions**

The labour market in Romania is facing with: the decrease of active population, massive emigration, high unemployment in rural areas and small towns, increase employment in the informal economy, legislative instability, and lack of permanent training.

Under these conditions the recovery of Romania requires a set of measures designed for medium and long-term for the demographic situation improvement and for the superior recovery of the human capital.

Policies concerning the increase in employment rates go hand in hand with the work on the development of education and training in line with market demands. Also there must be considered ways of lifelong learning, retraining, improvement of the health system and promoting the social inclusion.

In the current economic downturn, also enhanced by the organizational failure and macroeconomic policy coordination, Romania has to follow the labour market modernization, to adapt the education system to the market requirements, to reinvigorate the scientific research and innovation, with emphasis on the relevance to practical economy, to fundamental restructuring of agriculture, to boost rural development and strengthen administrative capacity in order to implement the *acquis communautaire*. In the future, it is necessary to take action for sustainable development and environmental protection, employment market flexibility and to ensure conditions for the development of a competitive climate optimum.

In our country's level, the strategies and employment policies of the labour force should be developed taking into account the other strategies and macroeconomic policies and strategies of the European Union. Thus, the employment strategies and policies of our country must address the following issues: unity of the demographic, social, economic and cultural processes; the correlation between the structure and content of the education and employment and training, current and future needs of the economy, continuous training, increased employment productivity; the flexi-security and mobility of the labour and employment targets set in the Lisbon European Council.

### Acknowledgements

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# WHY PERFORMANCE DIFFERED ACROSS COUNTRIES IN THE RECENT CRISIS

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**Abstract:** *The growth performance of countries proved to be very different during the recent crisis. We apply principal component analysis to derive a single indicator on growth performance and analyze whether initial conditions or structural characteristics can explain the cross-country performance differences. As initial conditions at the start of the crisis we test fiscal situation, trade competitiveness, output and credit growth, as structural characteristics country size, openness, share of sectors and per capita income. The three indicators that end up as the best predictors for the depth of the crisis are correlated with one another, jointly they are highly significant.*

**Keywords:** financial crisis, cross country performance differences, predictors for crises

**JEL classification:** E20, E30, E32, E44, E60, G18, G28

## 1. INTRODUCTION AND OUTLINE

This paper analyses to what extent differences in country performance during the crisis can be explained by the pre-crisis conditions and by structural characteristics of the economies. The research question is specified in section 2, the composite performance indicator we use in section 3. It integrates four indicators on macroeconomic dynamics in and around the crisis into one robust performance indicator by applying the principal component analysis. Section 4 presents the main empirical results, analyzing to which extent "growth performance" across regions and countries in the recent crisis was related to the "pre-crisis conditions" of the economies (such as the budget situation, competitiveness, past growth of GDP and credits) and on structural characteristics (such as openness, size, GDP per capita, the share of manufacturing, finance and public sector). Section 5 tests the robustness of the results and presents caveats. We summarize in section 6.

## 2. MOTIVATION OF THE RESEARCH QUESTION AND LITERATURE EXISTING

The goal of this paper is to find evidence why growth performance of countries differed in the Recent Crisis. There are abundant hypotheses about the causes of the Recent Crisis (Aiginger, 2009, 2010B). Maybe they could be clustered into a first group emphasizing overleveraging of firms, banks and governments, the inherent instability of the financial sector and bubbles in asset and house prices, a second one emphasizing macroeconomic causes from trade disequilibria to loose monetary policy and a third group pointing at regulatory failures.

If we want to prevent future crises it is important to understand the past ones. Country differences could be one source of information. If there is a common shock - the near breakdown of a rather global financial system - different performance in the countries may reveal which structures are more resilient, which dynamics before the shock contributed to or mitigated the crisis in a specific country. The focus of this paper is to "relate" performance of countries to pre-crisis conditions of the economies (PCC) and on structural characteristics (STR). It intentionally emphasizes "real conditions", since most existing research - often produced by research departments of central banks - emphasize the financial sector conditions (credit growth, assets bubbles). We focus on industrialized countries since crisis started in countries with a sophisticated financial system. We use the word "relate" instead of explain, since causation is expected to prove difficult if a singular event is to be explained and if several variables moved in parallel in the building-up period of the crisis.

Our basic regression relates output performance to one bloc of variables for pre-crisis conditions (PCC) and another on structural indicators (STR).

$$\text{Growth performance} = f(\text{PCC}, \text{STR})$$

Growth performance is measured by the ordinal variable "growth performance", generated by the principal component analysis (PC-value) using several indicators on economic growth. The set of pre-crisis conditions (PCC) contains the budget situation and public debt ("fiscal prudence") in 2007, the balance of trade and balance of current account ("revealed competitiveness"), financial variables (inflation, credit growth, liabilities) plus the average growth of GDP from 2000 to 2007 ("past growth dynamics"). The set of

structural characteristics (STR) includes trade openness ("globalisation and interconnectedness"), the size of government, the share of manufacturing and finance, country size and GDP per capita and a country rating on the financial sector.

**Table 1: Growth performance differences during the crisis: top 10 vs. low 10 countries**

	GDP performance				Principal component		Combined indicator
	2009	2010-2007	Trough 2009-peak 2008	2010-2007 minus 2000-2007			
		p.a.	Percentage change	Trend change	PC-value	PC-rank	CI-rank
	Annual data, percentage change		Quarterly data				
<i>Top 10</i>							
China	8.9	9.6	8.9	- 1.2	99	1	1
India	6.8	7.6	6.8	0.2	93	2	2
Poland	1.7	3.1	1.7	- 0.9	80	3	3
Australia	1.3	1.9	1.3	- 1.6	77	4	4
Korea	0.2	2.5	0.2	- 2.2	75	5	6
Switzerland	- 1.5	0.6	- 2.4	- 1.3	70	6	5
Canada	- 2.6	0.2	1.4	- 2.4	70	7	9
Norway	- 1.5	0.6	- 2.4	- 1.7	69	8	7
New Zealand	- 1.6	0.0	- 1.6	- 3.5	66	9	11
USA	- 2.4	0.2	- 3.8	- 2.2	66	10	8
<i>Low 10</i>							
Romania	- 7.1	0.2	- 7.1	- 5.9	56	28	28
Japan	- 5.2	- 1.5	- 8.4	- 3.0	54	29	29
Iceland	- 6.5	- 2.3	- 6.3	- 6.8	51	30	30
Hungary	- 6.3	- 2.0	- 7.9	- 5.7	50	31	31
Finland	- 7.8	- 1.8	- 9.1	- 5.0	50	32	32
Slovenia	- 7.8	- 1.2	- 9.5	- 5.6	50	33	33
Ireland	- 7.1	- 3.7	- 12.5	- 9.3	40	34	34
Lithuania	- 15.0	- 4.6	- 18.1	- 12.7	22	35	35
Estonia	- 14.1	- 5.8	- 19.6	- 13.9	18	36	36
Latvia	- 18.0	- 8.9	- 26.1	- 17.9	0	37	37

Source: WIFO calculations using Eurostat (AMECO).

### 3. MEASURING GROWTH PERFORMANCE BY A COMPOSITE INDICATOR

#### Information used and condensed

In order to get a performance measure on economic dynamics for countries during the crisis we combine four indicators on the development of real GDP for 37 countries:

- The rate of change of GDP in 2009 ("in crisis decline");
- The cumulated change in the three years 2008, 2009, 2010 to indicate the status of the economy several quarters before the climax of the crisis and the speed of recovery after it ("three years performance").
- The decrease of quarterly GDP from the pre-crisis peak to its trough ("steepness of the crisis").
- The actual growth in the three years 2008, 2009, 2010 relative to the "pre-crisis" trend growth from 2000 to 2007 ("trend change")<sup>1</sup>.

The country rankings are to some extent rather robust as to the specific indicator chosen. The correlation coefficients between the four indicators for growth performance in the crisis lie between 0.7 and 0.9 and are all significant at the 1% level. We think that each of the indicators demonstrate some element of "the depth of a crisis". Therefore we combine the information by extracting a principal component (PC). The weights of the composite "growth performance" index are based on factor loadings on the first component of

<sup>1</sup> Additionally we could measure the length of the crisis by counting the number of quarters in which GDP decreased; in rare cases these were one to two quarters, on average five quarters. In a few countries we cannot say yet how many quarters the crisis lasted, since GDP is still declining.



the principal component analysis. The first component explains 90% of the common variance across the indicators. The resulting ordinal indicator (PC-value) is the main performance indicator we will use. Additionally we show in table 1 in the last column the ranking of the ordinal principal component (PC-rank).

#### **Best and worst performing countries**

According to all indicators (see table 1) the crisis was mildest in China and India, in the latter even the trend change was less than one percentage point. The cumulated three years growth was between 15% and 30% in the crisis years. Australia and Korea, Canada and the US performed well, too. In Europe the positive outliers were such different countries like Switzerland and Poland (one of them member of EU, the other not, one export oriented, the other domestic oriented, one financially globalized, the other dominated by a banking system).

The crisis was deepest in new member countries of the EU, namely the Baltic countries, in Hungary and Romania. Additionally it hit the high-income economies of Ireland and Iceland. Finland and Japan are among the countries with large drop in GDP due to its large manufacturing sector. According to the GDP indicators chosen the crisis was not really severe in the Southern European countries with Greece, Spain and Portugal in a middle zone. This assessment might be revised if recovery comes later and if budget deficits are cut dramatically in 2010 and 2011. France, the Netherlands and Austria had the best performance within the Euro area. The New Member Countries of the EU took one top ranking (Poland) but many countries were severely hit by the crisis.

#### **4. MAIN EMPIRICAL RESULTS ON PRE-CRISIS CONDITIONS AND STRUCTURAL CHARACTERISTICS**

We now assess whether the growth performance of countries in the crisis is related to the prevailing pre-crisis conditions, to structural conditions and finally to a combination of PCC and STR.

##### **4.1 Performance versus pre crisis condition (correlations)**

Growth performance of countries is unrelated to fiscal prudence; the correlation coefficient has the expected positive sign for the budget surplus in 2007 and an unexpected positive one with public debt (both are insignificant and very low, see table 2). Government budgets were in surplus in 2007 in 19 out of the 37 countries.<sup>2</sup> Some countries with good performance during the crisis had a budget surplus before, namely Norway, China, India, Australia and New Zealand. Also in support of the expected positive correlation would have been the fact that the Baltic countries, Hungary, Italy and the United Kingdom had a large deficit and consequently suffered a severe crisis. The correlation was weakened by Portugal and Greece which had a large deficit, but did not suffer a very severe crisis (maybe the consequences will be seen if the recovery is delayed). Finland, Sweden and Denmark enjoyed a surplus, but the crisis was at least as strong as in other European countries (figures in 2010 indicate that recovery may be stronger here).

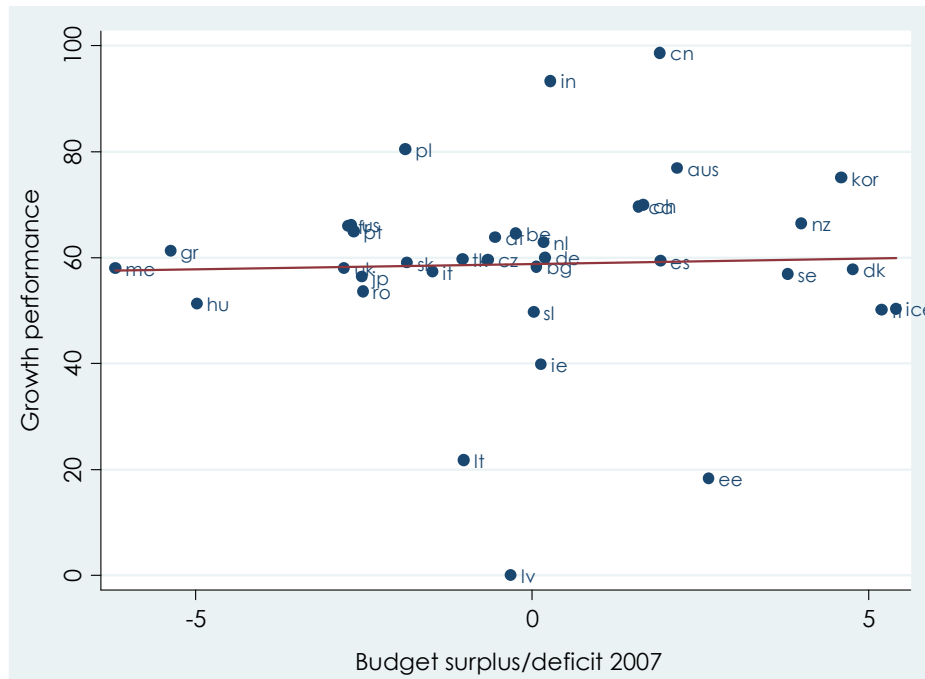
Growth performance is significantly related to trade competitiveness before the crisis, this holds for trade balances and even stronger for the position of current accounts in 2007. It also holds for current account position in the longer run (2000-2007) and to the change in current accounts between 2000 and 2007.

Trade deficits of about ten percent of GDP existed in 2007 in Greece, Portugal, Bulgaria and Latvia; the United Kingdom and Spain also had deficits nearing 10%. The deficits are translated into current account deficits for all countries with one small and one large exception. The deficit in the current account for Greece is somewhat lower due to tourism (15% instead of 18% of GDP) and that for the United Kingdom decreased to 3% (from 9½% for trade of goods) due to the financial sector's surplus. In the US both deficits are about 5%.

<sup>2</sup> Among these countries the five Nordic European countries (Norway, Denmark, Sweden, Finland and Iceland) as well as Korea enjoyed a rather large surplus of about 4% of GDP. Smaller but still considerable surpluses occurred in Canada, Switzerland, Spain and Australia. High deficits (about 5%) were already seen in Greece and Hungary and deficits of more than 2% were present in France, Portugal, the USA and the United Kingdom.

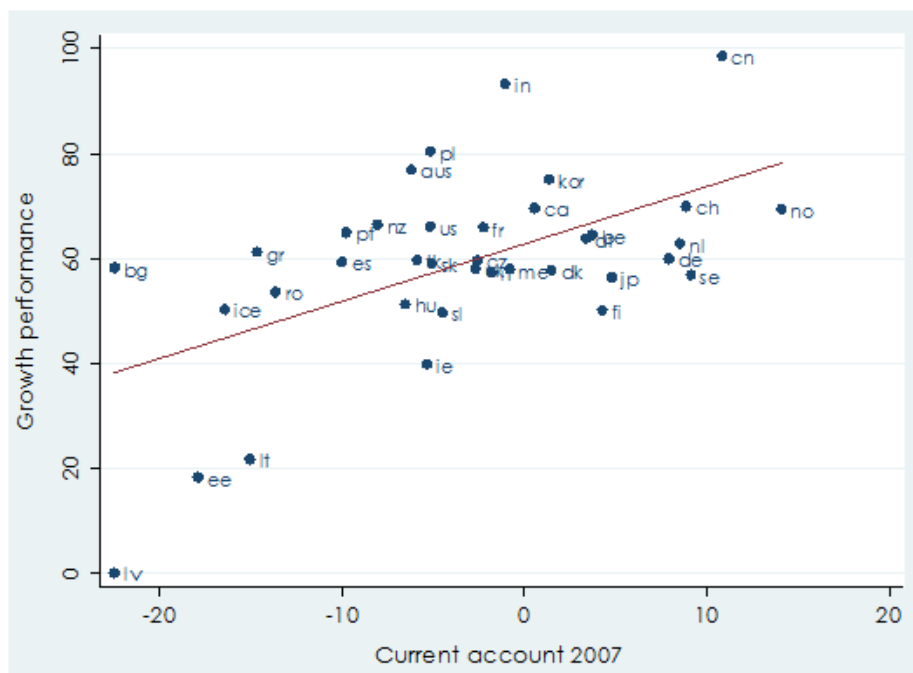


**Figure 1: Growth performance (PC-value) and budget surplus/deficit 2007 (R = 0.09)**



High surpluses and good performance are shown by Norway, China, India, Belgium, the Netherlands and Austria. Deficits and an ensuing deep crisis occurred in the Baltic States, Bulgaria, Ireland and Spain. Outliers in this correlation are Sweden and Finland which both had good trade positions and medium sized or larger crises and Australia, Poland and the US which had a negative trade position but a rather mild crisis.

**Figure 2: Growth performance (PC-value) and current account 2007 (R = 0.56)**



**Table 2: The relation between growth performance and pre-crisis conditions**

<i>Pre-crisis conditions</i>	Growth performance	
	PC-value	
	$R^2$	<i>t-value</i>
Budget surplus/deficit (relative to GDP) 2007	0.01	0.55
Public debt (relative to GDP) 2007	0.04	1.17
Current account (relative to GDP) 2007	0.31	3.96
Domestic credits; growth 2001/2007	0.39	-4.73
GDP growth 2000/2007	0.09	-1.89

The critical value for significance at the 5% level is 2.03 (1.69 at 10% level).

Source: WIFO calculations using Eurostat (AMECO).

#### **Pre-crisis dynamics of output, credits and inflation**

Performance during the crisis is negatively correlated to pre-crisis growth ( $t = -1.89$ ), the correlation is significant at the 10 % level. If we take ranks for the past growth variable (which reduces the impact of outliers), the correlation is not significant. Low growth before and good performance during the crisis occurred in very rich countries (Switzerland, Norway, Canada). High growth and weak performance in the crisis occurred in several eastern European countries and specifically the Baltic countries. These two groups foster the negative correlation; China and India combine high pre-crisis growth and good performance; Italy, the United Kingdom and Mexico combine low growth and deep crisis.

Performance is significantly negatively related to credit growth between 2001 and 2007; this relationship is created by a few countries with extreme credit growth. In Romania, Iceland, Latvia, Bulgaria credits in 2007 were more than four times as high as in 2000. Credit growth was also very high in China and India, but here it was more in line with a quickly expanding real sector. If we do not use quantitative credit growth, but the rankings of countries for credit dynamics the correlation is no longer significant. The relation of credits to GDP in 2007 is not significant, its change between 2000 and 2007 is (and in this case the correlation is less dependent on outliers, so that ranks prove significant too).

#### **4.2 Performance versus structural characteristics (correlations)**

Performance is slightly (but not significantly) negatively correlated to openness as measured by the sum of exports and imports to GDP ( $t = -1.39$ ). Some very open economies such as Belgium, the Netherlands and Austria performed rather well, while closed economies such as Japan, Romania and Iceland had severe crises. There are also open economies with deep crises (Ireland, Finland and Latvia) and closed economies with excellent performances (China, India and Poland).

**Table 3: The relation between growth performance and structural characteristics**

Structural characteristics	Growth performance	
	PC-value	
	$R^2$	<i>t-value</i>
Openness 2007	0.05	-1.39
Government size 2007	0.06	-1.53
Share of manufacturing 2007	0.08	1.77
Share of financial sector 2007	0.02	0.92
GDP 2007	0.05	1.39
GDP per capita 2007	0.00	-0.27
Country risk evaluation (financial risk) <sup>1</sup>	0.00	0.08

The critical value for significance at the 5% level is 2.03 (1.69 at 10% level). -1) International Country Risk Guide, Copyright, The PRS Group, Inc.

Source: WIFO calculations using Eurostat (AMECO).

Performance is positively related to the share of manufacturing sector (significant at 10% level) and unrelated to that of the financial sector (as well as the change of the financial sector relative to GDP between 2000 and 2007). It is slightly negatively correlated to government size at the start ( $t = -1.53$ ). This is a surprise, since larger government shares could mean more effective automatic stabilizers and maybe also an indicator of the ability and determinedness of governments to intervene in difficult times.

Performance is weakly positively related to the size of the economy as measured by absolute GDP. It is unrelated to the per-capita income, but this could be due to the focus on industrialized countries (*Lane - Milesi-Ferretti, 2010*, find a negative relation in a sample focusing on developing countries).

A regional dummy for Asia is significant; the same holds for more a dummy which is set 1 only for China and India only.

#### 4.3 *Multiple explanation of country performance*

Now we combine the variables within the set on pre-crisis conditions (PCC) and that on structural characteristics (STC) in multivariate regressions. A sample of our favourite regressions is given in table 4. Budget variables are never significant, neither current deficits, nor debt/GDP, neither in the short run (2007) nor in the longer run (average 2000 to 2007). Out of the structural variables government size has a stable negative coefficient (in some cases near significance), the share of the manufacturing sector is never significant neither that for the financial sector. An Asian dummy is significant; it specifically lowers somewhat the significance of the current account variable.

**Table 4: Multiple Regressions between growth performance and initial conditions**

Current account 2007	GDP growth 2000-2007	Credit growth 2000-2007	Asia dummy	$R^2$ adj.
1.05 (3.28)	-0.33 (-0.25)			0.27
<b>0.86</b> (3.02)	<b>0.03</b> (0.11)			<b>0.21</b>
0.45 (1.23)		-0.04 (-2.49)		0.38
<b>0.74</b> (2.18)		<b>-0.15</b> (-0.46)		<b>0.22</b>
	1.95 (1.36)	-0.07 (-4.40)		0.39
0.60 (1.76)	-2.12 (-1.53)		23.62 (2.61)	0.38
<b>0.52</b> (1.64)	<b>-0.26</b> (-0.87)		20.53 (2.16)	<b>0.29</b>
0.19 (0.54)		-0.04 (-2.98)	19.14 (2.64)	0.47
<b>0.40</b> (1.13)		<b>-0.37</b> (-1.12)	19.67 (2.23)	<b>0.30</b>
0.45 (1.25)	1.95 (1.37)	-0.05 (-2.86)		0.40
<b>0.72</b> (2.08)	<b>0.26</b> (0.63)	<b>-0.38</b> (-0.76)		<b>0.21</b>
0.20 (0.54)	0.14 (0.09)	-0.04 (-2.43)	18.73 (2.16)	0.46
<b>0.40</b> (1.10)	<b>-0.06</b> (-0.15)	<b>-0.33</b> (-0.69)	<b>20.19</b> (2.10)	<b>0.28</b>

Remark: regression coefficients (plus t-value in parenthesis).

Source: WIFO calculations using Eurostat (AMECO).

If we combine (i) current account with credit growth, the coefficient of the latter remains significant. (ii) If we try to downgrade the influence of outliers (by using ranks instead of ordinal values) for the explanatory variables, current account remains significant, while credit growth loses significance. (iii) If we combine current account and past growth the current account variable is the only significant. (iv) If all three variables are used in the same regression, credit growth is the only significant indicator for quantitative data, current account for ranks of the explanatory variables.

This leaves us with the interpretation that all three variables capture some elements of a common factor which explains the depth of the recent crisis. The common factor of credit growth and pre crisis real growth is easier to grasp. High growth of GDP - and specifically high growth incurred by over-optimism, by cheap credit and high leverages of private and financial sector - generated a high downward potential. The relation between real growth and credit growth to current account is less clear cut. High growth of the real sector and cheap credit could have reduced cyclical current account surpluses and increased deficits (which would establish a negative relation), but high growth could also be the result of increased competitiveness

and gains in market shares (as shown in China, Sweden, and Finland). The positive relation between current accounts and growth indicates that the long-run impact of competitiveness is stronger than the cyclical effect.

### 5. MORE ON ROBUSTNESS, CAVEATS

The three best explaining variables, current account, credit growth and past GDP growth are highly multicollinear. This results in instable t-values, between single regressions and multiple regressions; the regression coefficients of current account variable as well as that of past growth and credit growth change or in some cases even lose significance if one of the other two variables is added. The problem of multicollinearity was found in other papers too, it had to be expected specifically between credit growth and past GDP growth (positive correlation). And it may be expected for the current account position too either due to a cyclical effect of growth on capital accounts (increasing imports) or due to a competitiveness effect (that growth originates from excellent export dynamics).

**Table 5: Robustness test with principal components of pre-crisis conditions and structural characteristics**  
**Dependent variable is PC-value; coefficient and t-value**

PC-initial conditions Top 3	PC-structural characteristics	Asia dummy	$R^2$ adj.
0.45 (4.08)			0.30
0.44 (4.46)		23.01 (3.27)	0.45
0.58 (4.49)	-0.68 (-1.77)		0.34
0.53 (4.51)	-0.48 (-1.36)	21.16 (2.98)	0.47

Remark: Top 3 Initial Conditions: Current account, past GDP growth, credit growth; regression coefficients (plus t-value in parenthesis).

Source: WIFO calculations using Eurostat (AMECO).

We try to cope with the problem of multicollinearity by principal component analysis again. We extract a principal component (i) out of the whole set of pre-crisis conditions, (ii) out of the subset of the three most successful predictors, and (iii) out of all structural variables. The first principal component drawn out of the full sample and then out of the best three are rather similar (we report results for the principal component drawn out of the best three). Table 5 demonstrates that the three variables - current account, credit growth and past GDP growth - are jointly able to explain a rather large part of the country performance. The resulting principal component indicator is highly significant for explaining country performance if used alone and even better if used in combination with the Asia dummy. The indicator "PC-Initial Conditions" is loaded nearly equally by the three variables, showing that all three contain important orthogonal information. The coefficient of the principal component variable for the three initial conditions is significant and the coefficient of determination is larger in table 5, than in most equations in table 4. The coefficient of the structural variables is significant at the 10% level; if the Asian dummy is included it loses its weak significance.

### 6. SUMMARY

- (1) The objective of this paper is to find some clues as to why the performance of countries during the Recent Crisis differed. "Performance" is defined by the change of real GDP in the crisis, using four alternative measures of dynamics, and combining them in a single indicator derived by the principal component analysis.
- (2) The best performers according to our growth indicators are India, China, Australia and Korea. In Europe completely differing economies such as Poland, Switzerland and Norway performed the best. Worst performers were the three Baltic economies, Hungary, Romania, as well as Ireland and Iceland, two economies which had actually climbed up to take the top position as regards per capita income. A rather deep crisis also occurred in Slovenia and Finland which were top ranking countries as far as the progress in transition respectively transformation into a knowledge-based society is concerned.
- (3) The most robust result is a negative one, namely that performance differences across countries are not related to the fiscal position in 2007. The negative result holds if we take the budget position for

- a longer pre-crisis period, the change in the position between 2000 and 2007 or the debt/GDP relation. The impact of the budget position at the start of the crisis might be finally somewhat larger than seen today, since some of the countries with large deficits have not restarted to grow up to now.
- (4) The robust positive result is that a cluster of three variables can explain about one third of the actual country variance (and jointly with an Asian proxy up to nearly one half): (i) the current account balance in 2007 is positively and (ii) growth of credits between 2000 and 2007 is negatively related to performance during the crisis; (iii) countries which experienced a very high growth of real GDP between 2000 and 2007 were more severely hit by the crisis; a significant proxy for Asia indicates that this does not hold for high-growth Asian countries.
- (5) Some policy conclusions can be derived from the results: countries which are growing very fast, whose credits are booming and whose current accounts are negative or deteriorating, should be aware of the risks in their economies. On the other hand countries with slow growth of output, moderate credit growth and a positive current account could engage in a more proactive growth policy without being afraid of downside risks.

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## CHANGES IN ECONOMY OR CHANGES IN ECONOMICS?

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**Abstract:** *The current global crisis has indeed multiple causes. If the economists are honest, currently some of such causes are ignored in their analyses and studies. However, this is not a reason to accept a general panic in public opinion (often manipulated) or the “natural” tendency to the populism of politicians. In case of a rigorous analysis one can see that just these two forces (often chaotic and therefore unpredictable) attracted the economic system in hazardous situations. Under the impact of their actions would be added an infernal race to have exaggerated profits in case of some capitalists, undeserved incomes in case of some employees (generally stimulated by trade unions), rapid and exaggerated consumption in case of some households, increased material advantages in case of some assisted persons, etc. When such tendencies are generalised, the resulting imagine could be a bleak: economic agents, including the “representative agent” at the macroeconomic level, presumed to be rational, by economic theory, begin to demonstrate some strange behaviour ranging from atypical to the irrational. In this extreme case, theory and economic models have increased chances to fail. Worse, the economy itself, as a whole, it can collapse.*

**Key words:** economy, economics, EU

**JEL classification:** F00, O10

### 1. Economists should not be accused

Time has (or should have) a crucial role in the economy. Public opinion (fostered and manipulated) and politicians usually act on the very shorter term, on the moment even if it is possible. In line with these two forces, a number of economic agents tend to adjust their behaviour to the same short-term. Apparently, it can be regarded as a better adaptation to the rapid changes and trends in the economy and society. The question is: trends toward what? For reckless consumption, followed by depleting natural resources and environmental pollution? Towards a culture of consumption for consumption's sake? (see aggressiveness and ubiquity of the commercials urging for it); For an economy where productivity becomes irrelevant in relation to the stock market speculation (or real estate) and the consumer credit tends to replace income from work? For a society where the volume of consumption determines the social status of a person or a family?

Economic theory is based on two basic principles: 1) the laws of economics are true only long-term, 2) the large number of rational economic agents. It seems that in the pre-crisis period those two principles have been severely violated. And economists have no fault. It should nevertheless be acknowledged that the economists have largely been discovered before the current crisis; often their methods and predictive models were inadequate to the new situation and especially to its degree of expansion due to the globalization.

### 2. How will be the post-crisis economy

It is almost certain that in order to become sustainable, the economy, at national and global level, will suffer profound changes. It is assumed that the economists, blamed in early stages of the crisis, will be called to contribute to the “restructuring” process, both at the macroeconomic level, by using more refined analysis of the correlations between macroeconomic variables (affected by the recession) and at company level, by providing viable solutions to operate in a economic environment still uncertain for a period.

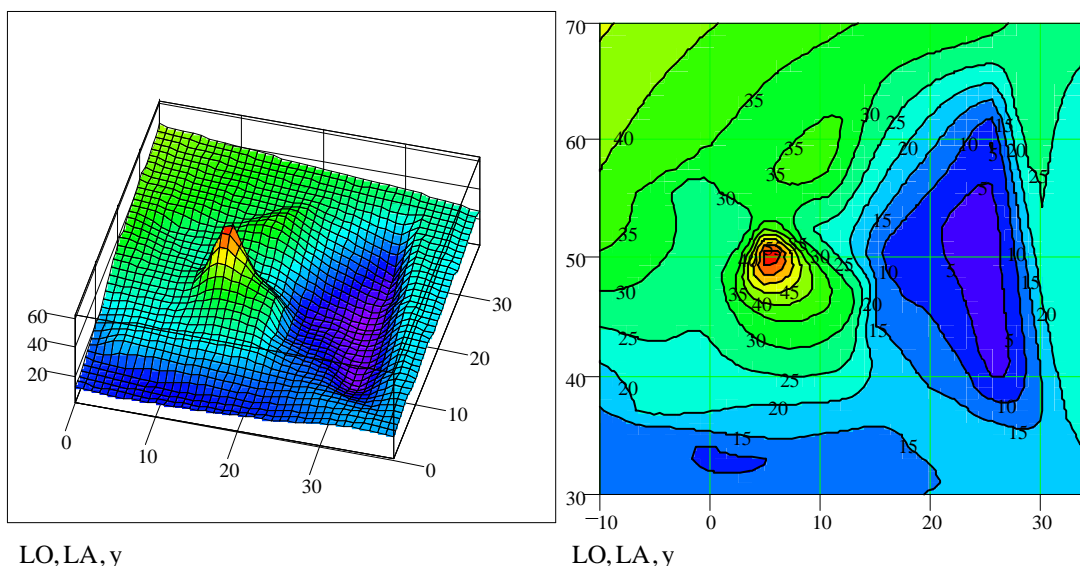
To exit from the crisis, there was a tendency for state intervention in the economy in many countries. Although to a degree this may be a saving solution should then, according to economic theory, the main role to keep only the social aspect and security. Maintaining strict state regulations required only in the area and ensure the general framework, it would avoid its "natural" tendency to vitiate markets, competitive system

and, ultimately, even the system of modern democracy. Although there is still intense debate on the "optimal state", the studies research on evaluation of its size will prove useful in post-crisis period.

Worldwide, the main change will be evolving in increasing the influence of countries until recently considered emerging, like China, India, Russia, Brazil etc. Mutations will probably be between large economic blocs, the progress of the Asian region is already felt in global trade.

At the European level, after the recovering process in countries seriously affected by the crisis, it will certainly resume the convergence program promoted in the European Union. Perhaps, given the serious effects of the crisis within the European Union, moreover it will try to correlate other policies and strategies, as for example the tax policies. Regional disparities in pre-crisis period in terms of development level, expressed by GDP per capita are likely to persist as a result of the crisis, still a long time. Figure 1 presents a stylized map of the EU, where blue areas signify low levels of GDP per capita, while the red areas mean high levels. Figure 2 presents a stylized map of the EU in terms of distribution of the inflation rate, in which blue areas signify low levels of inflation and red areas signify high levels.

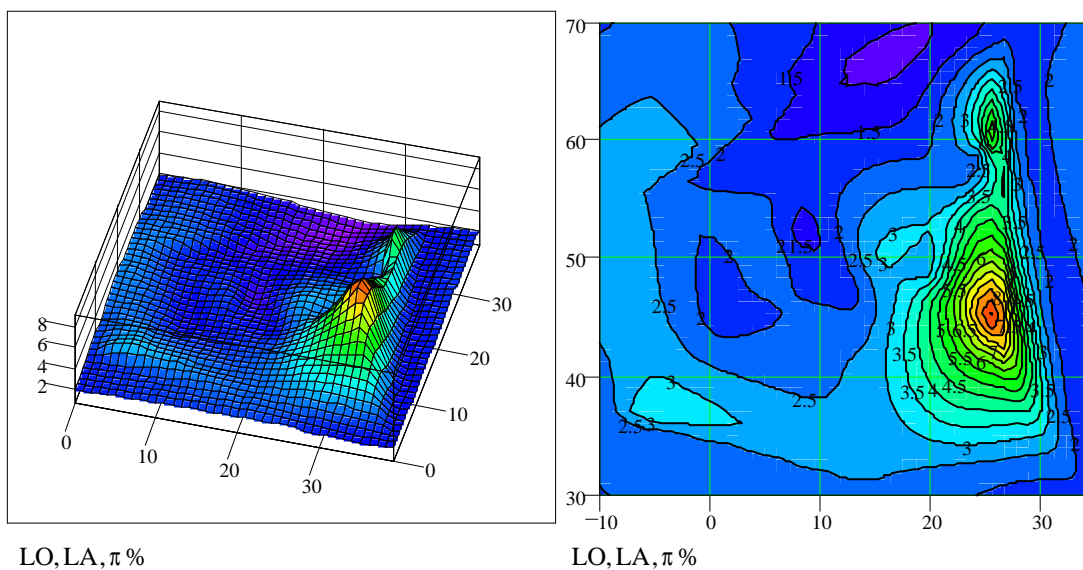
**Figure 1 : The spatial distribution of GDP per capita in the EU before the crisis**



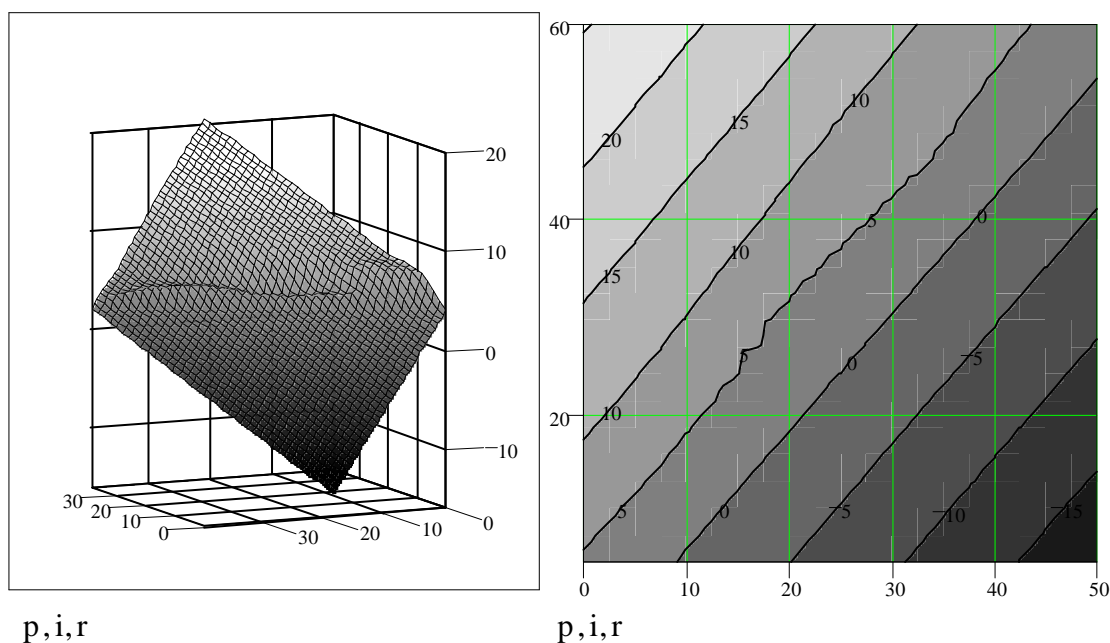
Romanian economy, one of the most affected by the current crisis will probably engage in a comprehensive process of restructuring, postponed due to a long period of transition. One of the basic correlations which should be taken into account, as in classical economic theory, is between consumption and investment. The role of the investment budget will be critical as growth momentum of recovery, given the shortage of private capital both domestic and foreign investment restrictions as a result of the crisis. Also, public sector, over-extended in the past, will likely be scaled according to the EU standards.

For Romania, essential for the future should be to resume the process of convergence towards the European average, meaning to return to an annual growth rate of potential GDP of around 5%, as was the case in the pre-crisis, but of course in conditions of much lower rates of inflation and interest rates. In Figure 3 are shown the 3D and geodesic (contour plot) representations of the correlation between inflation (p) - interest rate (i) - growth rate (r), where the diagonal line marked by the contour 5 can be interpreted as the value of potential growth rate.

**Figure 2: Spatial distribution of inflation in the EU before the crisis**



**Figure 3: The correlation inflation - interest rate - the rate pre-crisis GDP**



### 3. How will change economics in post-crisis period

Economics will probably suffer significant changes in post-crisis period. We present below some predictable trends, such as:

- development of macro models using time series with high frequency (quarterly or even monthly macro models);
- creation of advanced simulation models for public debt and deficits;
- use non-linear modeling and multiple equilibriums for early detection of entry of fundamental macroeconomic variables in areas of high instability (when slight variations of some basic parameters or state parameters could attract economic system in zones characterized by irregular cycles or multi-cycles, by high fluctuation and even chaotic dynamics);
- development of more refined models for multiannual budgetary planning, etc.



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## FOREIGN DIRECT INVESTMENTS. CORRELATIONS AND DETERMINANTS FOR ROMANIA

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**Abstract:** This paper tries to provide a comprehensive view on the foreign direct investment (FDI) in Romania. Besides, as FDI consist in a complex and international large capital flow, it will be viewed in the regional context of the CEE and EU member countries. Paper will be approaching some essential dimensions of FDI (1) **the net inflow** will compare some recent successive periods (2) **The stock** regards results of successive inflows and the more numerous the inflows, the less the significance of each of them for the current FDI landscape. (3) **FDI by economic activities** regards the intimate links between this foreign capital inflow and the home development and resources exploiting. (4) **By home inside regions**, the FDI inflows and stock will be seen as both creating imbalances among regions and contributing to the regional development. (5) **By country sources**, the CEE countries, here including Romania, mostly receive their FDI from the western part of Europe and EU. Finally, by (6) **FDI types**, the same inflow is strongly dominated by corporate development. Further on, our analysis goes on some impact issues of FDI: (7) **the income from FDI** feels a paragraph regarding the profit-loss aspect with consequences on the next reinvested earnings step. (8) The FDI contribution on the trade balance will list international companies in Romania, with their export-import activities and flows.

**Keywords:** foreign direct investments (FDI), economic growth, employment, multinational companies (MNC); direct investments abroad (DIA).

**JEL classification:** F2, F3

As for the Romanian post-communist economy, there are to be considered two significant periods of the FDI activity: first, the “nineties” period, the one of the low level of inflow, due especially to small and insignificant investors, and the latter one, of higher level inflow, connected to the big multinationals (MNC) involved in.

### **1. Some basics: the CEE countries, the EU area and Romania**

The FDI inflow in the CEE countries is as unequal among countries as it is all over the world. Just after the 1989 revolutions, different transitional economic strategies were implemented. Romania chose a “gradual” strategy, despite her important liberal party and movement. Bulgaria chosen, as the opposite, the “shock therapy”, but this was coming later, in 1997 (see the Currency Board, at Sofia), after long and costly political hesitations; finally. Finally, it is not simple to conclude about a better or worse strategy, but rather about economic differentiations on the ground, as exogenous for strategies applied, and about that the decision to invest belongs not to policymakers, but always to investors themselves.

As consequences, the FDI story in the CEE countries did encountered the first above defined period of FDI as a more homogeneous inflow, a systematic and easier to be influenced by the political authority process. Later on (since 1998, in Romania and Bulgaria, at least), the MNC changed the face of the FDI process (but this had happened earlier in countries like Poland, Czech Republic, Hungary and Slovakia).

Some more common characteristics of FDI throughout the region might be: (1) the country-sources are EU member countries, as for 60-65% of the FDI inflow in Romania, and something around this percentage in the other CEE countries. The US also stays as an important investor (in the top-10 of investor countries, in every CEE country), and in the Russian Federation the US are the top investor. As for (2) activities targeted by FDI, situations are different in Romania (more on industries), than in the rest of countries (more on services). (3) Romania and Hungary, especially, but also the other countries are unequally receiving FDI in their inside regions. (4) All the CEE countries perform a much less developed direct investments abroad (DIA) outflow, than FDI, outflow so far. Contrary to this, there is to be noticed an inside CEE region FDI flow, but mostly supported by the Russian Federation big MNC.

On the contrary, as different among the CEE countries camp the FDI inflows aspects are: (1) the absolute level of FDI inflows and stocks; (2) the same indicator as per capita; (3) dynamics of FDI inflows, by countries, during different sub-periods; (4) the FDI inflow in the gross capital formation and stock, as related to GDP.

As for one more significant aspect on the same reference period, the FDI inflow in post-communist economies developed on its significant components: (1) the subscribed (equity) capital of companies, (2) the intra-companies (MNC) loans, and (3) reinvested profit.

Of which, the first two prove more significant numbers the way that the (1) subscribed capital was dominant enough from the very beginning, then its domination decreases in favor of (2) intra-MNC loans throughout the advanced period and up to present.

As for another criterion, the flow of equity capital into FDI enterprises is broken down into: (1) Greenfield, (2) mergers and acquisitions, and (3) corporate development<sup>3</sup>.

**As for the whole the EU area**, the FDI gross (in) flow of 2008 was as high as billion EUR 321, as a 42% reduced inflow, as compared to the previous year. Of which, the part of the FDI inflow from the rest of the world was as high as billion EUR 173, in a similarly lowering trend by 57%, as compared to the same previous year.

As for receiving FDI by the EU member countries, the 2008 top recipients were: France (billion EUR 80.2), United Kingdom ((billion EUR 66.7), Luxembourg ((billion EUR 55.0), Spain ((billion EUR 44.8), Belgium (billion EUR 40.8), Hungary((billion EUR 32.9), Sweden ((billion EUR 28), Germany ((billion EUR 17.1), Poland ((billion EUR 11.0), Austria and Romania (billion EUR 9.5 each).

Ernst & Young published its yearly last poll results, according to which both the Western and Eastern parts of Europe are found as certain and attractive areas for investors, who express their wishes to develop their undertaking objectives there. And this trend comes up in the larger world-wide context of the same investor companies' decreasing interest for the other emergent areas like Brazil, Russia, India and China (the BRIC group).

See the below figure for the FDI inflows There are broadly two parts or this time graph of the FDI inflows. Romania performed a rather stable FDI inflow growth, as from significantly low amounts. Then, as continuing in the right hand side of the graph – for the period of the EU associated countries in Romania the inflow trend growth speeds up towards 2007 (the year of its joining the EU). See fig. 1.

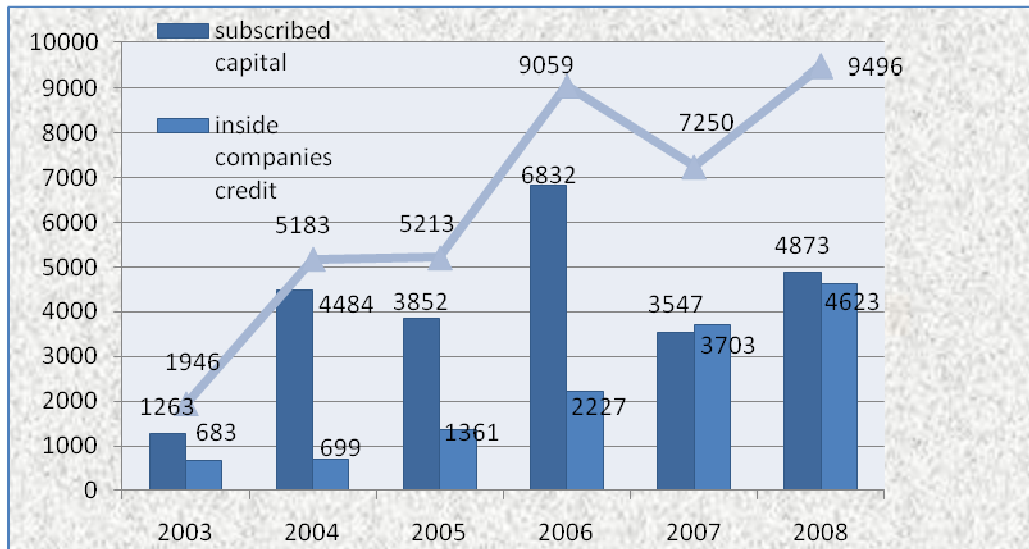
As differently from its neighboring country, Romania hardly succeeded to join the influential MNC's interest in late nineties and after the year 2000. Then, however, the high speed of the latter FDI inflows compensated some of the previous periods' slow dynamics of. In 2004-2005 Romania was over passing, by its FDI inflow, the ones of the central and eastern Europe FDI receiver country leaders of the nineties, like Hungary and Poland and the Czech Republic, and found itself among important FDI country receivers of larger regions – in 2004, it could compare even to the big Russia for such an aspect, equalized the India's FDI inflow and got higher than developed countries like Israel and New Zealand. There is also no doubt that the Romania's economic growth is linked to the FDI inflow in both senses: FDI sustained growth and conversely. The same FDI inflow and stock is as high as 65-70% dominated by the EU member countries, but none of them is individually dominant for.

As for Romania, this is important that there exists one more evaluation methodology for FDI – it belongs to the National Trade Registry (NTR) Office. This is, more precisely, for the foreign capital subscribed, but more interesting is that the two values of FDI stay pretty close, concluding that the current stage of FDI is one in which the capital stock is more than dominating – yet, much less inter-company loans and reinvested earnings. The next future stages of FDI, in Romania, will, certainly, be different than the ones up to 2008.

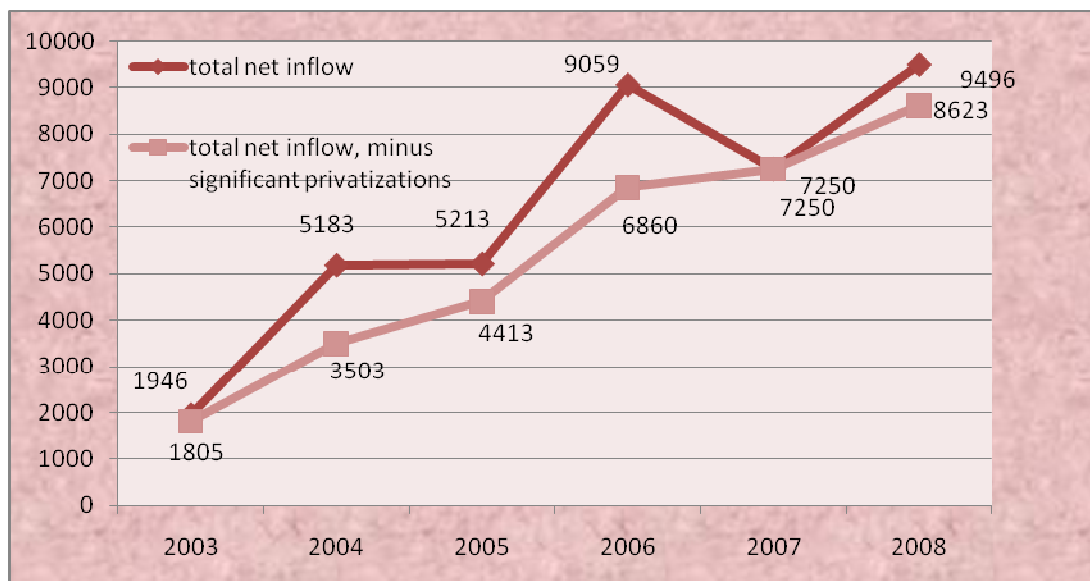
## 2. The net FDI inflow

The net FDI inflow in Romania performed as high as million EUR 9,308 during 2008, so 32.1% higher than in the previous 2007 – actually, the investments made by all non-residents in this country was as high as million EUR 9,496, of which billion EUR 4,873 were capital subscribed (equity capital) and reinvested profit, and the rest of billion EUR 4,623 was formed by intra-company loans. The privatizations' afferent income has increased the equity capital by million EUR 873. There were two significant privatizations during the year: first, Ford Motor Company took over 72.4% of the capital of S.C. Automobile Craiova S.A. (million EUR 57), second, the ENEL Group took over 64.4% of the capital of Electrica Muntenia Sud S.A. (million EUR 816). (Fig 2 and fig. 3).

<sup>3</sup> See the National Bank for Romania's (NBR's) methodological issues.

**Figure 2 Net FDI inflows and its structure**

Data source: National Bank of Romania, National Institute of Statistics, Foreign Direct Investment in Romania, Report of 31 December 2008

**Figure 3 Net FDI inflow, of which: significant privatizations\***

\*significant privatizations: the ones higher than million EUR 10 each

Data source: National Bank of Romania, National Institute of Statistics, Foreign Direct Investment in Romania, Report of 31 December 2008

### 3. The FDI stock

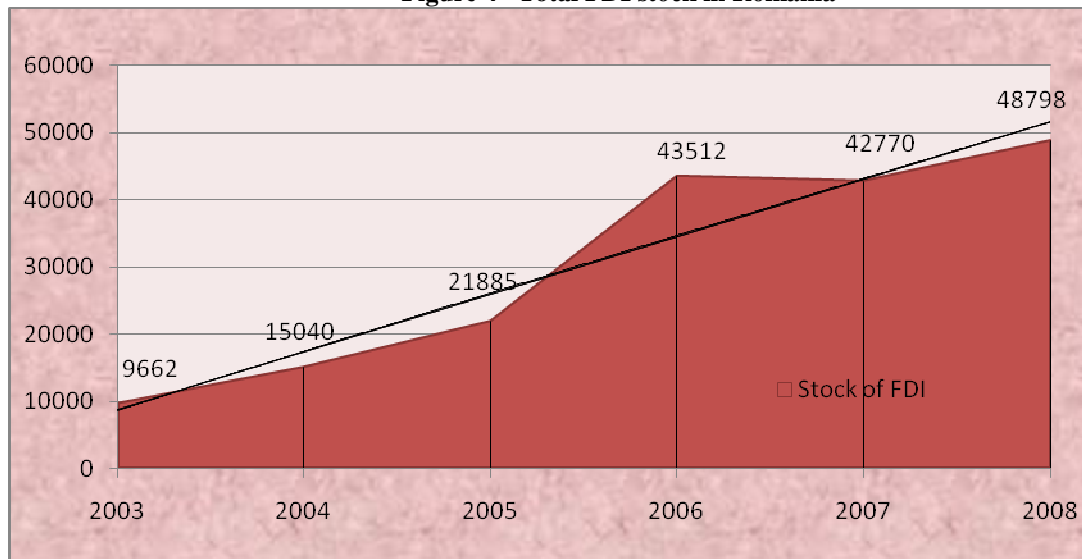
**The FDI stock** of the 2008 year end so totalized million EUR 48,798 and rose by 14%, as compared to the previous 2007<sup>4</sup>. Of which, equity capital plus reinvested profits of the foreign participation companies cumulated million EUR 34,892, meaning 71.5% of the total stock. And this part of the stock was, in its turn, 10% higher than the one of the previous 2007. As a result, the other part, the one of intra-company loans, was million EUR 13,906, so 28, 5% of the total existent stock at the 2008 year end, and it was 23% higher than the corresponding level of 2007. The net intra-company loans include both short and long term loans<sup>5</sup>

<sup>4</sup> This number includes exchange rate changes, changes of some assets' prices and accounting restatements of some initial stock values.

<sup>5</sup> Offered by foreign establishments to the foreign investors in Romania.

and direct and indirect – i.e., through other companies, as members of the same group, but non-residents in Romania. (Fig 4)

**Figure 4 Total FDI stock in Romania**

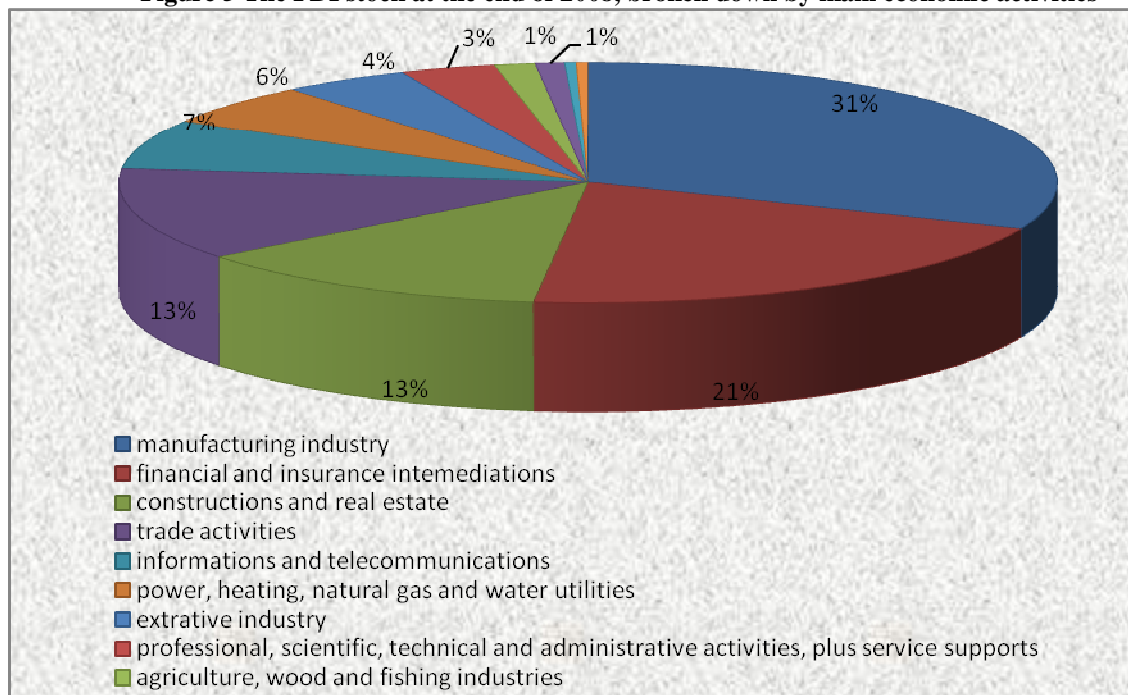


Data source: National Bank of Romania, National Institute of Statistics, Foreign Direct Investment in Romania, Report of 31 December 2008

**4. By economic activities** (according to CAEN Rev. 2), the bulk of FDI went to the manufacturing industry (31.3 %), out of which the largest recipients were: metallurgy (6.9 %), food, beverages and tobacco (4.6 %), oil processing, chemicals, rubber and plastic products (4.3 %), transport equipment (4.0 %) and cement, glassware, ceramics (3.6 %). Despite their large potential, some sectors – such as textiles, wearing apparel and leather goods – still hold a rather small share, i.e. 1.6 percent of total FDI.

Other activities that have attracted significant foreign direct investment are financial intermediation and insurance, a sector which includes banks, non-banks and insurance companies and account for 20.5 % of total FDI stock, construction and real estate (12.6 %), trade (12.4 %), IT and communications (6.7 %). (Fig 5)

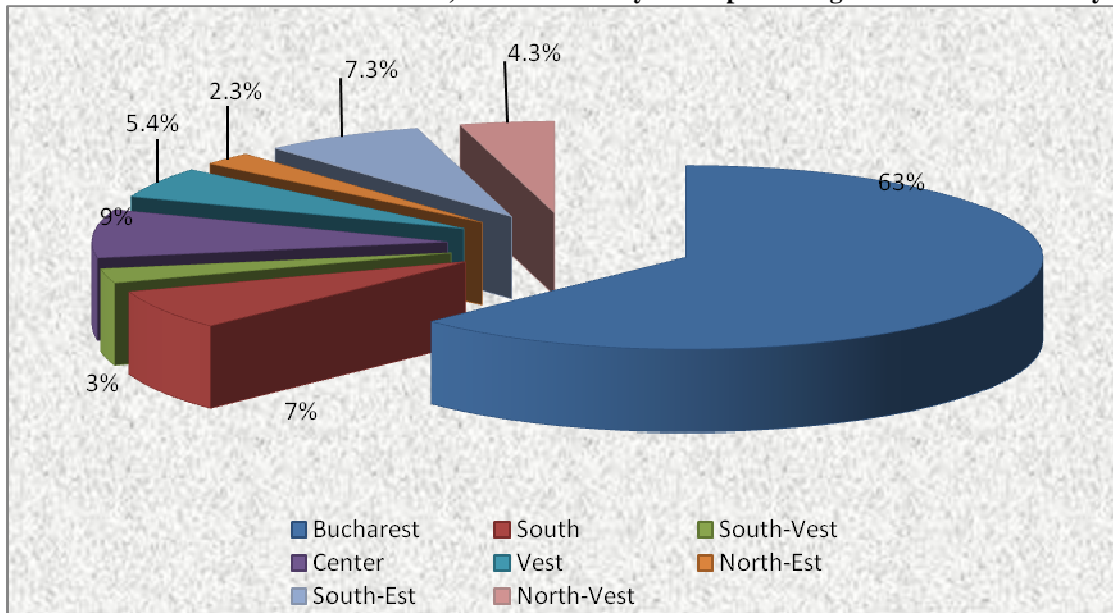
**Figure 5 The FDI stock at the end of 2008, broken down by main economic activities**



Data source: National Bank of Romania, National Institute of Statistics, Foreign Direct Investment in Romania, Report of 31 December 2008

**5. By development regions within** (from the territorial point of view), FDI went mainly to Bucharest-Ilfov region (62.7 %), other development regions benefiting from significant FDI inflows being the CENTER region (8.3 %), SOUTH-EAST region (7.3 %), SOUTH region (7 %) and WEST region (5.4 %). NORTH-EAST region is the least attractive to foreign investors, making up for 2.3 % of foreign direct investment (fig 6)

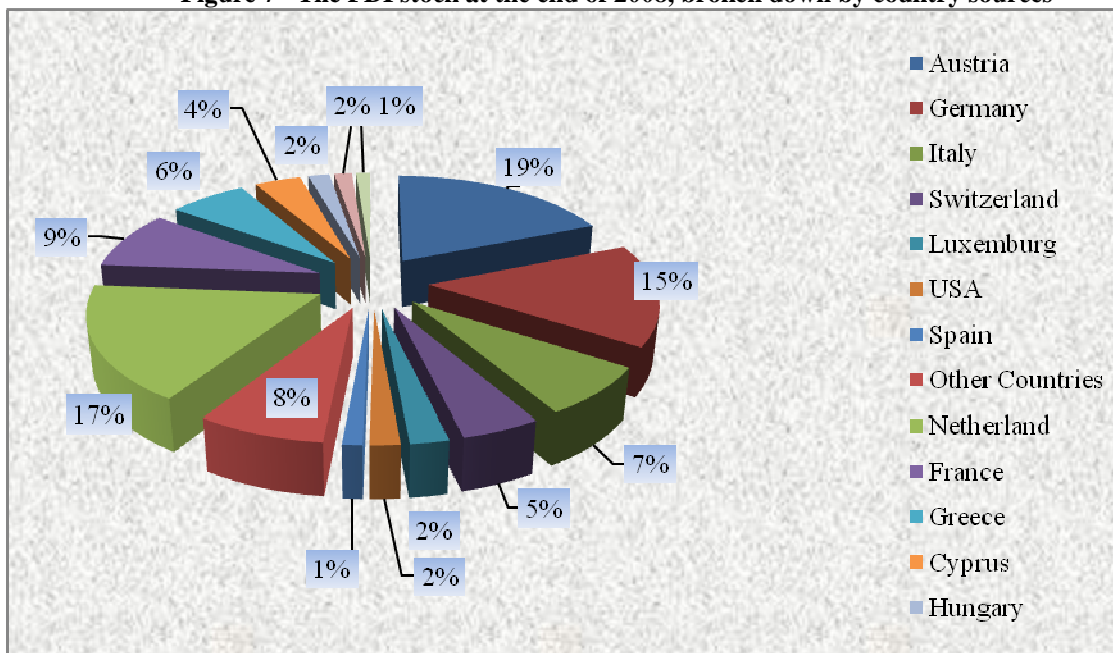
**Figure 6 The FDI stock at the end of 2008, broken down by development regions within the country territory**



Data source: National Bank of Romania, National Institute of Statistics, Foreign Direct Investment in Romania, Report of 31 December 2008

**6. By country sources** – this kind of distribution takes into account the country of origin of the direct holder of at least 10 percent in the resident direct investment enterprises' equity capital on an "immediate country basis". Top 5 countries by the share of total FDI stock as at 31 December 2008 are: Austria (18.8 % of total stock at the end of 2008, down from 21.4 % a year earlier), the Netherlands (17.2 %, up from 16.3 % in 2007), Germany (15.4 %, up from 11.7 %), France (8.8 %, the same as in 2007), and Italy (7.2 % versus 6.1 %, thereby replacing Greece in top 5 country sources). (Fig 7)

**Figure 7 The FDI stock at the end of 2008, broken down by country sources**



Data source: National Bank of Romania, National Institute of Statistics, Foreign Direct Investment in Romania, Report of 31 December 2008

**7. By FDI types** - As already mentioned above, the flow of equity capital into FDI enterprises is divided into: (1) Greenfield, (2) mergers and acquisitions, and (3) corporate development. During 2008, corporate development accounted for 66.8 percent of FDI equity (EUR 3,517 million), mergers and acquisitions (M&A) made up 32 percent of equity (EUR 1,683.5 million), while only 1.2% of FDI, i.e. EUR 64.2 million, went into Greenfield investment. The accumulation of foreign direct investment in enterprises established as Greenfield investment companies, called Greenfield enterprises, was highlighted in order to assess the lasting impact of Greenfield investment in the economy. The distribution of the FDI stock in Greenfield enterprises by main economic activities at end-2008 was as in the table 1.

**Table 1 The Greenfield FDI stock of the 2008 year end, broken down by economic activities**

	<b>TOTAL FDI EUR MILLION</b>	<b>OF WHICH: FOREIGN DIRECT INVESTMENT IN GREENFIELD ENTERPRISES EUR MILLION</b>
<b>TOTAL, of which</b>	48798	24707
<b>Industry, of which</b>	20138	7180
<b>Mining</b>	2158	341
<b>Manufacturing</b>	15236	6515
<b>Electricity, natural gas, water</b>	2744	324
<b>Financial intermediation and insurance</b>	10026	3953
<b>Construction and real estate</b>	6155	4284
<b>Trade</b>	6060	5226
<b>IT and communications</b>	3283	1596
<b>Other</b>	3136	2468

Data source: National Bank of Romania, National Institute of Statistics, Foreign Direct Investment in Romania, Report of 31 December 2008

### 8. The income from FDI

The foreign direct investors' net revenues in 2008 amounted to EUR 2,938 million, down 32.5 percent year on year. Net earnings from equity made up the largest part, i.e. EUR 2,304 million or 78.4 percent of total net revenues. Net earnings from equity represent the net profits obtained by FDI enterprises, amounting to EUR 6,412 million, minus the losses incurred by FDI enterprises worth million EUR 4,108. Subtracting EUR 2,696 million, as distributed dividends in 2008 from the net income from equity (EUR 2,304 million), indicates a net loss on all FDI in the amount of million EUR 392, calculated according to the international methodology for determining reinvested earnings.

The net income from interest paid to foreign direct investors on loans granted to their enterprises in Romania is rather subdued, i.e. merely million EUR 634, accounting for 21.6% of the total net income.

**9. The FDI companies contribution to the trade balance** The overall activity of the foreign direct investment enterprises had a positive impact on the Romania's trade balance, contributing 73.0 percent to total exports and 62.6 percent to total imports. The export/import activities of FDI enterprises refer to companies investigated exhaustively (over 20 employees). The export/import data considered in computing the relative size are reported by operators having exceeded the reporting thresholds for 2008 set for the "Intrastat" type statements (table 2).

**Table 2 Exports and imports of the FDI companies broken down by main activities**

	<b>Exports (FOB)</b>		<b>Imports (CIF)</b>	
	<b>FDI enterprises</b>	<b>% of total sector</b>	<b>FDI enterprises</b>	<b>% of total sector</b>
<b>TOTAL, of which:</b>	21126.6	73.0	32715.4	62.6
<b>Industry, of which:</b>	18560.2	83.4	20492.8	83.2
<b>Manufacturing</b>	17165.3	83.1	19206.7	83.0
<b>Trade</b>	1985.5	53.8	10358.3	48.8
<b>Other</b>	580.9	19.3	1864.3	32.9

Data source: National Bank of Romania, National Institute of Statistics, Foreign Direct Investment in Romania, Report of 31 December 2008



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## IMPLICATIONS OF ECONOMIC CRISIS ON THE LABOR MARKET IN ROMANIA\*

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**Abstract.** *The employment goal of 75% will not be easily met by 2020 since the crisis had reduced employment by 69% and unemployment rose to 10%. The paper examines certain developments and structures of the Romanian labor market, issues like age discrimination in employment, the different impacts of the economic crisis in women and men, etc. Also, there are presented mitigation measures, both at national and company level, including a draft model of Romanian flexicurity labor market. The article highlights the need to reform the labor market and analyses how flexicurity policies have contributed to the passage of the economic crisis.*

**Key words:** *economic crisis, unemployment, mitigation measures, higher education, labour market flexicurity*

**JEL classification:** I23, J21, J24, J65

### 1. Introduction

In the new context of globalization and, in particular of the economic crisis, the need for recalibration occurred from institutional and legislative point of view. Thus, we should consider a new reform of economic policies, of great importance in this respect are the priorities for labor market reform.

In a world full of paradoxes - in the context of a continuing and deeply worrying decline in the percentage of active population in the labor market - often, people willing and able to work creatively, or at least useful, are forced to watch helplessly and sad how they are removed from the creative process in the development of human society.

The European Union has seen a rise in unemployment in most State Members, even with two digits in 2010 (about 10% of the active population). Young people were most affected by the crisis, one third of the increase in unemployment was recorded at people up to 24 years old. Furthermore, 40% of those without jobs were not able to be employed for over a year.

In these circumstances, experts consider that reaching a lower unemployment may require 4-5 years, creating pressure for the social structure of European construction, including the acceptability of the European model. According to the Eurobarometer, over the past two years, some concerns exceeded climate change and terrorism. Among them are: unemployment (57%), economic growth (45%), insecurity (32%), the future of pension schemes (31%). Priorities for reform in the labor market are justified by the fact that the request from citizens for a social Europe and its values is becoming bigger and bigger, while the options to provide such results are becoming more limited.

Unemployment will not be able to reach the level it had before the economic crisis until 2015, when the present missing 23 million jobs will be recovered, and that only if governments continue the measures with austerity, also causing major social tensions (cf. ILO).

It outlines two perspectives on the labor market (according to American economists), once the crisis will be overcome and companies will begin to employ:

- 1) Well-paid professional areas of highly qualified personnel (lawyers, researchers)
- 2) Jobs where no special skills are required, for which wages will be small.

The moderate area will be quite narrow.

#### \* Acknowledgement

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Workforce competence is an essential value for the development of a competitive, sustainable and innovative economy, in accordance with the objectives of Europe 2020.

The employment goal of 75% desired by 2020 – difficult to achieve because the crisis has reduced employment by 69% and unemployment rose to 10%. Assuming that the labor market is stabilizing in 2011, reaching this goal will require an average increase in employment of over 1% per year.

## **2. Current crisis impact on labor market**

The labor market is of paramount importance in any economy and it requires great attention, because labor is the primary, active and determinant factor of production and, simultaneously, a circulating (labor market), distribution (salary), and consumption (workforce is recovered through the use of economic goods) factor. In August of 2007, U.S. stock markets started declining, and central banks intervened in the market with liquidity. Americans' financial problems continued even in 2008, the year the financial crisis reaches Europe.

The crisis has caused and continues to cause effects in various sectors of the economy, among the most acute effects in the economic system include the loss of jobs because companies lack the necessary funds to keep the number of employees, therefore they are forced to resort to layoffs. Unemployment skyrocketed, so far, America and Europe are facing unprecedented rates of unemployment, countries like Spain, Portugal that based their economies on real estate development recorded high levels of unemployment (around 20%) because the real estate market (construction market) collapsed.

As a result of serious global economic problems, the crisis has spread rapidly in all areas. Currently, many powerful companies, and not only, were forced to restrict their activities, as a measure of adaptation to the market turmoil, and this inevitably leads to layoffs and, in some cases, to the reducing of remuneration wages.

According to recently published studies, Romania along with Turkey and Lebanon are among the countries most vulnerable to this crisis. The growth rate of employment has declined in several State Members since the second half of 2008. The current economic downturn continued in 2009, having a major impact on the EU labor market, which means a reduction of 3.5 million jobs. EU unemployment rate rose in 2009 and it had an upward trend in 2010.

One of the major dilemmas in the current crisis is that the European economic policy instruments are not sufficiently developed to cope with future challenges successfully. The Parliament requests, therefore, the reviewing and updating of existing policy instruments, especially the integrated policy guidelines, the Stability and Growth Pact (SGP) and the Sustainable Development Strategy (SDS), to integrate them into a common framework of a "New Deal" for smart growth in the European Union.

It has been found that it is possible in this time of economic crisis, for pressure to exist on wages in some companies as a voluntary alternative to selective redundancies. This crisis must not lead to generally lower wages. State Members should establish a policy of eliminating competition in the market based on minimum wages and collective agreements should have a wide coverage.

### **2.1. Economic and financial effects of the crisis on employment in Romania – development and structures of the unemployed and the employed population**

The global economic crisis is causing massive layoffs in Romania and it strikes powerful industrial giants, the most affected areas being metallurgy, textiles and chemistry, urging them to rethink their cost structures and staff.

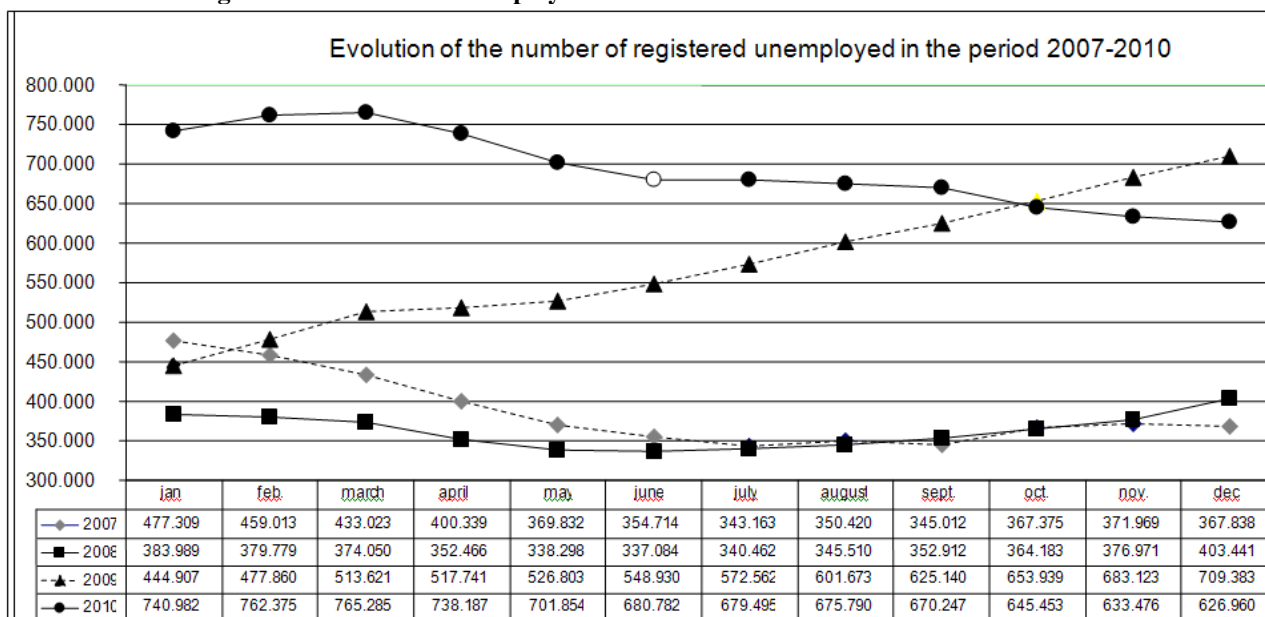
Terms of increasing tougher lending, and also lower living standards led to a vicious circle in which people have drastically reduced consumption due to lower income, and companies had to reduce production. To avoid bankruptcy, they were forced to cut costs, including salaries, through layoffs. With the increasing number of people with low incomes, consumption dropped even more.

Layoffs caused rising unemployment and put even more pressure on the state budget and on those who still managed to keep their job (figure 1). Increased expense on social assistance led to the budget deficit, given the state budget revenues have not increased.

Most of the layoffs were made in private companies, employees that produce durable goods and also those in construction companies were affected. In terms of foreign investments (establishing new foreign-owned enterprises) a significant drop has been registered from 2009 in 2010 (equal to 45%), and which had negative consequences on employment.

In 2010, there were over 700.000 registered unemployed, 500.000 of them from the redundant staff in various economic units. Others result from unemployed high school and college graduates who are now seeking a first job.

Figure 1. Evolution of unemployment in Romania as a result of economic crisis



Source: ANOFM, Statistical summary of unemployment stock on December 31, 2010

The geographical distribution of the unemployed for the first months of 2010 show a pronounced region difference (Statistical Bulletin, 2010). Districts that recorded the highest rate of unemployment are: Mehedinti (14.5%), Vaslui (13.5%), Alba (13.4%), Teleorman (12.7%), Dolj (12.3%), Covasna and Ialomita (12.2% each), Galati (12%), Gorj (11.7%), and Caras-Severin (11.2%), while those who resist are Bucharest (2.4%), Ilfov (2.7%) and Timis (4.4%), districts with a large number of foreign investment.

The accelerated growth of unemployment rate causes concern among specialists, who do not forecast an improvement of the situation for the next period on the labor market in Romania. Now, only one of three people finds a job, many dismiss their chances of going back to work. Chances that the situation will change in a positive way are quite small, professional employment programs are not having good results.

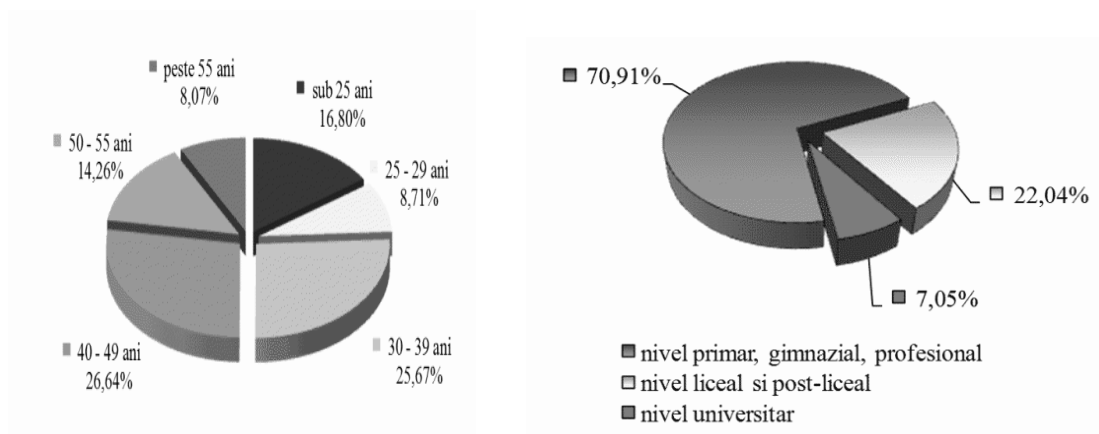
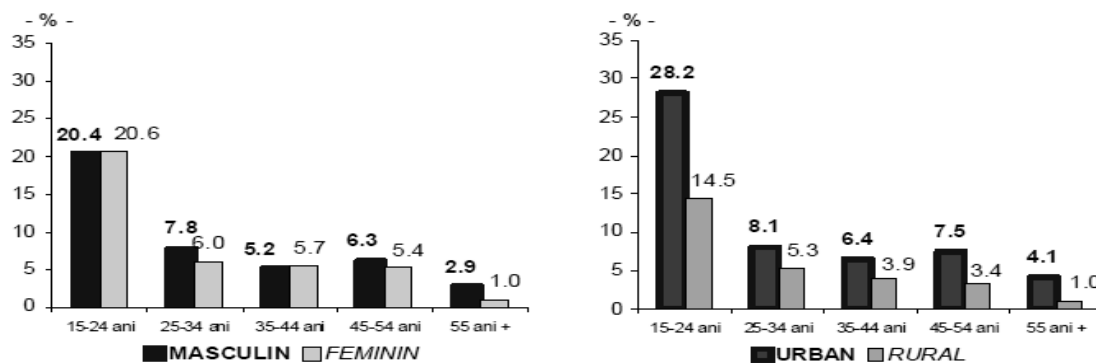
Although for 2009 it was estimated that 45,000 Romanians will enter professional training programs, only 20,000 people were able to benefit from such projects. The following months are expected to be even more difficult, given that “seasonal” unemployed people will appear.

There are areas that have announced layoffs, such as the energetic industry. The situation of public servants is not easier, layoffs will also be made in this area.

The economic crisis had most negative effects among Romanians with high school and college studies, they are among the majority of the unemployed. Employees who have graduated from college are not doing better, the growth rate of unemployment among this category is very high. According to statistics, most of the current unemployed are aged between 30 and 49 years (figure 2). We also notice an increase in the unemployment rate among people under 25 years, respectively from 16.8% at the end of 2009 and over 20% in the second quarter of 2010.

The International Monetary Fund warned us of the risk that unemployment in Romania could “explode”. The financial institution estimated that, at the end of 2009, the unemployment rate will reach approximately 9.6%; this forecast did not take place, in the late 2009, Romania reached a rate of about 8%. An evaluation report prepared by IMF found that the crisis will reach its peak in 2010, when they expect a 10% indicator, but in this case as well, we managed to be below forecast, unemployment rate declined, so at the end of 2010 a rate of 6.8% was registered.

The forecast of the National Agency for Employment (NAE) were slightly more optimistic, estimating a total of 750,000 unemployed people supported by the state by the end of the year. Given that the unemployment rate will be closer to 8% and Romania's active population totals 9.7 million people, unemployment would exceed 725,000 and may even reach to 750,000 people.

**Figure 2. Distribution of unemployed by age groups and education levels in 2010****ILO unemployment rate by age, sex - second quarter 2010**

Source: ANOFM, 2009, 2010

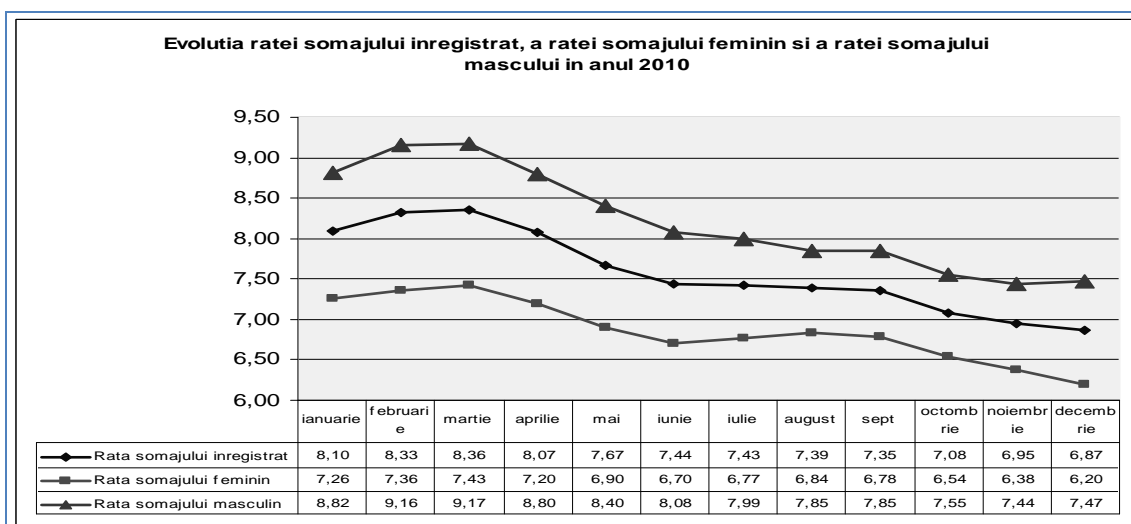
The employment rate of working age population (15-64 years) reached 60.1% in the second quarter of 2010, having both a higher level than in the corresponding quarter in 2009 (0.9 percentage points) and the first quarter of 2010 (3.1 percentage points). As in previous quarters, the employment rate was higher for men (67.1% vs. 53.2%), although unemployment rate registered an opposite situation that can be explained by the multiple restructuring and layoffs that occurred in sectors of productive activities (construction and metal-mechanic) which had predominantly male workforce.

## 2.2. Different effects of the economic crisis on women and men

The economic crisis had a greater effect in men than women. Unemployment among men rose from 4.5% in December 2008 to 8.3% in December 2009, while among women rose from 4.4% to 7.1%. In December 2010, the unemployed rate was 6.9% (Figure 3).

The situation is similar in Europe and the USA, but also in Asia and South America, therefore the journalists from Newsweek called the crisis “male face recession”. In the U.S., men represent two thirds of the 11 million people who have lost their jobs since 2007.

Unemployment affects 9.9% of men and 7.8% of women and the situation will worsen over the next five years, each of the sixth American man aged 25-54 years and will be unemployed, while in two thirds of American households, women are already the only financial support of the family. In the EU, women occupied 75% of the jobs created from 2005 to present. In 90% of the cases, women receive lower payment than men for equal work and the same training.

**Figure 3 Evolution of unemployment rate by sex in 2010**

ursa: ANOFM, The statistical summary of the unemployment stock at December 31, 2010

Moreover, in areas that have resisted and have even developed despite the crisis, most employees are women. In the past four years, in the U.S. and in Europe, female university graduates are 20% more than those of male sex. In Brazil, the United Arab Emirates and Russia, the percentage is even higher – 86% of the students in Russia are women aged between 18 and 23 years.

### 2.3. Increasing age discrimination in employment – effect of economic crisis

In Romania, out of the total of 680.000 unemployed (September 2010), 361,000 were over 40 years (53% of the unemployed) and those over 50 years accounted for 24%. The first two reasons given by employers were that the company employees are generally young and a young “teachable” person is preferred rather than an “unteachable” adult (he is harder to teach and it requires more effort and time wasted by the company).

Other reasons are generally based on the appearance of higher costs (the more mature and more aware you are of your real value, the more your demands will grow: a higher salary, a more substantial package of benefits, longer vacations etc.). As a suggestion, employees over 45 years should move to industries in which the average age is higher and their age is closer to their managers’ (banks, distribution companies, manufacturing, engineering or consulting services).

Before the crisis, candidates over 45 years were accepted because they were more stable than younger ones. Now, all employees are stable, regardless of age, they have nowhere else to go, hence the loss of this competitive advantage. Their advantage is superior expertise, but most of them have expertise in old fashioned structures and systems, they hardly adapt to new technologies, so that advantage is diminished, resulting in the need for a more flexible labor market, an increasing capacity to adapt to new conditions especially through better counseling services and appropriate specialist training and retraining.

## 3. Aspects of Labor Market in Romania

The country does not qualify workers to acquire skills that will be needed in the future. In Romania - the most active job seekers are students (20% of those who search for work online).

The interest of young romanians is manifested for jobs in IT, finance and accounting, engineering, while the more accessible jobs for young people are in call-centers - operators and sales agents polls. Romanian Students expect to receive 850 euros per month (according to the study of Trendence Graduate Barometer 2010) - unrealistic expectations.

The salaries offered to young people without experience do not exceed 500 euros, keeping in mind that the employers are able to choose people with experience who remain unemployed in the current economic conditions. Many companies consider as a win-win contract the solution of employment for

determined periods. They are a temporary solution for the unemployed looking for a job, but there are still various legislative bottlenecks.

### **3.1. Labor Code regulations in Romania - higher than the current socio-economic context**

Although the Parliament approved amendments to the Labor Code such as using short term contracts, extending the probationary period, flexible working hours and the introduction the right of an employer to adjust the amount of labor used for economic reasons, however, there are recorded higher employment and firing costs. Also, other problems that hinder labor market flexibility and diminish economic effects of the crisis are:

- disproportionate regulation of the employment obligations of the parties
- introducing restrictive bureaucratic redundancy to conclude individual employment contracts for fixed periods
- increased level of social security contributions

Given the legislative requirements in this area, this year adopted a new labor code by which the government seeks to address some of the aforementioned problems.

### **3.2. Intensifying - due to crisis - the mismatch between the labor market and higher education in Romania-and low flexibility of the educational system**

A notable aspect to consider in our country and not only, is the need for more flexible labor market by facilitating professional change and adapt curricula to market demand. The educational system does not keep pace with developments in the labor market, but offers generations of increasingly large graduates. Thus it is observed very high incidence of initial job change among young people- 70%. INCSMPS specialized studies reveal the following reasons of changing the initial formation by age group:

- Youth - 40% have not found employment;
- 50 years and over - have opted for more advantageous jobs;
- aged 15-34 years - very high rates for "not liked" - the lack of counseling and school orientation.

The economic crisis has increased the disparity between the labor market and higher education in Romania (according to a recent study "Recent graduates of higher education and their integration into the labor market, performed by the National Executive Council of Vocational Qualifications and Training of Adults, in the European project "Development of a functioning system of higher education qualifications-DOCIS Romania", January 2011). Those surveyed have concluded that the knowledge and skills in the workplace: 55% obtained them while they were active, 32% were acquired in college, another 14% being learned in "other circumstances ". Many employers argue that students should already have the knowledge and skills when completing the studies.

The average time required for graduates to find employment is four months. Architecture and economics graduates have the best chance of finding a job, while at the opposite part stand graduates in sciences and forestry. For 76% of the employers does not matter if the potential employee has only a bachelor degree or he has also a master's degree, but most of them prefer those who graduate from state faculties. The number of college graduates receiving unemployment benefits reached in September 2010, the record of the last two decades: 53,000.

### **3.3. The need for labor market policy to reconcile family and professional life**

Over 90% of Romanian employees have a rigid agenda (according to the study "Reconciling family and professional life", INS, January 2011). The proportion of working women with fixed schedules is higher than men: 91.6% for women compared to 89.4% in men. Developed european countries sustain women who have family responsibilities and want also to be involved in the labor market by providing alternatives: part-time jobs or flexible working hours. In Romania, these alternatives do not really exist. Part-time jobs are poorly paid, are not associated with a good protection of workers at work. Both in Romania and in any other country these unfavorable conditions lead to negative consequences, among which:

- low involvement in family life
- poor labor market performance
- demographic consequences such as low birth rates as families - caught in the social gear that leaves little time for family life - decide to postpone having children, have one child or not have children at all.

## **4. Labor market flexicurity approach during the economic crisis**

In the current context of economic crisis, labor market flexicurity should be reconsidered. Although it could be seen even as a European solution to a dilemma, "How to maintain and improve european

enterprises competitiveness in global competition without sacrificing the European social model?" flexicurity concept proves to be more viable in times of economic growth while as in crisis this concept fails to pass the test.

The decision to be taken by the European Commission will consider either further promoting flexicurity agenda strongly emphasizing its advantages, or opt for an agenda to attack the medium and long term issues relating to: population aging, public finances sustainability, possible options and more flexible management of the migration process.

As social policy, it aims to increase labor market flexibility and labor relations without reducing social security and employment of the working population, especially securing disadvantaged existing or marginalized groups. European flexicurity concept designates a synergistic relationship between labor market flexibility and security. This implies a beneficial combination of flexible contracts and serious, comprehensive lifelong learning strategies, effective policies and active labor market and modern, adequate and sustainable social protection systems.

Flexicurity should promote more open labor markets, more responsive and more inclusive, to solve the problem of segmentation. It refers to both the employed population, as well as the unoccupied. Economically inactive, unemployed, those who have unreported jobs, unstable or margins of the labor market must be given better opportunities, economic incentives and support measures to have easier access to work or steps to help them find a stable and legally secure job. Support should be given to all who have a job to stay fit for work, to advance and face the vertical and horizontal transitions from work, and that between jobs.

Flexicurity policies that need to be upgraded according to the European Commission Green Card, can be divided into four areas: a) flexible contractual agreements, dependable, which include flexible labor legislation and collective and individual contractual models; b) complex and comprehensive strategies for lifelong learning (boosting investment in training and lifelong learning skills in order to increase the working populations abilities in coping with labor market dynamics); c) active employment policies of the labor force; d) modern social security systems, including public and private pension systems (unemployment insurance, health insurance, child protection and family).

It takes into account the concept of job security, which is replaced with that of employment security. To keep a job not feasible economically may be counterproductive. It is opposed to restructuring and efficiency. Instead, by investing in developing new skills and abilities by an active person, it gives a chance for smoother transitions to a new career direction, through reorientation and retraining. In the circumstances presented, we would like to emphasize that:

- the need for an arrangement between the state members, preferably due to tax reasons related to social security expenses and especially to anchor the labor market in the sense of flexibility
- the need to find a balance between flexibility and security, especially given the heterogeneity of social models in Europe
- labor mobility will again bring into discussion affordability of social rights and will require efforts of state members to replace or approximate the principles or regulations that regard to transferability of rights
- flexicurity option as a solution for more dynamic labor market and consequently on economic recovery, even if the flexicurity policies were somewhat controversial

**Next we will examine to what extent flexicurity policies have contributed to the crisis crossing.**

The crisis has challenged the national strategies for labor market reform and flexicurity; lessons of the past two years are both encouraging and generating questions. Among positive aspects, the most important are:

- state members have introduced temporarily new measures of unemployment, partially publicly funded and have extended the duration and made their use more easily manageable
- by increasing internal flexibility, state members have reversed growth decline of employment in 2008-2010 by 0.7 percentage points annually on average
- measures that helped companies avoid the loss of their business-specific human capital and the cost of re-employment and contributed to reducing the difficulties for workers
- Strengthening the unemployment insurance systems (i.e. the level of benefits, their duration and their extension to new groups)
- active measures have multiplied (incentives for opening a business, training and internship programs);

- public services of employment occupation offered more specific assistance in seeking employment for special groups such as youth, immigrants, workers on short term contracts, new or who do not receive unemployment benefits. In some countries, these services have increased staff numbers by 10% to cope with the increasing number of job applicants.

In spite of what concerns the concept of flexicurity as he was before, the crisis has affected most vulnerable groups so that flexicurity policies are generating some debates.

Also, the crisis highlighted the urgent need to move to reform the labor market without reducing the ability of consensus and trust among the social partners - a key precondition for successful flexicurity policies.

Policies to reduce segmentation have been insufficient: the young, temporary workers and immigrants were among those hardest hit by the recession in Romania (in 2010 the unemployment rate is 20.5%) and the European Union where youth unemployment (up to 25 years) increased by 5.8 percentage points. In March 2008 exceeded 20%, while for adults (25-64 years) increased by only half on both and currently it is 8.3%.

However, at the height of the recession, job losses for workers with temporary contracts were almost four times higher than for those on permanent contracts. Another aspect is the fact that unemployment has risen sharply among the migrant population. It should be noted that this crisis has shown how difficult it is to implement truly integrated policies (eg short-time measures were not completed sufficiently with training opportunities for employees).

## **5. Solutions to overcome the crisis in Romania and sustainable return when completed**

During crisis, as appropriate, can be reached at radical measures like temporary or partial interruption of activities, staff layoffs, wage renegotiation / staff bonuses, relocation, etc

Since companies are not interested only in overcoming crisis, but also in sustainable recovery when crises complete, would be appropriate to take a series of measures before proceeding with layoffs such as:

- Measures with preventive role not involving special efforts: a minimum of three scenarios planning budgets, business plans, quarterly reviews of planning and a strict monitoring of payments and receipts in the context of liquidity lack
- Renegotiation of contract terms with suppliers, securing funding, promoting, reporting on individual performance, etc.. to increase liquidity
- Measures to reduce (optimize) stocks involving both positive aspects (availability of immediate cash payments: wages, rent locations, etc..) and negative aspects (higher prices for distributors for imported goods as unit price increases for small orders); lack of fluidity in doing the work, given the fact that when dealers do not have in stock materials costs increase and also waiting time increases. Also, the optimization of stocks should be made following a very clear analysis of products and services that are still required on the market.
- Identify key points where one should take action regarding the purchasing behavior, investment portfolio, various financial analysis or other business processes. Thus, in order to identify market trends and align product portfolios, companies intending to study customer behavior and take appropriate promoting measures
- Creation of multidisciplinary teams to identify and implement quickly anti crisis projects. Thus, companies must rely on the acquired experience and teamwork to find viable solutions. In order for the implementation of strategies /decisions to be enforced first they must be understood by company members.
- Avoiding outsourcing services, relocation of activities to reduce rent costs in order to maintain the jobs as much as it is possible
- Search for external support (consultancy, foreign assistance) to examine the feasibility of measures intended to be applied

Nationwide coverage it is necessary to intensify the publicity actions that the public employment service implement to ensure labor market flexibility and thus a balance between supply and demand of labor market. The program developed in 2009 by the Ministry of Labor, Family and Social Protection, "More employees that are more competent, more healthy" aims to help businesses overcome the crisis period, with subsidies for: the salaries of new employees, training of employees or improving working conditions to reduce the risk of occupational accidents and occupational diseases.



In terms of measures that aim labor market flexibility as a solution to mitigate the negative effects of economic and financial crisis, but also to strengthen the labor market in Romania, we consider it necessary following:

- supporting training and obtaining management qualifications that make entrepreneurship a career option, this action being provided by the ESF allocation for 2007-2013
- loosening restrictions regarding determined period individual employment contract
- flexibility of individual and collective dismissals
- orientation of work force in developing economic activities independently, as individuals (self-employed persons) or family associations
- development of personalized assistance for the unemployed, especially long-term unemployed, young people and vulnerable groups
- CNIPMMR has asked to regulate temporary activities by signing civil service agreements directly by the companies, not only through temporary work agencies
- Improving the implementation of active and passive policy and increase resources which are still lacking
- Further amending existing work legislation and providing more effective assistance to people from labor market institutions
- ensuring a reasonable level of income security while ensuring better access of individuals to labor market programs to increase the chances of getting a new job
- social dialogue at national and enterprise level

## 6. Conclusion

Two of the five targets of Europe 2020 Strategy aims the social domain: employment and social inclusion / poverty reduction - which is a recognition of their essential nature in the process of sustainable development and social progress, but also a way to strengthen the social dimension of the European Union for the next ten years. In order to determine and substantiate the national reference value for these two targets must be taken into account the specific situation of Romania illustrated by several elements such as: a lower level of employment to the European average, insufficient professional skills to adapt to new economic requirements, increased worker mobility of the Romanian people and specificity of the Romanian rural employment prevailing in an agricultural sector with low competitiveness and informal work relationships.

Flexibility of labor relations is a priority, along with other components of public policy in order to overcome the economic crisis. We should also keep in mind that flexicurity is not referring just to a single labor market or to a single model of active life on a single strategy or policy, but should be adapted to specific situations of each State Member. Flexicurity implies a balance between rights and responsibilities of all parties involved. Keeping in mind the common principles each state must prepare its own model of flexicurity. Thus, the Romanian model of flexicurity must be built on three interdependent levels, each with a certain degree of autonomy, including topics to be considered, namely:

- Increasing employment and reducing long term unemployment (by reducing the rigidity of the legislation concerning employment, particularly temporary employment, increasing geographical and occupational upward mobility, increasing internal flexibility, new forms of work organization)
- Security development (by increasing social security guarantees, active policies for vulnerable groups, developing an effective and equitable education system)
- Reducing labor market segmentation (through measures to reduce undeclared work, vocational training opportunities for workers from low competencies to elderly, efficient tax system)

In the context of legislative rigidities and of course a bad deep social and economic crisis, there must be increasingly more concerns for identifying a functional model that respects European principles of flexicurity, to be flexible, adaptable to labor market dynamics, simplified bureaucratically, generating new and better jobs and to open the way towards a sustainable recovery.

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## THE INFLUENCE OF CURRENT FINANCIAL CRISIS ABOVE ECONOMIC PROCESS

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**Abstract:** *In the current context, with the imminent onset of the regional financial crisis boomerang effect, the need for consistent coverage of external debt of the poorest countries and the permanent threat hanging over the company on global issues like terrorism, poverty, global warming and pollution, the international financial institutions must support the international need for promoting financial stability and economic growth and development. This paper proposes to identify the new direction to interpret the effect of current financial crisis above the economic and social process; also, we try to identify the steady of research in financial crisis problem.*

**Key words:** financial crisis, paradigm, economic development

**JEL classification:** A11

### 1. Introduction

The current financial crisis triggered in 2007 has affected the economy of all countries in different ways, from the economic and social point of view, with serious consequences at the national level, as well as regional and international one. It generated reduced investment flows and disturbances in the financial markets and stock exchange with significant consequences on economic stability reflected by the great changes in revenue and expenditure structure, as well as the purchasing power and employment rate.

### 2. Section

It is actually a paradigm shift from the paradigm in accordance with which the financial markets tend towards equilibrium, the paradigm that is based on the relationship between thought and reality, supporting the idea that interpretations and misconceptions play an important role in shaping history (Soros, 2008). According to Soros, market participants may make their decisions not only considering knowledge, subjective perceptions and market price influence, but core aspects that are supposed to reflect those prices. Consequently, the participants' pattern of thinking is influenced by both cognitive and participatory or manipulating functions, which are in various degrees of interdependence and interrelation.

The current context is favourable to the change of perceptions and theories on globalization and the role of financial institutions as pillars of globalization and supporters of economic agents' interests synthesized as it follows (Krugman, 2008):

- ✓ Independent monetary policy to face up recessions and decrease inflation ;
- ✓ Stable exchange rates to limit the uncertainty degree;
- ✓ Free fluctuation of international business flow.

As for the exchange rate, there are offered more options considered to be relevant for the immediate and future necessities of economic development:

- ✓ maintaining an independent monetary policy and free fluctuation of the exchange rate, which gave leverage to fight against the recession, but introduced a disturbing element of uncertainty for business;
- ✓ fixing the exchange rate value while assuming responsibility regarding the use of depreciation, which reduces the pressure on the business environment through the channel of convertibility and leave inoperable the monetary policy adjustment;
- ✓ applying an adjustable rate, while maintaining controls on movements of capital, which imposes additional costs, facilitating certain behaviours such a corruption.

The option for a particular exchange rate model is dependent to a large extent on the membership of an international financial institution, namely the IMF. International financial institution recommended monetary and fiscal policy measures to restore macroeconomic balance, particularly the budget deficit,

current account deficit and balance of payments deficit. In most cases, the macroeconomic policy guidelines proposed by the IMF do not meet the scope of IMF functions defined through the institution statute, which make difficult the growth and development opportunities, deepening the structural imbalances and creating dependence on international finances. Thus, fiscal austerity recommendation based on increasing taxes and reducing spending to avoid massive budget deficit (recommended measures to countries such as Thailand, Indonesia, Korea) resulted in contraction of aggregate demand and, worse, induce panic in the local and regional markets creating a boomerang effect. At the same time, the structural reform required as a condition for lending, such as the closure of insolvent banks, or the elimination of the practice of granting lucrative monopolies to certain client companies in some fields, does not comply with the fundamentalist market doctrine, but on the contrary, is an attempt to take over the markets control. It is IMF that initially recommends increasing interest rates at very high level in order to increase foreign investor's interest, the result being the attack on the currency, capital flight and sharp increase in inflation. Naturally (Sachs, 2008), the countries concerned, namely Asian countries, should have chosen the practice of currency devaluation till the latter one became cheaper for investors, so profitable. Sachs argues that choosing not to raise interest rates, governments would have avoid feeding financial panic; the devaluation would have been less significant, with moderate influence on the economy.

The accumulation of debt on the international financial markets is also a consequence of the mode of action of the IMF. How central banks lacked sufficient authority and reserves to finance the economy, there have been set up rescue programs, adopting the following strategies (Soros, 2008): the commercial banks have expanded their obligations, the international financial institutions have made an infusion of cash and debtor countries have agreed to introduce an austerity program designed to improve balance of payment. In most cases, commercial banks have also had to replace the quantities of cash, allowing to debtor countries to be aware of interest payments. Rescue packages have been a remarkable achievement in terms of international cooperation. Participants included the IMF, the International Stabilization Bank, some governments and central banks, as well as a large number of commercial banks.

The international financial crisis has led to significant changes of conduct of economic phenomena and processes, to widening macroeconomic imbalances, but also regional, to the identification of new economic values of fundamental research in the development and implementation of some aggregate indicators anticipating future developments in the economy and reducing the magnitude of the negative effects of crises. The current crisis was generated by disturbances due to the monetary system and its instruments of monetary policy. What caused the current economic crisis is the result of measures boosting the global economy based on a fiscal monetary policy mix meant to support artificially the demand for money independent of structural policies, namely widening imbalances between nominal and real convergence.

The effects of worldwide globalization is reflected in the high capacity of spreading economic imbalances through transmission channels (supply and demand of foreign exchange rate, national reserve, contract, property, namely the balance sheet) that induce fear and especially in the real economy contraction, at the level of economic activity, with strong repercussions on the level of employment, namely the sphere of social action.

Due to the social and economic exacerbated imbalances of the countries, the financial institutions, together with governments, have developed various programs designed to identify the causes that led to severe economic contraction in recent years and identified solutions to reduce the negative effects. Thus, crisis programs are designed to inject liquidity into the economy, to support economic growth by implementing lax monetary policy with a synergistic effect on the solvent consumption and production, and to identify the fiscal policy measures, especially its levers, which would generate budget revenues higher than budgetary expenditures.

When economic and social stability, acquired with great efforts, is threatened to lose firstly its third component which is economic stability, the whole process of reunification and extension of the Union is questionable, because, further on, it is likely the essential factor which is stability risks to disappear. Unfortunately, hardly could a possible instability in Europe disturb considerably the other powerful factors at the international level. Moreover, the emerging super powers would be advantaged by EU decline, an important actor being at least temporarily triggered aside out of the international scene. Europe does not provide anything vital out of its borders, but stability. Obviously, it is still an excellent outlet market and a reliable partner for important exchanges. On the other hand, it does not provide excessively either cutting edge technology or essential knowledge, and, as a power supplier, it is rather dependent on others. However, the mark of stability, democracy, prosperity and dialogue as unique arm of the EU model of unity in

diversity is still well perceived, but at least weak in terms of massive influence on world evolution. It is the superpower niche of EU as long as a significant part of the constitutive elements do not deteriorate. Economic stability can be achieved first through price stability, with positive effect on purchasing power, through an appropriate mix of monetary, fiscal and structural policies that would ensure a stable business environment and hence a high occupancy and a consistent budget to support social policies. Achieving long-term objective of monetary policy, namely maintaining a low and stable inflation, is a real challenge for both industrialized and emerging economies. In the latter case, central banks could face a more difficult task, which is to answer the real and nominal shocks, as financial markets are sufficiently mature and less diverse operating instruments. Such shocks are usually caused by unexpected changes in food prices, energy and price policy, as well as massive capital flows, which impose limitations to the effectiveness of monetary policy. These limitations are even more urgent, requiring the implementation of a countervailing policy mix. Without the support of other economic policies, there is a risk that price stability is achieved at the expense of other macroeconomic balances, which may ultimately prove to be a self reversible process.

Market Fundamentalists blame regulation fallibility for market errors (Soros, 2008), as a consequence of the current financial crisis. Some analysts are inclined to consider the present crisis as an unavoidable accident, but not peculiar, throughout the economic cycle, as a result of very low interest rate applied in recent years in the USA and Europe. But a deeper approach of the crisis has not reached such structural causes. Besides a plethora of conflicts of interest, the globalization of financial markets and financial innovation in terms of poor regulation (or nonexistent) have set up the background of the current crisis. Other type of argument is related to the regulatory framework. Thus, Italian Economy Minister, Tommaso Padoa Schioppa, comes with a common sense argument, according to the logic of the single markets and the capital flows that do not respect national borders. He says we need a common set of regulations in the EU (a single European rulebook) and a unified supervision of financial groups in the Union.

Apart from the irresponsible relaxation of credit conditions in different housing markets and other markets (in the U.S. and Europe) in the last decade, the origin of the financial crisis should be sought in the effects of massive cross-border capital flows and more extensive use of financial / derivatives tools (such as securitization of bonds) that are not transparent or, actually, traded on markets. Consequently, the financial markets have become, in many areas, more opaque, and to identify those who took risks and assume the assessment of these risks have become almost unattainable goals. To extend the shadow banking sector, which is weakly regulated, became prominent in the last decade. This trend reminds in a way, what Gurley-Shaw report said decades ago on the imprecision of the distinction between money and credit, which would considerably complicate the practice of monetary policy (Daianu, 2008).

Imprudent banks have chosen to play the game of creating and distributing financial products by applying questionable risk management techniques. Many leading banks have engaged in "packaging" and the sale of bonds, with coverage in high-risk mortgages. In these circumstances, it is imperative to better regulate financial markets, rigorously, covering areas where there is obvious lack of regulation. History, and conduct crisis shows that those who say that the financial industry can count on self-regulation to avoid such consequences, are utopian. The fact that in London, 14 of the largest hedge funds have decided to adopt a code of conduct is to be welcomed, but not enough. It is regrettable that supervisors / regulators from different countries have not learned more from the episodes of Long Term Capital Management crisis, the dotcom's, Enron, Parmalat etc. It is required to improve the regulatory operations of investment vehicles. It is also necessary to regulate the use of financial instruments (derivatives such as CDOs), so that the market transparency may be restored and investors informed adequately about the risks they assume. According to the regulations, banks are required to have minimum reserves, a similar rule being applied to the non-bank financial institutions. The maximum size of leveraging should be regulated, too. But more extensive and rigorous regulation does not mean reversal of financial liberalization. On the contrary, to keep financial markets open so that they cannot cause significant direct or collateral damage, it is necessary for these markets to benefit from stricter and effective regulations.

### **3. Conclusion**

To conclude, the phenomenon of de-regularization euphorically lived since the 80's has encouraged and led to massive indebtedness and very high loans impossible to be reimbursed. The incapacity of controlling the financial system generated an economic crisis, now, still in its incipient phase. Economic activities will decrease considerably, a range of urgent and efficient measures being necessary. Recession might transform itself in depression compounded with riots and political violence, as well as a possible revival of the hate against social class.

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## WACOM COMPETENCE MODEL – IMPROVING WORK FORCE MOBILITY IN THE WATER SECTOR

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**Abstract:** *Through more than 50 years the E.U. became a Common Market, meaning that all factors of production, incl labour, could move freely. Politicians at the European level have recognised that education and training are essential to the development of today's knowledge society and economy, so the right to free movement of workers is complemented by a system to ensure the mutual recognition of diplomas. The WACOM project, funded by the European Commission through the Lifelong Learning Programme as a Leonardo da Vinci Transfer of Innovation project, meets all this objectives. The main scope of WACOM is the development of a competence model in a specific field of the water sector that enables the identification of the Vocational Education and Training needs of employees and learners as well as of the required competences and qualifications at specific working places. Additionally the project focuses on improving the transparency and comparability of VET opportunities and products in Europe.*

**Key words:** *internal market, European Qualification Framework, competence model*

**JEL classification:** *J61, J62*

### 1. Introduction

According to an official statement of the EU, “the internal market of the European Union is a single market in which the free movement of goods, services, capital and persons is ensured and in which European citizens are free to live, work, study and do business.” (COM(2002)694). But is it really the case?

We will consider the free movement of persons, mainly those of the workers. In this field, there are some official restrictions, regarding limitations on public security, public policy and public health grounds as well as some limitations as to employment in the public service of the host country. Furthermore, the right to free movement of workers from, to and between the EU countries that joined the EU after 2004 may be restricted during a transitional period of maximum seven years after accession. Still, free movement of workers is enshrined in Article 39 of the EC Treaty and has been developed by secondary legislation, particularly Regulation 1612/68 on freedom of movement for workers within the Community and Directive 2004/38/EC on the right to reside. This means, among other, that EU citizens are entitled to look for a job in another country, to work there without needing a work permit and to enjoy equal treatment with nationals in access to employment.

However, despite the progress that has been made, there are still legal, administrative and practical obstacles to exercising those rights. An EU citizen who is fully qualified to exercise a profession in one Member State and who wishes to exercise that profession in another Member State where the profession is regulated must first apply for recognition of his or her qualification, so the access to the labour market depends on the granting of such recognition. So, the right to free movement of workers must be complemented by a system for the co-ordination of social security schemes and by a system to ensure the mutual recognition of diplomas.

### 2. The WACOM project

The European Qualifications Framework (EQF) acts as a translation device to make national qualifications more readable across Europe, promoting workers' and learners' mobility between countries and facilitating their lifelong learning. Agreed upon by the European institutions in 2008, the EQF is being put in practice across Europe. It encourages countries to relate their national qualifications systems to the EQF so that all new qualifications issued from 2012 carry a reference to an appropriate EQF level. Programmes such as Leonardo da Vinci are tools for implementing this objective. The WACOM (Water Competences Model Transfer) project is supported and funded by the European Commission through the Lifelong Learning

Programme as a Leonardo da Vinci Transfer of Innovation project. It aims to transfer the European Qualification Framework (EQF) as well as the German Reference Model for the Competence Modelling PAS 1093 (developed by the DIN Working Group "Competence for the Human Resource Development" during two years of consensus processes and published in 2009) into the European Vocational Education and Training (VET) in the water sector. The pilot project of 24 months duration started in October 2009 and involves seven organizations from Germany, Greece, Hungary and Romania.

The main scope of WACOM is the development of a competence model in a specific field of the water sector that enables the identification of the Vocational Education and Training needs of employees and learners as well as of the required competences and qualifications at specific working places. As politicians at the European level have recognised that education and training are essential to the development of today's knowledge society and economy. Additionally, the project focuses on improving the transparency and comparability of VET opportunities and products in Europe. In particular, WACOM will increase the transparency of competence models in the field of management and operation of sewage treatment plants.

The main objectives of WACOM project are the following:

- To support participants in training and further training activities in the acquisition and the use of knowledge, skills and qualifications to facilitate personal development
- To support improvements in quality and innovation in vocational education and training systems, institutions and practices
- To enhance the attractiveness of vocational education and training and mobility for employers and individuals as well as to facilitate the mobility of working trainees.

The work plan of WACOM project has been structured into seven Work-Packages (WPs). These facilitate the proper organisation and implementation of the project. The WPs are the following:

- **WP1: Needs analysis for competence models in the water sector.** The aim of the work package is the identification of the specific demands and needs of the water management and existing practice concerning competence models in the water sector as basis for all other workpackages.
- **WP2: Transfer of competence modelling into the water sector.** This work package deals with the transfer of competence and qualification models into the water sector as WACOM instrument and adaptation for management of sewage treatment plants as well as continuous optimization of WACOM.
- **WP3: Adaptation of WACOM to the vocational training systems and cultures in Europe.** Based on the outcomes of the previous stages of analysis and definition, this WP deals with the adaptation of WACOM to the vocational education and training systems and cultures in Europe including translations in the four languages of the application countries and regional localisations.
- **WP4: Pilot-testing, evaluation and optimization of WACOM.** This work package aims at providing the development of a validation plan and of a concept for the pilot testing; the pilot testing of the WACOM instrument and its continuous evaluation and optimization as well as the development of recommendations for further improvements, adaptations, and transfers in other topics inside and outside of the water sector.
- **WP5: Dissemination and exploitation of WACOM in whole Europe.** This work package aims at making the broadest dissemination and exploitation of WACOM in whole Europe through diverse activities including a European Workshop and using dissemination channels and networks of the partners and their regular events and conferences.
- **WP6: Strategies for the WACOM transfer after project ending.** The aim of this work package is the development of strategies and recommendations for the WACOM transfer after project ending and their greatest possible realisation including the submission into the European standardisation (CEN).
- **WP7: Management.** The aim of the work package is to ensure the coordination of the consortiums and of the activities in the project in order to achieve the best project results and their best possible dissemination and exploitation as well as for effective and efficient collaboration and communication.

### 3. The WACOM Competence Model

The main objectives of competence models are the definition, harmonization and usage of competences and their elements and categories. HR Professionals can use competence models for strategic planning or



systems innovations, providing strategic services that improve the profit. On the other hand competence models can give information about the knowledge, skills and competences of the staff and their required vocational education and training. A competence model can streamline and simplify operations that drive efficiencies and operational excellence throughout the organization.

Through the transfer of EQF and PAS 1093, a Reference Model for the Competence Modeling will be introduced in the water sector. The WACOM instrument will define the needed competences and qualifications for the different tasks, working places and (groups of) employees within the water sector for the first time. EQF focuses on eight reference levels describing what a learner knows, understands and is able to do – 'learning outcomes'. Levels of national qualifications will be placed at one of the central reference levels, ranging from basic (Level 1) to advanced (Level 8). This will enable a much easier comparison between national qualifications and should also mean that people do not have to repeat their learning if they move to another country. Most important definitions for WACOM which apply in the EQF are related to the terms knowledge, skills, competence and qualification.

According to PAS 1093, competences are constructs that are not to observe directly and that can be described by the three dimensions structure, levels, and observation and can be constituted by defined activities (Weinert, F. E., 2001). In order to develop a competence model, PAS 1093 provides some principles: competences are always a construct, competences cannot be observed directly but can only be inferred indirectly by the observation of activities in a defined situation, competences also cannot be measured directly but only indirectly by the observation of activities in a defined situation and competence modelling has to support the individual person as well as the whole organisation (PAS 1093). These three main dimensions of PAS 1093, as well as the principles are reflected and integrated within the WACOM Competence Model.

With this understanding, the objectives for the WACOM Competence Model are the following:

- To support participants in training and further training activities in the acquisition and the use of knowledge, skills and qualifications to facilitate personal development
- To support improvements in quality and innovation in vocational education and training systems, institutions and practices
- To enhance the attractiveness of vocational education and training and mobility for employers and individuals and to facilitate the mobility of working trainees
- To improve the quality and to increase the volume of mobility throughout Europe of people involved in initial vocational education and training and in continuing training
- To improve the quality and to increase the volume of co-operation between institutions or organisations providing learning opportunities, enterprises, social partners and other relevant bodies throughout Europe
- To improve the transparency and recognition of qualifications and competences, including those acquired through non-formal and informal learning
- To support the development of innovative ICT-based content, services, pedagogy and practice for lifelong learning

The European Commission has published its European Policy "Key Competences" defining and describing eight key competences that are used as a basis for the WACOM Competence Model and thus, are listed in the following:

1. Communication in the mother tongue;
2. Communication in the foreign languages;
3. Mathematical competence and basic competences in science and technology;
4. Digital competence;
5. Learning to learn;
6. Interpersonal, intercultural and social competences and civic competence;
7. Entrepreneurship;
8. Cultural expression.

For water sector, there have been identified, next to the key competences, a pool of water competences. The Water Competences are the complete list of core competences for the water sector required for sewage treatment plants in particular. All these competences were pointed out in keen discussions during the national workshops. It could be highlighted, beside the existing eight key competences developed by the European Policy, these are the core competences for the water sector and in particular for sewage treatment plants.

Following the recommendations of PAS 1093 and according to the European Qualification Framework (EQF) the levels describe a standard for learning outcomes (Dreyfus, H. L. / Dreyfus, S. E., 1986).

The following table shows all the water competences and their definitions of the WACOM Competence Model for Sewage Treatment Plants:

<b>WACOM Competence Model</b>	
<b>Name of competence</b>	<b>Definition</b>
"Analytic Processes"	A package solution of a complex problem. Can include assortment of an approach, improvement of the method, seek alternatives, preparation of the accomplishment, accomplishment, collection of data and finally data analysis and evaluation.
"Biological Section"	Knowledge and Skills in the fields of biological efficiency, Operation and maintenance of the flow dependent sampling equipment, biological filter, regulation, checking and cleaning.
"Chemical Section"	Combine physical- (e.g., <a href="#">chemistry</a> and <a href="#">physics</a> ), and life sciences (e.g., <a href="#">biology</a> , <a href="#">microbiology</a> and <a href="#">biochemistry</a> ) with <a href="#">mathematics</a> .
"Control Technology"	Pursuit warning notices and based on knowledge make the right decision.
"Develop"	Diagnose and identify problems. Deep interest in solving them.
"Documentation"	Set of <a href="#">data sheets</a> of item or of components/materials, <a href="#">test methods</a> , <a href="#">manufacturing</a> standards, <a href="#">quality management system</a> requirements, information specified in <a href="#">laws</a> or <a href="#">regulations</a> , <a href="#">verification and validation</a> , etc.
"Electrical Engineering"	Covers <a href="#">electricity</a> , <a href="#">electronics</a> and <a href="#">electromagnetism</a> . A broad engineering field that encompasses many subfields including those that deal with <a href="#">power</a> , <a href="#">instrumentation engineering</a> , <a href="#">telecommunications</a> , <a href="#">semiconductor circuit</a> design, and many others.
"Environmental Protection"	Awareness of lack of natural resources and eveal importance of water as source of life.
"Investigation"	<a href="#">Discovering</a> , <a href="#">interpreting</a> , and the <a href="#">development</a> of methods and systems on a wide variety of <a href="#">scientific matters</a> of our world and the universe.
"Measurement Technology"	Measurements occur in biological or chemical field: using measuring cylinder, using simple methods, using indicator paper, calculation, testing and glass electrode.
"Mechanical Section"	Processes, operating sequences, handling of control systems, etc. Knowledge of the types of drive, gears and transmissions of machines.
"Primary Treatment"	Basic information and principles of accomplish (running and monitoring) first steps in a STP.
"Process Engineering"	Can focus on the design, operation, control, and optimization of chemical, physical, and biological processes through the aid of systematic computer-based methods.
"Regulation"	Know, coordinate and harmonize course of events.
"Research"	Develop ideas and new concepts
"Responsiveness in case of Emergency"	Keep calm, act far-seeing, stay on top of things, etc.
"Sludge Digestion"	Detailed knowledge in biological process going on in a STP.
"Technical Section"	Identify, declare and continue processing technical coherency and different sections.

These water competence can be used to build and adapt an own competence model. For this purpose the "cafeteria-principle" can be used: It is possible to choose from an existing pool of competences only these that are most important in the case of a job description, preparing special VET or the like.

#### 4. Conclusions

As politicians at the European level have recognised that education and training are essential to the development of today's knowledge society and economy. The EQF aims to relate different countries' national qualifications systems to a common European reference framework. Individuals and employers will

be able to use the EQF to better understand and compare the qualifications levels of different countries and different education and training systems.

The WACOM instrument will define the needed competences and qualifications for the different tasks, working places and (groups of) employees within the water sector.

Furthermore the transfer into other sectors as well as into all European countries is planned and guaranteed by the strong focus on pilot testing, optimization, dissemination, exploitation and sustainable strategies.

The outcomes of WACOM aim to improve the national VET systems and launch a European Norm initiative as contribution to the European standardization (CEN). Furthermore, the pilot testing period as well as the dissemination and exploitation strategies guarantee the transfer of the WACOM instrument in other sectors of water management as well as in other branches, e.g. the environment and agriculture fields.

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## VULNERABILITIES ON ROMANIAN LABOR MARKET<sup>6</sup>

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**Abstract:** In this paper the authors analyze trends and vulnerabilities of the Romanian labor market between 1991 and 2009, compared with those of EU Member States. Also, they identify the countries from EU whose labor market behavior is similar to that of Romania, in order to see the directions to be followed such that to reduce the vulnerabilities on Romanian labor market. By using mainly EUROSTAT data for the year 2009 for all 27 EU countries, the authors have used the k-means clustering method for the determination of homogeneous groups of countries.

**Key words:** labour market, vulnerabilities, cluster analysis, migration, informal employment

**JEL classification:** C38, J16, J21, J24, J61.

### 1. Introduction

Romanian economy's transition process began suddenly and was accompanied by disintegration of former political and economic system. Revolution in Romania was atypical, compared to other former communist countries. In terms of GDP per capita, Romania has been one of the poorest countries in Central and Eastern Europe. Also, the Romanian economy was one of the most agrarian economies in Europe. Completely isolated from the informational point of view, Romania had a fully centralized economic system. Beginning of transition was completely chaotic, especially because of the complexity of integrating the fundamentals of democracy and market economy. Internal problems, instability, political corruption or lack of appropriate reforms have led to a difficult restructuring and privatization process.

We can identify three shocks with major social impact on Romanian economy: first, the revolution in December 1989, when Ceausescu's communist regime has fallen, secondly the EU accession in January 2007 and third the world economic crisis that began in 2007. These three structural shocks profoundly marked the evolution of Romanian labor market.

### 2. The Analysis of the Main Macroeconomic Indicators in Romania

In order to understand and to identify the vulnerabilities of the Romanian labor market after 1990, the economic context of the period must be known. In this section we'll shortly describe the main trends in economy, using some statistical indicators: real GDP per capita, the annual change rate of GDP, inflation rate, growth rate of foreign trade, as well as the foreign direct net investments.

Romania's economic growth gives the first signs of fragility right after its accession to the EU. Compliance with European standards degrades economic activity in early 2007. Between 2006 and 2007 GDP growth rate falls from 8% to 6%. However, growth will continue in 2008, fueled by increasing consumer spending and by increasing public deficit from 2.6% of GDP in 2007 to 5.7% of GDP in 2008. Between 2008 and 2009 final consumption expenditure of households (an important factor of economic growth in Romanian economy) goes down significantly. This partly led to the deterioration of the economy in 2009, especially as the country was unable to work and invest in capital (potential growth leverage).

Between 2008 and 2009, GDP growth rate has lost nearly 14 points (going from 7.3% in 2008 to -7.1% in 2009). In 2008 and 2009 budget deficit is growing rapidly, reaching 8.6% in 2009. Public debt rose

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sharply between 2008 and 2009 (from 13% to 24%), still low compared with other European countries (for instance in France, the public debt was 78% of GDP in 2009). The crisis continues in 2010, so that between Q1 2009 and Q1 2010 GDP decreased by 2.6% (National Institute of Statistics of Romania, 2010).

### 3. A comparative analysis of the main indicators on labor market

Romanian labor market has changed dramatically during the economic transition. One of its main features is a reduction in employment level. First, from the fall of communism, the enterprises restructuring has led to job losses, that were not compensated by the creation of new jobs. On the other hand, the ageing population process has led to a decrease in natural balance. Also, Romania has recorded a significant migration (including temporary emigration), which led to a shortage of manpower. This wave of emigration hides two phenomena: the departure of quite young and highly skilled workers (brain drain phenomenon has increased significantly during the crisis, for professions such as doctors or computer programmers) and at the same time the least skilled workers that prefer to earn more abroad. Migration is one of the major vulnerabilities of the Romanian labor market due to lack of skilled labor force.

A consequence of economic transition in Romania was the mutation of the remaining part of the workforce without jobs to informal forms of work. Despite sustained economic growth in recent years, informal work in Romania continues to exist and even grow in some periods. Informal work exists mainly in agriculture (in the form of subsistence agriculture), and in some sectors such as construction, retail, home services, transportation, health and education. In a document of the OECD, Xenogiani and Parlevliet (2008) estimated that informal employment is between 20 and 50% of the employed population. Romania's EU accession in 2007 had a positive impact on the attractiveness and competitiveness of local enterprises. In 2007 and 2008, employment rate improved slightly, and emigration and informal workers have been falling. However, political and economic crisis that hit Romania during 2008-2009 has stopped healing Romanian labor market.

Romania is among European states with the lowest employment rates (56.8% in 2009). Between 2008 and 2009, employment fell by 1.3% (a drop of 125,000 jobs). This is a small decrease, but the phenomenon has spread in 2009 and 2010. Industry was most affected by the decline in employment, with a decrease of 7%. With the bursting housing bubble, construction stopped resulting in a 3% drop in construction jobs between 2008 and 2009. In contrast, employment increased by almost 2% in services. In terms of female employment rate Romania hadn't a better situation (52.5% in 2008). Moreover, the Romanian women are more affected by the crisis: the decline in employment is greater on the female population than for the males (1.6% for women against 1.1% for men). This effect is prominent in the sector most affected by the crisis, the industry, with an employment decline of 10% for women versus 5% for men.

In terms of employment of the elderly, Romania is slightly below the European average, with an occupancy rate of 42.6%. Before 2000, Romania was among the countries with the highest occupancy rates of the elderly, over 50%. After the entry into force of Law 19/2000, employment decreased by more than 10%.

Romania is above the European average in terms of employment levels among people with a high level of education, with an occupancy rate higher than 26% of total employment and 42% higher than the employment of people with a low education.

Partially occupied employment was 9.8% of total employment in 2009, decreasing significantly by almost 7% compared to 2000. In 2008, the average number of hours worked per week in Romania is 41.1 hours for a full-time schedule and 24.4 hours for the part-time schedule. 76% of full-time jobs respect the legal working time of 40 hours per week. People who work over 40 hours per week represent approximately 18% of full-time jobs. The crisis has led to changes primarily in the number of jobs with working time over 40 hours (a decrease by 9% of them between 2008 and 2009).

Regarding the nature of the employment contract, the proportion of employees working on a contract of limited duration is only 1.3% in Romania. The crisis had a negative effect on the number of fixed term employment contracts for Romanian employees, with a drop of 21% between 2008 and 2009.

In Romania, for the first time in the last ten years, unemployment is increasing: between 2008 and 2009, unemployment rose from 5.8% to 6.9%. This growth began in late 2008. In terms of public spending for the unemployed, they have doubled in 2008-2009, due to strong growth of spending on unemployment benefits (an increase of 160% of these expenses). Paradoxically, however, spending on employment incentives for unemployed or disadvantaged groups, or in case of restructuring or liquidation of public enterprises has decreased between 2008 and 2009.

Discriminating factors for those who are looking for a job can be: gender, age or level of education. In Romania, the unemployment rate is about 2% higher for women than for men, increasing by about 1% for both genders from 2008 to 2009.

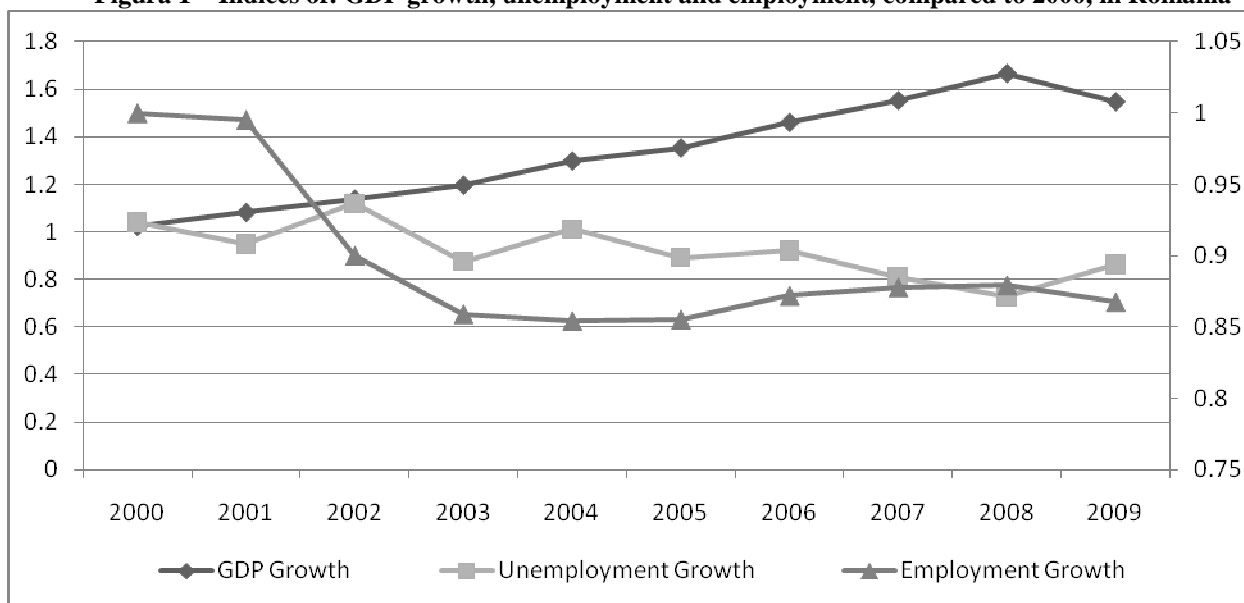
Unemployment rate by age shows that young people aged 15-24, face greater difficulties than most adults in finding and keeping jobs. Their unemployment rate in 2009 reached a level of 20.8%, the crisis does not affect much more young people than older people, as the youth unemployment rate increased by only 2% in 2009 compared to 2008.

It is interesting that in Romania the economic crisis has had a greater impact on people with a high level of skill than on those with low qualifications. The unemployment rate among people with a high level of education rose by 1.3% in 2009 compared to 2008, while unemployment rate among those with low education increased by only 0.5% in 2009 compared with 2008.

#### 4. The phenomena of migration and informal work: helpful or harmful?

The transition process of the Romanian economy has led to major changes in the labor market. In Figure 1 are plotted indices with a fixed base (2000) referring to: GDP growth, unemployment and employment. This chart highlights the counter-cyclical nature of unemployment. The border between unemployment, inactivity and employment is rather imprecise, the relative figures on unemployment being under-valued. Also, the employed population decline may be due to demographic changes that took place in Romania in the last 10 years. A great number of people registered as unemployed is working either on the black market or is part of temporary migrants.

Figura 1 – Indices of: GDP growth, unemployment and employment, compared to 2000, in Romania



Source: Authors' data processing, based on Eurostat data.

Difficult economic conditions and increased poverty in the transition period led to the expansion of informal employment and external migration, both in Romania and other East European countries. These two phenomena of migration and informal employment will be shortly described in the next paragraphs.

##### 4.1. Migration phenomenon

Regarding permanent emigration (with change of residence) national statistics (National Institute of Statistics) reveal that from 1990 until 2008, 404396 Romanians established their residence abroad. As a large part of Romanian emigration did not occur in a formal framework, the dimension of this phenomenon is undervalued. Approximately 40% of Romanian immigrants have chosen as the definitive destination country Italy, 11% - the United States of America and 10% - Hungary. Regarding permanent immigrant profile, 75% of them are under 40 years and 55% are females.

In recent years migration for work, (temporary, or circular), has become the most important component of Romanian immigration. According to the National Human Development Report 2007, approximately 2 million Romanians (10% of the population) are employed abroad in non-seasonal work. In

recent years, according to a study of the Open Society Foundation (OSF), the main destination countries for migrants to work were: Italy (40% of labor migrants), Spain (18%), Germany (5%), Hungary (5%) and Israel (6%). And in the case of temporary migration official data reported by the Department for Work Abroad are undervalued; they are only referring to the number of employment contracts concluded by the Office for Labour Migration.

In Romania, 65% of the money sent by workers abroad has the consumption destination, only 35% of them being directed towards investment and savings. National Bank of Romania's estimates that the amounts sent home by Romanians working abroad in 2009 were of 6.6 billion EUR, lower than 2008 level, when 8.7 billion EUR entered the country, (or the equivalent of 6.2% of GDP). Only in the period 2003-2009, Romanians from abroad have transferred to Romania about 37 billion euros. This amount of money plays an important role in Romania's economy, being the second largest source of external financing after foreign direct investment.

The current profile of labor immigrant - according to Labour Force Migration Office - is a worker with a medium or low skilled, aged between 25 and 35 years, coming from the Center, West, South and South-East of the country. 52.65% of the migrants are women, so a large number of children are left home, which can have negative consequences for their further development, especially on their state of physical and mental health.

#### **4.2. Informal Labor Market**

A consequence of the transition period in Romania was transferring a large part of the formal labor (following the massive restructuring process that took place in the industry) to informal forms of employment, permanent or temporary emigration or even to inactivity (discouraged individuals who have become inactive).

Although in recent years it has been a continuous growth, the informal work continued existing in Romania. Informal employment appears mainly in agriculture, (as subsistence agriculture), but also in other sectors such as constructions, trade, home services, transportation, health, education, etc. A recent OECD report (Parlevliet and Xenogiani, 2008) points out that informal work is now between 20 and 50% of the employed population.

Informal work is one of the most serious events that occurred in Romania after 1989. A first and obvious consequence of this phenomenon is a significant decline in the state budget revenues and the social security budget revenues. Informal employment is not only undermining tax revenues, but increases the vulnerability of certain categories of people. The recognition of the fact that informal employment is not falling down when the economy grows - has changed the debate on informal employment and imposed the need for effective policies to reduce informality and improve working conditions for all. Indeed, informal employment is among the major concerns of the Romanian government together with reducing poverty and increasing wages.

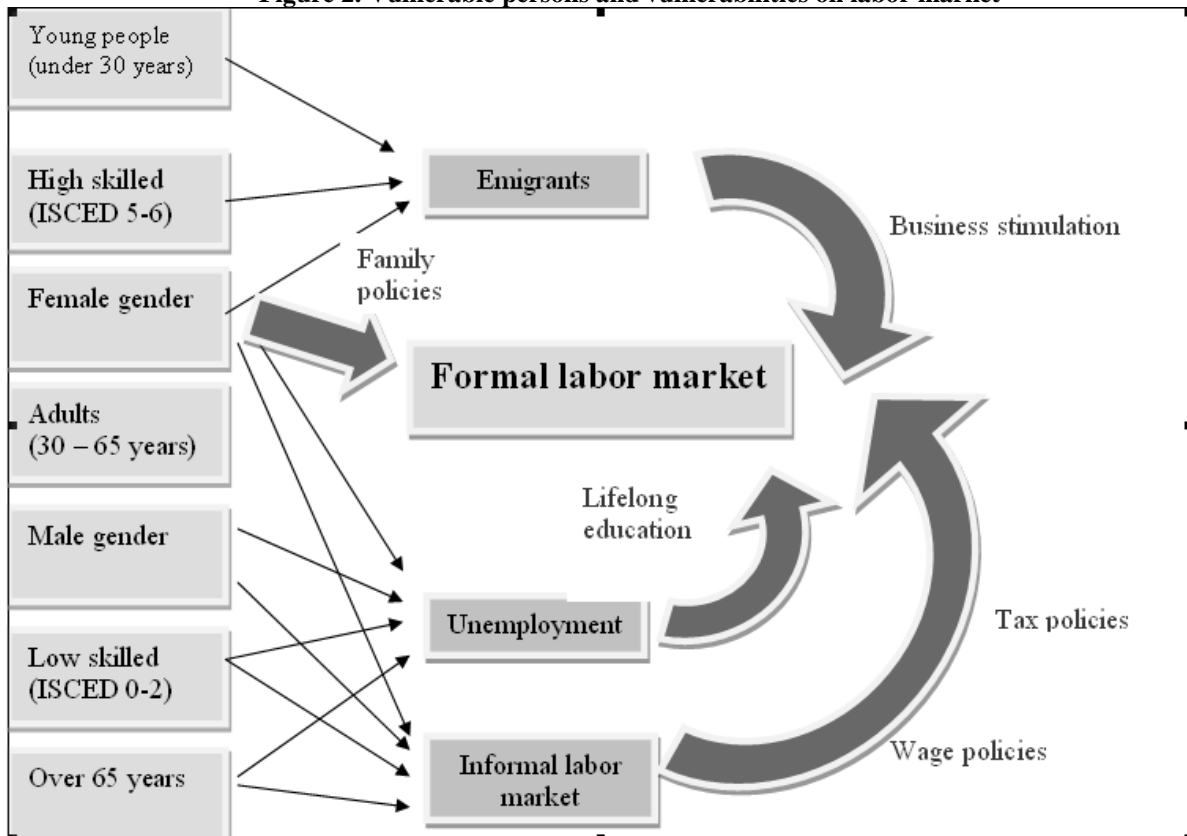
In the year 1999, according to estimates made by F. Schneider, the active labor force in the underground economy in Romania, represented 25.3% of the working age population (aged between 15 and 65). For the period 2002-2003, the number of those who worked illegally in Romania was estimated at 1.8 - 2 million people. According to the National Commission of Statistics, in early 2005, the number of Romanians working in the informal economy reached almost 1 million people.

### **5. Vulnerabilities on the Romanian Labor Market**

Based on the analysis in the previous paragraphs, we have made a summary of the main weaknesses encountered in the labor market in Romania and some policy proposals that could help to reduce them or their negative effects (Table 1 and Figure 2)

**Table 1. Vulnerabilities on the Romanian Labor Market**

	Romania	Policies
Demographic ageing	Low percent of young people less than 15 years, with a long-term effect on the demographic structure of the labor market and on the sustainability of the social system	Policies for birth-rate stimulation Sustainable social policies for the elderly Employment stimulation among the elderly
Female gender	- lower employment - higher unemployment - more affected by the crisis than male gender - temporary and circular migration - informal work	Policies for stimulating the female employment Policies for supporting mothers to return to the labor market after an activity break. Stimulation of formal employment by providing tax advantages, social advantages.
Education	- lower employment and higher unemployment among low skilled persons. - the crisis has more affected people with low education levels than those with high education level. - temporary and circular migration - informal work	Lifelong education Professional retraining Stimulation of formal employment by providing tax advantages.
Emigration	- decreasing permanent emigration, especially among skilled individuals. - increasing temporary or circular migration for the low skilled persons and for females. - contribution to unemployment decrease.	Policies to attract specialists in Romanian economy.
Informal work	- Biggest level in EU countries. - more common among people with low education. - more common in sectors such as agriculture, constructions, domestic services.	Stimulating business in the agricultural sector Support for accessing European funds Tax advantages granted to businesses in constructions, to final users for improvement and construction work and to employees of construction firms.

**Figure 2. Vulnerable persons and vulnerabilities on labor market**

Source: elaborated by the authors, based on their analysis.



## 6. Cluster Analysis on EU Countries

In order to analyze which are the main directions to be followed in Romania for reducing the vulnerabilities on the labor market, we have used a cluster analysis method. The variables used in the analysis are:

- **Total unemployment:** Unemployment rate, annual average for 2009 (source data: Eurostat)
- **Female unemployment:** Unemployment rate, annual average for females for 2009 (source data: Eurostat)
- **Young people unemployment:** Unemployment rate, annual average, Less than 25 years for 2009 (source data: Eurostat)
- **Unemployment, primary education:** Unemployment rate, annual average, Education - ISCED 0-2 for 2009 (source data: Eurostat)
- **Employment (15-64):** Employment rate, annual average, 15 to 64 years for 2009 (source data: Eurostat)
- **Employment - aged people:** Employment rate, annual average, 55 to 64 years for 2009 (source data: Eurostat)
- **Employment – female:** Employment rate, annual average, females for 2009 (source data: Eurostat)
- **Population (0-15 years):** Population on 1 January, less than 15 years for 2009 (source data: Eurostat)
- **Population (over 60 years):** Population on 1 January, 60 years or over for 2009 (source data: Eurostat)
- **Net migration:** The difference between the number of persons entering and leaving a country during the year per 10,000 persons (based on midyear population) for 2008 (source data: CIA World Factbooks)
- **Informal work:** Vulnerable employment, total (% of total employment) for 2008 (source data: World Bank)

By applying the k-means clustering method, I have obtained four groups of homogenous countries:

- **Cluster 1:** Hungary, Spain, Estonia, Latvia, Lithuania, Slovak Republic
- **Cluster 2:** Greece, Italy, Poland, Romania
- **Cluster 3:** Cyprus, Denmark, Finland, Germany, Nederland, Sweden, Great Britain
- **Cluster 4:** Malta, Austria, Belgium, France, Luxemburg, Portugal, Slovenia, Bulgaria, Czech Republic, Ireland

The means of variables included in the analysis for each cluster are calculated in the table 2. The differences between cluster means are very high for almost all indicators. By analyzing ANOVA table, where are applied F test for differences between means, I can conclude that for *Total unemployment*, *Female unemployment*, *Young people unemployment*, *Unemployment - primary education*, *Employment (15-64)*, *Employment - aged people*, *Employment – female* and *Informal Work* the differences between groups are significant with a level of significance 0,0001. The differences between groups for the variable *Population (0-15 years)* are significant with a level of significance of 0.1 and for the variable *Net migration* with the level of significance of 0.341. For the variable **Population over 60 years** there are no significant differences between means, the significance level being .792 (Tabel 3).

**Table 2: Final Cluster Centers**

	Cluster			
	1	2	3	4
Total unemployment	14.10	8.10	6.70	7.50
Female unemployment	12.60	9.30	6.20	7.40
Young people unemployment	30.00	23.00	16.00	18.00
Unemployment, primary education	26.00	9.50	9.10	11.40
Employment (15-64)	60.00	59.20	72.00	64.10
Employment - aged people	46.90	38.20	58.30	41.10
Employment – female	63.30	68.40	76.10	70.60
Population (0-15 years)	14.80	14.70	16.80	16.20
Population (over 60 years)	24.40	25.90	25.70	24.70
Net migration	15.70	10.60	-0.80	20.20
Informal Work	8.60	23.90	8.80	10.20

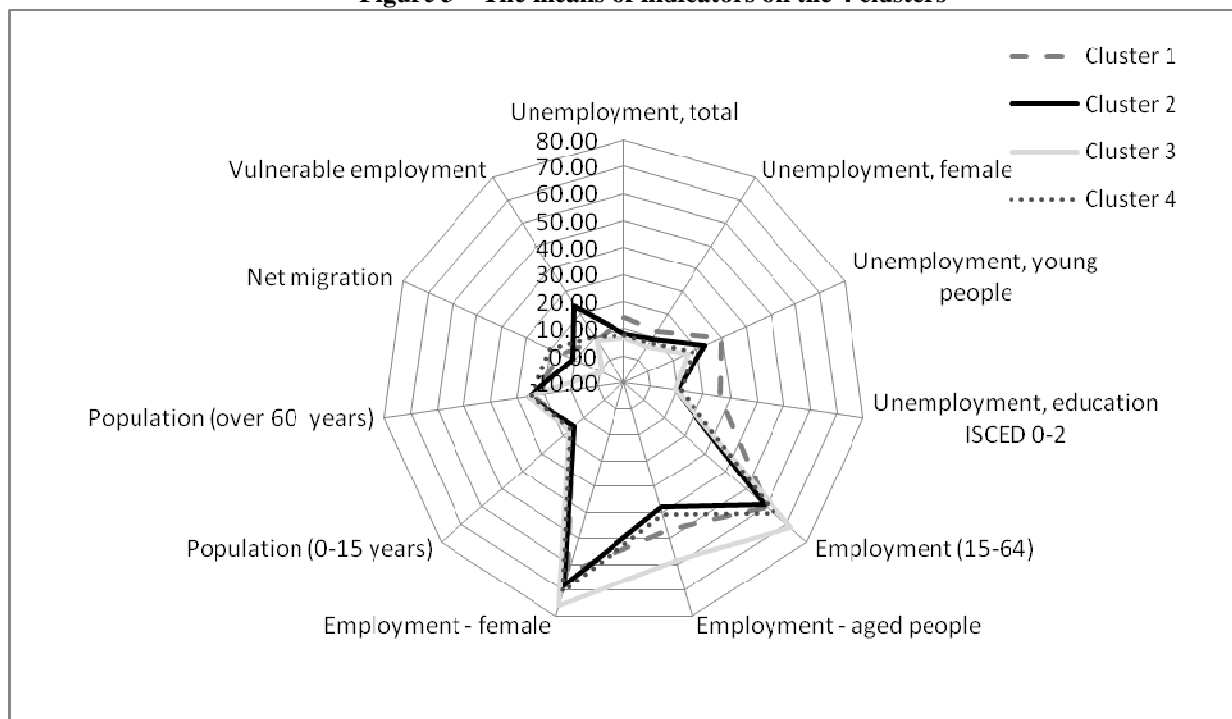
Tabel 3 - ANOVA

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
Total unemployment	72,991	3	4,861	23	15,017	,000
Female unemployment	50,682	3	5,281	23	9,597	,000
Young people unemployment	284,447	3	24,516	23	11,603	,000
Unemployment, primary education	393,283	3	22,749	23	17,288	,000
Employment (15-64)	212,250	3	11,964	23	17,741	,000
Employment - aged people	512,966	3	53,210	23	9,640	,000
Employment – female	179,845	3	12,979	23	13,857	,000
Population (0-15 years)	,001	3	,000	23	2,209	,114
Population (over 60 years)	,000	3	,001	23	,347	,792
Net migration	6,334	3	5,393	23	1,175	,341
Informal Work	245,581	3	14,235	23	17,252	,000

The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

By analyzing each cluster, I have observed that the countries of Northern Europe (Finland, Sweden, Denmark, Germany, United Kingdom), in cluster 3, have a high average for total employment and for the most vulnerable categories of people, the elderly and the females. The unemployment rate is very low both for the whole population and also for the disadvantaged groups. These countries have a high proportion of old population but also the proportion of very young population (up to 15 years) is very high. Therefore, in those states the problems to an aging population will be reduced gradually. Moreover in these countries the net migration is almost zero. Therefore, the balance between those who leave these countries and those who enters into these countries tends to zero. Moreover the informal work is very low. This group of countries could be considered as a model of healthy labor markets.

Figure 3 – The means of indicators on the 4 clusters



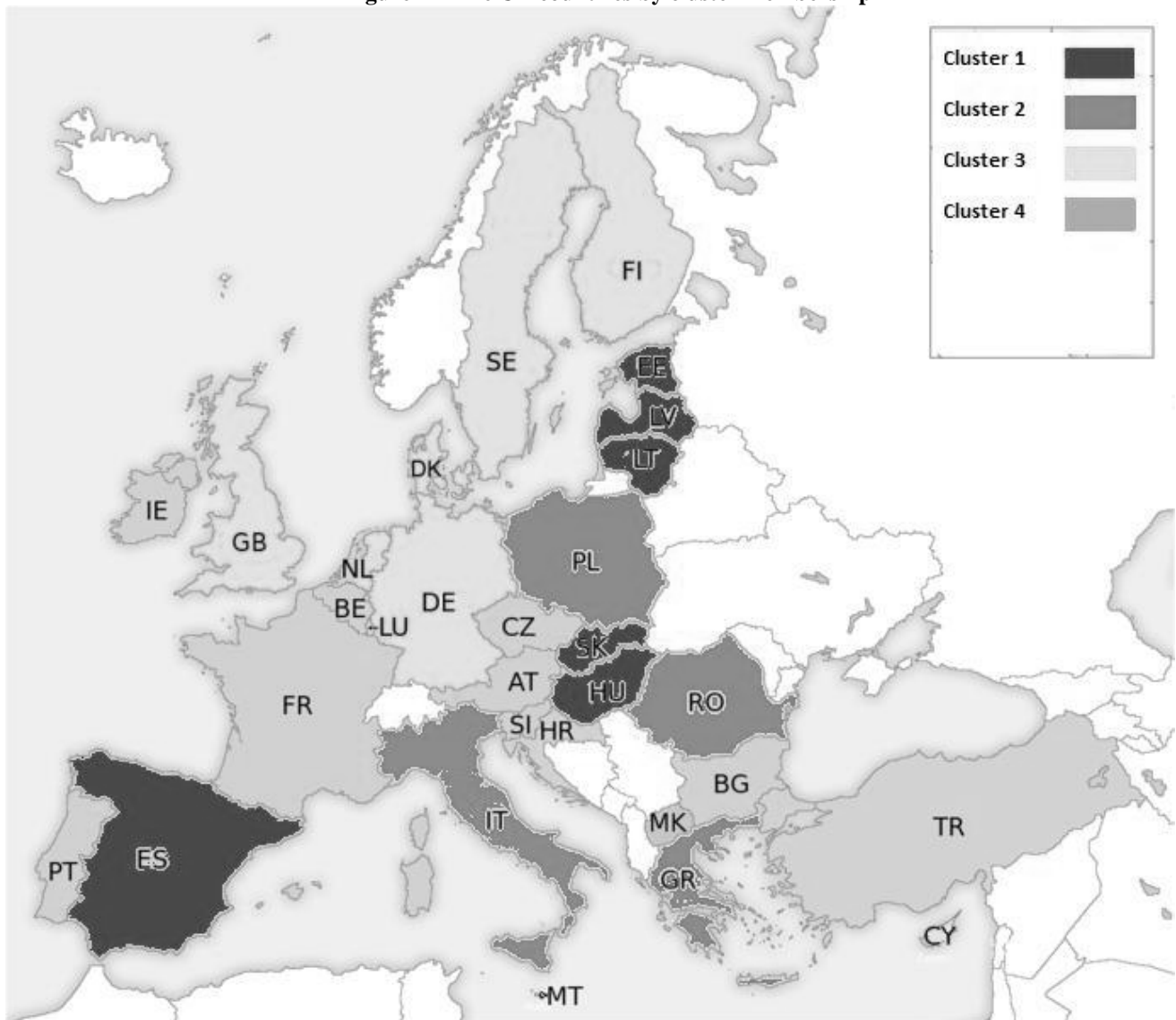
Cluster 2, which includes Romania, Greece, Italy and Poland, is opposed to cluster 3. The employment rate among the elderly is small and informal employment is high. In these countries the proportion of young population is reduced, which leads to the necessity of introducing incentives for formal employment among the elderly, due to extremely high pressure that this category of people will put on social security and pensions system. This group of countries needs fiscal and wages policies to be implemented

such that peoples to be discouraged to work on informal markets and encouraged to work on formal ones. For example, in Romania should be helped the development of businesses in agriculture by financial support and non financial assistance. For those employed formally in agriculture should be offered some financial and social benefices. The second important sector for informal employment is Constructions. By offering assistance and support for businesses in construction, as well as to the final beneficiaries of development and construction works and to employees of construction firms, the informal employment will be discouraged in this sector. Among the advantages that could be offered I should mention: tax reductions for those who made some construction works in their house or built it a new one; tax benefits (tax reductions possibly) progressively by the number of employees; reductions in social contributions and taxes for employees in construction.

In cluster 1 are included countries like Spain, Estonia, Latvia, Lithuania, Hungary and Slovakia, characterized in particular by extremely high levels of unemployment. Young people, especially women and people with low qualifications are particularly vulnerable to this phenomenon. So the main policies to be implemented in these countries are those related to the unemployment.

In cluster 4 are included countries such as France, Ireland, Portugal, Austria, Belgium, all of them countries without major problems in employment and unemployment, but with high levels of immigration. Therefore the main vulnerability of these countries is the integration of immigrants on the labour markets and in society in general.

**Figure 4 – The UE countries by cluster membership**



**7. Conclusions**

One of the consequences of economic transition in Romania was the transfer of a proportion of the qualified workforce to informal work. Despite sustained economic growth in recent years, informal work continues in Romania. Informal work appears mainly in agriculture (in the form of subsistence farming) but also in construction, trade, services, transport, health, education, etc. A very recent OECD (2008) points out that today it represents between 20 and 50% of the population in employment.

The development of businesses in agriculture by financial support and non financial assistance could discourage the informal employment. For those employed formally in agriculture should be offered some financial and social benefices.

Moreover, by offering assistance and support for businesses in construction, as well as to the final beneficiaries of development and construction works and to employees of construction firms, the informal employment will be discouraged in this sector. Among the advantages that could be offered I should mention: tax reductions for those who made some construction works in their house or built it a new one; tax benefits (tax reductions possibly) progressively by the number of employees; reductions in social contributions and taxes for employees in construction.

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## THE CRISIS OF THE ECONOMIC EVOLUTION

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**Abstract:** *In the last 50 years economists, brokers and all people that take part at the economic „game” where misled by the deregulated market and the infinite limit of financial innovation. The crisis appeared from over-trusting the system, but the actual reforms and a proactive management of crises seem to shape the new economy: crisis economics – the new perspective on economic crisis.*

*In this paper the goal is to create the big picture on: market regulation, the evolution of world currency after the crisis and the global administration of the economy and to give general guidelines on the economic outlook.*

**Key words:** emerging economies, financial innovation, global governance, regulation.

**JEL classification:** B22, E32, F01, F41, G33, K23

### **Introduction:**

The concept of economic crisis is found in the Kondratieff cycle. The rational being has the tendency to forget the problems had after a period of prosperity. If the period of prosperity is longer than a decade the greater the fall, because a phenomenon is installed: letting the guard down, similar to sporting events when a boxer who has a physical and psychic, when the superior competitor realizes that his opponent is of a lower caliber he becomes sloppy in his approach and his work behavior, this an unexpected defeat being possible, that can become an ordinary thing on the long term.

It can be considered as part of the economic global “game” the approach of each opponent with the same caution in attention, drawing here a parallel between the global economic life represented through a good regulation of the financial instruments and the stock market. During this paper the phenomenon of post-crisis regulation will be studied, because it is wanted to be observed what was created in the American institutional framework for a safer future from the economic point of view, but the paper will start with the regulation component of the American economy because it represents the epicenter of the 2007 crisis and the rest of the world being effected of its shock waves.

### **1. Regulation – the necessary framework for controlling the market**

This component of the research has in its foundation the differentiation between theoretical regulation and practical regulation, sustaining that practical setting must be done directly and smart.

This regulation can be obtained through a uni-systematization of the market that must be made precisely and clear by only one regulation entities, not by lots of organizations that can assure a better efficiency of markets (especially financial services market). It is wanted to be obtained an efficient audit of regulation entities problematic, underlining the idea that financial services are the problem not their supervising method of appliance.

As a solution of the chaotic evolution of financial services’ market, of the effects’ propagation rifts (the butterfly effect) is stressed the fact that the control of market evolution through efficient money policy can stop the formation of speculative bubbles.

#### **1.1. Free will**

The existence of shadow banking, represented by financial services institutions that are considered of the same importance as a bank, but is based on assumed high risk through derived hedging from instruments based on a big percentage of banking and consulting services.

The same problem found in the US appeared in Romania: the existence of financial services companies that are poorly regulated, these being the entities that represent the exponential factor for the systemic effect of the crisis.

For example, AIG – a leading company from Fortune 500 choose the wrong path for offering financial services and felt in the classic market trap: services differentiation create organizational tension that can’t permit internal supervising and this way small “cracks” appear in its perfect image (Bodislav, 2010) – a law that was underlined two decades ago by Donald Trump through his bankruptcy from 1989 (Trump, 2005).

The solution for the year 2011 of the Obama’ administration was to excessively regulate the banking system and the financial services system through extra-supervising of the business component that exceeds a

given income or of a given value of the cumulated assets of the company, a fact that can be considered inefficient is not regulating low income companies because they can create cumulate into a greater volume that can bring failure to the market (we can consider the financial system similar to CNS – the central nervous system under the Alzheimer illness perspective: banks represent the neurons and the financial services companies represent the synapses, that are affected by the illness and grow into the perturbation or to a low efficiency of the system), but this solution is partially applied today because lobbyists influenced its implementation.

The solution of self-regulation is based on some general principles that represent the solution given by bank' lobbyists to the government, through creating a general framework that can bypass the law through off-shores, different purposes headquarters and by this a possible failure of the self-regulation solution. An over specification of regulations is wanted to be more efficient (the evolution of derivatives instruments regulation codes rose from 700 pages in 1989 to 6000 pages in 2011).

A well known professor Nouriel Roubini from New York University underlines as a solution the introduction of indicators correlated to maximum potential risk (Roubini, Mihm, 2010), but I think that the model brought to market by professor Roubini would be more efficient if a solution that calculates the risk through equalizing the risk of owned assets is factorized with the level of assumed risk.

### **1.2. Applying and coordination**

In the US, the territorial problem arises: the regulation of state organizations and over-regulation of federal organizations. To this problem another problem can be added: choosing a supervisor by the bank, they will have the tendency to choose a lax supervising system, to which the inefficiency of existing private regulating entities is added (that has the tendency to make an economic-efficient arrangement for their own benefit).

As a solution to the supervising organization' problem there are two ways of approach:

- the British solution: the Financial Services Authority (FSA), organization that supervises the banking, insurance, stock values, derived financial instruments and mortgages system, but this solution isn't efficient in the financial globalization framework (Roubini, Mihm, 2010);
- the German solution: the creation of a global super-regulator, similar to European Central Bank in its structure, but without real efficiency in appliance to the European banking market (this solution was offered by the German ministry of finance, Peer Steinbrück, but it has few followers).

### **1.3. Social stimulation versus economic stimulation**

In Ancient times there was the "noble lie" (Platon, 1993) – the guardians are better than ordinary people when it comes to social conduct (they want the growth of the republic not for their own interest, because they are rewarded in their inner self). This solution isn't up to date because in our days self interest is above common sense and financial geniuses want to obtain profit and income at all causes. In the year 2011 the problem of the "noble lie" is linked to the efficient payment of the regulators, which is suboptimal if compared with the financial services companies (for example: Goldman Sachs). A real solution can be considered the idea of hiring persons that lost their jobs during the 2007 – 2011 crisis from the financial services industry and adding an option to their contracts for assuring a good development of the regulation sector by an agreement not to work in the same sector in which they worked for the regulator. This contract agreement was diluted by specialized lobbyists that took part in the election campaign in the USA. This is a ticklish subject because the numbers show inconsistency between the election of Barack Obama (Citigroup, AIG, Goldman Sachs and other financial services entities donated 80% of the total value of Obama's campaign and got 45 billion dollars from the TARP <Troubled Asset Relief Program> a government program initially valued at 700 billion dollars). Here isn't Obama to blame, because the final confrontation with John McCain was evaluated at 1 billion dollars in 2008 (in a distribution of: 10 to 3 for Obama), all the money were obtained through donations (MacAskill, 2008); the same method was approached by George Walker Bush, in the year 2000 (total cost of final confrontation: 528,9 million dollars) when he was sponsored by Enron (deregulated electric energy trader – the biggest stand alone bankruptcy: 65 billion dollars in 2 weeks) and Halliburton (the primary contractor for the US Army) and in 2004 (total cost of final confrontation: 880,5 million dollars) he was given donations for his campaign from Halliburton and United Fruit Company (company owned by George Howard Bush and George Walker Bush, specialized in drilling and petroleum extraction in Texas, Iraq and Afghanistan).

### **1.4. Old habits die hard**

"Too big to fail" – this group was composed by entities like Fannie Mae, Freddie Mac (state-owned company), Long-Term Capital Management (investment fund based on hedging, but that went into

bankruptcy not because of its assets but because of its long terms on investments' maturities – Roubini, Mihm, 2010).

JP Morgan Chase, Bank of America, Wells Fargo and Citigroup absorbed a part of their competitors that were in distress (on long term is possible to destabilize them, because they become geo-economic over-diversified). After going out of supervising through TARP they returned to “self based transaction strategies”.

In case of a new failure there is wanted that a “pre-will” should be established (moral, legal and common sense wishes of entities that are put to practice in case of legal and economic incapacity), similar to the actual American hospital procedure called DNR – Do Not Resuscitate, the patient isn't resurrected, although its relatives demand it, I can add in this case a proactive approach of Chapter 11 (Bankruptcy law in the USA).

The next aspect that was part of the global economic crisis was the competition between specific products of small companies and banking mega-corporations (Citigroup USA or ING Holland). It's known the fact that mega-corporation can't offer at the same costs some niche products, but if this thing would be true, a banking mega-giant can appear that can reach the point of a scale economy and can create in case of failure a global systemic bankruptcy.

Goldman Sachs is one of the few entities that survived the 1929 – 1933 crisis, but they were a spreading factor of the crisis effect (1929) and an innovation factor for financial products (2008) that were the foundation of bankruptcy for banking entities that used hedging on its vertical market (third party supplier, but controlled by clients). In addition to these aspects, a solution is given by braking Goldman Sachs into pieces or into the delimitation of companies through its domain of activity into different entities. By this fragmentation the chance of a monopoly to be created disappears.

### **1.5. Glass-Steagall Act Abrogation**

The abrogation of Glass-Steagall law in the year 1999 through the Gramm-Leach-Bliley Act brought the actual economic systemic failure, because the new law erased the delimitation between sector' activities in which a banking mega-corporation is established. An economy based on services is possible as long as it's efficient supervised, but when an economy based on services that are derived from other services (similar to Credit Default Swaps derived from Credit Default Obligations) is similar to productivity obtained through the probability of continuous win at a casino.

Paul Volcker was granted the support of Obama's administration to stop self executed speculative operations by corporations like Goldman Sachs. The final form of these regulations is still in debate, but because of the powerful lobby the initial solution of Paul Volcker will be diluted.

The famous report contracts – entitled “repo 105” sustain the transfer (credit) for a day of their toxic assets, these contracts are at the foundation of the false continuous health of banking institution (banks transferred their toxic assets for a short period time with an enormous interest rate of 5% for them to have a good evaluation from their auditor). By getting this contracts outside the law and maintaining in its assets in stocks at privately-closed own companies that weren't passed through an Initial Public Offering (in this moment Goldman Sachs owns large participations at un-listed companies and with IPOs that don't have short term maturity, like Facebook [The latest valuation of Facebook is of 65 billion dollars, after an acquisition of 0,1% by General Atlantic Fund on 7<sup>th</sup> March 2011, but in a recent research I've done I evaluated Facebook at 11,8 – 11,9 billion dollars (based on its revenue model and on its way of creating and implementation of innovation)]. The Washington based regulators offer as a solution to the shadow banking system the creation of specialized banks.

### **1.6. The speculative bubble or the lost decade**

The savior of the dot.com bubble was Alan Greenspan approached the compressed American economy by cutting the interest rate from 6,5% to 1% in three years (2001-2004), stopping the effects of the dot.com crisis, but by fuelling the real estate bubble, that blew into the financial catastrophe from 2007-2008 (high flow of cheap money in the market).

Fed's attitude all these years brought to market the speculative bubbles through laissez faire, by being their supporter through the flooding of the system with cheap money and by not regulating the financial system (for example: the system for mortgages approval).

## **2. The United States of America, the epicenter of the shock wave**

The 2<sup>nd</sup> part of this paper has as purpose the showcase of the dollars inefficiency as global exchange rate and the passing of the US from global sponsor in the opposite camp. The American Century will be continued by the Chinese Century (this moment was forecasted through the passing of the American GDP by

the Chinese GDP in the year 2030). The global debt of USA reached 14000 billion dollars, from which 5000 billion are owned to China. The nonlinear roll-over of USA's debt can lead to default. The solution overseen by the American government and Fed, through its president, Ben Bernanke, is to print money, the initial plan was to print 600 billion dollars (5 billion per day for 120 days, between November 2010 until March 2011), but the plan was changed, the printing is in execution (at least for another 20 to 40 days), the catch is considered to be the fact that inflation will be exported from the US, and this way the purchase power won't be affected.

### **2.1. The world's most expensive wedding**

My personal description of the relation between the US (the world's largest economy) and China (2<sup>nd</sup> largest economy) can be compared as a relation between husband and wife. The husband is the one that saves money (China has a savings margin of 0,6 – 0,7) and is the one at whom the wife appeals to (USA has a savings margin of 0,2 – 0,3, but because the large portion of FDI, the consumption margin cumulated with the investment margin sum-up to more than 100%, the difference being supported by China), USA's spending are bigger than what it can afford from its own budget, the funds obtained through personal borrowing (external loans on short and medium term – these being covered through temporary banking relations) to whom the husband's (China) funds are added.

### **2.2. The "global" account**

The current account includes the trade balance and the clearing between external and internal payments made by residents and non-residents, to which is added the amount of money sent by foreigners into the country (for example: the Philippine babysitters are found around the globe or like Romanian workers that work in real estate – constructions and agriculture that send money to their country of origin).

In the year 2010 China's current account' surplus reached the record amount of 1800 billion dollars despite Japan which reached a surplus of approx. 590 billion dollars, this difference being more than sufficient for the Popular Republic of China to top as the 2<sup>nd</sup> world's largest economy.

The current account can be expressed as the difference between savings and investment. Spending is fragmented in two segments: consumption and the component that remains for savings. If the difference between savings and investment is positive, this amount is going to be exported.

When a deficit of current account exists, it is financed through debt securities, that are bought by other countries, they are investing in the host's country' economy, but they could have invested in real estate or in plants development in another country (Volkswagen in Mexico, BMW in USA and China, Mercedes in USA, Peugeot in Romania, Ford in Romania, etc.), for real estate we have a negative development for northern Europe's countries, especially Island which went bankrupt and, now, under fiscal administration of the Russian Federation by buying-out their tax deficit in the year 2010 and starting from the fiscal year 2011 all budget incomes are transferred to the Russian's Federation current account.

### **2.3. Emerging Economies Development**

The relation between emerging economies – developed economies is based on the relation between deficit/surplus, the surplus being invested in emerging economies. The money flow in an emerging economy can destabilize the country and can accelerate private consumption and investment, pushing inflation and the current account deficit to high values. There is a law in physics that sustains that in each body in which is inserted a high volume of matters creates pressure that can exceed the physical properties and create a rupture in the entity (the speculative bubble burst).

Foreign financing can be beneficial if they're strictly used for investment not for wage and pension spending (the partial case of Romania), if this situation isn't respected can lead to less or non-financing from developed countries. Russia (1998), Ecuador (1999) and Argentina (2001, 2002) came into default which lead to the fall of their currency because of the foreign investors that liquidated their positions in to the local economy by flooding the internal market with local currency (Roubini, Mihm, 2010).

The savior of default economies was and is the International Monetary Fund (IMF) through bail-outs (Roubini, 2004).

Emerging economies followed the course of accumulating monetary reserves to appreciate their currency. For economies with a big volume of exports and which have a current account surplus, the appreciation of its own currency can lead to the decrease of internal products competitiveness on the global markets, but they can maintain a competitive currency rate by hedging through foreign exchange. China is the biggest beneficiary of its trade surplus and of its undervalued currency (China's Yuan is valued at 60% of its real market value).

The FED underlines that the high saving margin of the Asian countries creates great instability on the market because these money are invested in a large amount in the US, and they use it for increasing its



consumption. This causal relation is similar to the relation between drug dealers from Columbia and the consumers (the suppliers aren't guilty for dealing drugs but the clients because they demand it).

The current account deficit emphasized through the 2001 fiscal relaxation of George Walker Bush's administration after the fiscal system was developed by the administrations of George Howard Bush and Bill Clinton. The system was wanted to be normalized by Barack Obama's administration through tax increases, but the qualitative inconsistency of the act lead to its rejection by Congress and the extension of George Walker Bush's fiscal system for at least two years.

#### **2.4. The future seen through the past**

During the last two decades the FDI that entered the USA had a chaotic evolution and had its peak in the year 1990 of 300 billion dollars. Foreign investment in the US covers half of the Treasury Bills and bonds that are circulating, two thirds are controlled by Central Banks and investment funds. FED's problem isn't the evolution of bonds and bills' yields but the gap until their maturity, the average maturity subtracting from 60 months to 50 months, stressing the distrust in the American economy on medium and long term. This fact can represent a possible devaluation of the US dollar in some given condition.

These capital holdings in the USA are kept intangible for a while, but after reaching a peak of investment the will to own tangible production, distribution or creation assets to guarantee a profitable position in front of a possible devaluation of the US dollar. This guarantee is created through direct market acquisitions, but in which the USA is characterized through entry barriers and imposed geographical conditions (the acquisition of Unocal by China National Offshore Oil Corporation and of some US ports by Dubai Ports World being rejected for geographical reasons). These protection methods can't last for long because China (or Dubai) can stop financing that would provoke the failure of the American economic system and would provoke great damage to the global economic system through globalization's levers.

Germany, France and Japan can be the exponents of global economic health through the introduction of accelerating measures for structural reforms to raise investment, productivity and development reducing this way the current account surplus. The same situation is valid for Saudi Arabia too, but this is a special case because they have as leverage changing petro-dollars into petro-Euros, fact that would send the US dollar into flow incapacity (an inert system is a dead system). These reforms can directly help PIIGS (Portugal, Ireland, Italy, Greece and Spain) the supply and demand found on the market can grow and diversify their economic relations.

#### **2.5. The short way down**

The US dollar started to lose credibility when President Richard Nixon revoked the US dollar – gold convertibility engagement (1971), this way the Bretton Woods Act was annulled. Although the US dollar is still the world's currency, this way global disequilibrium are fed, but from 2001 when the US dollar represented 70% of world foreign exchange, but at the start of the year 2011 the percentage was of 35%, the difference is represented by the euro, Yuan and gold replacement of the US dollar. Before the US dollar as global foreign exchange there was the British pound that was the world's economic banner and after the fall of the British Empire, it lasted longer than the Empire. It looks like the same historic course is taken by the US dollar and in short period of time will be replaced by another global currency.

#### **2.6. The long way up**

The ideal candidate for replacing the US dollar is the Yuan (or remimbi). The British pound, the yen and the Swiss franc can't resist the global pressure and the euro has multiple deficiencies (divided views and an ageing population).

Gold rise in value on the foundation of fear and restlessness that draw the future, and this future can't create flow but only stock (low liquidity) and it isn't practical because it is difficult to store, this way the Yuan has a clear path for becoming the new world foreign exchange. The first step was to use it for regional trade relations and for signing exchange agreements with countries from South America.

At the same time with the raising importance of the Yuan it will have to be taken in consideration when the Special Drawing Right is created (multicurrency basket used by the IMF, which includes: dollar, euro, yen and sterling pound), the Chinese governor, Zhou Xiaochuan underlines the idea that the new SDR (which includes the Yuan) can and must be the new global currency, this way mr. Xiaochuan adapts the idea of J.M.Keynes of a global currency – the "bancor" and in our case the SDR. For the SDR to be considered as a potential candidate for the position of global currency, its regulator and creator must be reformed – the IMF.

#### **2.7. The global governance**

Rethinking G7 through the pressure created by BRIC (Brazil, Russia, India and China – in some cases from Harvard Business School we find this abbreviation as the BRICK, the K stands for South Korea),

new members are evaluated to get into the G7/G20 or extended group: Brazil, Indonesia, South Africa and others. They will enter in the IMF framework too, but this structure isn't equitable (for example: China, India and Brazil have with 19% less vote power than Holland, Belgium and Italy, although they have a population 29 times bigger – this being one of the examples that stress the idea of reform in the IMF structure).

The IMF is an independent entity that succeeds in offering loans with small interest rates, but which are variable depending on the evolution of the borrowed country. Two years ago the IMF created a new product for their “customers” for the global smooth evolution: the FCL (Flexible Credit Line), Romania being one of the recipients of this credit line (to which was added the stand-by credit line). By creating 250 billion US dollars worth of SDRs in 2009 and 2010 is created the possibility to introduce a new global currency that can replace the US dollar, these being the first step in the line of many others to come.

### Conclusion

The reforms must be loud and clear, until now those were insufficient to restart the global demand (the emerging economies need last instance borrowing to decrease the need for a global currency). On the supply side the global assets mustn't depend on the US dollar and the SDR can play an extended part in the economy, but not a primary part in the economy because of the still powerful US dollar, that can only be influenced by the twin deficits or by a long lasting period of money printing by the FED.

The economy of crisis can be seen as a new type of economic thinking that includes the appearance, the installment and the denouement of a crisis similar to a role play. This is based on the idea of global cooperation between developed economies and emerging ones for a common goal: protection against future crises that are going to be born from the ashes of the 2007 – 2011 crisis and from speculative behavior of some banking and banking services/instruments companies which will lead to rare condition for new crisis that need proactive planning for the prevention, systematization and perfectly molded defense entities for regulating and supervising the global financial system.

### Acknowledgments

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# THE CHANGES OCCURRED IN THE GLOBAL FINANCIAL ENVIRONMENT AND THE EVOLUTION OF THE CAPITAL FLOWS IN THE CONTEXT OF THE INTERNATIONAL FINANCIAL CRISIS

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**Abstract:** We find that we are witnesses to the most ample, complex and controversial phenomenon of all times, because few areas of our social life can escape the influence of the globalization process. As a consequence of globalization, the global financial environment has known a profound, essential transformation being represented by the amplitude of the capital flows, the complexity and the speed with which transactions are made between the actors of the market, as well as the diversification of the financial instruments. Referring to all these changes and evolutions, the present paper aims to carry out a research on the changes occurred in the global financial environment, and mostly an analysis of the main capital flows' evolution and the manner in which the main financial institutions are involved in management of the current crisis.

**Key words:** financial globalization, international financial flows, financial crises

**JEL classification:** F 30, G15

## 1. Introduction

Although, at the current time, the concept of financial globalization or globalization of the international capital market is used, on a large scale, despite a vast and continuously increasing literature, we cannot say that there is a solid theory of the financial globalization process based on a systematic analysis of its defining characteristics.

Moreover, few studies about globalization offer a presentation that would distinguish between the immediate or transitory events and those developments that signal the existence of a market position that is a transformation of the nature, shape and perspective of the world economy. At international level, there are numerous studies that have tackled, in a different manner, the globalization process in general and the financial globalization in particular, studies that have caught mainly the positive evolution of the international capital flows on a pretty vast and unprecedented period marked by the spectacular increase of the international capital flows.

At the present time, in the context of the current crisis, the capital flows have changed their direction and structure; the sudden modifications of these flows have determined serious imbalances, in the entire global financial system, bringing the states –perhaps - in the most serious crisis the humanity ever dealt with –more serious–perhaps- than the Great Depression from 1929-1933. (Porter, P., 2005)

The existing literature does not offer sufficient data-or better said- does not offer complete data concerning the contemporary financial globalization, because at the current date, the international markets, but especially the national ones deal with numerous uncertainties, due to the fact that the capital flows are continuously changing because of the extent and the depth of the world financial crisis, especially at European level. The specialty literature in this area presents a process in continuous evolution whose effects are hard to anticipate, on a short term, and especially on the long term.

## 2. The characteristics of the global financial environment

The great financial market, from today, must be analyzed, firstly by pointing out the stages and different degrees of integration, respectively the directions that this process has followed. In this sense, we distinguish, the initial stage, characterized by an indirect integration process through Euromarkets and, subsequently, the direct integration process, represented by the bank transnationalization and the global finances.

Thus the financial globalization marks out the expansion and the intensification of the financial capital flows, at global level, through some specific actors and institutions. (Isard, P., 2005)

If we want to understand how these international capital flows take place, we can achieve that on the base of a comparison with the international trade operations in which the participating economic actors are the importers and the exports of goods and/or services.

The capital market liberalization and the economic integration of the developing countries have generated the increase of the importance of the emerging capital markets, at a world level. According to the classification made by the International Finance Corporation, the emerging markets are those capital markets that have a decreased percentage of stock market capitalization of GDP, approximately 30%-40%, in comparison with the developed countries where the capitalization is of approximately 70-80% of GDP. On the other hand, World Bank identifies 155 emerging countries that have 85% of the total population of the globe, but only 21.7% of the world GDP. (World Bank, 2007)

Taking into consideration the percentage of stock market capitalization of the GDP, as well as other efficiency criteria concerning the market volatility, information asymmetry, the profitability and the risk of the capital placements and the transaction, the capital markets are divided actually, in three important categories: developed markets (mature), emerging markets and "frontier" markets which are practically non-existing or ineffective.

The intensity and the increasing extension of the financial global capital flows together with the tendency towards the liberalization of the national financial markets, the absence of national control over the capital and the passage to the floating exchange rates suggest a change in quality which determines a more intense financial integration. (Carmen, Boghean, 2009)

The new form of capital flows and their more and more frequent use of international financial intermediaries represent two of the most important events of financial globalization today. The globalization of the capital flows from this period represents a new distinctive stage in the organization and management of finances, in world economy it transforms the conditions in which it is decided the immediate and long term development of the states from the entire world. (Levinson, M., 2006)

The financial globalization or the financial capital's globalization had both benefits and risks. These risks might appear, firstly, on a short term, when the countries open up to the global market, and a well known risk is that globalization may have a connection with the financial crises.

### **3. The evolution of the international capital flows**

During the last twenty years, until the start of the current financial crisis, in 2007, the international capital flows had an intensive and extensive unprecedented development.

The transaction cost diminished, significantly and the attraction of financial capital determined the manifestation of a more and more intense international competition. This unprecedented evolution of the trans-frontier financial flows was interrupted by the occurrence and start of the current crisis that influenced significantly the volume and direction of the flows' orientation at a global level.

The current global financial crisis had an important impact on the net capital flows of the developing countries, in 2008, especially after the collapse of the American bank Lehman Brothers, in the month of September of the same year. Also, the financial crisis has severely limited the access of the developing countries to the international financial markets, because the investors have abandoned the markets of the developing countries for what they perceived as more sure securities.

The net private capital flows to emerging economies, of which 30 larger developing countries and transition economies have decreased suddenly at the end of 2008 and the beginning of 2009, after which they recovered in a certain extent. After reaching, before the crisis, in 2007, the maximum level of the last years, the flows were reduced to half in 2008, and afterwards they decreased even more in 2009, with a slight recovery in 2010 (World Bank, 2010)

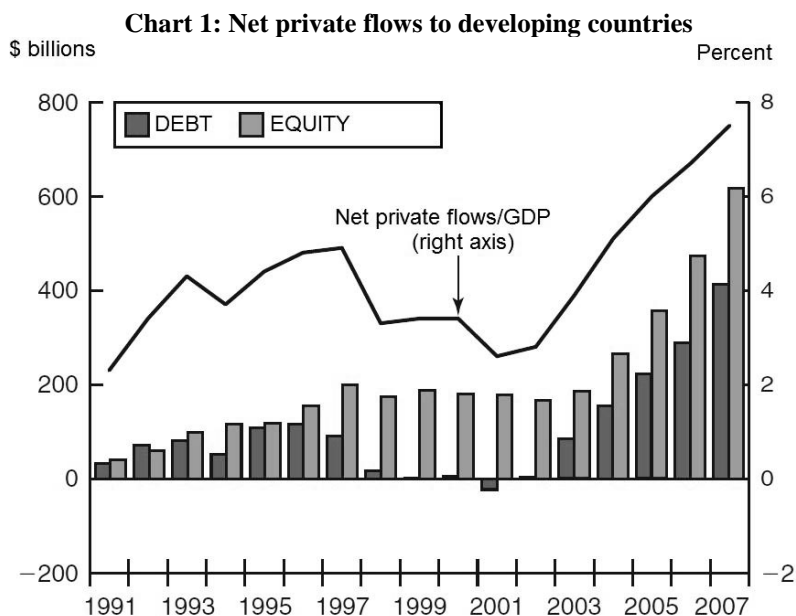
Analyzing the evolution of the international capital flows before, but especially in the context of the current crisis, we can estimate that the impact of the current crisis was much more profound and ample than the previous crises. The crises from the developing countries from the last 50 years have affected, mostly, only a small number of countries that faced certain imbalances, but the current crisis took over the entire global financial system, due to the financial connections that exist between the states of the world.

The current financial crisis has influenced the volume of the international capital flows but especially, the orientation direction of these trans-frontier flows, the investors, often withdrawing from those markets considered insecure to markets that can offer sure investment opportunities.

After a long period of global economic growth and intensification of the international capital flows nothing seemed to perturb this trend, although there were some signals. The capital inputs oriented towards the developing countries reached a new record in 2007, marking the fifth consecutive year of large earnings.

But, the current period of radical reduction of the capital flows was preceded by a long period of intense financial activity, at global level. (World Bank, 2008)

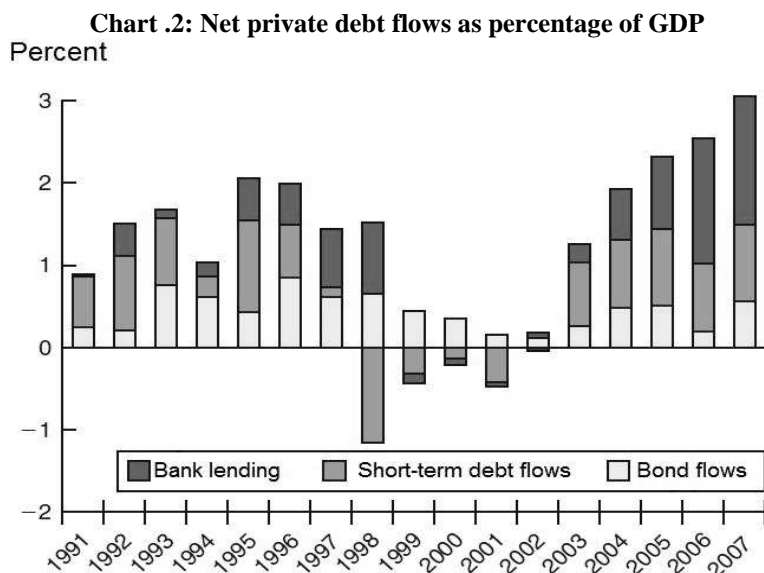
The rapid increase of the private capital flows was reflected in the large earnings of own capital component and the debt component, especially in the last part of the year 2007 (chart no. 1.).



Source: the author's own processing according to the dates of the World Bank Report, 2008 concerning the External Debt Reporting System

The net private capital flows (foreign and portfolio investments) have reached approximately 616 billion dollars in 2007, the equivalent value of the record of 4.5% of the world GDP, which grew from 4.1% in 2006. (International Institute of Finance, 2008)

The evolution of the private debt flows, in 2006-2007, was concentrated in the net bank loans (chart 2), which represented over half of the net private debt flows from 2007 increasing from less than 40% from 2004.

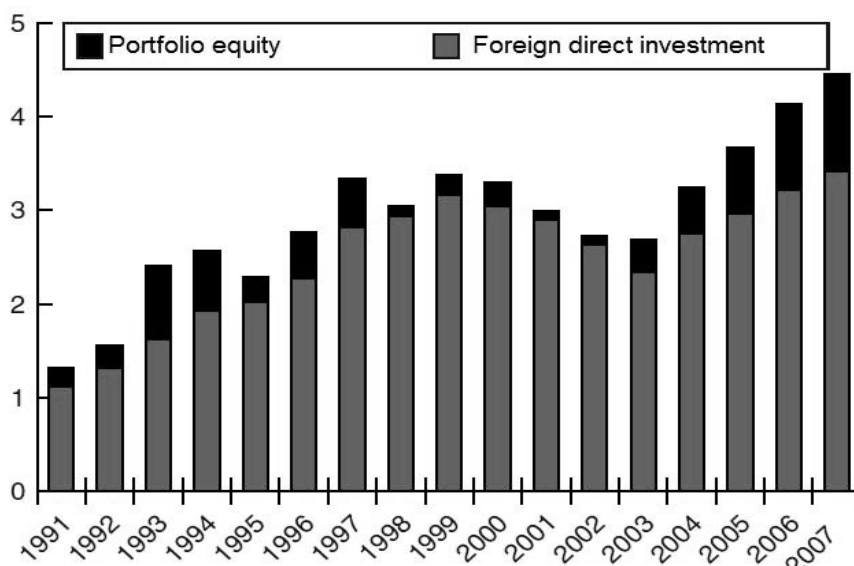


Source: the author's own processing according to the dates of the World Bank Report concerning the External Debt Reporting System

The payment of the trans-frontier loans by the commercial banks reached 58 billion dollars in 2007, reaching a record level of 455 billion dollars, with large earnings in Eastern Asia and Pacific (23 billion \$), Southern Asia (21 billion \$), and Sub-Saharan Africa (14 billion \$), these earnings being compensated by the decline of 8 billion \$ from Europe and Central Asia.

The Foreign direct investments (FDI) are those that supported in great extent, the capital inputs, although at a more reduced level than in the previous years (chart 3.).

**Chart no. 3: Net own capital inputs as percentage of GDP, 1991-2007**  
Percent

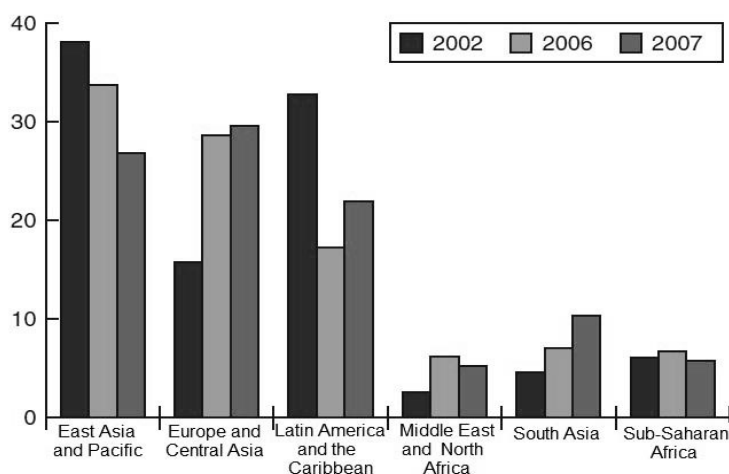


Source: the author's own processing according to the External Debt Reporting System, of World Bank, 2008

From the analysis of the chart we observe that the portfolio capital flows played a more important part, in the last years, representing 20% of capital, in 2005-2007, a much higher percentage than the insignificant one, registered in the period 2001-2002.

Latin America and the Caribbean had the biggest increases of capital flows, the percentage increased from 17 to 22%, between 2006 and 2007, which represented an overthrow of the usual trend (chart 4).

**Chart 4: Net own capital flows to developing countries, on regions**  
Percent



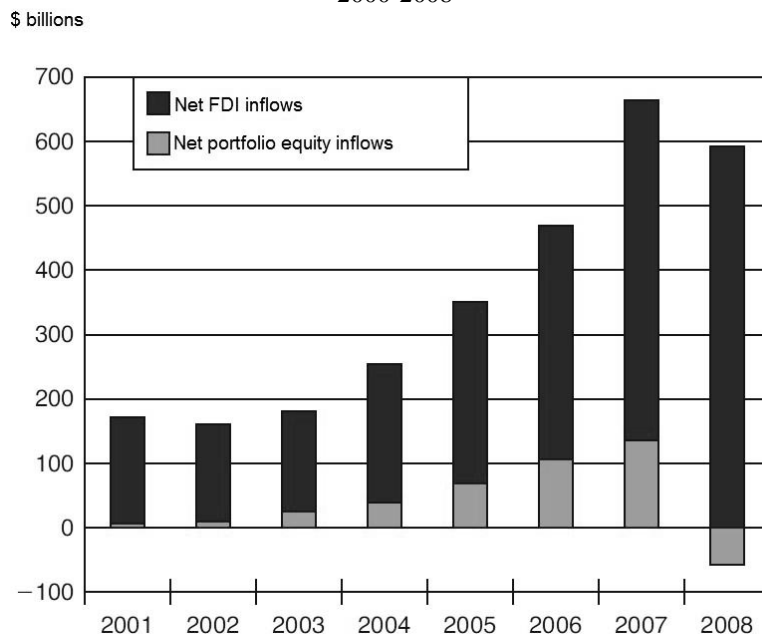
Source: the author's own processing on the basis of the dates from the international financial statistics of IMF, for 2008

Analyzing the chart above, we can mention that despite the recovery from 2007, the percentage from these regions represents only half of the percentage from 10 years ago, when the number of shares that entered Europe, Central Asia and Sub-Saharan Africa was doubled. (International Monetary Fund, 2009)

The current financial crisis has produced major changes concerning the volume of the flows traded on the international financial markets, and especially the orientation direction of these flows.

The own capital inputs (direct and portfolio investments) have a total of 536 billion \$ in 2008, with a decrease of almost 19% from the value of 664 billion \$ registered in 2007. (World Bank, 2008)

**Chart 5: Net own capital flows to developing countries 2000-2008**



Source: the author’s own processing according to the estimates of the IMF and World Bank

The developing countries tried a certain degree of resistance to the new crisis in the first half of 2008. Their stock markets joined those from the developed countries reducing with approximately 40%. (chart 6).

**Chart 6: MSCI index 2007 - 2009**

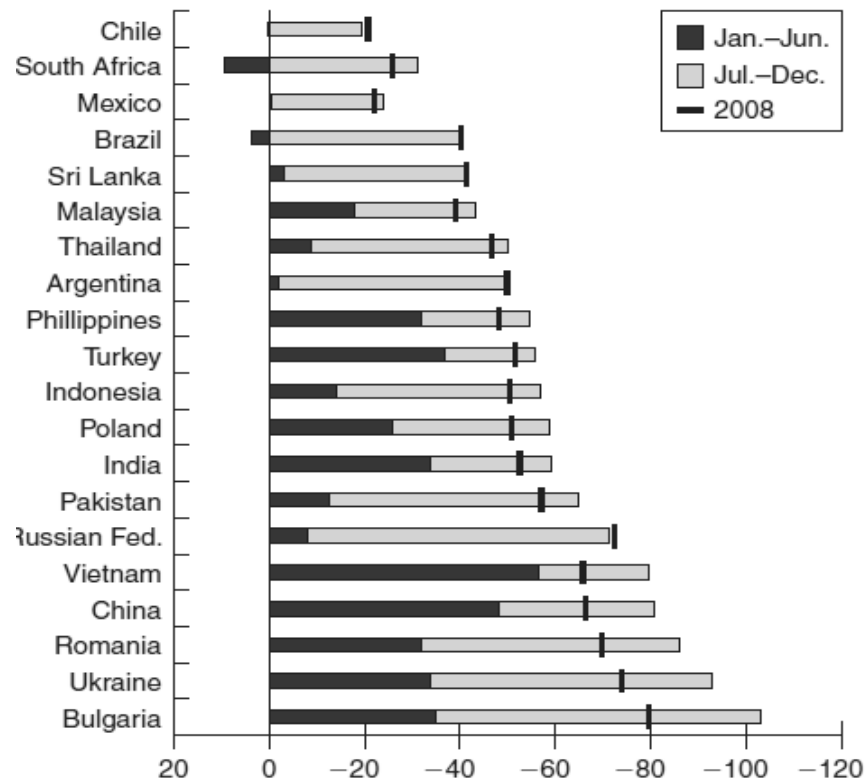


Source: the author’s own processing on the basis of the World Bank Report data, 2009

As we can notice from the chart above, the decrease of the share prices was noticed in the beginning of 2008, becoming more intense in the month of September of the same year.

The impact of mass sales from the local stock markets was pretty strong, in the developing countries, but they were affected differently (chart 7).

**Chart 7: The decline of the developing countries’ stock markets**



Source: the author's own processing on the basis of the World Bank Report, 2009

On the basis of the chart above, we observe that the stock markets from Brazil, China, India and Russia have undergone the biggest declines from 2008. Russia was the weakest actor from the four, reaching a decline of 72.5% in national currency. (World Bank, 2009)

While the world economy began a slow recovery, we observe, also a slight improvement of the transnational corporations' business environment.

This can be pinpointed by the fact that after a sudden decrease, in the beginning of 2009, the profits are returning, progressively to levels close to those before the crisis. The available data suggests that there isn't a clear dynamics for the ISD flows in 2011. (UNCTAD, 2010). The mergers and acquisitions which were a main stimulant of the ISD flows, in the last years, registered a large earning in the first quarter of 2010, earning that indicated a potential increase of the ISD flows, for the entire quarter. However, a slight decrease of the number of Greenfield projects shows that the transnational companies continue to remain, very prudent concerning the international investments programs.

#### 4. The role of the international financial institutions in the management of the current crisis

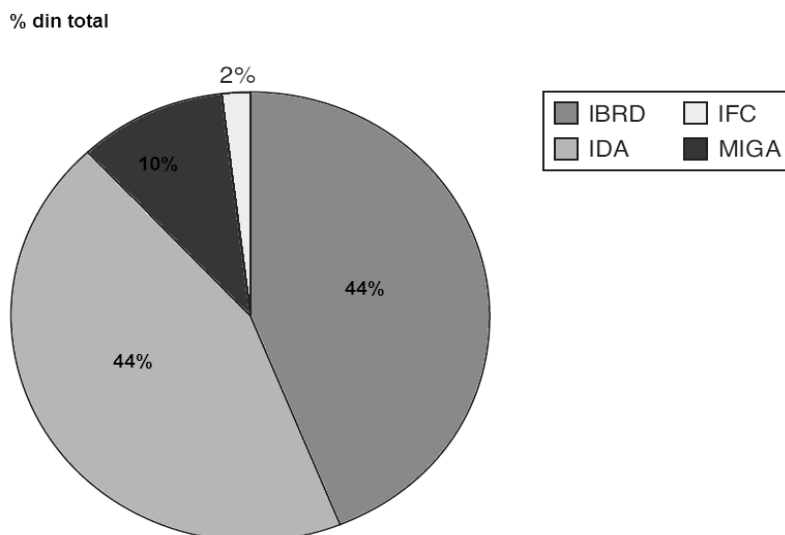
The financial institutions, by the internationalization of the financial services, are, also, a force of action of the financial globalization. The changes that took place, at global level, in developed and developing countries as well, explain the role of the financial institutions as its force. (International Monetary Fund, 2000).

The uncertainties concerning the identity of the financial institutions with high exposure to risk and potential impact of the losses have created a volatile financial environment, determining massive sales of the risky assets, on the developed and emerging markets. At the same time, the important financial institutions that registered major depreciations, have limited the loans in order to re-establish the economic balance.

The World Bank Group represents a major source of finances for the developing countries. Its member institutions – IBRD, International Development Association (IDA), International Finance Corporation (IFC), and MIGA (Multilateral Investment Guarantee Agency) – have used over 40 billion, in 2008, in order to help the developing countries, in the struggle with the world economic crisis, a record for the institution (chart 8).

Chart 8: World Bank Group Opening, in 2008, on type of agency



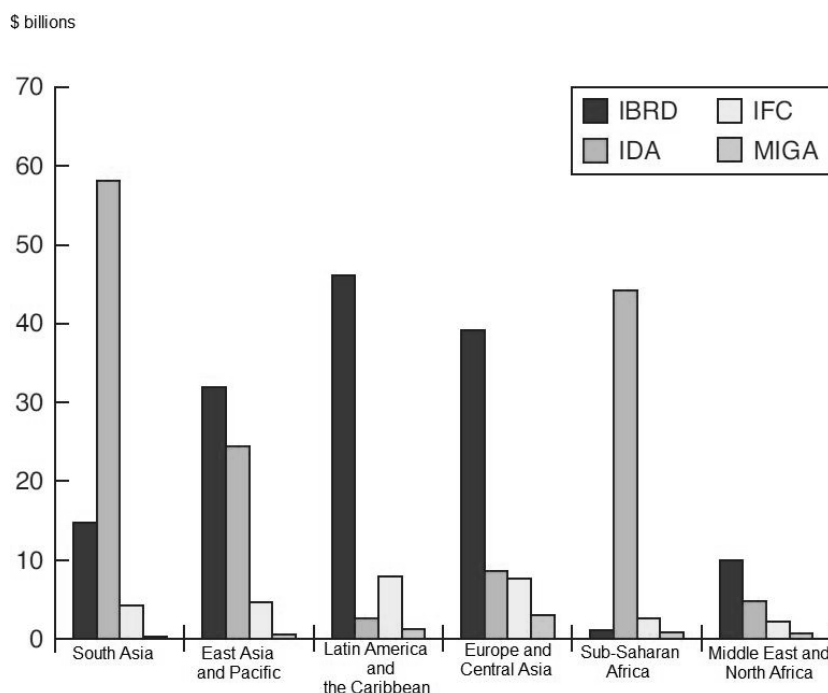


Source: the author’s own processing on the basis of the World Bank Group data, 2010

Latin America and the Caribbean region receive the biggest quota of financing (IBRD), being followed by the countries from Europe and Central Asia. The International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA) are active, in all regions, but are focused, on one hand on Latin America and on the other hand on Europe and Central Asia.

These two regions together benefited from 53% of the financing portfolios of IFC, respectively 67% from MIGA’s (chart 9)

**Chart 9:** World Bank Group Opening, in 2008, on regions



Source: World Bank Group, 2009

The net flows to the developing countries and the transition economies have increased in 2010, because the International Monetary Fund (IMF) but other international multilateral financial institutions have improved, significantly, the volume of financial resources and have started to distribute credit. Emerging Europe has received the largest part of these official flows. (UNCTAD, 2010)

Also, it is crucial that the International Monetary Fund (IMF) monitor the economic and financial evolution of the member states, its role, being significantly modified, lately. If, in the past IMF has as sole

goal granting financial assistance to countries in difficulty, at the present date, it fulfills another role: that is to monitor and coordinate the implementation of the economic and financial policies in the member states,

Resorting to IMF, the international creditor of last resort has to major disadvantages: the fund's interventions require increasing sums, which the organization does not have, and secondly, IMF has to handle the crises that arose in several parts of the planet, as is the case of the current global financial crisis. Thus, IMF's 'gendarme' role is more and more questioned by the structural character of the crises and their multiplication in several countries at the same time.

For the attenuation of the crisis we need a delicate two-phase maneuver, similar to the one undertaken by the authorities after the collapse of Lehman Brothers. First, help Europe surpass its difficulties and then revise and strengthen the structure of the euro.

## 5. Conclusion

At the current date, we are assisting to a radical decrease of the international capital flows, decrease determined by the turbulences that occurred at global level, once the current economic and financial crisis started in 2007. We are assisting, perhaps, to the most profound financial crisis that perturbed the world, both from the point of view of the money losses that it caused and especially the number of countries affected.

In the current general context, in 2011, most international investors remain pretty reserved concerning the investment possibilities and the placement of their capitals, due to the existing uncertainties on the international financial market but especially of those from these countries, which represent a main destination of the international capital flows.

The sound macroeconomic and financial principles are the key factor in the decrease of the crises' probability and contagion and in their efficient management. Crises prevention should be one of the main objectives of any strategist, especially due to the high cost that it supposes. This is even more important in a world of free capital mobility, because both the foreign and the local investors impose discipline on the market due to the fact that the contagion effects of a crisis can be felt both at internal and global level.

Although, at the current date, the total impact of the current crisis is not yet visible, because the current crisis does not seem to be over, almost all developing countries and even those with a high income have suffered an accentuated decrease of the capital flows' volume affecting the level of their development for many years from now on.

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# CONVERGENCE OF CENTRAL AND EASTERN EUROPEAN ECONOMIES TO WORLD MARKETS FROM PURCHASING POWER PARITY PERSPECTIVE

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**Abstract:** *This paper examines a heterogeneous group of 12 Central and Eastern European countries with common history and common goals – convergence into European market and European Monetary Union. The analysis relies on data covering the period of January 1994–July 2010 and uses a set of first generation panel unit root tests, which is based on the cross-sectional independency hypothesis. The results show that the observed economies are highly integrated into Euroarea market since the validity of purchasing power parity was confirmed for the case of EUR, while there is no evidence for the theory to hold in the case of USD.*

**Key words:** convergence, purchasing power parity, real exchange rates, panel data, unit root tests

**JEL classification:** C33, F31, P22

## 1. Introduction

The growing literature on purchasing power parity (PPP) concept testifies about the tremendous implications of this theory for the modern international macroeconomics. Basically, the theory suggests that in case of absolute PPP the exchange rate equals the relative price level between countries, whereas in case of relative PPP the exchange rate movements equal the difference between the relative price level shifts. In practice, the relationship between the exchange rate and price movements as well the detected presence or absence of PPP is an empirical puzzle. Due to relatively high real exchange rate volatility, the majority of researchers are concentrated on the question of whether PPP holds in the long run (Taylor 2006). The second important empirical challenge is to evaluate short-run deviations from the PPP relationship. In this paper, we are testing the long-run PPP by investigating unit roots in panel real exchange rates for 12 Central and Eastern European (CEE) economies.

Among experts there is a growing consensus that real exchange rates of CEE economies were affected by various macroeconomic shocks and structural upheavals. In the beginning of the nineties mainly by rapid price liberalization, foreign trade opening and the process of privatization, thereafter by the weakening of countries' export competitiveness, by the monetary problems of excessive capital inflows, and lately additional changes were provoked by productivity gains due to economic restructuring. The relative (in)stability of real exchange rate movements in these countries has also been frequently explained by mixed performance of chosen exchange rate arrangements, by the inflationary impact of wage and price adjustments, and by real exchange rate appreciation due to the catching-up process (Égert et al. 2006). The institutional transformation that has been carried out by these countries is also thorough (convergence into European market and European Monetary Union) and might influence these economies' real exchange rates.

Not unexpectedly, therefore, that in the last few years there is an increasing number of studies which test the validity of PPP hypothesis for European transition countries. Varamini and Lisachuk (1998) analyze the case of Ukraine for the period 1992–1996 and gain evidence in favour of PPP, despite some short-run deviations. Christev and Noorbakhsh (2000) scrutinize six Central European Countries (Bulgaria, the Czech Republic, Hungary, Poland, Romania, and Slovakia) in the period from 1991 to 1998. They find moderate evidence of long-run equilibrium of prices and exchange rates, but conditions for the law of one price are violated. No support for PPP theory is gained by Pufnik (2002) and Payne et al. (2005) after examining the Croatian economy. The theory has also been tested by Barlow (2004) for the Czech Republic, Poland and Romania using Johansen cointegration tests, but the conclusions for the time period 1994–2000 are heterogenous regarding different combinations of the exchange rates of selected countries. Sideris (2006)

operates with quarterly data (mainly for the period 1992-2004) of the 17 European economies in transition and finds support for long-run equilibria, but, again, the coefficients of the estimated cointegrating vectors conflict with the assumptions suggested by PPP. Contrary to previous studies, Solakoglu (2006) has demonstrated that PPP holds for 21 transition countries when panel unit root tests are carried out on 12 years of unbalanced annual data. Koukouritakis (2009) examined the validity of PPP for 12 new EU countries by Johansen cointegration methodology. The author concludes that the long-run PPP vis-à-vis the Euro-zone holds for Bulgaria, Cyprus, Romania and Slovenia. The stationarity of real effective exchange rates is confirmed in 9 out of 12 CEE economies in the study of Telatar and Hasanov (2009), where structural changes and nonlinearities are explicitly considered in the testing procedure. Various sources of nonlinearities are also examined by Cuestas (2009), but the results of unit root tests are dependent among others on the selection of the numeraire currency. Recently, Kasman et al. (2010) found evidence on stationarity of real exchange rates of 6 in a sample of 11 CEE countries.

Our paper provides new empirical evidence on PPP theory by employing a battery of unit root tests on up-to-date real exchange rate dataset of selected CEE economies. The paper proceeds as follows. First, macroeconomic conditions regarding the purchasing power parity are presented for each observed country. In Section 3, the general model of PPP and the relevant database are described. Section 4 presents the results of several first generation panel unit root tests. Concluding remarks of our analysis are summarized in the final section.

## 2. Macroeconomic conditions in observed economies

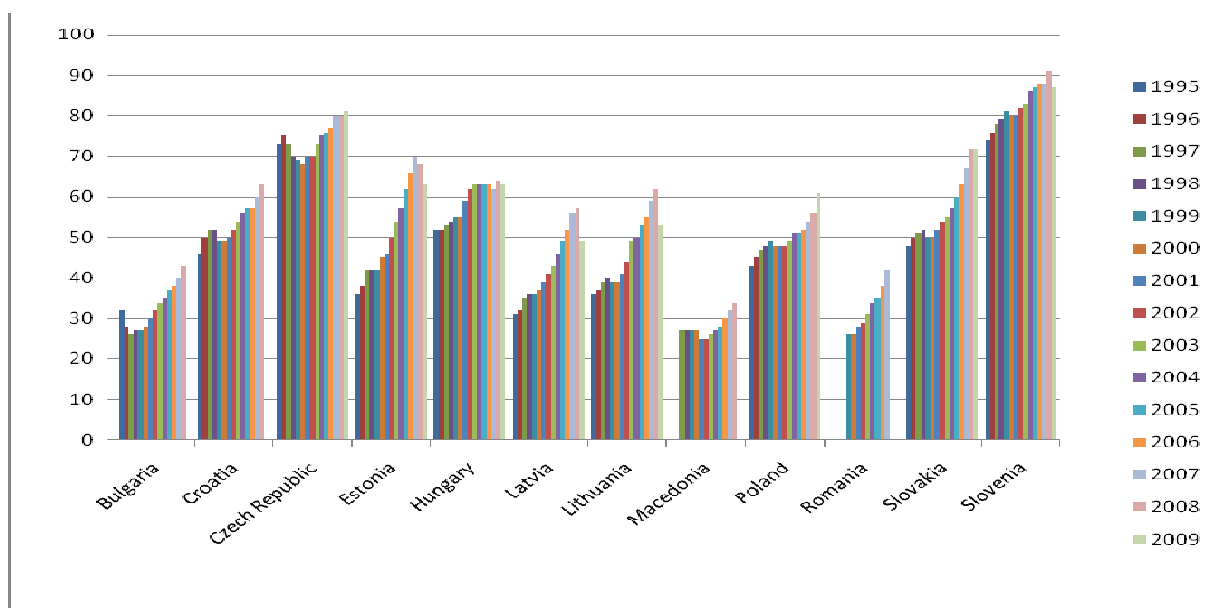
This study focuses on a group of transition countries in Central and Eastern Europe. Although they had all experienced similar economic characteristics in the previous system, they have undertaken relatively different transition paths resulting in different levels of integration and development. More specifically, the study examines ten EU members and two EU candidate countries. Among EU members there are advanced transition countries, such as Slovenia, Hungary, Czech Republic, Slovakia, Poland, Estonia, Latvia, Lithuania, and countries where transition still plays an important part of the economies, such as Romania and Bulgaria. Since the first eight countries entered the EU in May 2004, while the later two in January 2007, they are all members of European single market with some temporary restrictions regarding the mobility of labour force. Despite minor obstacles in the single market activities, these countries have adopted *aquis communautaire* before entering the EU. Consequently, these countries are highly integrated into the European market.

At the beginning of transition all these countries were less developed than old EU members. Despite slow convergence in the process of transition and nevertheless in the process of obtaining EU membership, even today most of their macroeconomic performance is below the average of the old advanced EU members. Similar holds for the two candidate countries, where some major transition reforms are still on their way.

The newly become EU members (2004 and 2007 entries) have no opt out option in adopting the single European currency. Every country that adopts the euro and become the member of EMU has to fulfill the strict Maastricht criteria regarding inflation, government budget, long term interest rates and stability of exchange rates. Since none of these requirements were met at the time of the entry to EU, these countries are supposed to fulfill the criteria as soon as possible and eventually adopt the euro. Among our observed countries two countries have adopted euro thus far (Slovenia in January 2007, Slovakia in January 2009 and Estonia in January 2011). Furthermore, every country that is about to fully enter EMU and adopt the single European currency, has to set central parity of the exchange rate and in two years the actual exchange rate should not exceed +/- 15% thus joining the ERMII (exchange rate mechanism). Among those observed economies which haven't adopted euro yet, only two have joined the ERMII (Latvia in June 2004 and Lithuania in May 2005).

Figure 1 presents developments in GDP per capita in comparison to all 27 members of EU in the last 15 years. Taking into account the purchasing power parity standards, the highest level of GDP per capita was recorded in Slovenia and Czech Republic, reaching 88% and 82% of EU27 average in 2009, respectively. While the lowest level was achieved in Bulgaria and Macedonia with 34% and 44% of EU27 average in 2008. The Figure 1 presents clear convergence of GDP levels across the observed countries.

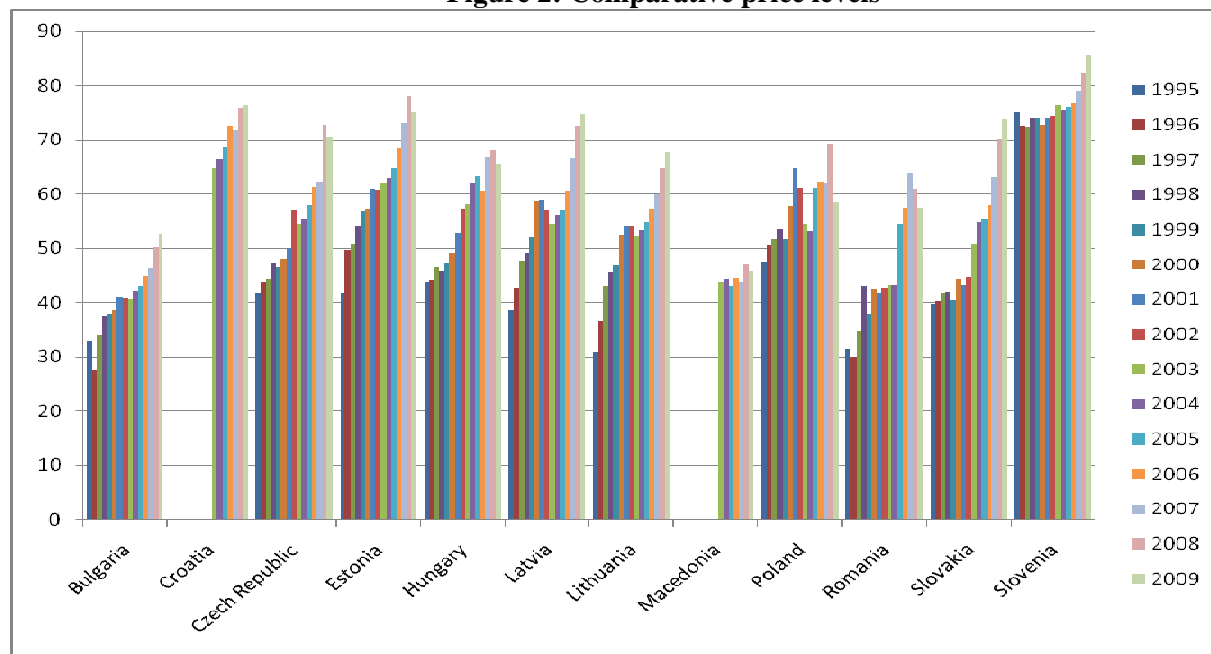
**Figure 1: GDP per capita (PPS, EU27=100)**



Source of data: Eurostat.

Figure 2 shows comparative price levels in comparison to EU27 average. We can observe clear convergence in price levels in all observed countries. The lowest price level among observed countries in 2009 was in Macedonia (45%), followed by Bulgaria with 49.7%. All other countries' price levels in 2009 are close or above to 60%. The highest being in Slovenia (84.3%) and Estonia (76.6%), followed by Croatia (74.1%) and Latvia (73.5%).

**Figure 2: Comparative price levels**



Source of data: Eurostat.

**3. The model of PPP and the data**

The basic model of testing for relative PPP can be derived in the following form (Froot and Rogoff 1995):

$$e_t = \alpha_0 + \alpha_1 p_t + \alpha_2 p_t^* + \xi_t \tag{1}$$

where  $e_t$  stands for nominal exchange rates, defined as the price of foreign currency in the units of domestic currency;  $p_t$  denotes domestic price index and  $p_t^*$  foreign price index; while  $\xi_t$  stands for the error term showing deviations from PPP. All the variables are given in logarithmic form. The strict version of PPP

contains two types of restrictions imposed on the parameters. Under  $\alpha_0=0$ , the symmetry restriction applies such that  $\alpha_1$  and  $\alpha_2$  are equal in absolute terms, whereas the limitation of  $\alpha_1$  and  $\alpha_2$  being equal to 1 and -1, respectively, is called the proportionality restriction.

In the present study we relied on relevant monthly data frequency covering the period of January 1994–July 2010 for the following countries: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Poland, Romania, Slovakia and Slovenia. Primary data included monthly averages of nominal exchange rates and consumer price indices gathered from the central banks of individual countries, from the European Central Bank, Eurostat, and from national statistical offices of individual countries. Each of the exchange rates has been defined as the number of units of domestic currency for the dollar and for the euro. Consumer price indices used in this study for all countries refer to January 1994.

The empirical analysis starts off with testing the characteristics of real exchange rates (strict version of Equation 1). Following relative PPP, the movements in nominal exchange rates are expected to compensate for price level shifts. Thus, real exchange rates should be constant over the long-run and their time series should be stationary (Parikh and Wakerly 2000). The real exchange rates are a function of nominal exchange rates and relative price indices in two observed economies. They are calculated from the nominal exchange rates using the consumer price indices:

$$RE_t = E_t (P_t^* / P_t) \quad (2),$$

where  $RE_t$  stands for the real exchange rate,  $E_t$  is the price of a foreign currency in units of the domestic currency, and  $P_t^*$  and  $P_t$  represent the foreign price index and the domestic price index, respectively. Taking the logarithms of Equation 2, the real exchange rates are defined as:

$$re_t = e_t + p_t^* - p_t \quad (3).$$

The study of unit roots has played an increasingly important role in empirical analysis of panel data. The investigation of integrated series in panel data has known a great development and panel unit root tests have been applied to various fields of economics: analysis of the PPP hypothesis, growth and convergence issues, saving and investment dynamics, international R&D spillovers. The use of panel data approach by unit root analysis has the advantage of increased test power over that of single equation tests.

The model takes into account the following AR(1) process for panel data:

$$y_{i,t} = \rho_i y_{i,t-1} + X_{i,t} \delta_i + \varepsilon_{i,t} \quad (4),$$

where  $i$  represents  $N$  cross-section units observed over periods  $t=1, 2, \dots, T_i$ ,  $X_{i,t}$  are exogenous variables in the model (any fixed effects or individual trends),  $\rho_i$  are autoregressive coefficients, while errors ( $\varepsilon_{i,t}$ ) are assumed as mutually independent idiosyncratic disturbance. If absolute value of autoregressive coefficients is less than 1,  $y_i$  is said to be weakly stationary. If the absolute value of autoregressive coefficients is 1,  $y_i$  contains a unit root.

There are two assumptions about the autoregressive coefficients in panel unit root tests: (1) persistence parameters are common across cross-sections ( $\rho_i=p$ ) for all  $i$ , and (2)  $\rho_i$  vary across cross-sections. Among tests with common unit root processes we employed Levin, Lin and Chu (2002) test, while Im, Pesaran and Shin (2003), Fisher ADF and Fisher PP (Madala and Wu 1999, and Choi 2001) tests assume individual unit root processes.

#### 4. Empirical results from the first generation unit root tests

##### 4.1 Levin, Lin and Chu test

Levin, Lin and Chu (2002) test is based on ADF specification:

$$\Delta y_{i,t} = \alpha y_{i,t-1} + \sum_{j=1}^{p_i} \beta_{i,j} \Delta y_{i,t-j} + X'_{i,t} \delta + \varepsilon_{i,t} \quad (5),$$

where a common  $\alpha = \rho - 1$  is assumed, while the lag order for difference terms ( $p_i$ ) varies across cross-sections. Under the null hypothesis ( $H_0: \alpha = 0$ ), there is a unit root. Under the alternative hypothesis ( $H_1: \alpha < 0$ ), there is no unit root. Levin, Lin and Chu (2002) first estimate auxiliary regressions of  $\Delta y_{i,t}$  and  $y_{i,t}$  on lagged terms  $\Delta y_{i,t-j}$  and on exogenous variables  $X_{i,t}$ . Residuals (denoted by  $\tilde{\cdot}$ ) are used as proxies for  $\Delta y_{i,t}$  and  $y_{i,t}$ . In the next step,  $\alpha$  is estimated from the pooled equation:

$$\Delta \tilde{y}_{i,t} = \alpha \tilde{y}_{i,t-1} + \eta_{i,t} \quad (6).$$

Since the standard t-statistic for testing the hypothesis  $\hat{\alpha} = 0$  diverges to negative infinity, Levin, Lin and Chu (2002) derive the modified t statistics ( $t^*$ ) and show that it is asymptotically normally distributed.  $t^*$ -statistic is of the form

$$t^* = \frac{1}{\sigma^*} \left( t - NT \cdot \hat{S}_N \hat{\sigma}^{-2} \hat{\sigma}_\alpha \mu^* \right) \tag{7}$$

where  $\mu^*$  and  $\sigma^*$  are adjustment terms for the mean and standard deviation determined in a simulation study of Levin, Lin and Chu (2002),  $\hat{\sigma}_\alpha$  is the standard error of  $\hat{\alpha}$ ,  $\hat{\sigma}^2$  is the estimated variance of the residuals from equation (6) and  $\hat{S}_N$  denotes the average of individual ratios of long-run to short-run standard deviations.  $\hat{S}_N$  is estimated with kernel-based techniques.

**Table 1: Results of Levin, Lin and Chu test**

Reference currency	Bartlett kernel		Quadratic spectral kernel	
	Individual effects	Individual effects and individual linear trends	Individual effects	Individual effects and individual linear trends
	$t^*$ (p-value) [no. of lags]	$t^*$ (p-value) [no. of lags]	$t^*$ (p-value) [no. of lags]	$t^*$ (p-value) [no. of lags]
USD	-2.30676 (0.0105) [0-2]	-1.43966 (0.0750) [0-3]	-2.21804 (0.0133) [0-2]	-1.22509 (0.1103) [0-3]
EUR	-5.29310 (0.0000) [0-5]	-12.8372 (0.0000) [0-5]	-5.27334 (0.0000) [0-5]	-12.7173 (0.0000) [0-5]

Notes: The number of lags used in each cross-section ADF regression ( $p_i$ ) was defined by the Schwarz information criterion using a maximum of 12 lags. Computation was conducted with Newey-West bandwidth selection.

Following Hurlin (2010), we used quadratic spectral kernel in addition to the Bartlett kernel proposed by Levin, Lin and Chu (2002), and also considered regression (5) augmented with individual linear deterministic trends to check the robustness of results. The number of lags in each cross-section ADF regression ( $p_i$ ) was selected by the Schwarz information criterion using a maximum of 12 lags. Computation was conducted with Newey-West bandwidth selection procedure.

The results for our data are presented in Table 1. With EUR as the reference currency one can reject the null and confirm the PPP theory in the panel of observed countries. If USD is selected for the reference currency, the results depend on the specification of equation (5). When only individual effects are allowed, the null hypothesis of unit root is rejected for both spectral kernel estimators. For a specification with individual effects and linear deterministic trends, on the other hand, one cannot reject the null hypothesis at the 5 % significance level.

**4.2 Im, Pesaran and Shin test**

Im, Pesaran and Shin (2003) base their test on the assumption of individual unit root processes and they estimate individual ADF regression for each cross-section:

$$\Delta y_{i,t} = \alpha y_{i,t-1} + \sum_{j=1}^{p_i} \beta_{i,j} \Delta y_{i,t-j} + X'_{i,t} \delta + \varepsilon_{i,t} \tag{8}$$

where the null hypothesis is

$$H_0 : \alpha_i = 0, \text{ for all } i \tag{9}$$

while the alternative hypothesis is defined as:

$$H_1 : \begin{cases} \alpha_i = 0 & \text{for } i = 1, 2, \dots, N_1 \\ \alpha_i < 0 & \text{for } i = N_1 + 1, \dots, N \end{cases} \tag{10}$$

Let  $\bar{t}$  denote the average of the t-statistics for  $\alpha_i$  from individual ADF regressions, i.e.

$$\bar{t} = \frac{1}{N} \sum_{i=1}^N t_i \quad (11).$$

Im, Pesaran and Shin (2003) adjust (standardize) the  $\bar{t}$ -statistic and prove that the adjusted statistic  $W$  is asymptotically normally distributed.

**Table 2: Results of Im, Pesaran and Shin test**

Reference currency	Schwarz information criterion		Akaike information criterion	
	Individual effects	Individual effects and individual linear trends	Individual effects	Individual effects and individual linear trends
	W-stat (p-value) [no. of lags]	W-stat (p-value) [no. of lags]	W-stat (p-value) [no. of lags]	W-stat (p-value) [no. of lags]
USD	-0.16451 (0.4347) [0-2]	-0.16152 (0.4358) [0-3]	0.54965 (0.7087) [1-9]	0.44372 (0.6714) [0-8]
EUR	-2.67555 (0.0037) [0-5]	-7.00134 (0.0000) [0-5]	-1.69941 (0.0446) [1-12]	-4.41042 (0.0000) [1-12]

Notes: Maximum lag length was set to 12.

Table 2 presents results for our data. Maximum lag length was set to 12. Schwarz and Akaike information criteria for lag length selection yield similar results. In addition, allowing for linear deterministic trends in auxiliary regression (8) does not influence the conclusions. The null hypothesis for the panel with USD as the reference currency cannot be rejected, while the panel with EUR as the reference currency is again in favour of the PPP theory by rejecting the unit root and proving that some countries (cross-sections) in our sample have no unit root in real exchange rates.

#### 4.3 Fisher ADF and Fisher PP tests

Maddala and Wu (1999) and Choi (2001) use Fisher's (1932) results to derive tests that combine individual p-values. Let  $\pi_i$  denote the p-value from separate unit root test for cross-section  $i$ . For continuous statistics the corresponding p-values are uniform  $[0, 1]$  variables (Hurlin 2010). Maddala and Wu (1999) define their statistic as

$$\chi^2 = -2 \sum_{i=1}^N \log(\pi_i) \quad (12)$$

and show that it has an asymptotic  $\chi^2$ -distribution with  $2N$  degrees of freedom. Choi (2001) proposes a similar statistic of the form

$$Z = - \frac{\sum_{i=1}^N \log(\pi_i) + N}{\sqrt{N}} \quad (13).$$

**Table 3: Results of Fisher ADF tests**

Maddala and Wu $\chi^2$ statistic				
Reference currency	Schwarz information criterion		Akaike information criterion	
	Individual effects	Individual effects and individual linear trends	Individual effects	Individual effects and individual linear trends
	$\chi^2$ (p-value) [no. of lags]	$\chi^2$ (p-value) [no. of lags]	$\chi^2$ (p-value) [no. of lags]	$\chi^2$ (p-value) [no. of lags]
USD	23.6038 (0.4844) [0-2]	22.4941 (0.5498) [0-3]	18.8424 (0.7603) [1-9]	17.6657 (0.8189) [0-8]
EUR	63.7727 (0.0000) [0-5]	130.089 (0.0000) [0-5]	46.0505 (0.0044) [1-12]	63.4842 (0.0000) [1-12]



Choi Z statistic				
Reference currency	Schwarz information criterion		Akaike information criterion	
	Individual effects	Individual effects and individual linear trends	Individual effects	Individual effects and individual linear trends
	Z (p-value) [no. of lags]	Z (p-value) [no. of lags]	Z (p-value) [no. of lags]	Z (p-value) [no. of lags]
USD	-0.10517 (0.4581) [0-2]	-0.11107 (0.4558) [0-3]	0.76135 (0.7768) [1-9]	0.65147 (0.7426) [0-8]
EUR	-2.68720 (0.0036) [0-5]	-6.22740 (0.0000) [0-5]	-1.63031 (0.0515) [1-12]	-4.36318 (0.0000) [1-12]

Notes: Maximum lag length was set to 12.

Under the null hypothesis, Z-statistic converges to a standard normal distribution. The null and alternative hypotheses are the same as for the Im, Pesaran and Shin test described with equations 9 and 10. Table 3 presents  $\chi^2$  and Z statistics based on ADF (augmented Dickey-Fuller) test, whereas Table 4 shows results with PP (Phillips-Perron) individual unit root tests.

Based on results presented in Tables 3 and 4, the null hypothesis of unit root cannot be rejected for the panel with USD as the reference currency. The results are robust with regard to the choice of individual unit root test, the choice of the lag length selection criterion and also with regard to the inclusion of the deterministic linear trends. On the other hand, in the panel with EUR as the reference currency the null hypothesis is almost always rejected at the 5 % significance level. Only the p-value of the Choi Z-statistic from the ADF test with Akaike information criterion and no deterministic trend is marginally above 0.05.

Table 4: Results of Fisher PP tests

Maddala and Wu $\chi^2$ statistic				
Reference currency	Bartlett kernel		Quadratic spectral kernel	
	Individual effects	Individual effects and individual linear trends	Individual effects	Individual effects and individual linear trends
	$\chi^2$ (p-value)	$\chi^2$ (p-value)	$\chi^2$ (p-value)	$\chi^2$ (p-value)
USD	30.4197 (0.1712)	22.4116 (0.5547)	30.2336 (0.1771)	23.2481 (0.5052)
EUR	120.464 (0.0000)	111.121 (0.0000)	122.292 (0.0000)	112.375 (0.0000)
Choi Z statistic				
Reference currency	Bartlett kernel		Quadratic spectral kernel	
	Individual effects	Individual effects and individual linear trends	Individual effects	Individual effects and individual linear trends
	Z (p-value)	Z (p-value)	Z (p-value)	Z (p-value)
USD	-0.64515 (0.2594)	0.03268 (0.5130)	-0.65186 (0.2572)	-0.10879 (0.4567)
EUR	-4.16781 (0.0000)	-5.60347 (0.0000)	-4.26998 (0.0000)	-5.8552 (0.0000)

5. CONCLUSION

In the present study we applied the Levin, Lin and Chu test, the Im, Pesaran and Shin test, the Fischer ADF test, and the Fischer PP test to scrutinize the validity of PPP in a sample of 12 transition

countries. Four key conclusions can be derived from our empirical research. First, the stationarity of real exchange rates in comparison to the euro is confirmed by all the tests employed in our study. Second, when using the panel with the US dollar as the numeraire currency, the PPP hypothesis is corroborated only by the results of Levin, Lin and Chu test. The presenting results provide additional piece of evidence that justifies a progressive monetary integration of CEE countries with the Euro area. Third, results in our study are in favour of the PPP theory and are therefore in line with the results of recent studies (see, e.g., Telatar and Hasanov 2009, and Kasman et al. 2010), which provide support for the validity of PPP theory in CEE economies. Fourth, the validity of the PPP concept remains dependent on the choice of the numeraire currency.

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## THE FINANCIAL CRISIS APPROACH FROM THE ECO-ECONOMIC VIEW: REALITIES AND PERSPECTIVES

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**Abstract :** *The aim of this paper is to identify and analyze some ways which can get out of financial crisis, by reorienting the economic development to a new type of economy. This approach is based on studies that claim the world economy must to be reinvented and the financial crisis is a best opportunity to ensure a sustainable development. One solution is the orientation towards green business and forthcoming in the fiscal economic reform. In new eco-economic culture, the growth and development have different meanings, allowing the zero growth theory reconsideration, which can provide solutions for getting out of financial crisis.*

**Key words:** crisis, eco-economy, green business, solutions.

**JEL classification:** H, H12

### 1. Introduction

Currently, the world economy is in a process of major reorientation in terms of future development perspectives. The main reasons leading to this orientation are: the financial crisis which covered almost all world states and strong environmental damage from the planet. Although the emergence and manifestation of environmental problems have been observed since the '80, their effects are felt today in many directions such as depletion and alteration of vital resources to ensure economic development, affecting human health, climate change, pollution, excessive etc. In condition that was found the solutions which were to be applied in next 10-15 years to remedy these problems, the financial crisis is a factor that overlapped with those drawbacks, making that the decisions aimed to save the planet by establishment of ecological disaster, considers the factors used in avoid a global meltdown and economic downturn.

Since the early '90, the world-renowned experts have raised an issue, apparently purely theoretical, aimed to find the effective solutions to the global problems of mankind: the greening of the economy. Today, it is creating the idea that it represents a removal from the states of the world crisis, especially those in developing countries. The systemic approach of *environment* and *economy* permit to identify a strong interdependence relationship between the both, impossible to be redirected towards independence.

From all times, the economy represents a subsystem of environment. In the circle of this process operation, all inputs into economy come from the environment and, finally, all of wastes produced it is return to the environment. Since we live on a finite planet, with a limited supply of natural resources and a limited capacity to absorb wastes, it's not possible for the economy to grow forever. One of these costs is the current financial crisis, as a direct result of economic activities bad administrate. In February 2009, the head of the European Central Bank said „We live in non-linear times: the classic economic models and theories cannot be applied, and future development cannot be foreseen” ([Seager, 2009](#)).

### 2. Conceptual approach of ecological economy

The economic today world is based on immediate and permanent development requirements, in the context of emergence of new and modern economic concepts, such as of *environmental economy* that should impose the combination of economic lines development, with issues related to ensuring the sustainability. The concept of *eco-economics*, modern and very topical, shows that the eco-economy or ecological economics is refers to a new kind of economy that will be able to develop without harming the environment which is, essentially, the support of economic development. (Brown, 2001).

As the world economy went felt, into a relatively short time, by strongly changes in the social welfare, we consider that the eco-economy is one of the viable solutions of the simultaneous

requirements of economic development and maintaining the quality of natural resources, respectively the preservation of environmental factors. The current state in which is the global economy, characterized inclusively by a serious imbalance between levels of economic development of world states, require the review and (re)inventory of natural resources both quantitatively and qualitatively, so that it can be ensured, continuously, a sufficient rhythm of development, but in strictly report with the requirements of environmental resources protection and their rational use. The economic development in accordance with the requirements of environmental protection has become a necessity which disseminate gradually to the level of countries and regions, becoming a topical issue for entrepreneurial sphere, too.

Approach, in organic manner, of economic development needs, is directly connected to ensuring the sustainable development based on ecological economics support. Currently, in almost all countries of the world, is observed the major issues regarding the quality of the environment, which will inevitably diminish the power of economic growth. By this case is detaching the idea of need to interfere the economic growth area with the sphere of environmental protection, so to integrate the environmental requirements into economic activities. A chaotic economic development, in a rhythm which is not well connected with the rhythm of ecological reconstruction, will lead to a progressive decline of the future generations.

In order to transform the economy, characterized in some areas, as either “destructive”, in an economy “friendly” with the environment, is impose a major change of mentality, as recognition that the economy is dependent on the environment, primarily by natural resources taken from the environment and used for business. Specialists from different areas of interest have reached a consensus and we think that the economy will be sustainable only if it respects the principles of ecology. Others, we believe that the failure of ecological principles in economics leads, inevitably, to collapse.

Restructuring the global economy will require that ecologists and economists work together to identify the directions that must be followed to ensure the sustainable development. Building an eco-economy is the biggest investment opportunity in history. The companies that have a new economic vision and include the environmental issues in activities planning will be successful (Brown, 2001).

To determine the perspectives of a green economy sustaining, we believe that very important is the identification of units for quantifying its performance. So, the overall sustainability benchmarks for measuring the statistics are the status of sustainability parameters. The most important agencies from world provide all necessary time for sustainability governance. They are just one form of data used for sustainability accounting and are valuable for assessing trends and measuring progress. Contain of this list is viewed in Table no. 1.

**Table 1: Data used for eco-economic performances evaluation**

Type of indicators	Date sources
<b>General lists</b>	The CIA's World Fact Book; World Data Centre - United Nations Environmental Indicators; European Commission (Eurostat);
<b>1. Biodiversity</b>	World Atlas of Biodiversity;
<b>2. Energy</b>	BP Statistical Review of World Energy; The International Energy Agency. Key World Energy Statistics; UN Energy Statistics Database;
<b>3. Population</b>	United Nations Population Division; United Nations Database; Population Reference;
<b>4. Food and agriculture</b>	UN Food and Agriculture Organisation (Faostat);
<b>5. Water</b>	International Water Management Institute; Stockholm International Water Institute; United Nations Environmental Program; Global Runoff Data Centre;
<b>6. Fertilizer</b>	International Fertilizer Industry Association
<b>7. Fisheries</b>	UN Food and Agriculture Organisation
<b>8. Forests</b>	UN Food and Agriculture Organisation

Source: processed data about *Global sustainability statistics*, <http://en.wikipedia.org/>

One of the most important methods aimed to quantify the ecological performances of enterprises is *The Environmental Performance Index* (EPI). This is a method of quantifying and numerically benchmarking the [environmental](#) performance of a country's policies. This index was developed from the Pilot Environmental Performance Index, first published in 2002. The EPI was preceded by the [Environmental Sustainability Index](#) (ESI), published between 1999 and 2005. The [ESI](#) was developed to evaluate environmental sustainability relative to the paths of other countries. As of January, 2008 two EPI reports have been released - the Pilot 2006 Environmental Performance Index and the 2008 Environmental Performance Index. On [23 January 2008](#), [Yale University](#) and [Columbia University](#) released the 2008 Environmental Performance Index at the [World Economic Forum](#) ranking 149 countries. The environmental experts at both universities concluded that "*analysis of the drivers underlying the 2008 rankings suggests that wealth is a major determinant of environmental success*". On top of 50 countries, the first 10 are: [Switzerland](#) (95.5), [Austria](#) (89.4), [Norway](#) (93.1), [New Zealand](#) (88.9), [Sweden](#) (93.1), [Latvia](#) (88.8), [Finland](#) (91.4), [Colombia](#) (88.3), [Costa Rica](#) (90.5), [France](#) (87.8).

### 3. The cross-current eco-economic situation, in the financial crisis

The current financial crisis is consequent of an old problem of our economic system. The cause of the crisis is the general obsession for economic growth, which has resulted in the accumulation of dangerous levels of financial and ecological debt. The financial crisis can determine a future food crisis or ecologic crisis. The solution to these type of crisis and to ensure the wealthy nations, is to abandon the goal of economic growth and begin the transition towards a steady state economy or an ecological economics. *The Economist magazine* estimates that the current financial crisis could slow growth in annual debt from 9% to 1% (2009). As a consequence, the financial debt leads to ecological debt.

The world population is using the natural resources faster than they can be regenerated and producing wastes faster than they can be assimilated. Nowadays, the result is the degradation of natural capital and a really ecological crisis characterized by: climate changes, biodiversity loss, deforestation and a lot of other global environmental problems. Another problem that is a result of bad connection between the environmental protection and the current growth and development level is reflected into *ecological footprint*. Today the averages of ecological footprint are 2.7 ha./person, with 30% higher than the available bi-capacity of planet (2.1 ha./per person).

As a signal and a response to all this problems regarding the connection quality between the economic and ecologic systems, in April 2009 the European Commission representatives, the environmental authorities of EU Member States and representatives of big companies met in Brussels at a Conference which discussed: European environmental policy and opportunities provided by new types of businesses, based on ecological principles, generically called "green business".

Given the multiple problems facing the developing countries, has been subject to debate how these countries will adapt to global warming and how they will tackle environmental challenges that directly affect the level and rhythm of business (Green Report, June 2009). The debates on environmental issues were connected, as a turning point, with economic reconstruction, and their synthesis has resulted in an essential question: "Can a green business revolution to get us out of recession?". The unanimous opinions have subscribed to the idea of European Commissioner for the Environment that "economic development in line with ecological principles will underpin many business models, is a priority of many governments" (Dimas, 2009). He accentuated that "faced with the most severe economic and financial crisis of last generation, many governments have grasped the opportunity to accelerate investment in a future low-carbon dioxide emissions".

The collapse and government bail-out of the financial system raises a series of questions and issues, both in terms of the immediate causes and consequences of the financial problems, and in the possibilities opened up to move in the direction of a "green economy" as a combined solution for the economy, human well-being and the environment. This was a major theme for the UNEP Governing Council (The Global Ministerial Environmental Forum, February 2009).

#### 3.1. Sustainable guidelines of green business

Recently, in 2009, A. T. Kearney said that, in the context of financial crisis that resulted in great loss of economic and business environment, "green winners are companies focusing on sustainable performance". The 2007 study realized by management consulting firms on financial and economic results of companies specialized in business with ecological character, is result that "green businesses" scored higher compared to other categories of firms in the current financial crisis. The synthesis of studies concluded that "companies

that focus more on sustainability will exit from the current crisis stronger than ever”. The study authors were analyzed the performance of 99 companies on the list of green companies of Goldman Sachs, in terms of the Dow Jones Sustainability Index. In 16 of the 18 industries, included in the study, focusing on sustainability businesses have performed better than others in the field for periods of 3 to 6 months and are “better protected from erosion value”. The most representative example of the study is given on a packaging company that has started to work towards sustainability 10 years ago. The company has increased production by 76% from 1998 and reduced the emissions of greenhouse gases by 16%, water consumption by 28% and energy at 3%, according to a report in 2007. In 2007, thanks to these measures, the company has saved 30 million dollars. The study confirmed that more and more companies are endeavouring to reduce the water consumption and emissions and producing goods with less environmental impact. As a recommendation, it is proposed that the companies reviewing the sustainable practices, because a strong sustainability strategy is more effective than measures to improve the corporate image, by green washing type.

Since that the economic downturn may cause losses or even bankruptcies among enterprises, but can also open new areas of investment, untapped until now, it is appropriate to examine the possibilities to develop areas of economic development in conditions of crisis, so was not triggered a possible ecological crisis, too. The food industry, pharmaceutical, organic agriculture, but also the sale of second hand, reconditioned furniture, and waste recovery are just some of the sectors with minimum risk. In exploring of these opportunities we should based on the fact that 75% of the resources that industry needs are not found in the ground, but on its surface in the waste form. Most suffer the construction and real estate agent brokering and trade with construction materials. The consultancy financial and fiscal services, the advice firms for opening a new business, for ensure the profitability of existing firms, but the psychological consulting practices are another’s domain where will exist permanent clients.

3.2. Case study on sustainability of business in an ecological economy

The countries with the strongest environmental interests in the economic area, which following their own experiences, have analyzed the implications of economic, social and ecological domains, are: USA, Holland, England, Italy, France, Germany, and Austria. The case study that follows, with reference data from 2007, is based on the experience of 12 economic units from England, with different fields’ activities. The situations are exposed in Tables 2, 3, 4, 5.

**Table 2: Application of eco-economy principles for energy domain**

<b>Domain of activity</b>	<b>Eco-economics</b>	<b>Economic benefits</b>	<b>Social benefits</b>	<b>Environmental benefits</b>
<b>1. B &amp; B</b>	Solar heated hot water	<ul style="list-style-type: none"> <li>the system was working well with saving of up to £300/per annum;</li> <li>payback for this unit was 31 years, but standard systems are closer to 6-10 years as a rule;</li> </ul>	<ul style="list-style-type: none"> <li>self sufficient energy;</li> <li>local economy to benefit;</li> <li>social responsibility;</li> </ul>	<ul style="list-style-type: none"> <li>absorption of solar radiation for heating water;</li> <li>should be cheaper than photovoltaic systems;</li> </ul>
<b>2. Self catering</b>	Renewable energy	<ul style="list-style-type: none"> <li>the owners have saved approx £56.000 on the cost of the equipment alone and no details on payback time;</li> </ul>	<ul style="list-style-type: none"> <li>the business has a secure energy supply and the employment could be created in the fledgling renewable industry;</li> </ul>	<ul style="list-style-type: none"> <li>reduced reliance on oil consumption for heating and hot water;</li> <li>reduction in carbon emissions;</li> </ul>
<b>3. Conference venue</b>	Heat from the earth	<ul style="list-style-type: none"> <li>system will mean much lower fuel bills for the business;</li> <li>payback periods are in the region of 10 years;</li> <li>the probable increases in future fuel prices make this system attractive;</li> </ul>	<ul style="list-style-type: none"> <li>deeply involved with the local community;</li> <li>provide a local source of advice;</li> </ul>	<ul style="list-style-type: none"> <li>the systems can be as much as 300% efficient for every unit of electricity;</li> </ul>



<b>4. Holiday Park</b>	Low energy light bulbs	<ul style="list-style-type: none"> <li>• payback period is around 1 year (save around £600/year);</li> <li>• the maintenance costs will be cut;</li> </ul>	<ul style="list-style-type: none"> <li>• can have far reaching social implications;</li> <li>• waste is greatly reduced;</li> <li>• guests can see that the business is responsible about the environment;</li> </ul>	<ul style="list-style-type: none"> <li>• the carbon savings resulting from new low lighting would be 4434 kg/year;</li> </ul>
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Source: processed data about website <http://www.green-business.co.uk/>

Some details regarding the business of firms who decide to apply the eco-economy principles in a period that precede the financial crisis, are:

a. The business has undertaken all measures that help for preservation of environment. So, has installed the solar panels with aims to reduce hot water related carbon dioxide emissions and take advantage of the good summer light in the area.

b. The self-catering business driven the owners to take many steps to reduce the impact general business on the environment. The combination of technologies is significantly reducing the impact the business has through its energy consumption.

c. The business built in a few energy and water saving measures. They upgraded the insulation in the building, using thermafleece sheep's wool insulation. They use solar panels to heat hot water, passive solar gain to heat the lounge and dining area. This is a good example of tourism business embracing renewable energy sources.

d. With old this type of lighting only about 25% of the energy is converted into light and the rest into heat. This is a significant step for the business to take towards minimizing its environmental impact.

**Table 3: Application of eco-economy principles for general ecologic domain**

<b>Domain of activity</b>	<b>Eco-economics</b>	<b>Economic benefits</b>	<b>Social benefits</b>	<b>Environmental benefits</b>
<b>1. Corporate office</b>	Eco-design office units	<ul style="list-style-type: none"> <li>• the construction was able to attract over £800.000 in European grant funding;</li> <li>• a high quality eco-friendly design are able to attract progressive and higher value small businesses into the area;</li> </ul>	<ul style="list-style-type: none"> <li>• the office provision is specifically for small businesses socially related enterprises using the facilities;</li> </ul>	<ul style="list-style-type: none"> <li>• ventilation is achieved passively;</li> <li>• best combination of good design and infrastructure with practical and efficient maintenance and operation procedures;</li> </ul>
<b>2. Self catering</b>	North-east pilot project (general case study)	<ul style="list-style-type: none"> <li>• save money and reduce their carbon emissions;</li> <li>• makes sure they are well maintained;</li> <li>• reduces the waste/cost of water and the amount of energy in appliances use;</li> </ul>	<ul style="list-style-type: none"> <li>• provides information on local food producers like butchers and local farmers markets;</li> <li>• encourages guests to be more physically active;</li> </ul>	<ul style="list-style-type: none"> <li>• uses the nouvelle toilet paper (made from recycled paper);</li> <li>• reduces the amount of waste going to landfill to make new products;</li> </ul>
<b>3. Inn</b>	General green measures	<ul style="list-style-type: none"> <li>• use of low energy light bulbs;</li> <li>• good levels of insulation on pipes;</li> <li>• reducing paper use;</li> <li>• occupancy sensors in the toilets (operate the lights);</li> </ul>	<ul style="list-style-type: none"> <li>• a display cabinet for the work of artists and photographers;</li> <li>• good local transport, walking and cycling information supplied on site;</li> </ul>	<ul style="list-style-type: none"> <li>• recycled paper used in office and for housekeeping;</li> <li>• composting of garden and green food waste;</li> </ul>

Source: processed data about website <http://www.green-business.co.uk/>



a. The building project was undertaken as a high quality eco-friendly office development. The construction includes a number of key eco-features. Rammed earth construction uses local earth products, which are compressed to produce a strong versatile building material. Approximately 80% of the material used in the wall's construction is fine sand obtained from the basement excavation. The success of the method depends upon the proportions of the mix and the overall moisture content, which will be unique to every wall.

b. This business achieved a Bronze award implementing the basic good practice measures through out the criteria.

c. The owners have implemented a wide range of measures to ensure that the environmental impacts of their operations are minimized. Environmental measures play a part in the induction process for new staff and this includes topics such as recycling, waste reduction and energy saving. For example, weekly readings are taken of energy consumption and these figures are posted on the staff notice board in order to reinforce the point. There is an environmental policy for the business and this is on view for guests to read.

**Table 4: Application of eco-economy principles for general Innovation and Waste domain**

Domain of activity	Eco-economics	Economic benefits	Social benefits	Environmental benefits
<b>1. B &amp; B</b>	Vegetarian green lifestyle (Innovation)	<ul style="list-style-type: none"> <li>• saves on energy waste/water use;</li> <li>• keep costs down while minimizing the impact business on the environment;</li> <li>• vegetarian options require less cooking and food preparation;</li> </ul>	<ul style="list-style-type: none"> <li>• vegetarian diets are healthier in general and create fewer toxins;</li> <li>• the ethical reasons relate to improved wellbeing;</li> <li>• positive connections with all life and reverence for our planet;</li> </ul>	<ul style="list-style-type: none"> <li>• saving the natural resources and reducing pollution;</li> <li>• meat requires significantly more land area per product;</li> <li>• 70% of fisheries are now being depleted quicker than they can recover;</li> </ul>
<b>2. Hostel</b>	Reuse of materials	<ul style="list-style-type: none"> <li>• the furniture is contemporary and the new extension to the hostel is very comfortable which may result in higher occupancy in the future;</li> <li>• cost of Project: £1400 - savings made: £1000 - payback Time: N/A</li> </ul>	<ul style="list-style-type: none"> <li>• the concept could be adopted by social projects such as: homeless hostels and social housing associations;</li> <li>• passing on second hand furniture to these types of organizations would allow the community to benefit;</li> </ul>	<ul style="list-style-type: none"> <li>• no new raw materials are used;</li> <li>• so further energy use related to these processes is also avoided;</li> <li>• reuse is always preferable to recycling;</li> </ul>
<b>3. Self catering</b>	Compost toilets and green design	<ul style="list-style-type: none"> <li>• the running costs of the unit are minimized;</li> <li>• guests use between 10 and 30 kWh per day;</li> <li>• green issues provide a feel good factor which creates greater customer loyalty;</li> <li>• newt cottage operates at 100% occupancy;</li> <li>• guests are encouraged to note how much energy they have used;</li> </ul>	<ul style="list-style-type: none"> <li>• involvement of children in the green concept has broaden participation in decision making;</li> <li>• the business supports social enterprises acting as a champion for the scheme and sharing good practice with businesses and guests;</li> </ul>	<ul style="list-style-type: none"> <li>• the buildings energy performance is good;</li> <li>• the use of low embodied energy products reduces the long term damage to the planet;</li> <li>• is encouraging guests to change habits while on holiday can change their behaviour in the future;</li> </ul>

Source: processed data about website <http://www.green-business.co.uk/>

a. This is specializes as a totally vegetarian bed and breakfast. As committed vegetarians the owners provide a wonderful set of breakfast options. The B&B subscribes to a number of publications including the vegetarian society and guests may use their library as they wish. As a site it is one of the few parts of England where red squirrels may still be observed.

b. This youth hostel was one of the first businesses to gain a gold award due to their excellent environmental commitment. The business scored well in every section of the criteria but particularly well in energy and waste management. The business is strongly committed to managing its waste stream and will always try to reuse before recycling. Second hand goods are often purchased and the new extension to the hostel was built using mainly reclaimed stone. The hostel recently purchased tables and chairs that were used in the national gallery café in London.

c. Newt Cottage is a single self-catering unit that it was a restoration project which incorporated a strong green philosophy. Other features in the green build include the use of sheep wool insulation, use of eco paints, a heat pump, solar panels, use of green energy tariffs and low energy lighting. The owners supply home-grown organic produce, use fair trade items, recycled products recycling facilities such as composting systems as well as provide excellent walking and wildlife information. One of the most novel features in the development is the option to use a *compost toilet*.

**Table 5: Application of eco-economy principles for landscape domain**

Domain of activity	Eco-economics	Economic benefits	Social benefits	Environmental benefits
<b>1. Visitors attraction</b>	Green gardening	<ul style="list-style-type: none"> <li>• saving the owner significant amounts of money and the balance of biodiversity is now better without pesticides;</li> <li>• a great many of the materials used in the garden have been reclaimed and reused;</li> <li>• regular customers are encouraged to return the pots their plants came in, further reducing waste;</li> </ul>	<ul style="list-style-type: none"> <li>• it take volunteers on, giving them valuable work experience;</li> <li>• the gardens are wheelchair accessible with widened footpaths and ramps where there used to be steps;</li> <li>• the business raises money for the British Red Cross by donating daily takings from two days a year;</li> </ul>	<ul style="list-style-type: none"> <li>• measures ensure that the impact is minimized;</li> <li>• all benefits of not using pesticides;</li> <li>• water minimization is to be encouraged;</li> <li>• enhancing the environment;</li> </ul>
<b>2. Holiday park</b>	Reducing light pollution	<ul style="list-style-type: none"> <li>• the steps taken to maximize the usefulness of the light being generated will result in savings for the business;</li> <li>• the lighting controls savings and a longer life for the bulbs, generating further savings due to the reduced maintenance and less bulb purchases;</li> </ul>	<ul style="list-style-type: none"> <li>• it reduces the amenity value on rural landscape;</li> <li>• a big impact on quality of life, nuisance disputes over light pollution are increasing year on year;</li> <li>• less light pollution;</li> </ul>	<ul style="list-style-type: none"> <li>• estimates suggest a 500w security light burning every night of the year is responsible for around the same amount of CO2 as driving a car 8000 Km;</li> </ul>

Source: processed data about website <http://www.green-business.co.uk/>

a. Birkheads is a garden and nursery set which the owners have vastly improved. The owner is a qualified garden designer and many different techniques have been employed in the garden to minimize the impact the operations are having on the environment. Many of the features in the garden are created from waste materials, which the owners have reused.

b. Border Forest Caravan Park is a silver level business that has taken many steps on site to minimize the environmental impact the business. There are many energy saving measures being carried out on site and

facilities for recycling waste are good also. The owners were aware of the impact that the park lighting could have in such a rural area and they took steps to ensure it was minimized. This involved the fitting of new shading on the lights and photo sensors to operate the lights. This ensures that the lighting is not running at all times and the shading has reduced sky glow considerably.

The effort to save and manage the environmental resources is a direct benefit for businesses green reorientation, with favourable consequences in direction of reduced consumption of resources. A combined effort of several countries around the world is being felt globally as a benefit for environment. The examples are outlined in reducing of energy consumption, water, wood, etc.

#### 4. Conclusion

A perspective create in the context of economic crisis is to refocusing the economic activities in direction of the green economy, viewed as a new economy that can be defined as totality of economic systems that preserves and restores natural resources, ecosystems, the backbones of economic and social well-being and that is essential for poverty reduction. In the same time we consider that can be creating the new applications for industries and employment. To realize this aim with intention to overcome the particular problems related to economic and financial crisis, we consider that is necessary to use clean and efficient technologies, practising the sustainable agriculture and protect the natural resources by an efficient consumption. For this reason, the expected solution derived from: using of renewable energy technologies, orientation to biodiversity-based businesses (agriculture, forestry, tourism, etc.), application for ecological infrastructure, reducing the chemicals, a high interest for a rational waste management (waste reduction, recycling, reuse, responsibility).

The business-mans say that the financial uncertainly will increase the quote of those who will now to advice the investors towards increasing or maintaining at least share profits. In times of crisis, the keywords, by reference for entrepreneurs, are: maximum caution and opportunities speculation. The representatives of Small and Medium Sized Private Enterprises from Romania advise those involved in business, to focusing on organic food production, bio-fuel or unconventional energy, because such activities have a secure future. In addition, should be considered that for the activities from ecological field there are very many facilities - like the European programs that will grow in this direction. The ecology is, and will be, at least 20 years from now, a principal worldwide concern.

The financial collapse has underlined the need for a systems approach integrating all issues. Science and technology have united the world in information flow, finance, trade, migration and environmental impact. Each part affects the others, so they must be understood together in all their complexity. The global action requires the global support. Since exist extreme differences between and within countries and regions on development level, it is necessary to apply the approach of common but differentiated responsibilities, with each country adopting its own implementation strategy within the larger framework. However all must respond to the required fundamental transformation in the dominant economic paradigm and its consumer lifestyles. From the economic and financial crisis is possible to derive other types of crisis: food, social, environmental. To prevent this propagation at global level, we must propose and apply, in time, the adequate solutions on microeconomic and macroeconomic area: justice for all planetary inhabitants, equitable decisions, moderation in material development, an altruistic cooperative economy and adequate employment creation.

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## THE CRISIS OF ROMANIAN ECONOMY'S SYSTEM: OPPORTUNITY OR RESTRAIN FOR SUSTAINABLE DEVELOPMENT?

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**Abstract:** *The roadmap toward sustainable development, concept that embeds a large dose of optimism, is difficult even for developed countries, and a lot more for a country like Romania, which has an economy struggling to survive in a prolonged crisis that lasts for twenty years and is called "transition". The paper attempts to sketch the mechanism through which even such a country could hope, on long term, to have a development which is compatible with the principles of sustainable development. On the way from "transition" to "sustainable development" in our vision Romania has to go through the stage of economic survival with its own operation mechanism, such as the restructuration of the economy.*

**Key words:** sustainable development, economy's structure, the concept of economic survival

**JEL classification:** P48, P52, Q56

### 1. Introduction

The rhetoric of sustainable development gained a wide field of acknowledgment not only in Romania, but also in the international scholar literature. This effort of thinking is difficult to be recognized in the unfolding of Romanian economic realities, but also in the global ones.

If in the case of a country of which economic performances are inscribed on a positive trend to discuss about sustainable development (SD) is a prove of responsibility and wisdom, in a country with a ramshackle economy, undergoing an involution, invoking SD becomes a paradox, especially then this status is featuring more than twenty years.

The desire and the will of breaking out from the crisis, in the modern understanding of the concept, could lead to a new economic system, which performs better, envisages development, and from the types of development chooses SD. This transition from a economy that is in involution to a new one, with sustainability valences is the theme proposed for discussion in this paper.

### 2. Understanding of sustainable development concept within the specific conditions of Romanian economic space

The SD concept proposed by Bruntland (1987) was accepted by United Nations (UN), which recommended it to be applied by governments as guidance for their national strategies. The concept is generous and due its high comprehensiveness necessitates adaptation in accordance with the realities of each country. This adaptation process led to a wide variety of interpretations. Which is the interpretation in Romania?

#### 2.1 The canonical form of the SD concept

This form is more a compromise than a balance between the needs of present and future generations, especially in economic terms, but with respect to the potential of natural ecosystems as life support systems. The principles of the concept are the following:

- Protecting human, animal and plant health, biodiversity and the natural landscape;
- Increasing the efficiency of natural, human, social and other types of capital;
- Equity within and among human generations in terms of resource access.

Stated like this, the principles let room for a number of interpretations. Thus the expression "the needs of present human generations" raises the question of how close or far we are settling against basic human needs; further, efficiency push us to think about for how long increased efficiency could compensate demographic growth and development of economy, since the limits of development are interfering with the interests of large transnational corporations (Bran and Ioan, 2009), interest that have a pure economic underpinning; another question is where to find within the human-environment-economy triangle important human dimensions like culture, spirituality, progress and national policy framework.

Critics of SD consider that human is an invasive species, which will “devour natural ecosystems” by the virtue of rights conferred to him by the anthropogenic vision. Shifting the focus from human to nature (eco-centric approach) becomes a chance for promoting SD (Bran et al., 2011).

Older concepts like the entropic approach, or newer ones like the Gaia concept, suicide planet, deep-ecology, survival etc. erode the optimism associated with the early days of the SD concept. The evolution of the SD concept is normal since the world is dynamic, complex and featured by many uncertainties. The definitions that reflect this evolution was reviewed by Pezzy cited by Manoliu and Ionescu (1998) and we chose two of them to be discussed:

- Capacity of all human communities, including the remote ones, to satisfy their basic needs in terms of housing, drinking water, food, health and hygiene, participation in decision making, social, cultural, and spiritual cohesion (European Parliament in Mironescu, 2003);
- SD is a solution for poverty and its worsening within a world of abundance; uncontrolled expansion of urbanization; unsafe job; dismissing of traditional values; inflation and unemployment; crisis of financial, geopolitical, and military economy; increased power of transnational corporations, which are led by different criteria than the principles of SD (position of civil society, “greens” in Bran and Ioan, 2009).

In the national variants of the SD concept there are sought solutions for: managing disparities against developed and poor countries; defining the national interest and subordinating strategies and policies to SD; securing political and economic independence lack of which leads to unsafe and incomplete economy; valuing own resources; mobilizing population toward food autonomy; socialism in order to a more equitable distribution of national wealth; poverty eradication; economic emergence toward SD; organic growth as a compromise between linear and exponential growing patterns in the SD equation; survival ante or post development etc.

As tools used for building SD the most important are efforts made at national level, which are further complemented by international contributions such as: world governance, aid for poor countries from rich ones, moral codes of conduct for transnational corporations, transforming geopolitical meetings in geo-economic collaboration etc.

## 2.2 The approach of SD in Romania

Officially the SD concept is embedded in the national policy making and strategy construction, in discourse of decision makers, educational curricula etc. and it is accepted in its canonical form proposed in 1987. The attempts to adapt it to the realities of Romanian economy made by politicians, researchers, scholars were not formalized in a particular concept recognized by the official institutions of the state as effective guidance for the elaboration of Romania’s long term economic strategy.

Since the economy is in a chaotic transition (Dinu, 1999), without milestones such as national interest, strategic objectives, means of accomplishing them, decision makers without prospective thinking etc. pushed constantly Romania on the tail of European countries’ hierarchy, position which is not deserved and also humiliating for the people of this country.

The incapacity to manage economy after 1989 led to the system of national economy to be destroyed, loss of more than *two million jobs*, loss of food independence, migration of more than 2.5 million inhabitants, more and more people becoming poor and a narrow segment becoming extremely rich, increasing debts for the country for a long period of time to foreign financial institutions.

In such an economic space, in which the economic crisis is attempted to be resolved almost exclusively by cutting down wages in the budgetary sector, taxes and fees and increasing the external debt and not by investment and incentivising of production it is difficult to discuss SD. Consequently, we propose a replacement of the SD concept in accordance with similar situations in other countries with the concept of economic survival which supposes:

- Reconsidering the subsystems of strategic and tactical management of the national economy by taking in account organization criteria, and quality of decision makers oriented by professional excellence. This desiderate coincides with the rule of the system theory according that states “a management subsystem which brought the system in a crisis has no capacity to restore it.”
- Motivation, mobilization of the population’s latent forces to stop involution, degradation of national subsystems (forestry, agriculture) or the deepening of the crisis (unused natural resources).
- Rectification on medium term of the economic situation as a starting point for a positive trend that will give more weight to the surviving concept;

- On the long term going beyond the surviving stage with development and channelling this toward sustainable development (Bran et al., 2011).

The premises of such a reformation scheme of the economy (in terms of efficiency, functional cybernetic systems) should be searched in the improvement and modernization of management subsystems, removing political influence over decisions that involves professional expertise, support of population by fighting corruption in public institutions using a functional juridical system, control over “black” economy (representing 20-50% of the GDP), massive reduction of bureaucracy, creating an attractive environment for investors, order and personal safety.

The goals of the post-crisis strategy and envisaging development via the survival concept could comprise as emergencies: halting the externalization of natural resources (forests, minerals etc.), food independence, re-industrialization of the country in order to create jobs, stabilization of rural population and reactivation of agriculture, balancing the budget by avoiding unnecessary debts (“parasite debts” made by public institutions), halting the export of wood (excluding furniture) and the exploitation of forestry resources until the deforested areas are planted according to the provisions of the Forestry Code etc.

The concept of survival was recently discussed (Bran et al., 2011; Manea, 2009) and it means conservation of natural ecosystems carrying capacity, valuing traditional knowledge that allowed a balanced human-nature relation for millennia, take-off from poverty, reduction of “parasite” expenses (individual and common), promotion of eco-economy for up taking renewable resources in the economic circuit, and associating hope with eco-economy and with the expectation of people to have a different look on the future.

### **3. The current crisis of Romania’s economy**

The transition from the socialist economy to the market economy necessitated the adaptation of the old system to the requirement of the new type of the economy. The adaptation was necessary especially for strategic and tactical management subsystems which were organized according to the principles of centralized economy. Meanwhile, the structure of the economic systems would necessitate also some changes. The system theory considers that if the existence of a system is prolonged (limit case), there still remain functional subsystems that could be the germs of a new system.

In the centralized economic system there were many competitive subsystems with good performances on the global market (petrochemical products, textiles, clothes, food products, weapons, metallurgical products, diverse machinery, energy equipments etc.). These subsystems should remain functional in the structure of the post-1989 national economic system.

The lack of previous experience in transition from socialism to capitalism and the quality of new decision makers favoured huge mistakes in the management of the economy, with far reaching consequences such as replacement of the closed cybernetic system with an open one; shift of priorities for strategic and tactical subsystems; changes in the structure of the economy and changes in agriculture.

Replacement of the closed, cybernetic system of the national socialist economy with an open system, where the inputs and outputs fluctuated randomly, without strict control (self-control) that maintained the system in a stable evolution, established through a national long term development strategy. Consequently was maintained a unique deficit of the external payment sheet, deficit found in a cumulated external debts of around 120 billion euro.

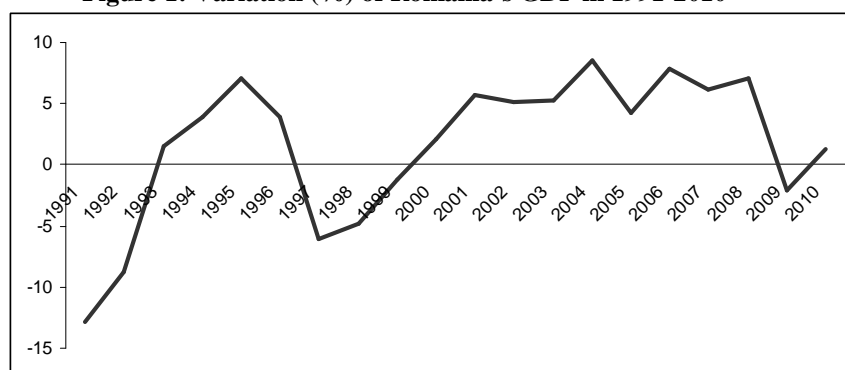
The subsystem of strategic management that should direct the adaptation process of the economy, minimize losses, support and consolidate valuable processes (at least the production of commodities that were exported in western countries), think and apply the strategy of transition, meanwhile enclosing the complex system of the national economy with feed-back and feed-before processes was highly ineffective. Situated somewhere between the Parliament and the government, the management was preoccupied excessively by other priorities (political fight, adhesion to EU, NATO alliance, individual wealth, services for political customers etc.) and therefore had no time and expertise to even sketch a national strategy to go beyond transition and further to development (economic, social, and cultural) which will give personality in the hierarchy of European countries (Belli, 2001).

The subsystem of tactical management underwent the same process of dissolution of old structures following biased criteria which not allowed a strengthening of the economic processes, as it is shown by data on GDP, occupied population, wages, contribution of various sectors to GDP formation.

Romania’s GDP after 20 years (figure1) does not configure any chance for the country to reduce the performance gaps against European countries or, in some cases, to equal the ante-1989 performances (industrial and agricultural production, proportion of pension against wages, occupied population in industry

etc.). Budgetary incomes were chronically lower than expenses, with large increases in absolute terms after 2005 (figure 1).

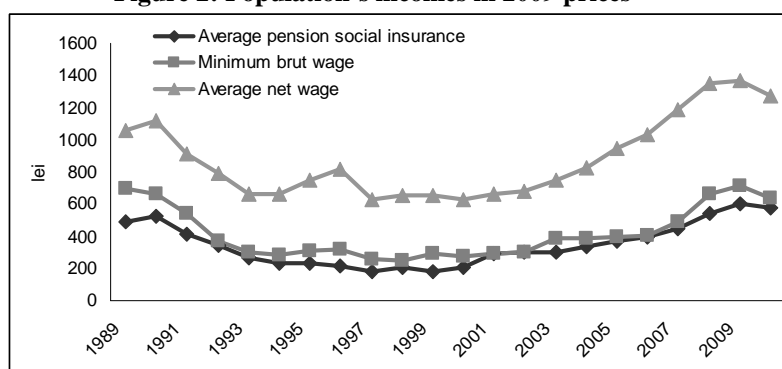
**Figure 1: Variation (%) of Romania's GDP in 1991-2010**



Source: Romania's Statistical Yearbook, 2010

Population's incomes recorded no significant changes in terms of wellbeing (figure 2). The number of wages dropped from 10 941 thousands in 1989 to 841 thousands in 2009, while the number of retired persons increased from 1 698 thousands to 5 689 thousands in 2009. Such figures give no hope for further changes too.

**Figure 2: Population's incomes in 2009 prices**



Source: ICCV calculation based on INS and MMFES data

The loss of millions of jobs was the effect of closing or liquidating enterprises and transforming them in recyclable metal. This was the typical pattern of privatization proposed by Romanian decision makers. The dynamic of occupied population by economic sectors (table 1) records two trends: deindustrialization and bureaucratization.

**Table 1: Employment by economic sector in 1989 and 2009 (thousands persons)**

	1989	%	2009	%
<b>Total</b>	10 941	1 00	84 11	1 00
<b>Out of which:</b>				
Industry	4169	3	24	2
Construction	766	8.1	11	1.1
Agriculture	3012	7.	62	7.
Administration	860	0	6	4
		2	24	2
		7.5	13	8.7
		7.	14	1.
		8	66	7

Source: Romania's Statistical Yearbook, 2010

The effects of losing more than two million jobs until 2009 had dramatic consequences on population:



- Unemployment: 709 thousand registered unemployed (7,8% rate of unemployment);
- External migration: probably 2.0-2.5 million persons;
- Deepening of poverty and increased number of poor. In 2008 were recorded 1.25 million persons living below poverty threshold (70% in rural area);
- Anticipated retirement increased the number of retired people to 5 689 thousand persons, out of which 5 075 thousand are on social insurance, compared with 2 232.5 thousand such pensions in 1989.

The structure of the economy changed, with an increasing contribution of services (table 2), while industry, constructions and agriculture which contributed with 85% to the GDP formation, represent only 39% in 2009, with well-known consequences on the economy and on the population.

**Table 2: Contribution of various economic sectors to GDP formation in 1989 and 2009**  
(Percent of total economy)

Sector	1989	2009
Industry	66.8	24.4
Agriculture	11.3	6.36
Construction	8.8	9.9
Trade	3.6	10.4

Source: Romania's Statistical Yearbook, 2010

A subsystem of the national economy that would have the chance to remain stable and functional was agriculture. The large agricultural property was organized in farms with technical performance close to western one. The transition to the market economy required little interventions. Unfortunately, the decisions made for this sector created not less than chaos. This state is illustrated by two indicators: 2.5 million hectares of arable land is not cropped each year and 70% of Romania's food need is secured by imports, while the potential for agriculture is enough to feed three times more inhabitants than the population of Romania today. In figures this is illustrated as follows: in 1989 the export of food products was five times larger than the import; after five years the import was five times larger than the export. In the external trade balance of 2009, out of the total deficit of 9 669 million euro, 1 971 million euro is generated by food products.

Romania's tragedy is not only the irrational decision that bankrupted the agriculture, but the lack of reaction and ideas on the behalf of decision makers in order to construct solutions. This environment of agricultural involution (table 3) allowed room for hypermarkets to bloom and dump the market with import commodities on discretionary prices since there is no competition on the behalf of domestic producers. The depopulation of rural settlements is the largest peril for further reducing of food potential of the country and its population.

**Table 3: Evolution of livestock from 1989 to 2009 (thousands heads)**

Sector	1989	2009	Variation (% from 1989)
Cattle	6 291	2 505	39.0
Swine	11 671	5 786	49.5
Sheep	15 435	9 132	59.1
Poultry	113 938	83 826	73.0

Source: Romania's Statistical Yearbook, 2010

Other changes in the structure of the national economy are:

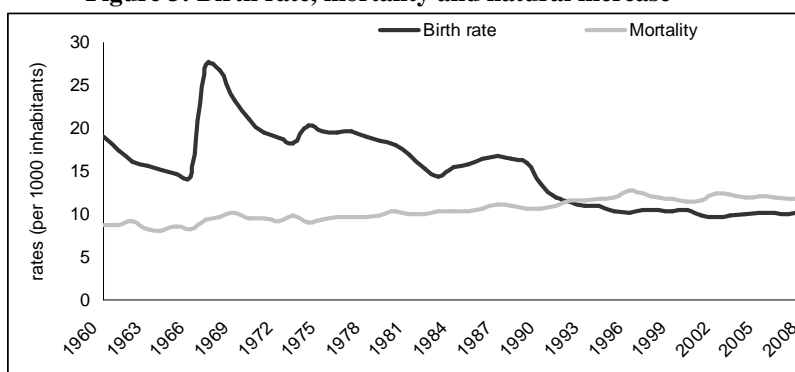
- The sector of research and development reduced its human potential from 169 964 persons in 1989 to 41 500 persons in 2009 (less than a quarter); consequently the number of invention brevets has reduced to 582, which are very few for a country having the size of Romania and member of an union declaring its innovation lead strategy;
- On the background of falling school population (from 5.54 million pupils in 1989 to 4.17 million pupils in 2009) the number of students "expanded" 4.72 times due to the functioning of private universities which have little respect about the needs of labour market;
- Individuals employed in administration multiplied, but with no positive effects on management outcomes. On the contrary, this led to bureaucracy, corruption, underground economy, organized crime etc.;

- An external income generator emerged: the emigrants that send back money. They infused the national economy with 38.81 billion euro within 2005 and 2010. It is estimated that the number of Romanian emigrants is around 2.7 million (in 2010), representing 13.1% of the population. Part of this money was directed in constructions, especially in rural areas.

The failure in managing the country after 1989 is proved not only by the data presented above. These should be complemented by the following considerations:

- Valuable resource were externalized (oil and natural gases (50%), utilities) with major impact on the economic structure;
- Romanian banks went bankrupted or were privatized failing to support the investments as support for economic development;
- The forests of Romania are exploited despite any logic with immediate effects (floods, landslides) or far reaching effects (climate change, biodiversity loss, reduced attractiveness for tourism etc.);
- Promotion of investments and attraction of investors are arts that should be learned by decision makers. These lessons proved to be difficult, since taxes and fees, along with a large number of certificates prevent many potential investors from establishing their headquarters in Romania;

**Figure 3: Birth rate, mortality and natural increase**



Source: Romania's Statistical Yearbook, 2010

- Lack of a strategic thinking that would consider creating at least one million jobs in order to stabilize the population and halt the demographic decrease (figure 3). Integrating gipsies could also find a solution in this picture.

#### 4. The system's crisis and its perspectives

The above made analysis allow a number of conclusions: failure of transition, involution of the economy; open economic system, without effective feed-back or feed-before regulations; diminished productive potential; strategic and tactical management subsystems are functionally inappropriate. Considering these features, how could the system of the national economy function further? The system theory is unforgiving: the system becomes un-functional or it is rebooted and with a new structure evolves with different performance parameters than the old system (Mureşan et al., 2004).

The variant of *continuous involution* is known for us, and the economic structure that led to this involution attempts to be saved by external and domestic credits and by cutting wages, pensions, and investments. Such a philosophy, encouraged by the experts of international institutions, is questionable. The "engines" of the economy – industry and agriculture – does not function anymore. And there is no replacement for them. At the end of the road is the perspective of declining country (also named failed) (Brown, 2008).

The variant of reformation has chances to be accomplished considering the theory and practice of economy (Adumitrăcesei and Niculescu, 1998), system theory, principles of the survival concept (Bran et al., 2011; Manea, 2009; Brown, 2008), bifurcation theory of Ilya Prigogine or the eastern philosophy according to which any crisis is a new start.

By synthesizing all these approaches we outline three requirements for systems undergoing crisis that want to be safeguarded:

- A viable structure of the economic system focused on certain resources, that are accessible and available for a long period, and are valuable within a dynamic external environment (globalized economy);
- Management subsystems able to organize such a system and make a safe management for going out from the crisis and replacing it with development (hopefully with elements of SD);
- Defining national interest in order to assert the country in world flows of products, service, science, art, culture etc. and defining a sustainable future, honourable and deserved by the population of this country.

The chances to reform the system or to form a new system are difficult to be forecasted. Nevertheless, considering several data we could make a number of assumptions. As long as the structure of the economy is regarded, its support could be:

- Soil: 14 685 thousands hectares of agricultural land, out of which: 9 422 thousands of arable land; 3 814 thousands hectares of pastures; 1 528 thousands hectares of hay field; 215 thousands hectares of vine; 205 thousands hectares of orchards; 6 756 thousands hectares of forests; 475 thousands hectares unproductive land;
- Fossil fuels: oil resources and half of the natural gas resource were lost; coals should be reconsidered in energy production (due to price reasons and pollution). Off-shore reserves in the Black Sea should be valued;
- Energy potential: is far from being valued. Wind, solar, geothermal, and hydro power of Danube and internal rivers;
- Diverse mineral resources: although there are such reserves, their exploitation should be considered carefully since new technologies are highly disruptive and polluting (e.g. gold mining with cyanide);
- Human resource: is not valued at its potential due to the fact that education, value hierarchy, selection and promotion criteria etc. act as barriers instead of improvers of this resource;
- Political involvement: it is very high, and it should be limited since it is the main cause for the failure of transition. Its replacement is professional expertise. Historical evidence suggests that such a change is not likely.
- Tourism: Romania has an outstanding natural and cultural tourism potential. Nevertheless, most of its destinations are not included in the international tourism flows;

In this calculation we will forget resources and activities such as: exploitation of forests since the chaotic logging has to be replaced by the restoration of forests, import of wood for furniture manufacture, banning round-wood and timber export; naval transportation; marine fishing; overseas oil exploitation.

The second condition is difficult to be met since the replacement of current management subsystem encounters barriers like:

- The incapacity of the current political class to build up modern, performing teams of decision makers;
- Drawbacks of democracy which does not allow to select highly professional and clean moral profile representatives;
- Obscure interests interfere with the national interest and it is possible to have a significant influence on high level decision makers.

It was believed that Romania's adhesion to the EU or the commitments imposed by foreign advisers (IMF, World Bank) will incentives the renewal or effectiveness of macroeconomic decision. This did not happen. The change through violence is also excluded since after revolutions people with great courage but little managerial or political training tend to occupy key positions. In other terms, at this point we cannot envisage a possible solution for major changes in one of the most important subsystems: strategic and tactical management.

In terms of national interest, economic systems that are in difficult situations necessitate strong measures for managing the crisis with minimal losses for the system. The main tool in this process is a strategy subordinated to a paradigm representing the strategy's philosophy and the criteria for selecting objectives, policies, and action programs. Such a paradigm could be: ***respect the national interest***. Once this is correctly defined, the efforts to withstand the crisis will become coherent and will create the premises that on long term survival to be replaced by development, and eventually sustainable development.

### 5. Components of SD to be present in the restructuration of national economy's system

If the change in the structure of the national economy's system is anterior to its development, in the reform process could be included components of SD along with the ones specific for survival. The role of these components in the establishment of the new structure could be important. Such components could be: halting environmental degradation; valuing natural resources by respecting their support capacity; reconsidering the position of human resources in the process of restructuration; valuing traditional (ecological) knowledge; increasing efficiency in the use of resources; reducing the gap between social categories and territorial units; protecting mineral resources; and fighting corruption.

### 6. Conclusions

SD regards the future on the long and very long term for Romania's economy. Currently more important is to secure the survival of the economy after a process called transition, which was managed inappropriately and generated a twenty year crisis of the entire national economy.

Breaking out from the crisis could be understood as a chance for changing the direction of national economy's evolution. There are many variables that interact and is difficult to make a prediction on the outcome of this change or if it will occur or not. Nevertheless, we could propose a reference in terms of action that will guide decision makers toward survival and further to sustainable development. These actions are: restructuration of the system in order to make it compatible with the modern economy, able to self-control and to generate the means of evolution and further development (stage economic "survival); "taking-off" from survival to development, in a viable manner considering the global economy's competition; and development with sustainability components on long and very long term that will allow the assertion of Romanian economy, and Romania in general, in the world.

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## THE PARADIGM OF THE LIVING LOGICAL SYSTEM (LLS)– ANOTHER WAY TO PERCEIVE THE WORLD OF ECONOMICS

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**Abstract:** *The current paper proposes an analysis, on the criteria of adequance and consistence, of the paradigm concept, a comprehensive-type presentation of the pragmatic framework of natural sciences and their impact (from the methodological point of view and concerning the method of knowledge) concerning social sciences, particularly economics.*

*Considering that said, the logic of the paper means to point out the paradigmic stalemate in which economics finds itself today and the neccesity of a new paradigme which would have as a basis the Living Logical System (LLS), considered by us as a natural derivative of the specifics in which today`s society finds itself concerning knowledge.*

**Key words:** paradigm, dissipative systems, living logical system.

**JEL Classification:** B41

### 1. On the paradigm framework

The concept of paradigm is introduced firstly by Thomas Kuhn (1965,1970), in his work entitled *”The structure of scientific revolutions”*, as a necessity to surprise the problem that among researchers within social sciences, there is no minimal accord concerning several fundamental issues, such as the acknowledgment of several research problems and the evaluation of the solutions for such problems.

In this manner, *”paradigms – as Kuhn writes – are scientific acomplishments which are universally renowned and which, for a period of time, offer problems and model solutions to a community of practitioners.”*

In other words, paradigms represent those scientific acomplishments which serve the members of a group of researchers to model their own research and to evaluate their own acomplishments, after which these solutions are undertaken in their manuals and treaties concering mature scientific disciplines.

According to such an endeavour, knowledge, meaning the understanding and explanation, comprising a paradigm, unlike knowledge formed through enuntiation and scientific theories, is consider to be *tacit* measure. Ergo, according to this framework, a reasercher manages to model the formulation and solving of a problem by guiding himself on a paradigm, without needing to know what consists the similiarity between his issue and that of the paradigm which guides him.

Solving such a problem on the basis of tacit knowledge is what Kuhn calls *normal science or normal research*, and the type of problems formulated and solved in normal research as *puzzle problems*, meaning they are problems which researchers will eventually solve. These problems are the ones posed by the need of a better connection between theory and observational data or experiments, through an activity which follows their mutual adjustment, but also to problems linked by logical or practical correlations in certain areas in which it is expected that they will apply.

The explanation that Thomas Kuhn (1982) gives reffers to the fact that, within normal science, the researcher is not innovative, rather the one who solves puzzle problems, being convinced that these can be formulated and solved within a traditional (paradigm) framework. Within such a framework, failures in giving solutions to problems of the normal science are not attributed to the paradigm on which they rely on, rather on the researchers.

Karl Popper (1970) was a fierce critic of Kuhn, and he perceives normal science or normal research as a research which lacks critical spirit and considers it perilous to science, meaning that he asks himself questions concerning the fact that researchers remembered by scientific history could practice normal research, as viewed by Kuhn.

More recently, an American philosopher, Tim Maudlin (1996), formulates an objection against the paradigm framework which Kuhn proposed, stating that: „*theory is adopted on the basis of empirical data and not directly due to its ability to solve problems*”.

Concerning these critics, it is necessary to point out the fact that Kuhn himself favors the confusion created between inconsequences which are linked to terminology concerning normal science, which can be found within his book (*The Structure of Scientific Revolutions*) but, as a response to these critics, Kuhn clearly showed that the expression *normal science* must not be understood as the attempt to apply a theory (which will be confirmed or not), rather it is intended to create a better correlation between theory and facts.

In other words, normal science is not to be mistaken for theory and must have, as an objective, solving a *puzzle*, and for this, the paradigm must be valid.

For example, an object of critics is constituted only by the solutions which are brought forth by researchers, to known problems, and not to the paradigms which lead them in formulating and solving these problems.

However, and extremely important, controversy on the fundamentals and searching for innovations which would alter the way we see the world, are occurring during crises, which precede and prepare the replacement of some paradigms with others (the critical discussion appears only during crises, when the basis of a particular field is in jeopardy), because if solving a *puzzle problem* would be successful every time, the development of science would not lead to fundamental innovations.

*As a conclusion, we can state that a paradigm framework represents a methodological framework in which we have an ensemble of philosophical principles regarding the general path to follow in order to obtain the result of a scientific research, using a specific technique of applying the methodology.*

## 2. Imagery about the physical world – two paradigms

A successful synthesis concerning our image and perception of the world is to be found in a paper by Fritjof Capra (2004), where we are shown that before the XVIth century, the dominant vision on the world, was an organic one, and at the basis of this scientific framework was the thinking of *Aristoteles and the Church*, a framework which remained uncontested during the Middle Ages, due to the contributions of Thomas Aquinas (XIIIth century), which combined the logical system of Aristoteles with Christian ethics.

This framework radically changed during the XVI and XVII centuries (*also named the Age of Scientific Revolution*), a period in which the notion of an organic world was replaced with the one of the world as a machine, and this became a dominant metaphore which was highlighted by the accomplishments of Newton and Descartes, and would have a major importance towards the future development of civilization, particularly the Western one.

Descartes, a philosopher and brilliant mathematician, rejected traditional theories about the world, and constructed a completely new system of thought. In his book, “*A speech on method*”, he has described a method which allowed him to build a science of nature, based, as well as mathematics, on obvious fundamental principles.

Ontologically, the certainty of scientific knowledge is right at the base of cartesian philosophy and from here, through extensive logic, he derived an entire mechanics system of perceiving the world, but it is precisely here that he was, perhaps, wrong. An example, in this way, is XIX th century physics, which proves that there is no absolute truth in science (at least, not to this point). Having said this, we must admit that this cartesian belief is widespread today.

The essence of this method has skepticism as a base, being an analytical one, meaning to decompose ideas and problems in components and arranging them in a logical order, leading to a spreading of reductionism in science, meaning the conviction that complex phenomena are comprehensive, thus diminishing their composing elements.

The cartesian method (a method followed in order to reach the one goal, meaning the finding of truth) which Descartes proposes can be summarized as follows:

- *The first rule* is to give up on the authoritarian method – practiced by scholastics – and its replacement with the method of free examination (in other words, the fact that tradition must not influence the process of knowledge);
- *The second rule* is the rule of analysis, meaning to divide examined problems within as many parts as considered necessary;

- *The third rule* is the rule of synthesis, meaning the guidance of thoughts, starting from the simplest ideas and reaching the more complex ones;
- *The fourth rule* is applying, experimenting all discovered truths.

According to these rules, all science must mean certain knowledge and reject probable knowledge.

Descartes' vision is based on the fundamental division between two separate and independent domains, meaning mind and matter.

Concerning this, Fritjof Capra (2004) states that both mind and matter are a creation of God, which represents the source of the exact natural order and of light and reason, allowing the human mind to admit this order, and to Descartes, the existence of God was essential, but scientists omitted any explicit reference to this.

Descartes himself extended his mechanic vision on living organisms, from his wish to build a more complete natural science, with a decisive and major following influence on the development of sciences.

This, it seems, has eventually lead to the mechanic image of nature, creating the dominant paradigm of science as a whole, including social sciences, according to Descartes.

Newton was the one who realized Descartes' dream and concluded the scientific revolution, creating a complete mathematical formula for the mechanic view on nature, creating a completely new method, known even today as the differential calculus.

Once this achievement by Newton unfolded, physics became the basis of all sciences within the *XVIII* and *XIX*th century, all these being modeled after this one.

The new discovery concerning knowledge of nature generated great enthusiasm, and knowledge within social sciences had the Newton theory as a basis. Thus, John Locke, an emblematic figure of the Illuminated Era, perfected an atomic view on society, describing the human being in terms of consisting elements, being driven by the belief according to which there were laws which governed human society, similar to those who governed the physical universe.

Such ideas became a methodological base for social science research, with strong influences on the development of economic thought and modern politics, and this "newtonian machine" became more and more complex and subtle.

All this into account, new discoveries around the *XIX*th century revealed the limits of the newtonian model and set the course for the scientific revolution of the *XX*th century, meaning the discovery of electric and magnetic phenomena, which could not be described having this only model.

The new current of thought implies the idea of evolution, change, growth and development, representing the intellectual basis of the most important evolutionist idea of all time, meaning the theory of evolution.

The discovery of the idea of evolution forced scientists to abandon the cartesian view on the world and the universe had to be imagine as a system in evolution, in which complex structures evolved from simpler formes.

The first step in this direction was made in biology, where Charles Darwin presented an astonishing amount of proof in favor of the theory of evolution, proving this fact.

Concerning science, the acceptance of the idea of evolution meant that the world could no longer be just a system in which the laws of physics applu, rather it had to include the living world as well, particularly with the modifications observed throughout time.

In physics, the application of newtonian mechanics in studying thermic phenomena, which involve treating liquid and gas as complex mechanical systems, lead physicists to formulating the concept of thermodynamics, characterized by two laws: the law of energy conservation and the law of entrophy. Growth of an entropy within physical systems, which marks the direction of time, could not be explained with the basis of newtonian mechanics and remained shrouded in mystery until Ludwig Boltzmann introduced the concept of probability. With the help of probability, one could describe the behavior of complex mechanical systems in terms of statistic laws, and thermodynamics could be put on a solid newtonian base, called mechanical statistics.

The first three decades of the *XX*th century have blasted away the cartesian view of the world and of newtonian mechanics as *the theory of relativity and cuantum theory* appeared.

In the *XX*th century, physicists confronted, for the first time, with a serious challenge concerning their ability to understand the world, this leading as a result to the so called modern physics, which can be characterized in terms of *organic, holistic*, as opposed to the cartesian view. In other words, the world is no longer regarded as a machine, composed of a multitude of objects, rather as a system, dynamic, whose parts are essentialy linked and can be understood only in a systemic way.

Einstein's theory of relativity produced a major shift in the way we perceive space and time, made us reconsider classical ideas, of the newtonian mechanics, concerning absolute space and absolute time.

At a macrophysics level, according to Einstein's theory, time and space are relative concepts, reduced to a subjective role of elements of the used language, by a certain observer in order to describe natural phenomena.

The theory of relativity formulated the hypothesis that the entire cosmos is a dynamic one, in evolution and that activity is the core of its existence. So, in modern physics, the image of the universe as a machine was replaced with the vision to which it is a whole, undividable, dynamic, evolving, whose parts are interlinked in an essential way and which can be understood only as models of a cosmic process.

At a microphysics level, a particular physics develops, named quantum physics, which proves that connections and interactions among the parts of the whole are more important than the parts themselves. This shows that we can not decompose the world in its smaller units, with an independent existence. Sub-atomic particles and even all the components of the universe cannot be understood as isolated units, rather they must be defined by the connections between them.

The problem which occurred in microphysics (Heisenberg, 2010) was given by the fact that, in spite of the classical definition, where it was stated that at least, as a principle, the movement of every molecule can be traced and determined according to the laws of newtonian mechanics (in each moment there is an objective state of nature, from which we can deduce its state in the following moment), in quantum physics, the situation is totally different. One could not observe without damaging the observed phenomena, and quantum effects, interacting with the means of observation, lead to imprecisions within the studied phenomenon. In other words, one of the principles of rational knowledge, meaning objection (the knowing subject is not a part of the reality which is the object of the knowledge endeavour, rather it is situated outside the object of knowledge, which it does not influence through its knowledge endeavour), on this basis (with the principle of comprehension) classic science registered unimaginable successes (including the theory of relativity), does not find its place within quantum mechanics.

Having said this, we must state that Einstein, which contributed through his previous work to the fundamenting of this new theory of microphysics, could not accept the existence of a non-local connection and its result, the fundamental nature of the probability.

### 3. The paradigm of species evolution

In biology, the paradigm that governs this field is called the paradigm of the evolution of species.

The discovery of the idea of evolution, which occurred in physics actually, compelled scientists within biology to abandon the cartesian view of that world, and the universe is now imagined as an evolving system, in which complex structures evolve from simpler forms.

Charles Darwin presented an astonishing amount of evidence in favor of biologic evolution, proving this phenomenon.

So, accepting evolution meant that the world cannot be considered just a place in which the laws of physics apply, rather it must include the living world as well, especially with its modifications observed throughout time.

If we wish to identify the defining characteristics of life (*membrane, metabolism, chemical network*) we notice that the simplest system to present these properties is the *cell*.

Even if at first sight this process seems reductionist (meaning the way to gain knowledge about biology) our statement is that this complex entity is not given by the sum of its parts.

The cell maintains itself through chemical reactive networks which are occurring within it and which produce all the components of the cell, and the function of each component in this network is to transform and or replace other components, so that the entire network re-creates itself continuously. In other words, a living system (the cell) is recreated continuously. This concept of self-creation (*autopoiesis*) combines the two defining characteristics of cellular life, meaning the physical borders (nourishment which enters the membrane is transformed into metabolites) and the metabolic network (the producing of macromolecules from metabolites).

All cellular structures exist far from the thermo-dynamic equilibrium, meaning the cell will die if cellular metabolism will not use a continuous flow of energy to remake the structures which fall apart.

As a consequence (Capra, 2002), living systems are enclosed from the point of view of their organization (autopoiesis networks) and open from the material and energy points of view (to remain alive cells need a continuous flow of matter and energy from their outside environment).



Research concerning these aspects lead to two theories:

- The autopoietic theory;
- The theory of dissipative systems.

In synthesis, the biological system is an *open* system, meaning a dissipative system, which is far away from equilibrium, albeit, it is *stable* (the same ensemble structure is maintained in spite of a continuous flow and of changing components) meaning also a closed system which self-creates. This spontaneous apparition of order, given by the capacity of autopoiesis, is one of the most important concepts of the new way to understand life, and often one speaks of *emergence*.

### 3. The issue of knowledge within economics

It is necessary, according to research which was already done, as well as the continuation of this paper, to make several statements concerning the following concepts which we will use further:

1. *Through economic system*, we understand the knowledge form of the economic process;
2. *Through economic process*, we understand the form of manifestation of an economic phenomena;
3. *Through economic phenomenon*, we understand the knowledge form of a noumenon.

At this time (Dinga, 2010), *orthodox economics* is still the prisoner of the mechanics paradigm (concerning the process and the models of the economic process) because:

#### 1. *Concerning the economic process:*

- The economic process is considered completely causative, with a local causality, of an efficient nature (in the sens of Aristotle);
- Space, as a scene of economic phenomena and time as a separate dimension are considered absolute (they have value within them and for them);
- The economic subject is considered different in a breakable way (it is considered outside the economic process);
- The values which guide a society and which determine its vision on the world (religion, scientific initiatives, technology, political and economics order, etc.) are not considered variables of the economic process (the main values of economic models are those which can be measured by attributing monetary equivalents);
- Non-linearity, divergence points, attractors, are not attributes of the orthodox process;

#### 2. *Concerning the orthodox models of the economic process:*

- Has optimal criteria at its core;
- Equations are dynamic, particularly because of local causality;
- It considers the invariability of initial conditions;
- Aleatory values, of a statistical kind, are integrated with the purpose of relaxing the dynamic characteristic;

It appears that the vision on the physical world, as a mechanic system consisting of elementary components, has shaped our theoretical thinking, including on social sciences, and even economics.

So, the re-evaluation of the system used for gaining knowledge of the economic process must take into account (at a unitarian level – even if, sometimes, in modeling, a certain integration of the subject within the studied object was possible (models that require expectations)) a series of other elements which are characteristics of complex systems. In other words, the world of economics must not be regarded as a machine composed of various components, rather it is an undividable whole, with a dynamic far from equilibrium and whose parts are essentially linked.

### 4. The paradigm of the living logical system

In the following paragraphs, considering what has been said before, we will make reference at the proximal gender of the living, considering a recent development of this concept (Dinga, 2009).

The LLS concept was introduced by Professor.Dr. Emil Dinga, as a necessity of the fact that the praxiological real process within societies is a mixed process, meaning a mixture of the natural and social process and this blurry path between the two categories is considered to be ontological.

As a result, in order to put into discussion the logical and ontological basis of orthodox economic models, the concept of logical living system (LLS) was introduced.

The sufficient predicates, which are independent and consistent, for the LLS are:

1. *It is a system*, meaning a cutting up of reality, which verifies the following sufficient predicates:
  - it has a membrane*, which makes the difference between system (itself) and its environment;
  - it contains a multitude of comprising elements*, discernable or not between them;
  - it has many connections* (material, substantial or energetic, entropic, informationa, etc.) between its composing elements, as well as between them and the environment;

These sufficient predicates, which are consistent and independent, once verified, generate two new predicates:

- *It has metabolism* (reactions);
  - *has a qualitative identity*, this means that it contains a set of invariant notions which reproduce as a result of the metabolism and which ensure the logical continuity of the system;
2. *it has a dissipative character*, meaning an evolution far from equilibrium, this means that it maintains or even lowers its entropy at the price of accelerating the entropy within its environment;

Sufficient predicates, which are independent and consistent, once verified, generate other new predicates:

1. *it has autopoietic capacity*, this means that it combines the two elements of life, meaning the physical border and metabolism, with the purpose of maintaining the same structure, as a whole, in spite of a continuous flow and ever-changing components;
2. *Complex system (characterized by non-linear dynamics)*, this means that it does not allow predictions, rather the decreasing of uncertainty concerning the future;
3. *Invariability of total complexity*, meaning the invariant maintenance, as a permanence, of the logical sum which is the internal complexity of the LLS and its internal complexity (also called ecologic complexity, expressing the degree of the metabolism with its environment).

As a result, through LLS one can understand the living system which verifies all the predicates mentioned above and represents the proximal gender of the living, thus the living system is a logical living system.

In conclusion:

1. Through paradigm framework we understand a methodological framework in which we have an ensemble of philosophic principles concerning the general path to undertake in order to obtain a result for scientific research, using an individual technique of methodological application.
2. Ontologically, scientific knowledge certainty was at the basis of cartesian philosophy and from here on, through extensive logic, an entire system of mechanics was derived to see the world.
3. The essence of the cartesian method has skepticism at its core, being an analytical one, meaning it decomposes ideas and problems into components, and arranges them in a logical order, leading to the spreading of reductionism within sciences, meaning the conviction that complex phenomena are comprehensive by decreasing their consisting elements.
4. The decomposing of the idea of evolution forced scientists to abandon the cartesian view on the world, and the universe had to be imagined as an evolving system, in which complex structures evolve from simpler forms.
5. Within the XXth century, physicists confronted, for the first time, with a serious challenge concerning their ability to understand the world, resulting what we name today modern physics, which can be characterized as *organic, holistic*, as opposed to the cartesian view. In other words, the world is no longer regarded as a machine composed of a multitude of objects, rather as an undivided whole, dynamic, whose parts are essentially linked and which can be understood only in a systemic matter.
6. The discovery of the idea of evolution, which occurred in physics as well, obligated biology scientists to abandon their cartesian view on the world, and replace it with the universe as an evolving system, in which complex structures evolved from simpler forms.
7. *Orthodox economics* is still a prisoner of the mechanics paradigm (concerning the modeling process of economics).

8. Re-evaluation of the system used to know the economic process must take into account (at a unitarian level – even if, in some cases of modeling, the integration of the subject within the studied object was possible (models which take expectations into account)) a series of characteristics of complex systems.
9. The world of economics is no longer regarded as a machine composed of a multitude of elements, rather as an undividable whole, with a dynamics which is far from equilibrium, whose parts are essentially linked and can be understood only by the intermediate of the living system.
10. The LLS concept was introduced by Professor Dr. Emil Dinga, as a necessity of the fact that the praxiological real process of society is a mixed process, meaning a mixture between the natural process and the social process, and this blurry line between the two categories is considered an ontological one.
11. As a result, in order to set the logical and ontological basis of orthodox economic models, the concept of LLS (living logical system) was introduced.
12. Throug LLS one can understand the system which verifies a whole series of predicates, representing the proximal gender of the living, meaning that the living system is a logical living system.

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## OVERCOMING THE ECONOMIC CRISIS THROUGH INVESTMENTS. EVIDENCE FROM ROMANIA

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**Abstract:** *The aim of this paper is to demonstrate that by a high rate of investments a country can overcome an economic crisis. We will use evidences from Romania and through a macroeconomic model (by comparing Romania with Poland) and a microeconomic one we will suggest some measures for the Romanian economy and for investment policies.*

**Key words:** investment, wealth, economic growth, crisis

**JEL classification:** C22, D31, E01, E22, E43, E60, H12

### 1. Introduction

Strong, enduring growth requires high rates of investment. By investing resources, rather than consuming them, economies make a trade-off between present and future standards of living. That trade-off is quite steep. (The Growth Report, 2008)

If the sustained, high-growth cases are any guide, it appears that overall investment rates of 25 percent of GDP or above are needed, counting both public and private expenditures. They often invested at least another 7–8 percent of GDP in education, training, and health (also counting public and private spending), although this is not treated as investment in the national accounts.

Too often, both the composition and the size of public spending constitute a victory of the short run over the long run. Immediate claims for current spending—to pay wages, benefit politically powerful groups, or protect the population against declines in consumption—take away resources from what is important for the longer term. If the government's budget is too large, it can also crowd out private investment in the future. Spending, after all, must be financed by taxes, fees, or inflation, all of which deprive the private sector of resources it might otherwise have invested in growth. On the other hand, public spending on infrastructure—roads, ports, airports, and power—crowds private investment in. It expands investment opportunities and raises the return to private investment. By paving the way for new industries to emerge, it is also a crucial aid to structural transformation and export diversification.

Telecommunications infrastructure (and the pricing of services) is of particular importance. Telecommunications plays a variety of crucial roles in the public and private sector. It can aid education, transparency initiatives, and the delivery of government services. It can also raise productivity by disseminating price information to farmers, fishermen, and other producers. Telecommunications promotes widespread access to financial services. It also enables trade in services (a rapidly growing area of commerce) and links to global supply chains. (The Growth Report, 2008). Given the great importance of infrastructure and the tight constraints on their resources, governments have increasingly sought to tap private sources of finance. Although most investment in infrastructure is still public, the private sector has increased in importance as governments have gained experience in regulating it.

These public-private partnerships can help a government stretch its budget further. They also spare the public sector the burden of running projects. But if the partnerships are to work, governments must be prepared to bear other responsibilities instead. They must establish autonomous regulatory agencies to oversee the activities of the private agents. The terms of the partnership must be written and monitored carefully, so that the private investor can earn an honest return but not a monopoly profit. It is also important for commercial risks to be borne by the private party (The Growth Report, 2008). In too many cases, the division of labor has put profits in private hands, and risks in the public lap. There is now a great deal of accumulated, international experience with these partnerships. Some have been extremely successful in a wide variety of infrastructure areas, including telecommunications, roads, power generation, port management. But there have been equally numerous failures. Lessons should be drawn from both.

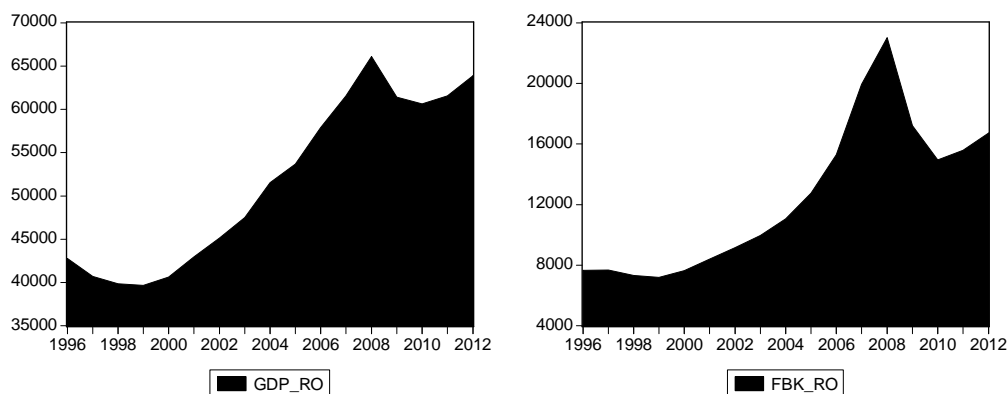
Governments must also resist the temptation to see infrastructure as a source of revenue. In telecommunications, for example, governments often allow private monopolies or quasi-monopolies to earn excessive profits, which the government can then tax to fill its coffers. This transfer from the consumer to the government, via the telecommunications giant, results in overpriced services, out of reach to large parts of the population. It may seem like a second-best solution for a cash-strapped government. But the damage to growth is likely to outweigh any fiscal benefits. (The Growth Report, 2008). In short, governments should recognize that their own infrastructure investments are an indispensable complement to private efforts. If they abrogate the public investment function, it will not be replaced by private providers. Growth and delivery of basic services to the public will suffer as a result.

**2. Descriptive Statistics**

The fact that the investments represents the main determinant factor of the economic growth is not an axiom used by the macroeconomists, but is sustained by various empirical evidences in this regard. As fallows we will make a comparative analysis of the share investments (gross fixed capital formation) in GDP from Romania and Poland (I choose Poland because it was on of the few countries that haven't experienced the recession).

In order to achieve this analysis we used data with an annual frequency (period 1996-2012, 2001 and 2012 are Eurostat forecasts), that were taken from Eurostat statistics. The data are expressed in real terms, million of Euros, the reference year being the year 2000. In the next figure we can see the evolution of real GDP and the Gross Fixed Capital Formation.

**Figure 1. Evolution of GDP and Gross fixed capital formation in Romania**

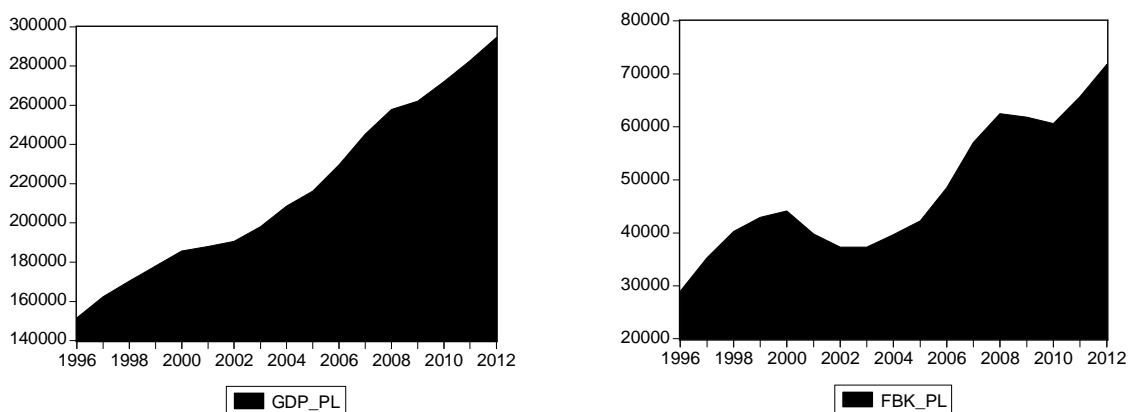


Source: Author's own manipulations

Analyzing the evolution of the two indicators, we can see that they are in direct relation.

To make a comparative analysis, I decided to present the evolution of the two indicators based on observations from Poland – you can view the result in the following figure.

**Figure 2. Evolution of GDP and Gross fixed capital formation in Poland**



Source: Author's own manipulations

Comparing the two figures, we can observe that Poland had a much more constant evolution of both indicators compared with Romania.

This thing is due to more coherent policy of Poland regarding the economic growth and investments, high support that they have from the more developed Western countries and probably because they have adhered with 3 years before Romania in the European Union.

It is very important to explain what happened in 2008, then when the financial crisis has made its presence felt in Central and Eastern Europe. For the beginning we will present the case of Romania. The GDP shrank by more than 7% from the value of 2008, and the investments with more than 25%. We can conclude than from the lack of investments from the state's side (which is recommended in case of crisis), Romania has experienced a severe recession.

In Poland's case, things are quite different. Although the financial crisis has included one by one the countries throughout Europe, this one has managed to record economic growth (GDP grew in real terms by about 1,6% in 2009 compared to 2008). This is largely due to the good investment policies taken by the Government (Investments decreased in 2009 with only one percent from 2008).

In the next table we will present the share obtained by investments in GDP.

**Table 1. The share owned by investments in GDP**

year	The share owned by investments in GDP (%)	
	Romania	Poland
1996	17,91	19,10
1997	18,89	21,74
1998	18,38	23,61
1999	18,14	24,09
2000	18,82	23,74
2001	19,57	21,17
2002	20,29	19,56
2003	20,97	18,82
2004	21,46	19,00
2005	23,76	19,53
2006	26,40	21,12
2007	32,36	23,25
2008	34,84	24,24
2009	28,02	23,59
2010	24,66	22,27
2011*	25,32	23,24
2012*	26,17	24,37

\* forecast

Source: Author's own manipulations

Another explanation for the real success recorded by Poland (has succeeded the performance to have economic growth in a crisis period) is apparent from the results presented above. We can observe the Polish government's investment policy coherence through the slow evolution, but sure of the GDP's percentage allocated to the gross fixed capital formation.

In contradiction, even though Romania has managed high growth rates in the period 2004 – 2008, due to the inadequate investment policies, in the year that precede the crisis, the level of Romania's real GDP fell, as well as the investment share in GDP.

### 3. Macroeconomic Model

In order to see the exact investment influence on GDP we will create an econometric model based on a simple regression and we will apply it to each country analyzed.

The variables considered are:

- real percentage increase of the Gross Domestic Product expressed by the formula:

$$d\_gdp\_ro=(gdp\_ro-gdp\_ro(-1))/gdp\_ro(-1)*100 \quad (1)$$

- real percentage increase of gross fixed capital formation expressed by the formula:

$$d\_fbk\_ro=(fbk\_ro-fbk\_ro(-1))/fbk\_ro(-1)*100 \quad (2)$$

Similarly, we will calculate  $d\_gdp\_pl$  and  $d\_fbk\_pl$  for Poland.

Applying the above model, we obtained the following results for Romania.

**Table 2. Descriptive analysis of the model applied in the case of Romania**

Dependent Variable: D\_GDP\_RO

Method: Least Squares

Date: 03/20/11 Time: 12:14

Sample (adjusted): 1997 2012

Included observations: 16 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D_FBK_RO	0.301396	0.049461	6.093571	0.0000
C	0.008857	0.006898	1.284018	0.2200
R-squared	0.726197	Mean dependent var		0.026372
Adjusted R-squared	0.706639	S.D. dependent var		0.046311
S.E. of regression	0.025083	Akaike info criterion		-4.416747
Sum squared resid	0.008809	Schwarz criterion		-4.320174
Log likelihood	37.33398	F-statistic		37.13160
Durbin-Watson stat	1.557050	Prob(F-statistic)		0.000028

Source: Author's own manipulations

Estimated equation is as follows:

$$D\_GDP\_RO = C(1)*D\_FBK\_RO + C(2) \quad (3)$$

By substituting the coefficient, we get:

$$D\_GDP\_RO = 0.3013961464*D\_FBK\_RO + 0.008857403337 \quad (4)$$

The result for Romania fits in the estimates made by DeLong and Summers (1991) – one percentage of GDP additional invested in capital assets leads to an annual GDP growth by one-third of a percent, this being the mechanism of economic growth.

In order to continue the comparative analysis between the two countries, we will present the results obtained by applying the model described on Poland.

**Table 3. Descriptive analysis of the model applied in the case of Poland**

Dependent Variable: D\_GDP\_PL

Method: Least Squares

Date: 03/20/11 Time: 12:26

Sample (adjusted): 1997 2012

Included observations: 16 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D_FBK_PL	0.184922	0.021928	8.433048	0.0000
C	0.031111	0.002277	13.66171	0.0000
R-squared	0.835519	Mean dependent var		0.042513
Adjusted R-squared	0.823771	S.D. dependent var		0.017460
S.E. of regression	0.007330	Akaike info criterion		-6.877252
Sum squared resid	0.000752	Schwarz criterion		-6.780678
Log likelihood	57.01801	F-statistic		71.11630
Durbin-Watson stat	2.553079	Prob(F-statistic)		0.000001

Source: Author's own manipulations

Estimated equation is as follows:

$$D\_GDP\_PL = C(1)*D\_FBK\_PL + C(2) \quad (5)$$

By substituting the coefficient, we get:

$$D\_GDP\_PL = 0.1849223299*D\_FBK\_PL + 0.03111138158 \quad (6)$$

According to the results obtained in Poland's case, one percent from GDP invested additional in capital assets leads to an annual GDP growth with 18,5%. This is probably due to more coherent investment policies that Poland applies in comparison with Romania.

Another factor that influenced the GDP's and investments evolution in both analyzed countries I consider that is the investment's efficiency. To analyze as well this factor, we decided to use a microeconomic analysis that shows the dependence between the volume of investments and wealth, and also the influence of some macroeconomic factors on the investment process.

#### 4. Microeconomic Model

To better understand the investment process, we will apply in the case of Romania a model developed by Abhijit V. Banerjee (2010) on the economy of India and published with the launch of the study "Equity and Growth in a Globalizing World" by the Commission for Growth and Development in 2010.

Banerjee has developed a model in which analyses the correlation between entrepreneurial talent and wealth, and reveals that due to the fix investment costs and imperfect credit market, those with a bigger wealth can invest better in their projects.

We will consider an economy where wealth has a distribution  $G(w)$ , meaning wealth  $W$ . This economy has only one good and a single technology for production (for simplicity). This technology requires a minimum investment of capital  $K$ , the later output of investment being  $aK$ , "a" representing the entrepreneur's talent and ranging between the  $\underline{a}$  and  $\bar{a}$  (distribution of talent is independent of wealth).

The normal question that we put is how can someone who has no minimum  $K$  wealth invest something? The obvious answer is that through loan. Suppose the interest rate is  $r$ .

Each entrepreneur which has an investment multiplier  $a > 1+r$  will be happy to borrow in order to invest. Only those who have a high level of "a" will invest, and the rest will lend their wealth.

In the case of the marginal investor, we will apply the equation:

$$\frac{\bar{a} - a^m}{a - \underline{a}} * K = W, \quad (7)$$

or

$$a^m = \bar{a} - (\bar{a} - \underline{a}) * \frac{W}{K}, \quad (8)$$

and the level of the interest rate on the market is  $1 + a^m$ .

In the case of Romania, for illustrating the applicability of this model, we will consider that the value of  $\frac{W}{K}$  is 0,1. (this is the value considered by V. Banerjee).

In order to calculate the wealth of a person (we will consider the wealth of the entire family) we will take into consideration the GDP/capita indicator and the average number of persons from a Romanian family.

Thus, according to Eurostat, GDP/capita= 5700 Euros, and in conformity with the Census from 2002 the average number of persons from a Romanian family is 2,89.

Making the calculations we obtain  $W=5700*2,89= 16.400$  Euro.

According to the studies made by V. Banerjee, 30% of the total wealth  $W$  is represented by the real estate. Thus, the amount left for investment will be 11.480 Euros.

Because the value of the ratio is 0,1 it results that the value of  $K$  will be minimum 114.800 Euro.

If  $\frac{W}{K}$  is 0,1, this thing will cause interest rate to climb up until the point where only the top 10% of the most talented people will invest.

The average productivity of the one that would invest is:



$$A_{av} = \frac{\bar{a} + \underline{a}^m}{2} = \bar{a} - \frac{1}{20}(\bar{a} - \underline{a}) \tag{9}$$

In this case, would mean that some persons to borrow an amount that would represent their wealth multiplied by many times. Suppose like an alternative that people can borrow an amount equal to the multiplied wealth  $\lambda(r)$ .

Most model son the credit markets suggest that  $\lambda$  should decrease then when  $r$  would increase. this can be explained as fallows: the creditors try to limit loans to persons because they are worried that they might not be paid and have to worry even more when  $r$  increases and consequently expect also a higher remuneration.

The presence of credit constrain means first that not everyone has the option to invest, to reach the minimum level  $K$ , one's wealth should be at least  $K= 1+ \lambda(r)$ .

What plausible value should have  $\lambda(r)$ ? In the study made by Banerjee,  $\lambda$  is equal with 1/3 or less. the author assume that  $\lambda$  can not be bigger than 1.  $\lambda=1$  is appropriate to the case where an entrepreneur invests all its assets in a factory in order to increase his working capital. In this case, the minimum wealth for a person starting a business in  $K/2$ , which, base don the assumptions above, would be approximately 57500 Euros.

The next questions that arises naturally from our study is how many people in Romania have a wealth of 57500 Euros.

According to the assumptions of the study developed by Banerjee, we will suppose that approximately 10% can start a business, compared to the rest of the population in which there are not any credit constraints, the fraction of that segment that will start a business will be ten times higher. This situation involves widening the research in talent's distribution. To see the difference made by this distribution, we see that the minimum level of talent of an entrepreneur who starts a business, in this case  $a^c$ , will be given by the relation:

$$\frac{\bar{a} - a^c}{\bar{a} - \underline{a}} = 10 * \frac{\bar{a} - a^m}{\bar{a} - \underline{a}}, \tag{10}$$

from this equation results that the productivity of those who invest in this case will be:

$$A_{av} = \bar{a} - \frac{1}{2}(\bar{a} - \underline{a}) \tag{11}$$

compared with

$$\bar{a} - \frac{1}{20}(\bar{a} - \underline{a}), \text{ in case of credit constraint absence.} \tag{12}$$

For example, if  $\bar{a} = 2$  and  $\underline{a}=1$ , the average productivity would decrease from 1,95 to 1,5. in this linear model, the economic growth rate is proportional to the net productivity average,  $A_{av} -1$ .

By the assumed data, this model will imply the fact that the economic growth rate is effectively halved in the presence of credit constraints.

### 5. Conclusions

A strong and lasting economic growth supposes high rates of investment. By investing resources, instead of consuming them, we make a compromise between the present and future in terms of our standard of living.

In this paper we analyzed the investments both from macroeconomic point of view (comparison between Romania and Poland) and also from economic point of view in order to highlight as better the causes that led to the collapse investment and a sharp contraction of GDP in Romania.

We will conclude the obtained results starting from micro level and then we will make the transition to macroeconomic level. As we demonstrated with the help of the microeconomic model, at the base of investments there is the wealth of inhabitants from one country, the level of intellectual endowment (the ability of an entrepreneur) and the level of interest rates from an economy.

By analyzing these elements in case of Romania through micro and macro models we can conclude that the measures taken by the Romanian government and the bad policy of commercial banks crediting led to a very low level of investment and consequently to a strong contraction of the economy.

Another problem detected with the help of the microeconomic model is wealth distribution. In Romania, like in many other former communist countries, wealth is unfairly divided between the members of

society. Thus, a big part of Romanian wealth is concentrated at a small part from the population. Even if a person have very good entrepreneurial skills, it is likely that this one to not be able to start an investment process due to the lack of that minimum of capital K and the credit market bad policy.

Moving to macroeconomic level, we consider that the investment policies of the Romanian government should be more coherent, and the started investment projects to have an increased efficiency. We believe that the Polish model of economic growth and its investment policies are worthy to follow.

For the investment environment to be stimulated, will have to be taken measures that the capable entrepreneurs to have access to sources in order to start an investment project, public-private partnership should be much more exploited, and the credit markets will have to be much more flexible.

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## FINANCING SOURCES FOR SMALL AND MEDIUM-SIZED ENTERPRISES

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**Abstract:** *This article shapes the need of financing of SMEs, by synthesizing and explaining the available resources they can use in order to finance their activities, as well as by presenting the common issues they have to face.*

*Specialty studies revealed the fact that SME financing sources change according to the development phase the firm is running. Therefore, during the launching period, the most commonly used source is the owners' money, and, afterwards, the investors' interest in the company grows proportionally to its expansion level. The article presents, besides classic financing sources, other ways, which are not so commonly met.*

**Key words:** *SME, financing, business angels, risk capital, mezzanine financing.*

**JEL classification:** G2, G3

The biggest challenge SMEs all over the world have to face is finding and combining financing sources. The obstacles that appear when trying to get financing are due firstly to the fact that SMEs don't develop large projects that could both attract investors and offer guarantees regarding the credit payment.

A company's economic and financial life can't be conceived outside the environment where it develops its activities. This environment is the place from where the company collects its resources and where it makes payments, funds restitutions etc. Under the conditions of market economy, identifying financing possibilities has a major impact on economic agents' activities. Selecting and combining external financing means and their balance compared to internal financing is a major decision of the company's financing policy.

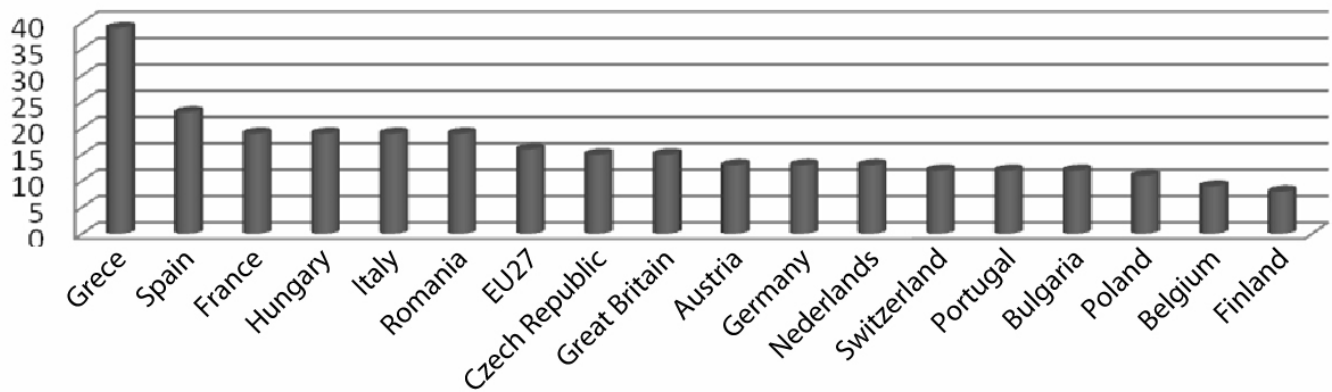
After acknowledging the importance of the SMEs to the European economy, the European Commission demanded the European Central Bank to develop a series of researches in order to scale the problems faced by this type of companies. The results were published in the Flash Eurobarometer Access to Finance (No. 271). According to these, one of the most common problems of European SME managers is access to financing (European Central Bank, 2009, Gallup Organization, 2009), this problem generating over 16% of the options (second place after "finding customers", but ahead "competition" or "finding qualified personnel" ) [[http://store.ectap.ro/articole/481\\_ro.pdf](http://store.ectap.ro/articole/481_ro.pdf) (Daniel Bădulescu- Finanțarea IMM-urilor: dimensiunile nevoii și răspunsurile diferitelor structuri de creditare)]



Image 1. The Most important Problems affecting enterprises

Regarding the distribution by country, inside EU there are important differences between the northern and southern Europe.

This shows that access to financing is of extreme importance to countries such as Greece, France, Italy or Romania, but moderate for Germany or Holland and less important to Finland.



**Source:** ECB 2009.

Image 2. Company Distribution by countries by “access to financing” as the main problem

SME financing is also complicated because these enterprises often need a wide range of financial instruments, according to their development stage. Specialty literature identified various growing phases of a company, each with its own financing needs, which can be accomplished through different sources [Financing innovative SMEs in a Global Economy, Innovative SMEs, lifecycles and financing Growth, Istanbul, 3-5 June, 2004].

During the launching period, companies have problems insuring the necessary working capital, because they present a high risk to investors and creditors.

The result of this situation is that more than 75% of the new businesses are financed through the entrepreneur’s personal resources, more precise personal savings and credits. Another important role is played by family and friends, who insure a part of the money necessary to start the business. This is the “seed financing”, and, because the money comes from those close to the entrepreneur, it is often called “love money”. In this stage the most important part is played by the will and perseverance in searching financing sources, both personal and governmental [<http://www.consultantabuzau.ro/surse-de-finantare/>].

The following development phase is, probably, the most delicate, as the firm starts developing, but it still doesn’t have the power to demand a bank loan. This is the survival phase, when personal funds are over and finding a new external source is of extreme importance. In this stage, the investments are still risky, with high failure rates, needing high revenue potential rates. Generally, firms that get to this situation aren’t large enough in order to draw the attention of risk investors [Financing innovative SMEs in a Global Economy, Innovative SMEs, lifecycles and financing Growth, Istanbul, 3-5 June, 2004]. This is the moment the so-called “business angels” category emerges- people who support the business with their capital and, sometimes, professional experience, which they offer most often in exchange for key-positions in the company’s management or shares, that make them co-owners of the business.

Usually, these investors have a rich business experience and they are willing to assume the risk, because these investments represent a small share of their total investments portfolio. They are most commonly interested in obtaining profit, but, at the same time, they get informed regarding a certain type of activity. Most investors of this kind want to remain anonymous and they don’t give information regarding their investment activities. This is the reason why the real sizes of the “business angels” market are hard to estimate [Giurca Vasilescu Laura –Mezaninul financiar – alternativă pentru finanțarea firmelor ?, Revista Tribuna Economică, nr. 2/2011].

After the company overpasses this beginning stage, in order to get to the expansion phase, it needs another capital injection, necessary for growing the production and distribution facilities, as well as for research and development. However, the fact that it’s still depending on intangible assets, with unsure cash-flows, turns the firm into a not so good candidate to loans. This is the stage when venture capital is needed/offered by risk investors. When companies require venture capital to professionals, they are usually developed up to the point where a venture capital specialist can add value. He will usually supervise the management, offer expertise and financing based on setting objectives. Venture capital specialists are, usually, interested in companies that can generate a fast growth and they can, in a few years, reimburse the capital. The time frame is, usually, 3-8 years.

Venture capital funds have been developing in the USA for the past 3 decades [Ovidiu Nicolescu, Ciprian Nicolescu – Intreprenoriatul și managementul întreprinderilor mici și mijlocii, Ed. Economică,

București, 2008, pag. 187] and they mostly finance firms who promise to be extremely profitable. “A venture capital fund is made like a closed investment fund, which mobilizes financial resources from individuals and organizations and places it in businesses which, even if they have a high economic risk, have a great potential of economic performance” [Ovidiu Nicolescu, Ciprian Nicolescu – Intreprinderile și managementul întreprinderilor mici și mijlocii, Ed. Economică, București, 2008, pag. 187].

All risk investors avoid the uncertainty and informational asymmetry associated to young companies, through intensive auditing of the firms before offering financial help, and through monitoring. Examples include offering gradual help, in time, making alliances or unions with other risk investors, becoming members to the managing board or setting up compensation schemes that include the option of becoming shareholders. Usually, risk investors gather the capital from other investors and invest it in a fund, most commonly structured as a limited partnership. Their main objective is to maximize their return rates [Financing innovative SMEs in a Global Economy, Innovative SMEs, lifecycles and financing Growth, Istanbul, 3-5 June, 2004].

Reaching the expansion and maturity phase reveals to SMEs the perspectives of negotiation and obtaining bank loans. The bank is the most commonly used financing source, even if its relations with the company are complicated and often rough.

In their effort to discover financing resources to use in the best interest of their business, entrepreneurs are open to various ways of financing their firm- short and long- term. They search and combine other sources too that might ensure the survival of the company. Some of these will be presented next.

- Mezzanine financing is a financing hybrid, between loans and shareholder's equity, used for companies already existent. In the conditions that even profitable have limited financing options, the economic environment determines the need for such alternative forms. The advantage of such a financing can be seen from the balance sheet perspective, when the mezzanine capital “works like a connection between shareholders' equity and loans” [Laura Giurca Vasilescu –Mezaninul financiar – alternativă pentru finanțarea firmelor, Revista Tribuna Economică, nr. 2/2011]. The costs of this type of financing consist in the fixe interest and the revenues obtained by selling shares of that company. The efficiency of mezzanine investments rise to 12-17% all along the investment, which means more the banks' (7-8%), obtained for loans, but less that the efficiency of private funds (at least 25%) [<http://www.wall-street.ro/articol/Money/34718/Finantarea-de-tip-mezanin-imprumuturi-participare-la-capitalul-social.html>].

Mezzanine financing is a modern product, which will make the financial market even more sophisticated, as it has been proven that, by using mezzanine, there appear to be higher efficiencies for capital investors. Moreover, this type of financing allows making higher volume transactions and it can be used in situations where bank loans are unavailable.

- Leasing financing. Leasing is a modern financing mean which is used frequently by SMEs, due to its multiple advantages: shorter starting period compared to a bank loan, higher flexibility and fiscal advantages. To all this adds the continuously growing leasing offer. The major disadvantage of this type of financing is the contract's total cost, which is high. Buying a piece of equipment through leasing is much more expensive than through normal conditions.

- Commercial credit. Financing through commercial credit consists in using the business partners' resources. This is probably one of the most profitable financing possibilities, being used in the relations with suppliers and customers. Drawing financial resources from partners depends highly of the entrepreneur's ability to negotiate contracts, but his credibility as well.

-Franchising. Financing a business by franchising is “an important indirect financing, ensuring an important share of the resources necessary to start a business. Without franchising, that value should be financed with liquidities by the entrepreneur” [Ovidiu Nicolescu, Ciprian Nicolescu – Intreprinderile și managementul întreprinderilor mici și mijlocii, Ed. Economică, București, 2008, pag. 166]. Its biggest disadvantage is the constraints imposed to the franchisee, which will have to give up most of his business independence, receiving in exchange from the franchiser consultancy, a brand, technology etc.

- Factoring. Taking over the receivables of a small company by a financial institution is advantageous because the firm purchases liquidities in a short time, but it is also very expensive.

The EU acknowledges the importance of SMEs and works with national authorities in order to improve the SMEs' financial environment. Through the organization of experience and common practices pools between governments, the Commission allowed many member states to bring improvements to this environment. The commission also got involved in the dialogue between bankers and SMEs, in order to identify and reduce the main issues smaller companies meet when searching for a financing means

[[http://ec.europa.eu/enterprise/newsroom/cf/\\_getdocument.cfm?doc\\_id=4570](http://ec.europa.eu/enterprise/newsroom/cf/_getdocument.cfm?doc_id=4570) - Întreprinderile mici au prioritate. Europa este bună pentru IMM-uri, iar IMM-urile sunt bune pentru Europa].

Strategic EU documents treat SMEs as “a major sector of the EU economy” [Ovidiu Nicolescu, Ciprian Nicolescu – Intreprenoriatul și managementul întreprinderilor mici și mijlocii, Ed. Economică, București, 2008, pag. 438]. We must remind here the European Charter for SMEs, adopted in 2000 at the Lisbon summit, followed in 2008 by the Small Business Act. This SME law on the level of the EU acknowledges the SME importance to the economy and gives them support and priority for financing out of EU’s funds.

On the EU level there are developed various projects and programmes designed to support SMEs according to their development stage, activity field or innovation degree.

In conclusion we can say that an SME could get financing resources from more than one source. Mainly the SMEs are seen as a sole proprietorship so they get financed by “Love Money”, and are seen as a family business.

There are also some cases where after keeping the business on float with the help of the “Love Money” for a couple of years, the “Business Angels” appear. These are known for financing businesses and then either taking a key-role in the company or by getting shares, as it was presented above. One of the well known cases of “Business Angels” intervene was the Amazon, which started as a simple family business and after receiving the appropriate resources from the “Business Angels”, the company went even better. The first owners of the company have left the board of Directors to let other people decide on the strategy of the company, and now they are getting a percentage of the revenue generated by the Amazon.com company. And this percentage is way more than they could have ever gotten if it weren’t for the financing and the experience of the “Business Angels” involved in the process.

Another way of financing the SMEs is by the EU programmes or projects. Which, if managed properly, can give the company a great increase be it in market share or revenues. To help young companies have more chances on winning these projects, the government could provide the appropriate consultancy to SMEs, thus increasing its chances to succeed in winning such a project.

As it was presented earlier on in this article SMEs play a key role in economic growth and development of countries. So as to increase this growth of the SMEs sector the government could increase the number of SMEs in the national economy, this could be achieved by either lowering the taxes for the first years of its existence, simplifying regulation terms in means of tax collecting or generating appropriate consulting for SME owners.

With these been said these measures would drastically improve the economy generating more supply and sustaining a healthy market through generation of competition.

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# INTERACTIVE PROGRAM TO SIMULATE GOODS AND MONEY MARKET DYNAMICS

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**Abstract:** *It is presented an interactive simulation program written in Mathcad for the Goods and Money market dynamics. The program starts in each case from a initial situation of the economy and determines the evolution of main economic parameters, such as revenue, taxation level, revenue rate, budget deficit on a 15 years period, until a balance state is reached. The results are presented in numeric and graphical form.*

*This way, it was noticed a marked influence of the government spending on the other economic parameters*

**Keywords:** Macroeconomy, Discrete Dynamic Systems, Economic Growth Models, Interactive Mathcad Applications

**JEL classification:** C63, E17

## 1. Introduction

The purpose of this work is the illustration of analysis opportunities offered by the interactive simulation programs for economic models. The possibilities of the currently available information technology were unexpected a few decades ago, and now allow analyses relying on dynamic economic models of a particular importance. It will be shown that highly complex models can be rather easily described. The number of studied parameters can be chosen upon necessities. The most important aspect is the possibility granted by the program interactivity to view swiftly the changes of the model's parameter, as determined by any change of one or more input data. Such changes are presented in textual form (for numeric values) or graphical form.

For the analysis there will be used the Mathcad programming environment, dedicated to mathematical calculations, because it has some particular advantages.

This study has a multidisciplinary nature, because it relies on the use for real economic problems of some advanced mathematical methods, such as the ones from the Discrete Dynamic Systems field.

## 2. The Mathcad Use in Dynamic Systems Study

Mathcad is a very powerful scientific tool for mathematical calculations. It has some particular advantages over other applications from its software class, such as Mathematica, Matlab, etc.

An accomplished economist, Prof. Andreas Thiemer from the University from Kuel, Germany, wrote that it would be a great loss that this jewel of „Mathcad: to be used just by engineers for their applications, and not by economists. In time, Mathcad proved to be useful for various disciplines that are calculations-focused, but not really mathematics-focused, such as sociology, psychology or finance.

It has the particular and major advantage of using the mathematical relations and equations in their natural form, just as the humans would write them on paper. This way, it is granted a presentation form of data processing which is particularly easy to read. The user does not need anymore to learn and use a set of sophisticated statements, as required by other similar tools.

Text, equations, graphs and images are all on the same page, for presenting the input data, processing and results as well.

Another advantage of Mathcad is the interactivity of each displayed relation or graphic, based on automatical update calculations. The user can change the start parameters values of a problem and see the swiftly changed results and graphs. One can change any relation and the effect of this change of the solution is instantly visible.

The Mathcad programs can be exported in various formats, such as HTM (for Web Pages to be posted on the Web and viewed with conventional Web browsers) or RTF (for an accurate translation also in various formats not considered by Mathcad developers).

An important feature, which proved to be particularly useful for this work, as for many others. Is the graphical representation of the data to be viewed, with minimal efforts required from the user.

The program can create 2D or 3D graphs in various forms, and it proposes often optimal representation domains for all the axes..

There is also a colors gamut, which allows suggestive representations. The user can also opt for representations through lines, points, or other patterns.

An interesting possibility is the simultaneous representation of more functions in the same system of coordinate axe. One can represent this way more variables.

Mathcad has also a great computational power, which allow the building of some mathematic models more complex than the ones normally used.

Rather complex operations, such as integration or summation, are routinely performed by the program. Most performed processes are numeric, but a significant amount of symbolic processes is also possible.

Data conversion between various unit systems is also possible.

Mathcad allows also the use of the three fundamental control structures (sequence, decision and iteration), and custom functions definition, besides the generous offer of built-in functions.

For this work there were needed calculation programs of rather limited size.

For the good understanding of the evolutions regimens, and for the examples illustrative power increase, there were needed various forms of graphical representations and numeric calculations.

A particular necessity was the representation of the function

$$X_{t+1} = f(t)$$

### 3. The IS-LM Model Use For Goods and Money Market Dynamics

The IS-LM model is still one of the main models used to introduce macroeconomics.

In its static form it comprises an IS curve and an LM curve.

The IS curve denotes real income and interest rate combinations which lead to equilibrium in the goods market.

The LM curve denotes real income and interest rate combinations which lead to equilibrium in the money market.

The overall equilibrium is established where the IS curve cuts the LM curve.

It is therefore common to consider comparative statics, which involves changing one or more exogeneous variables or changing some parameter of the model. One can perform very seldom any detailed analysis of what happens out of equilibrium, and yet this is what we are more likely to be observing around us. In this work we will reconsider this model from a dynamic point of view,.

Rather than assuming that aggregate income equals aggregate expenditure in the same period, we make the assumption that income in period  $t$  is equal to total expenditure in the previous period. On the other hand, we assume that the money market clears in the same time period, i.e., the demand and supply of real money balances in any time period  $t$  are equal

### 4. Illustrative Example

As an example it was chosen an economic model of average complexity, namely a model which describes the Goods and money market dynamics. This model belongs to the IS-LM models class.

The essence of the IS-LM model is the interaction between the goods market and the money market. This interaction is even more significant when there are lags in the system.

We illustrate this by introducing a lag into the goods market of the form  $Y_t = E_{t-1}$ . On the other hand, we assume the money market adjusts in the same time period  $t$ , so that the demand for real money balances in time  $t$  is equal to the supply of real money balances in time  $t$ . This is a reasonable assumption.

The algebraical relations which describe the model are built considering the details presented below:

For the goods market there will be used the following notations:  $y$  = real income,  $c$  = real consumption,  $y_d$  = real disposable income,  $\tau$  = real taxes,  $i$  = real investment  $r$  = the nominal rate of interest,  $g$  = real government spending,  $e$  = real total expenditure,  $m_d$  = the demand for real money balances,  $m_s$  = the supply of real money balances

The consume will vary as the time passes. This fact is evidenced by using for the consume the  $c_t$  notation.

The consume depends linearly of  $y_d$ , which represents the disposable income. This dependency is expressed by the relation



$$c_t = a + b \cdot y_t \quad a \text{ and } b \text{ are constants, } 0 < b < 1.$$

There are differenced two income types, actually

Real income, which would be denoted with  $y$ , and in order to mark the dependency on time it will be noted with  $y_t$ .

Real disposable income, which is denoted with  $y_d$ .

The value of the real disposable income is computed as the difference between the real income and real taxes value, actually:

$$y_d = y_t - \text{tax}_t$$

The value of taxes will also vary in time and it consists of a constant component denoted with  $t_0$  and a variable component which depends on the real income. The relation to express this composition is:

$$\text{tax}_t = t_0 + t_1 \cdot y_t \quad 0 < t_1 < 1$$

The investment values is denoted with  $i_t$ , for indicating the time dependence, and it is computed by using the relation

$$I_t = i_0 - h \cdot r_t$$

Where  $h$  is a constant  $h > 0$ , and  $r_t$  is the interest rate, which also varies in time.

The real government spending is denoted with  $g$ , and is considered constant in this model. Therefore,  $g$  represents real government spending

$$g_t = g$$

The real total expenditure is denoted with  $e$  and it is an important parameter. It's value depends on time, and this dependency is described by the relation

$$e_t = c_t + i_t + g$$

Money market

The goal is to obtain a final relation between two successive values of  $y_t$ , actually a relation of the form

$$y_t = f(y_{t-1})$$

This relation is obtained by performing a series of substitutions, and one arrives to the difference equation

$$y_t = (a - b \cdot t_0 + i_0 + g) - b \cdot (m_0 - m) / u + [b \cdot (1 - t_1) - (k \cdot h) / u] \cdot y_{t-1}$$

Then, there are denoted:

$$A = a - b \cdot t_0 + i_0 + g - b \cdot (m_0 - m) / u \quad \text{and}$$

$$B = b \cdot (1 - t_1) - (k \cdot h) / u \quad \text{and it is obtained}$$

$$y_t = A + B \cdot y_{t-1}$$

When the equilibrium is reached, the revenues in two successive states are equal. If the equilibrium value is denoted with  $y_e$ , it is obtained

$$y_t = y_e \quad \text{and therefore}$$

$$y_e = A + B \cdot y_e \quad \text{and therefore}$$

$$y_e = A / (1 - B)$$

## 5. The Mathcad Program Used In This Work

This interactive program was developed to illustrate the method and for study the economic evolution. The program will allow to study the elasticity of various parameters and the case diagram of the described model. The employed relations are the ones previously established. The evolution of various parameters values will be illustrated numerical and graphically.

The numeric values of the previously described model are:

$$c_t = 110 + 0.75 \cdot y_t$$

$$y_d = y_t - \text{tax}_t$$

$$\text{tax}_t = -80 + 0.2 \cdot y_t$$

$$i_t = 320 - 4 \cdot r_t$$

$$g_t = 350 \text{ pentru orice valoare a lui } t$$

$$e_t = c_t + i_t + g$$

$$y_t = e_{t-1}$$

$$m_d = 20 + 0.25 \cdot y_t - 10 \cdot r_t$$

By using the above relations there are obtained the following values of the input parameters:

$$a := 110 \quad b := 0.75 \quad t0 := -80 \quad t1 := 0.2 \quad i0 := 320 \quad h := 4 \quad g := 350$$

$$k := 0.25 \quad u := 10 \quad y0 := 2000 \quad md := 470 \quad m0 := 20$$

The relations used in computation are presented below

$$A := a - b \cdot t0 + i0 + g - h \cdot \frac{(m0 - md)}{10} \quad B := b \cdot (1 - t1) - h \cdot \frac{k}{u}$$

$$t := 0..15 \quad y_{t+1} := A + B \cdot y_t$$

$$tax_t := t0 + t1 \cdot y_t \quad yd_t := y_t - tax_t$$

$$i_t := i0 - \left(\frac{h}{u}\right) \cdot (m0 - md + k \cdot e_t) \quad e_t := c_t + i_t + g \quad c_t := a + b \cdot yd_t$$

$$r_t := \left(\frac{1}{u}\right) \cdot (m0 - md + k \cdot y_t)$$

$$tax_0 := t0 + t1 \cdot y_0 \quad bd_t := g - tax_t$$

$$Y_t := y_t \quad Tax_t := tax_t \quad Yd_t := yd_t \quad I_t := i_t \quad E_t := e_t \quad C_t := c_t$$

$$R_t := r_t \quad BD_t := bd_t$$

After running the program there are obtained the following numeric data, which are characterizing the evolution of economic growth on a 15 years period.

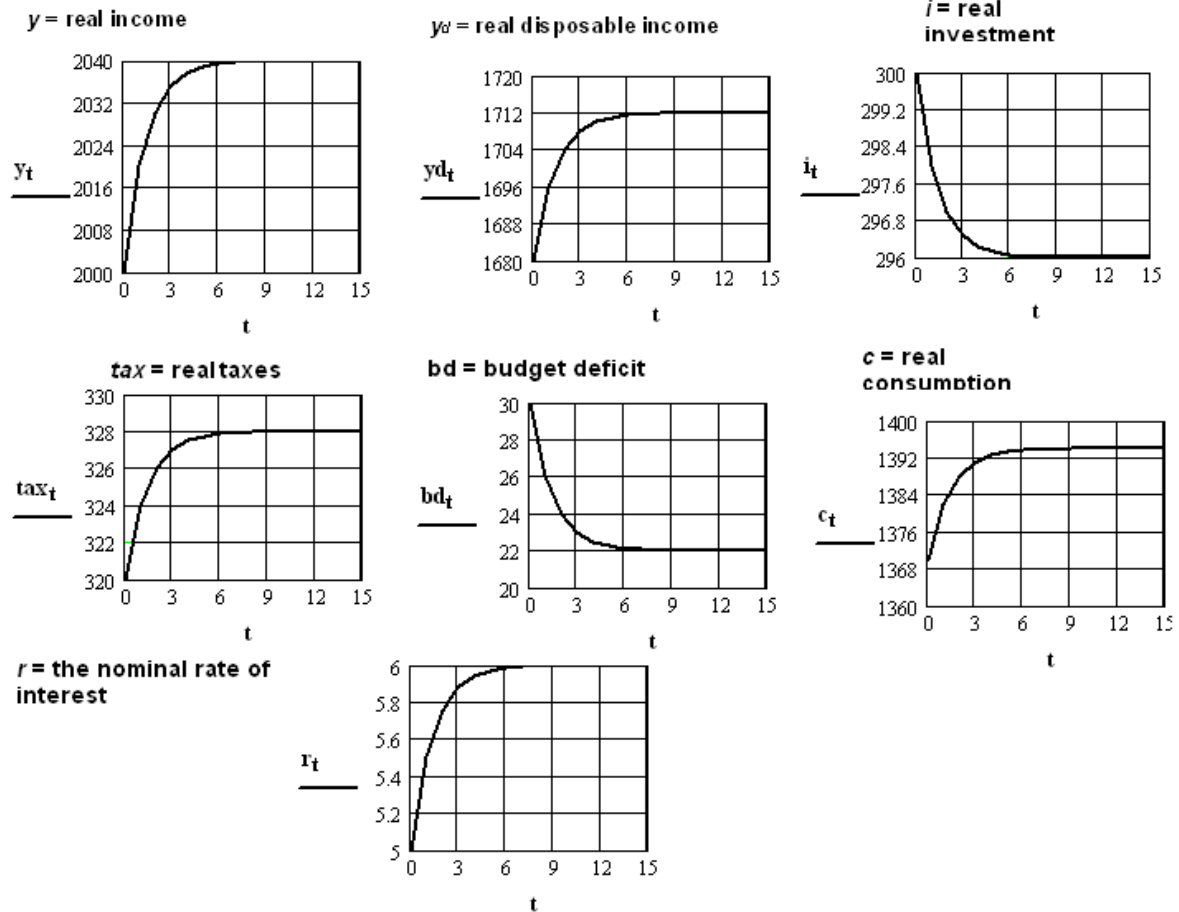
There will be analyzed two cases:

- 1) in which the government spending  $g$  parameter has the value 350.
- 2) in which the government spending  $g$  parameter has the value 310 (diminished)

The obtained results are:

$t =$	$y_t =$	$y d_t =$	$i_t =$	$tax_t =$	$c_t =$	$r_t =$	$bd_t =$
0	2·10 <sup>3</sup>	1.68·10 <sup>3</sup>	300	320	1.37·10 <sup>3</sup>	5	30
1	2.02·10 <sup>3</sup>	1.696·10 <sup>3</sup>	298	324	1.382·10 <sup>3</sup>	5.5	26
2	2.03·10 <sup>3</sup>	1.704·10 <sup>3</sup>	297	326	1.388·10 <sup>3</sup>	5.75	24
3	2.035·10 <sup>3</sup>	1.708·10 <sup>3</sup>	296.5	327	1.391·10 <sup>3</sup>	5.875	23
4	2.038·10 <sup>3</sup>	1.71·10 <sup>3</sup>	296.25	327.5	1.393·10 <sup>3</sup>	5.938	22.5
5	2.039·10 <sup>3</sup>	1.711·10 <sup>3</sup>	296.125	327.75	1.393·10 <sup>3</sup>	5.969	22.25
6	2.039·10 <sup>3</sup>	1.712·10 <sup>3</sup>	296.062	327.875	1.394·10 <sup>3</sup>	5.984	22.125
7	2.04·10 <sup>3</sup>	1.712·10 <sup>3</sup>	296.031	327.938	1.394·10 <sup>3</sup>	5.992	22.062
8	2.04·10 <sup>3</sup>	1.712·10 <sup>3</sup>	296.016	327.969	1.394·10 <sup>3</sup>	5.996	22.031
9	2.04·10 <sup>3</sup>	1.712·10 <sup>3</sup>	296.008	327.984	1.394·10 <sup>3</sup>	5.998	22.016
10	2.04·10 <sup>3</sup>	1.712·10 <sup>3</sup>	296.004	327.992	1.394·10 <sup>3</sup>	5.999	22.008
11	2.04·10 <sup>3</sup>	1.712·10 <sup>3</sup>	296.002	327.996	1.394·10 <sup>3</sup>	6	22.004
12	2.04·10 <sup>3</sup>	1.712·10 <sup>3</sup>	296.001	327.998	1.394·10 <sup>3</sup>	6	22.002
13	2.04·10 <sup>3</sup>	1.712·10 <sup>3</sup>	296	327.999	1.394·10 <sup>3</sup>	6	22.001
14	2.04·10 <sup>3</sup>	1.712·10 <sup>3</sup>	296	328	1.394·10 <sup>3</sup>	6	22
15	2.04·10 <sup>3</sup>	1.712·10 <sup>3</sup>	296	328	1.394·10 <sup>3</sup>	6	22

Case 1 Diagram 1



Case II (g = 310)

a := 110 b := 0.75 t0 := -80 t1 := 0.2 i0 := 320 h := 4

g := 310 m0 := 20 k := 0.25

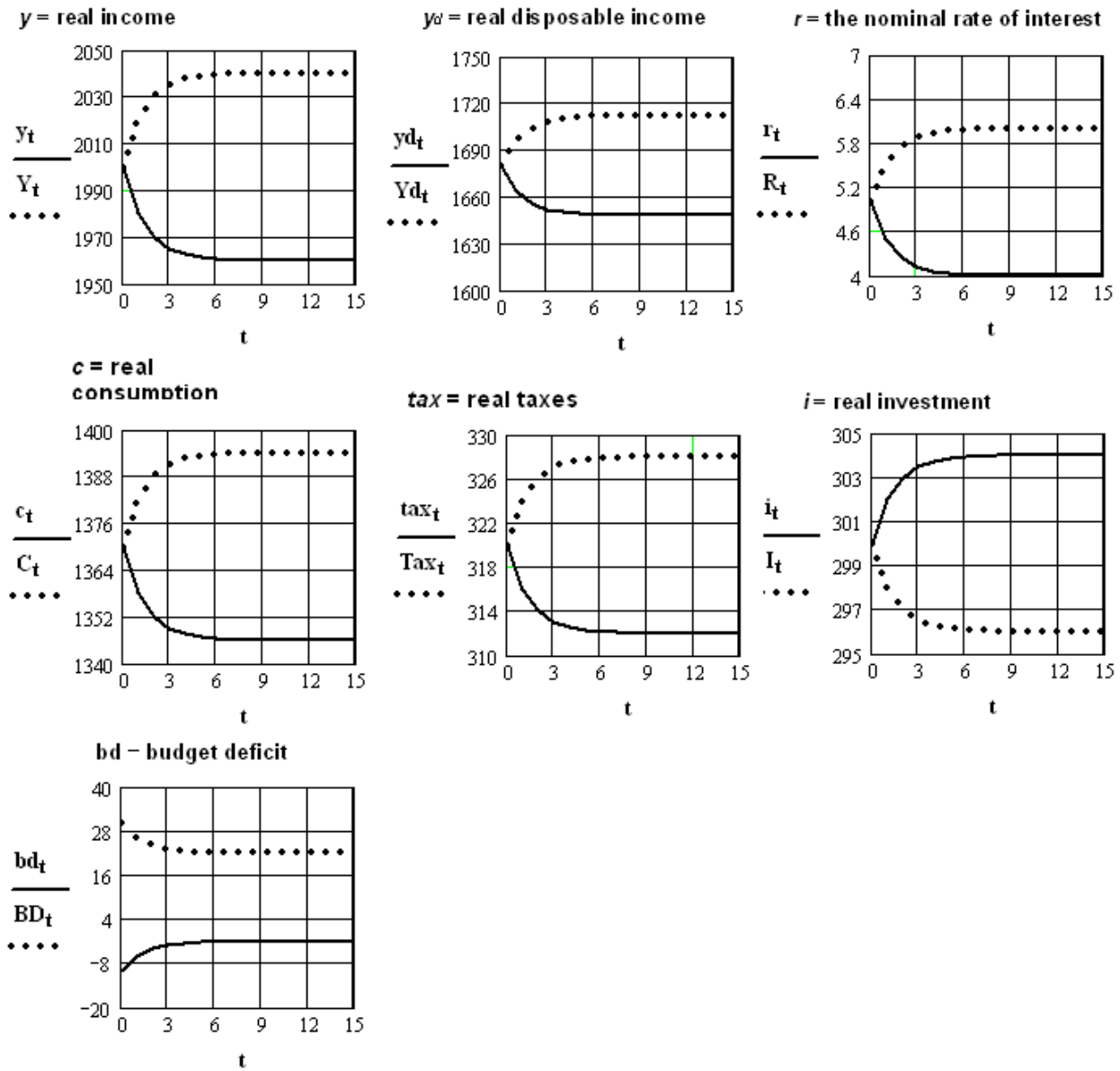
Table 2

t =	y <sub>t</sub> =	yd <sub>t</sub> =	i <sub>t</sub> =	c <sub>t</sub> =	r <sub>t</sub> =	bd <sub>t</sub> =	tax <sub>t</sub> =
0	2·10 <sup>3</sup>	1.68·10 <sup>3</sup>	300	1.37·10 <sup>3</sup>	5	-10	320
1	1.98·10 <sup>3</sup>	1.664·10 <sup>3</sup>	302	1.358·10 <sup>3</sup>	4.5	-6	316
2	1.97·10 <sup>3</sup>	1.656·10 <sup>3</sup>	303	1.352·10 <sup>3</sup>	4.25	-4	314
3	1.965·10 <sup>3</sup>	1.652·10 <sup>3</sup>	303.5	1.349·10 <sup>3</sup>	4.125	-3	313
4	1.963·10 <sup>3</sup>	1.65·10 <sup>3</sup>	303.75	1.348·10 <sup>3</sup>	4.063	-2.5	312.5
5	1.961·10 <sup>3</sup>	1.649·10 <sup>3</sup>	303.875	1.347·10 <sup>3</sup>	4.031	-2.25	312.25
6	1.961·10 <sup>3</sup>	1.649·10 <sup>3</sup>	303.937	1.346·10 <sup>3</sup>	4.016	-2.125	312.125
7	1.96·10 <sup>3</sup>	1.648·10 <sup>3</sup>	303.969	1.346·10 <sup>3</sup>	4.008	-2.063	312.063
8	1.96·10 <sup>3</sup>	1.648·10 <sup>3</sup>	303.984	1.346·10 <sup>3</sup>	4.004	-2.031	312.031
9	1.96·10 <sup>3</sup>	1.648·10 <sup>3</sup>	303.992	1.346·10 <sup>3</sup>	4.002	-2.016	312.016
10	1.96·10 <sup>3</sup>	1.648·10 <sup>3</sup>	303.996	1.346·10 <sup>3</sup>	4.001	-2.008	312.008
11	1.96·10 <sup>3</sup>	1.648·10 <sup>3</sup>	303.998	1.346·10 <sup>3</sup>	4	-2.004	312.004
12	1.96·10 <sup>3</sup>	1.648·10 <sup>3</sup>	303.999	1.346·10 <sup>3</sup>	4	-2.002	312.002
13	1.96·10 <sup>3</sup>	1.648·10 <sup>3</sup>	304	1.346·10 <sup>3</sup>	4	-2.001	312.001
14	1.96·10 <sup>3</sup>	1.648·10 <sup>3</sup>	304	1.346·10 <sup>3</sup>	4	-2	312
15	1.96·10 <sup>3</sup>	1.648·10 <sup>3</sup>	304	1.346·10 <sup>3</sup>	4	-2	312

For graphical illustration there were represented the values obtained for case 1) and the ones obtained for the case 2). This allows a comparison of the model parameters' evolution in time.

The capital letters are used for the case of government spending of 350 mil.

The small letters are used for the case of government spending reduced to 310 mil



**6. Conclusion**

An Interactive analysis method, using the Mathcad programming environment and a linear model, proved to be effective for analyzing the dynamic evolution of the economic growth on a 15 years period. The obtained results are presented in a numeric and also a graphical form as well.

Two cases (with two different values sets) could be used for establishing the elasticity of the parameter which represents the government spending.

A variation of government spending determines a variation of real income. The variation of the real income determines a variation of real money demand, and the real money demand variation determines an interest rate variation with impact on real investment.

Case 1) Table 1 and Diagram 1 shows income gradually rising from the initial equilibrium level £ 2,000 million to the new equilibrium level of £ 2,040 million .As income rises the demand for real money balances increases, leading to a rise in the rate of interest. The rate of interest gradually rises from 5% to 6%. The rise in the

rate of interest leads to a gradual fall in investment. Table 1 and Diagram 1 also shows the path of other endogenous variables – such as taxes, disposable income, consumption, etc. It also illustrates the path of the budget deficit, denoted  $bd_t = g_t - tax_t$ .

Case 2 is illustrated in the Table 2 and Diagram 2. In this case, different from the first case, there is a budget excedent, and the evolution of the other parameters is significantly different from the first case.

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## THE ANALYSIS OF THE BANKRUPTCY RISK FOR THE ROMANIAN COMPANIES. CASE STUDY: THE FOOD INDUSTRY

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**Abstract:** *In this paper, the risk of failure was analyzed for 11 Romanian companies operating in the food industry, for the period 2007-2009. For this aim, we used five scoring functions in order to assess the likelihood of the companies to go bankrupt. Given that the period of analysis is partially overlapped over the economic crisis, the article started from the premise of getting a score down for most of the enterprises. These results were only partially confirmed, and the use of the scoring functions to assess the risk of bankruptcy allowed pointing out both their benefits and limits.*

**Key words:** bankruptcy risk, failure, discriminant analysis, score function, food industry

**JEL classification:** G32, G33

### 3. Introduction

The risk of bankruptcy is one of the most important components of the risk faced by an enterprise. It is caused by many factors, both internal and external, and requires a careful analysis, given its major consequences, which may affect all the business partners.

The study of bankrupt firms is important for creditors, shareholders, employees, customers and suppliers. All these stakeholders will suffer losses due to the bankruptcy of the company they are in contract with.

The bankruptcy is a binding mechanism in a market economy. Thus, the bankruptcy makes the economic system efficient, by empowering the entrepreneurs in developing and implementing the business strategy and by the removal of the firms that can not adapt to the market economy requirements. At the microeconomic level, the effects of bankruptcy are transmitted among suppliers and customers with a higher or lower magnitude depending on their economic characteristics and on the dependence on the bankrupt company.

The magnitude of effects of the bankruptcy led to the creation of appropriate tools of evaluation, analysis and prediction. These tools may allow the creditors and shareholders to identify in advance the arising financial difficulties, before the company's financial position degrades irreversibly. In this regard, the financial institutions and, in particular, the banks are among the first that have developed models to assess the risk of failure of the customers. Also, the models of assessment the bankruptcy risk created by different analysts are used also by third parties wishing to know the company's financial position and its future development.

### 4. Research methodology and premises

The literature provides a variety of tools for analyzing the risk of bankruptcy. These tools are based mainly on statistical methods, which are mathematical combinations of financial rates that reflect the degree of financial health of a company. Among the statistical tools, the discriminant analysis imposed over time. It involves the discrimination or the differentiation of a population of individuals, taking into account certain relevant criteria. The discriminant analysis is based on a set of financial ratios able to separate the firms into one of the two groups, respectively non-bankrupt or bankrupt companies.

In the recent decades, the discriminant analysis has allowed creating more categories of tools to analyze the risk of bankruptcy. One of the most popular tools is **the score function**, which is a number that reflects the degree of vulnerability or the financial health of a company. Depending on the score, a firm may be classified as bankrupt or non-bankrupt. Given the statistical methodology underlying the creation of scoring functions, including a business in one of the two groups can not be regarded as certain, but done with a certain probability.

The economic literature shows a variety of score functions, developed by researchers from a variety of countries. Next, we'll present several such models, both from foreign and Romanian literature, that will be further used in this study.

**The Altman model** developed in 1968 relied on a sample of 66 enterprises, of which 33 healthy and 33 in financial distress. The score function takes the following form:

$$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + X_5, \quad (1)$$

where:

$X_1$  = Working capital / Total assets;

$X_2$  = Retained earnings / Total assets;

$X_3$  = Earnings before interest and taxes (EBIT) / Total assets;

$X_4$  = Market value of equity / Book value of total debt;

$X_5$  = Sales / Total assets.

The ranges of values of the function are:

- if  $Z < 1.81$  - the company is bankrupt;
- if  $1.81 < Z < 2.90$  - Z - the firm is in distress;
- if  $Z > 2.90$  - the company may be considered economically healthy.

**Conan and Holder** developed a score function for industrial enterprises, with the expression:

$$Z = 0.24X_1 + 0.22X_2 + 0.16X_3 - 0.87X_4 - 0.10X_5, \quad (2)$$

where:

$X_1$  = Gross operating surplus / Total debts;

$X_2$  = Long term capital / Total capital;

$X_3$  = (Cash + Receivables) / Total Assets;

$X_4$  = Financial charges / Turnover;

$X_5$  = Personnel expenses / Value added.

According to this function, the enterprises can fall into one of the following categories:

- good situation, when  $Z > 0.09$ , and the probability of bankruptcy is less than 30%;
- caution when  $0.04 \leq Z < 0.09$ , and the probability of failure is between 30% and 65%;
- danger, when  $Z < 0.04$ , and the probability of bankruptcy is more than 65%.

In 1980, **Ohlson** has developed an analytical model of bankruptcy for listed companies that went bankrupt during the period 1970-1976. The score function takes the following form:

$$O = 6.03X_1 - 1.43X_2 + 0.08X_3 - 2.37X_4 - 1.83X_5 + 0.285X_6 - 1.72X_7 - 0.52X_8 - 1.32, \quad (3)$$

where:

$X_1$  - Total debts / Total assets;

$X_2$  - Current assets / Total assets;

$X_3$  - Current liabilities / Current assets;

$X_4$  - Net income (Ni) / Total assets;

$X_5$  - Profit before taxes plus depreciation / Total debts;

$X_6$  - An indicator equal to 1 if the net profit in last two years is negative and 0 otherwise;

$X_7$  - An indicator equal to 1 if total debts exceed total assets and 0 otherwise;

$X_8 = (Ni_t - Ni_{t-1}) / (|Ni_t| + |Ni_{t-1}|)$

In 2002, **I. Anghel** has created a score function based on a sample of 276 firms. The proportion of firms in the sample was 60% non-bankrupt and 40% bankrupt as they belonged to 12 industries of the national economy. The discriminant analysis applied on the set of the financial ratios, Anghel held four financial rates to develop the score function:

- the return on revenues:  $X_1 = \frac{\text{Net income}}{\text{Revenues}}$ ; (4)

- the coverage of debts with cash-flow:  $X_2 = \frac{\text{Cash Flow}}{\text{Debts}}$ ; (5)

- the leverage:  $X_3 = \frac{\text{Debts}}{\text{Assets}}$ ; (6)

$$- \text{ the period of payment the debts: } X_4 = \frac{\text{Debts}}{\text{Turnover}} \times 360, \quad (7)$$

which have been aggregated in the following score function:

$$A = 5.676 + 6.3718X_1 + 5.3932X_2 - 5.1427X_3 - 0.0105X_4. \quad (8)$$

Depending on the score obtained by applying this function, the companies can be classified into three groups:

- if  $A < 0$  - bankruptcy / failure;
- if  $A \in [0; 2.05]$  - area of uncertainty;
- if  $A > 2.05$  - non-bankruptcy situation.

**The Circiumaru model** is based on six financial ratios and has the form:

$$Z = 0.647R_1 + 0.143R_2 + 0.010R_3 + 0.014R_4 - 0.168R_5 + 0.158R_6 + 0.389, \quad (9)$$

where:

- $R_1$ : Return on assets (Gross profit / Total assets);
- $R_2$ : Financing the fixed assets (Long-term capital / Fixed assets);
- $R_3$ : The working capital rate (Working capital/Total assets);
- $R_4$ : Financial stability (Long term capital/Total capital);
- $R_5$ : Solvency (Equity/Total capital);
- $R_6$ : Total assets turnover rate (Total revenues/Total Assets).

The ranges of values of the function are:

- $Z < 0.1454$  - the companies are bankrupt;
- $0.1454 < Z < 0.1852$  - the area of uncertainty;
- $Z > 0.1852$  - the firms are non- bankrupt.

All these functions have been applied to a group of 11 companies selected in the study, namely: Albalact, Agrana Romania Bucuresti, Brailact Bucuresti, Cominca Oradea, Combivra Focsani, Conserv Buftea, Carmeco Constanta, Deltapan Tulcea, Fortuna Zalau, Abo Farm Zalau and Argus Constanta. These companies are listed on the Bucharest Stock Exchange, section Rasdaq and operate in the food industry. Although the analysis covers only Romanian companies, there were used foreign score functions as well, due to their relevance for other economies than those for whom they have been developed. The three foreign score functions are among the most representative proposed in the literature and have been imposed in practice due to their outstanding results.

The study period was between 2007 and 2009, overlapping with the economic crisis that affected Romania. For this reason, it is expected that the financial position of the 11 companies deteriorates over the three years, which can be emphasized using the models for analyzing the bankruptcy risk. Furthermore, the analysis of the years 2007 and 2008, that preceded the Romanian crisis, allows testing the hypothesis that the bankruptcy analyzing functions can predict failure a few years before its appearance, which is reflected in the gradual degradation of the level of financial rates and hence of the calculated score.

Note that the companies included in the study were randomly selected. We did not intend to select the bankrupt companies or those that had a significant deterioration in the financial position. Under these circumstances, the calculation and the interpretation of the scores could indicate the worsening financial position and not necessarily an imminent bankruptcy occurrence.

## 5. Results and discussions

For **Albalact**, the calculation of scores according to the five models led to the following results:

**Table 1: The scores for the company Albalact**

Score	2007	2008	2009
Altman score	2.21	1.98	2.07
Conan and Holder score	0.2039	0.1434	0.1553
Ohlson score	-0.0723	0.5720	0.7030
Anghel score	-	0.6366	2.0767
Circiumaru score	0.6841	0.6449	0.6582

According to Altman's model, the firm is in distress in each of the three years analyzed. In evolution, there is a decrease in score in 2008, down to the edge of insolvency ( $Z < 1.81$ ). After that, the company's



position improves next year, but without achieving the score from 2007. It is noted that in 2009 (when the economic crisis stroked Romania), the company is improving the situation due to a significant increase in turnover and profitability.

The Conan and Holder score shows a better situation for the analyzed company, as the probability of failure is quite low, less than 30% in each year studied (the company is in the lowest risk class). The score points, however, a fluctuating situation, due to the decrease in 2008 and followed by a slight increase in last year.

The Ohlson score only shows the probability of bankruptcy of the company. It hasn't intervals of variation to allow separating the companies into risk classes. This probability is quite low for Albalact, since the score is less than 1 in each year. Moreover, in 2007, the score is negative, indicating very low chances for this firm to file for bankruptcy.

The Anghel score was calculated only for the years 2008 and 2009, given the specific feature of this model, which requires data for two consecutive years in order to calculate the cash flow. In 2008, the score is 0.6366, which places the company in the area of uncertainty, but very close to bankruptcy. In 2009, the situation is improving, as the score climbed to 2.0767, which corresponds to the lower limit of the non-bankrupt area.

The Circiumaru score points, also the fluctuation of the economic and financial position of the company as a whole, as the company is classified as non-bankrupt in all the years analyzed.

For the second company, **Agrana**, the situation is shown in the following table:

**Table 2: The scores for the company Agrana**

Score	2007	2008	2009
Altman score	2.55	2.05	2.06
Conan and Holder score	0.1413	-0.0076	0.0162
Ohlson score	1.6667	2.5149	2.5216
Anghel score	-	-0.1290	0.2970
Circiumaru score	1.0993	0.8222	0.7850

The five models show a completely different situation for this company. Thus, the Altman score puts the company in the intermediate area, with some financial difficulties. In 2008, the situation is worse than in 2007, while in 2009 a slight increase of the score can be noted. The Conan and Holder model shows a low probability of bankruptcy in 2007 and 2009 and a high likelihood in 2008. The Ohlson score also points high chances of bankruptcy, but they are the largest in the last year, 2009. According to Anghel score, the company is in the area of bankruptcy in 2008 and in the area of uncertainty in 2009. The Circiumaru model does not reveal the existence of serious economic and financial problems; according to this model, the company is non-bankrupt in all three years, but the situation is getting worse from one year to another.

Note that in 2008 there was a significant growth in turnover and profit of this company, so that the deterioration of the position emphasized by all models (or even placing the enterprise in the bankrupt area) is surprising. The decreased levels of scores are due, however, not to the return, but to the financial balance indicators (working capital, working capital requirement, liquidity), which declined in that period.

In the case of **Brailact Bucuresti**, the values of the score functions are shown in the following table:

**Table 3: The scores for the company Brailact Bucuresti**

Score	2007	2008	2009
Altman score	0.42	-0.38	0.11
Conan and Holder score	-0.0792	-0.6497	-0.0259
Ohlson score	4.5587	8.0491	9.1165
Anghel score	-	-7.1483	-6.3552
Circiumaru score	0.5648	0.4425	0.7061

The Altman, Conan & Holder and Anghel scores clearly places the company in the bankruptcy area. In the second year, the situation is worse than in 2007, while in 2009 there is an improving financial position. The Ohlson score also shows an increased probability of bankruptcy in the past two years, but for 2009, the likelihood is increasing. The Circiumaru score does not show the difficulties of this company, but it emphasizes correctly the evolution of the company's financial position. Thus, in the last year, although the turnover is reducing, the profitability is improving, which is reflected by four of the five models used.

The values of scores for **Cominca Oradea** are listed below:

**Table 4: The scores for the company Cominca Oradea**

Score	2007	2008	2009
Altman score	1.64	1.00	0.22
Conan and Holder score	0.0659	-0.0292	-0.7483
Ohlson score	1.4056	3.2057	5.3528
Anghel score	-	-4.4179	162.0891
Circiumaru score	0.4337	0.3447	0.3132

All the scoring functions used show a breakdown of the financial position of this company. If in the first year the situation is not very serious (Conan & Holder and Altman models place the company in the intermediate area), in the next two years the financial position is deteriorating sharply. The most dramatic situation is highlighted by the Anghel score, with an extreme value in 2009 (-162.0891), which means bankruptcy. In 2008 and 2009, the company posted a drastic decline in sales (-61% and -95%). Also the losses are widening in 2008, while in 2009 they reduce a little. All these confirm the situation depicted by the four models. The Circiumaru model, which focuses more on balance sheet indicators rather than on the performance ones, doesn't highlight the company's financial difficulties, because the balance sheet indicators do not deteriorate suddenly (the company still has sufficient resources to pay its creditors). However, this model also highlights the growing difficulties, shown by the score down.

The situation of the company **Combivra Focsani** is shown below:

**Table 5: The scores for the company Combivra Focsani**

Score	2007	2008	2009
Altman score	1.30	0.02	0.29
Conan and Holder score	0.1729	1.1085	-0.1376
Ohlson score	1.7626	2.3630	3.8475
Anghel score	-	181.1523	50.8226
Circiumaru score	0.6724	0.3730	0.3827

The Altman model shows a bankrupt situation in all three years. In 2008, the score drops sharply and then increases slightly in last year. The Conan & Holder score indicates a contrary position; in the first two years, the score is positive and growing, the company being healthy. In 2009, the score becomes negative, increasing the chances that the company goes bankrupt. The Ohlson score increased steadily during the three years, but it hasn't a level indicating a high probability of bankruptcy. The Anghel score has the lowest score values, meaning a bankrupt situation case. In 2009, the score increased against 2008. The Circiumaru score shows a good financial situation of the company, but it deteriorates sharply in 2008. In 2009, a slight improvement in financial position is obtained.

The heterogeneity of models in assessing the status of this company can be observed. This time, the dynamics of scores is not identical any more. It should be noted that the company is profitable in 2007, but it sees a loss in the last two years. In 2009, the loss is reduced as compared to 2008. The company has no financial debt in the first two years and the total assets, although declining, cover the total debts.

For **Conserv Buftea** the values of the five scores are as follows:

**Table 6: The scores for the company Conserv Buftea**

Score	2007	2008	2009
Altman score	1.61	1.52	-1.45
Conan and Holder score	0.0538	0.0424	-0.1395
Ohlson score	0.5794	0.5268	5.4395
Anghel score	-	0.8995	22.4268
Circiumaru score	0.6171	0.5914	0.1203

The Altman model indicates a state of bankruptcy in all years. The Conan and Holder model ranks the company in the intermediate zone in the first two years and in the bankrupt area in 2009. The Ohlson score indicates a low probability of bankruptcy in 2007 and 2008 and higher in 2009. The Anghel model

shows a state of uncertainty in 2008 and a bankrupt one in 2009. The Circiumaru score indicates a bankruptcy state in last year.

In this case, there is a gradual deterioration of the financial situation during the period under review. In 2008, the profitability decreases sharply, but the company still gets profit. In exchange, in 2009, the company posted loss, which is quite high.

The situation of company **Carmeco Constanta** is given in the table below:

**Table 7: The scores for the company Carmeco Constanta**

Score	2007	2008	2009
Altman score	1.21	0.74	0.28
Conan and Holder score	-0.0034	-0.0892	-0.9362
Ohlson score	4.9724	2.1868	3.4440
Anghel score	-	-6.8116	12.3287
Circiumaru score	0.4229	0.3924	0.3584

This enterprise has financial difficulties quite large. The Altman and Conan & Holder's models show a bankrupt situation of the firm and a worsening financial position. The Ohlson model shows a higher probability of bankruptcy in the first year, while in 2008 and 2009 shows a lower probability. The Anghel score has negative values, showing a bankrupt situation, while Circiumaru score shows a good but declining position.

Note that the company gets losses in all the years (including operating loss), but the solvency is quite good, due to a low degree of indebtedness.

The company **Deltapan Tulcea** has the following levels of scores:

**Table 8: The scores for the company Deltapan Tulcea**

Score	2007	2008	2009
Altman score	4.01	8.47	18.11
Conan and Holder score	0.1544	0.1368	0.7755
Ohlson score	-1.2722	-1.7606	-6.4915
Anghel score	-	4.4200	22.187
Circiumaru score	0.7183	0.7410	0.7313

The situation of this company looks pretty good, which is reflected by all the five models used. Neither shows any financial difficulty in the three years studied. Also, in the last year the scores are improving, except the Circiumaru score, which decreased as compared to 2008.

Analyzing the indicators in the annual financial statements, it appears that the firm's profitability is quite low. Although the operating profit is increasing, it has a low level compared to the turnover. The effectiveness of total assets is relatively high and the enterprise has a very good solvency. Basically, it appears that achieving a minimum level of income, and a good solvency were able to determine high scores for this firm. However, the balance is quite fragile, due to a return on sales, and the company can always get a loss in the period ahead (of course, that does not automatically mean a high risk of bankruptcy).

The values of scores for the enterprise **Fortuna Zalau** are as follows:

**Table 9: The scores for the company Fortuna Zalau**

Score	2007	2008	2009
Altman score	0.59	1.02	-1.03
Conan and Holder score	-3.3469	-0.2185	-0.0976
Ohlson score	3.2359	2.0919	4.7233
Anghel score	-	28.8692	14.0472
Circiumaru score	0.3903	0.5078	0.3289

The models Altman, Conan & Holder and Anghel highlight a bankrupt situation, for the whole period studied, but the dynamics of scores is different. If the Altman score has a maximum level in 2008 and

a minimum one in 2009, the scores Conan & Holder and Anghel show an improvement of the situation in 2009 compared to 2008. The Ohlson model shows a decrease in the probability of bankruptcy in 2008 and an increase in 2009. The Circiumaru model shows a good overall situation, as the maximum score is in 2008 and the minimum one in 2009.

The company posts operating and net profit only in 2008, while in the other two years has losses. The solvency is reduced in all years, the maximum value being obtained in 2008. It follows, therefore, that based on the empirical data from the financial statements, we can state that the Altman and Ohlson models correctly highlights the company's financial developments.

In the case of **Abo Farm Zalau**, the situation is as follows:

**Table 10: The scores for the company Abo Farm Zalau**

Score	2007	2008	2009
Altman score	1.16	-0.95	0.40
Conan and Holder score	-0.0112	-0.0280	-0.1035
Ohlson score	2.0801	5.1057	5.3714
Anghel score	-	-7.6173	-4.7043
Circiumaru score	0.6672	0.4638	0.6180

The company has major difficulties, both at the level of profitability and solvency. The turnover decreased by 26% in 2008 and then doubles in 2009. The operating result is negative in 2008 and positive in the other two years. A similar situation is obtained in the case of net profit, only that it is greatly affected by the financial loss. The equity is positive only in 2007 and then becomes negative in 2008 and 2009.

Analyzing the scores provided by the five models, we see that the functions Altman, Conan & Holder, Ohlson and Anghel placed the company in the bankrupt area. The Circiumaru model indicates a normal situation of the company, the minimum level of the function being recorded in 2008. For 2009, four of the five functions show an improvement in the situation except the Ohlson model.

For **Argus Constanta**, the levels of the scores obtained are:

**Table 11: The scores for the company Argus Constanta**

Score	2007	2008	2009
Altman score	2.29	3.55	2.43
Conan and Holder score	0.1183	0.2196	0.0533
Ohlson score	2.4104	-1.2197	-0.3961
Anghel score	-	3.2156	1.8991
Circiumaru score	0.6585	0.8221	0.6416

The company has a difficult situation in last year, as it has both operating and gross losses. In 2008, the turnover and the profitability are maximal. As regards the solvency, the company has total assets sufficient to cover the total debts.

The Altman score points some difficulties in 2007 and 2009, while the Conan and Holder model does not show the existence of problems in the first two years, but only in the third. The Ohlson score shows a high probability of bankruptcy only in 2007 and then it decreases in the last two years. The Anghel score shows a good situation in 2008 and an uncertainty situation in 2009. The Circiumaru model shows a good situation in all three years studied, the maximum score being recorded in 2008.

## 6. Conclusions

After applying the five scoring functions on the group of 11 companies operating in the Romanian food industry, the following conclusions were obtained:

- in 2007, most companies had a better financial situation than in 2008 and 2009;
- no conclusive data were obtained regarding the impact of the economic crisis on the financial situation of the companies in 2009, as some enterprises showed a worse situation in 2008;
- no score function managed to point out the proper situation of all the 11 companies included in the study;
- the best results were obtained, surprisingly, by the functions Altman, Ohlson, Conan & Holder, which were created for other economies than the Romanian one;

- the appreciation of the Ohlson score requires a prior use on a group of companies in order to identify the boundaries that separate the enterprises into bankrupt and non-bankrupt;
- the use of score functions cannot be separated by the use of other financial instruments, including a simple analysis of some financial ratios;
- when analyzing the bankruptcy risk, we must take into account that the deterioration of the financial position of the firms affects both the profitability and the solvency indicators. From this point of view, each score function has different results depending on the predominance in the formula of the financial ratios that reflect the profitability or the solvency. In this study, the degradation of the financial position of firms influenced either only the profitability or only the solvency, which explains the low accuracy of some of the models. Note that, in fact, the occurrence of bankruptcy is due not to the losses from the profit and loss account, but most times to the perpetuating losses over a long period of time. This reflects further in total assets significantly decreased, below the level of debts. This is the reason for which some companies from the study, although posted losses and had been identified as being bankrupt by some models, have recovered in the last year or just didn't go bankrupt;
- it is necessary a clear demarcation between the concept of financial bankruptcy and the concept of legal bankruptcy. The creation of models in respect of financial bankruptcy (companies that post losses several successive years without going into bankruptcy legally) would be more useful for the investors who just want to know the developments in the future of the performances of the firms. In the case of firms with major difficulties, it can be used, in addition, the score functions created in the respect of legal bankruptcy (the case of Circiumaru model), which have a higher accuracy in these cases.
- the results may be affected by the economic crisis, while the sample of firms that were the basis for developing these scoring functions have been extracted in periods without economic crises. Thus, in times of crisis, the economic and financial characteristics change radically as all the companies suffer, but not all of them go bankrupt.

This study confirms the complexity of bankruptcy in an economy and the difficulty of forecasting it with the help of a score function. All the models of the bankruptcy risk developed so far have had larger or smaller errors. Understanding the mechanism by which these functions evaluate the risk of failure and the use of a large number of such models allow the decision maker to reduce the errors and to choose the functions that, in a given context, provide the best results.

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## ON THE CRISIS OF ECONOMIC THEORY

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**Abstract:** *The outburst of the economic crisis generated a wave of criticism towards the mainstream neoclassical economic theory, which is being held responsible for this crisis.*

*We depart from Thomas Kuhn's definition of crisis in science so therefore the aim of this paper is to verify the validity of this definition for the economic science. In order to achieve this we evaluate the main accusations which entail as research goals.*

*The failure of the neoclassical theory is seen as the failure of Economics, but it may not be necessarily so.*

**Key words:** rationality; physics-envy; paradigm; crisis of theory;

**JEL classification:** A11; A12; A13; B41; D01; N01.

### 1. Introduction

Critics towards the economic science, the relationship between Economics and economy and the methodology used in economic research are not very few, even during peaceful times. But, when the economy is in crisis these critics come to light and begin to gain credibility.

Almost every literature review on the crisis of economic theory begins with Nobel Prize winner Paul Krugman, who blames the profession for „its blindness to the very possibility of catastrophic failures in a market economy” (Krugman, 2009). In his opinion „*the economics profession went astray because economists, as a group, mistook beauty, clad in impressive-looking mathematics, for truth*” (Krugman, 2009). We cited Krugman because he is the most famous critic of the mathematical approach of economics, but he is not the only one. The abuse of mathematical instruments in Economics was stressed also by the Austrian School, among others.

For Sachs (2009: 3) „*a new science of macroeconomics must supersede the stale debates of Keynesian and rational expectation theories*”. In order to achieve this, he recommends starting the new macroeconomics with three issues: climate and energy security, food and nutrition security and poverty reduction. Behavioral macroeconomists as George Akerlof and Robert Shiller (2010) also put the blame for the current economic crisis on the rationality assumption of mainstream neoclassical economics.

We mentioned above some of the latest criticism, but the subject is not new. In the 70s Nicholas Georgescu-Roegen stated that „*a curious event in the history of economic thought is that, years after the mechanistic dogma has lost its supremacy in physics and its grip on the philosophical world, the founders of the neoclassical school set out to erect an economic science after the pattern of mechanics – in the words of Jevons, as «the mechanics of utility and self-interest»*”. He continues arguing that even though Economics evolved, nothing that might have to distract the economic thought from the mechanistic epistemology happened. He also blames the neoclassical theory for the excessive use of mathematics.

To summarize, the main accusations against economics are *the abusive use of mathematics, the rationality assumption* and that *economics suffers from physics-envy*. In the following paragraphs we will try to analyze each of these accusations separately to see if they complete or contradict themselves. The result of this analysis should help us unveil, at least partially, the truth regarding the crisis of the economic theory.

In the Economic paradigm shifts occur in the sight of the public eye, usually being announced by the market failure; this is why a normal phenomenon in the development of any other science, might seem in the case of Economics a theory crisis.

### 2. The abusive use of mathematics

Economics is not a unified science; different schools of thought are in a constant battle for the spotlight. For the general public this fact raises the question of the scientific approach of the economic science.

There can hardly be considered a bad thing a development of so many lines of research or the fact that there are so many ways of dealing with a certain problem. It means that the object of economics is still alive and can still incite deep thoughts, and why not, significant breakthroughs as well. We support this idea and truly believe in its value as long as a certain limit is not exceeded, as long as the overrated interdisciplinary method does not become excessive. A real problem lies in the fact that these thoughts and discoveries have turned astray steps towards misleading paths, the economic science, sunk deeper and deeper into the trap of universality.

One could therefore see a continuing decline of the economic theory's object, and when we refer to a decay, we primarily add into discussion the mainstream doctrine that uses excessive mathematical paths and useless, or in some cases, even misleading statistics.

The profound misunderstandings between quality and quantity are common nowadays. From this point of view, there is a gradual dilution of pure economics, an emphasized fusion with exact sciences which engulf and suffocate its essence. Nobody can dispute the importance of mathematics in economics, just as no one can deny that, concerning certain aspects of economics we can use, and it is quite appropriate to do so, mathematics or statistics because there we will find the answers we need. But it should be considered a limited quantitative approach, which does not affect the credibility of traditional economic theory and does not endanger its philosophical and social premises from which it originally started. In addition, in many cases, these rogue quantitative approaches are used excessively, and therefore they fail. Why exactly? Because economics is a science based on praxeology; and praxeology was neither approached in the socialist economy, nor digested by the mainstream. It has its origins in the ideas formulated by the main figures of the Austrians School of Economics, especially in Mises's book - *Human Action*. The object of praxeology is oriented towards human action and from it emerges the first branch, in fact the most representative one, methodological individualism. Assuming the holistic premise which says that the actions of individuals should be viewed throughout the party, not vice versa, and gradually adding arguments to reinforce the idea that individuals have different needs and preferences in time and space that cannot be quantified, we can prove once again that the so "fashionable" quantitative approach is useless. It could be added here a famous assertion made by Marshall (1906); he said that „*a good mathematical theorem dealing with economic hypotheses [is] very unlikely to be good economics*”.

*The issue is not whether we should use mathematics or not; mathematical instruments can be very useful for our purpose; the problem emerges when we try to transform the economic science in the scientific sister of mathematics. Not all the economic facts can be translated in mathematics and at the same time an equation can say more than a thousand words; we just have to learn how to balance the two.*

### 3. The physics-envy

The breakthroughs made in physics and astronomy with the help of the Newtonian mechanistic paradigm, like the discovery of Neptune using mathematical arguments, led to a great fascination for it and for its methods. The possibility to understand the real world just by applying the correct equations determined scientists from all fields of research to try to become the Newton of their science. And is nothing wrong with that as long as this quest doesn't mean modifying the studied object for the sole purpose of fitting the model. This attraction correlated with the constant inquiry, from outsiders, of whether Economics is a science or not generated the obsession to transform our science in the physics of the social sciences. The illusion that the behavior of any John Doe can be understood and even predicted without any contact with the real world, mesmerized a great part of the economic science. Unfortunately many economists failed to take into consideration that the resemblance between the economic world and the world of physics isn't perfect, the main difference between them is that while the world of physics remained the same since we started to observe it, the world of economics is constantly evolving, new institutions are created through the interaction of economic agents.

Economics is an area that requires continuous improvement, which requires new and revolutionary ideas, but cannot grow or develop smoothly and naturally through a series of unnecessary additions. Unfortunately, the boundaries of normality have been crossed. It can be seen that this trend, or in other words this direction, becomes increasingly percussive and undoubtedly result in a loss of fundamental values. Even Mises said in 1940 in his book "Interventionism: An economic analysis" that "... the rapid progress toward economic chaos should not be applauded. Nothing should be accepted on the basis that is unique, new, radical, trendy, or is promised by government, especially in economy."(Mises, 1940).

Another idea that should be considered a starting point when we raise the issue of economic theory is related to methodological approaches or, in other words, the research methodology. It is true that nowadays a confusing situation has been outlined, a situation which allows us to obtain different results for the same problem, based on the use of particular analytical methods. The import of methods from various sciences (we take again the example of mathematics and statistics) is not beneficial to economic theory. When it comes to those two sciences mentioned before, we have to point out that they have fixed and precise steps to solve problems or to explain the different situations, whereas when it comes to economics, things are changing at 180 degrees. An eloquent example of this is undoubtedly the case of economic crises faced by the world from time to time. These crises have led to the separation and formation of separate parties consisting of economists with totally different ideas and concepts. To be as precise in explanations as possible, we will take the case of Austrian versus Keynesian School. Austrian economists declare themselves against state interventionism and are pro liberalization of economic system. On the other barricade, Keynesians strongly defend the state and its levers of control exercised over the economic system and are firmly convinced that a free system, allowed to perform, "on its own", could only cause significant damage. Therefore, they adopt a doctrine that is diametrically opposed to that couched by the Austrian School.

We do not reject the import and adaptation of methods from other sciences, as long as they prove to be necessary; the problem emerges when we try to force the economic science to adapt to this methods. Any scientist should be free to choose the method that he thinks might help, therefore the rationality of this choice will be analyzed in the following paragraphs.

#### 4. The rationality assumption

It is not a coincidence that we have chosen to analyze rationality in economy as a last prospect addressed inside the crisis of economics. Rationality is a sensitive issue and requires a comprehensive approach from a variety of perspectives. In the present article because of the topic, we turn our attention to quality versus quantity from a Kantian perspective. The dispute between natural and social sciences is not new. It was born with the actual separation of philosophy and science so we cannot claim to exhaust the subject here, but we intend to draw attention to an important aspect that puts this argument in economic sciences.

It is well known that the unstable area of economic analysis has brought some damage, but it also had the merit for outlining its perimeter. Within this outline we are facing the need for quantitative as well as qualitative methods of analysis. This would not be a problem if we can establish with certainty what is suitable for the quantitative approach and what is not. In the absence of such rules it is usually proper to appeal to the researcher's intellect. *He must be the one who will decide better what is useful and what is not within its own research, a research that makes use of certain techniques or methods.*

This is the ideal theoretical path to follow. However, it is indicated to remember that the same thing is told about the consumer in the neo-classical economic theory as well. *Rationality is what determines the consumer to make the best choices for himself.* Although this idea has dominated economics for years, it has the validity similar to the calculations based on the interactions of physical forces ignoring, for example the gravitational acceleration. This idea is not basically an aberrant one as long as the omission is intentional, made for the teaching purpose, in order to ease the solving of certain problems. The real adverse effect of the failure is noticeable at a scientific level, precisely when such an error capsizes the result of an experiment. There is a strong connection with the previous example, and therefore, when talking about the scientific framework, it must be taken into account that a consumer is not purely rational. For the individual, the effect of its irrationality is not always crucial. For the scientist, however, this detail is essential and can change the result of thousands of equations that analyze changes in consumption and therefore they must take into account the effect marketing has on consumer. Therefore, it is understood that the scientist's freedom to choose methods is good, but just from his own perspective. From an epistemological point of view, however, the scientist succumbs either to certain doctrines or to its origin (if it is a non-economic one), just as the irrational consumer can easily be deceived by marketing. *Finally, we reach the point where the researcher abuses certain quantitative or qualitative methods, just to keep his doctrine or to remain on his territory, giving up rational choices.*

The problem of rational choice, when choosing the method in economics, is versatile due to its polyvalent origin. Being influenced by social sciences (philosophy, sociology, psychology), as well as science, disputes have been directed towards this subject.



Immanuel Kant however, in his book *Logic*, finds the direction of the dispute as being a false one, because it refers to the object. Mathematics has the duty to refer to quantity, while social sciences, especially philosophy, to quality. In reality, the distinction should be made only by the "...different type of rational knowledge or application of reason in mathematics and philosophy..." because philosophy (like all social sciences) is "...rational knowledge through simple concepts, mathematics, by contrast, is rational knowledge by building concepts." (Kant, 1985, p. 76) This old dispute between mathematics and philosophy was taken over entirely by economics because it has both mathematical and philosophical origins. To this we might add the generosity of economics to welcome in its group of researchers people from both areas and beyond.

### 5. Do we have a crisis of the economic theory?

Inevitably when we hear about the crisis of a theory our thought goes to Kuhn and his *Structure of Scientific Revolutions*. Until him, scientific progress has been seen as a continuous increase in a set of accepted facts and theories. He argues, with examples from the history of physics and astronomy, that instead of a continuous increase we deal with an episodic model in which, periods of such conceptual continuity in normal science were interrupted by periods of revolutionary science. Before any revolution we have a crisis, during which a paradigm is stretched to its limits and starts to fail in the attempt to solve its own puzzles. At first glance we might say that the economic theory faces a crisis.

Indeed, when it comes to the existence of a real problem that the economy currently has to face, a lot of questions are raised and a lot of assumptions are made. But to argue that there is a real crisis of economic theory is not such a veracious assumption. A crisis of economic theory occurs when the ideas that can provide its dynamism and that can put the whole mechanism in motion, are coming to a standstill or, in other words, no ideas, whether good or bad, are implemented. We talk of crisis when we do not have ideas that can be analyzed and tested. Currently, however, we cannot suggest anything like this, as new ideas and supposedly "innovative" ones are released continuously. And how examples are the best way to complete a statement, as they are, in fact, a strong argument, I shall explain the ideas that led to the collapse of the economic system during the past years. Why did we choose to approach this subject? Because we propose to highlight the assumption that ideas, moreover, ideas that became more "innovative" and "extreme" managed to find, are still finding and will most certainly find from now on, their way into the depths of economic theory. So, in the context of the current crisis, we are talking about an "outbreak of infection" that has its roots in the disastrous economic policy pursued by the U.S. for years. Risky mortgage derivatives crisis is the real name of the current crisis. The present situation was reached by developing an underground economy, an economy that has juggled with sophisticated risky mortgages - "subprime" mortgages, sold to local banks and later resold by them quickly to some financial institutions that have accumulated a wealth of such products, have spitted and mixed them with other complex credit products known as "derivatives." This is how the chaos was created.

There wasn't and seems like will no longer be a call for the desirable ethical and moral methods as those mentioned by Mises and Hayek, methods that have their origins in the writings of Adam Smith and John Stuart Mill. According to the dowry left by those mentioned above, economic theory must be placed on a foundation built from truth and justice. Unfortunately, the importance of these values is not known to us anymore or, if it is still familiar, however, the abandonment without remorse is preferred.

How can we therefore believe that we are facing a crisis of economic theory when that there are enough ideas, far too smart and bold that inspire us and can help us draw some serious lessons? All these are important lessons, sure to be kept in mind. Dealing with these errors is, in fact, the certain way to pave the road towards progress!

It is therefore impossible to say that nowadays or, better said, during the last years, economic theory has stayed put. When talking about a real crisis in the economic environment, with all that it implies, we automatically think that the economy has got to a standstill in the true sense of the word. The term usually used to describe this stage is stagflation. This is certainly not the case. We cannot talk about a stagnation of ideas in regards to economic theory. On the contrary!

The main problem that economic theory has to face is based on the orientation of economic ideas to a wrong direction which cannot satisfy the requirements necessary for a proper functioning in the current context.

We can relate, in this context, to the point of view claimed by Thomas Kuhn in *The Structure of Scientific Revolutions* as well. Kuhn says that: "...scientific revolutions are inaugurated by increasingly acute consciousness, often restricted to a narrow subdivision of the scientific community that, the existing

*paradigm ceased to function adequately in the exploration of an aspect of nature that the paradigm itself revealed before.*" (Kuhn, 2008: 157). The case of economics is a special one, its great paradigms draw their vigor from the ideas of the "founding fathers", but they took different paths; this translates into the fact that when a paradigm fails isn't banned for life; like the forgiving father in the story, the economic theory receives its wondering paradigm back once the mistakes have been corrected. So, therefore, the paradigm works only that it does not work "properly", as it requires a correction, an incentive that might "wake it up" and make it return to the right path. As already stated in the lines above, in this context we can find the real problem.

Therefore we are not talking about a crisis in the traditional sense, but a concentration of ideas and efforts toward a wrong track. The solution, the measures that should be adopted aim at correcting an attempt for reorientation of research towards those areas that could give relevant answers. Possible explanations to these troubles come from Karl Popper as well, who tells us bluntly that: "...the set of knowledge does progress only by correcting errors..." and: "...our errors can be instructive".

If we say that today there is a crisis of economic theory, this means that the crisis has always existed and that there are very few moments in history when these crisis haven't made their presence felt. Therefore, we must remember here a comparison made by the philosopher Francis Bacon who resembled ideas with grapes that need to be left to ripen and then need to be harvested so that by pressing they give rise to "*the pure wine of knowledge.*" All true!

We come in addition to this hypothesis and say that these grapes must be chosen carefully because among them we might find grapes that are not ripe enough or did not develop in a healthy way. This is exactly the case of ideas or assumptions that underlie economic theory. It is therefore imperative that these ideas must be "cleansed" of the errors that accompany them and thus leaving room for healthy ideas that can lead to progress.

The same Francis Bacon started his research from the premise that "*knowledge is power.*" And if we think about it, how can this knowledge be acquired if not through experience, through positive and negative examples, the good and not so good ideas which we can lead us to the required dose of information that are summed up by knowledge. New ideas are useful, whether good or bad. We support these statements to extend Popper's assertions. He invites us to produce new ideas because they lead to revolutionizing the way we think. This does not mean that any idea should be implemented, whether it was verified or not. Considering these statements, ideological construction as well as institutions, must pass the test of time.

Taking note of those mentioned so far, the basic ideas that have shaped the different periods of "crisis" we had to face over time, extended a helping hand. Through them, we were shown how NOT to do in different situations and what can we DO in order to finally turn to the right path, the initial path from which we have all departed for years. These examples gave us a healthy lesson and made us realize once again that we can learn many things from our mistakes and we can learn them better this way. The socialism and the communism have shown us as clearly as possible how much harm can do to us a system based on central planning or a state which is entrusted with all power. From these experienced thus tested examples, one can retained or ought to retain the idea that a free system, a system that will provide and which is built of liberty is an ideal, the ideal that can guarantee the proper functioning of the economy. We fully agree with Popper who tells us that scientific progress can arise in those societies that promote free thought and free confrontation of ideas, specifically inside "*open societies.*"

This whole system would be able to restore vitality to economic theory just based on the assumptions which helps building the right road.

## 6. Conclusions

Even if a certain measure of truth exists, we can observe that the main accusations against the economic theory are in fact accusations against the neoclassical paradigm. As we stated before the fail of a paradigm, even though it is a mainstream one, can't be translated in a theory crisis in the kuhnian sense.

Aware that we have not drained the subject, as its complexity leaves room for approaches coming from different positions, we think that we have reached our goal which is to give an argued answer to the definition of "*crisis in science*" given by Kuhn.

Even so, the current situation should make us wonder about how broad trends are imposed.

We are still optimistic and tend to believe strongly that at some point things will return to normal. For the good of all people, is preferable for this to happen as soon as possible. It is coveted the return to the

values that stood as a fundament for economic theory, those values it was based on for a long time and which have consecrated it.

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## RELATIVITY DOCTRINAIRE APPROACH OF THE CURRENT ECONOMIC CRISIS

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**Abstract:** *The current crisis did not only generate a shock in the economic world but managed to bring into light old doctrinal quarrelers between great economists.*

*Assuming that we need different opinions and constructive criticism to speak about science, **the problem**, the point of our "journey" comes from answering this question: **How we can make constructive use of different theories that discuss the same topic, namely the economic crisis?***

***The purpose** of this article is to detect both convergences and divergences settled among the opinions coming from the most active economic doctrines and concerning the current imbalance in the global economy.*

**Key words:** Crisis, business cycle, Austrian School, Mainstream, Keynesian

**JEL classification:** A11; B41; B53; B26; E12; E32; E44

### 1. Introduction

The essence of the mechanism that leads to the market collapse does not represent a mystery anymore. The doctrinal disputes are taking place on the intimate territory of economic relationships that lead to the generalized economic boom, followed by chaos and the collapse of the markets.

The fact that economists fail to agree on common principles and fail to find "*magic cures*" for the economic crisis is an issue frequently discussed nowadays as it is labeled as a crisis of economic science itself. A discussion that usually starts from wrong premises can only lead to wrong results. That is why we have to remember the fact that where we do not have different opinions we find it hard to talk about science, and this idea was very well suggested by K. R. Popper in these two lyrics: "*I may be wrong and you may be right, and by an effort, we may get nearer to the truth.*" (Popper 2005, p.287)

**The present crisis can be rightly considered the crisis of risky mortgage derivatives.**

This situation that we face for more than three years was thus by no means the fault of the capitalist system, as some rush to insist. But we may say it was a government error, an error that manifested by an unjustified intervention in a unit as complex as economy. We are talking about a government policy failure materialized in a flawed monetary policy.

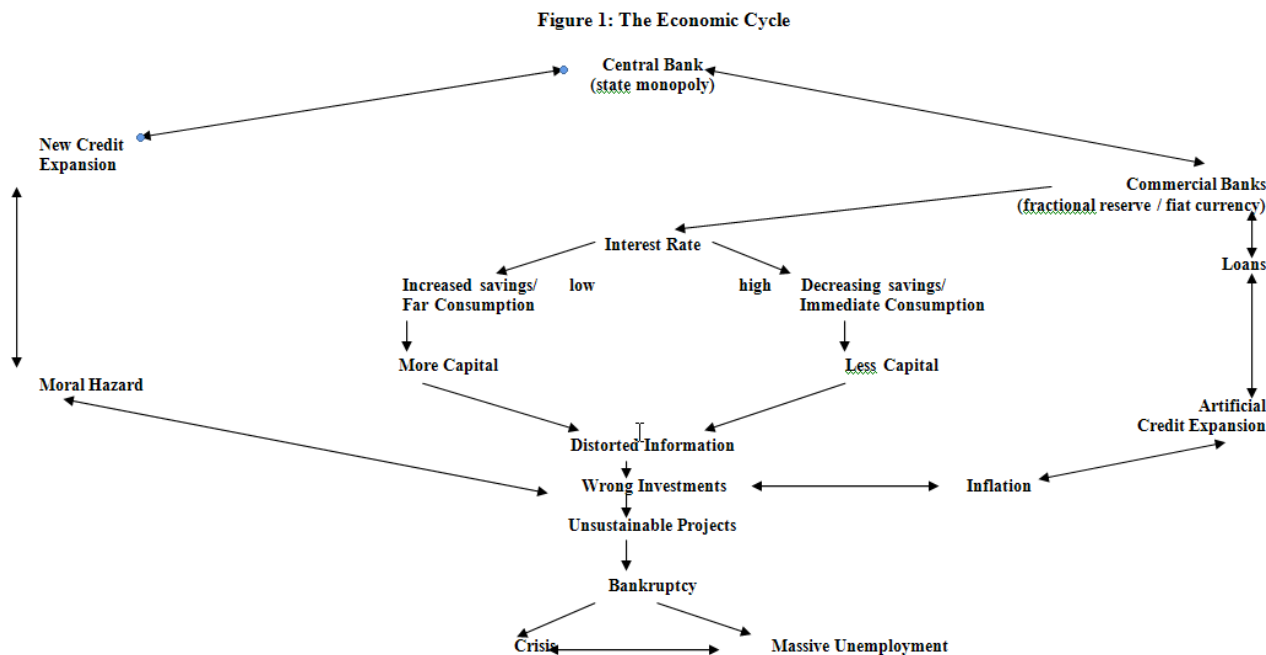
### 2. Brief overview of the Austrian vision

Taking into consideration the various number of opinions concerning the phenomenon that lead to the burst of economic crises, we have decided to screech at the one described by the Austrian School, precisely the one presented by Mises in 1912, because we find it to be the most coherent and relevant explanation nowadays. This theory suffered a series of improvements during the past years, but the foundation needed, in order to understand the mechanism which describes the course of the events, remained the same.

Hoping to foster a better understanding of the whole mechanism that stands as a foundation for the crisis that we had to endure during the last period, we may refer to a schematic of the business cycle theory formulated by the Austrian School:

An important note is the fact that the austrian economists consider as the starting point of the crises **the artificial expansion of credit**. We say that it is artificial because it does not have a counterpart in the growth of the voluntary household saving. This expansion, which is reflected in an increase in the loan

volume is stemming from an unhealthy way in which banks function, a way that obviously jeopardizes the proper functioning of economy. When we talk about the unhealthy way in which banks function, we refer at *the state interventionism* through the Central Bank, as well as the system based on *the fractional reserves*. The lack of distinction between the *demand deposits* and the *sight ones*, „policy” used by banks nowadays, is a real problem treated extensively and in an explicit way by Jesus Huerta de Soto in his famous treaty *Money, credit and economic cycles*. (Huerta de Soto, 2010a) The approach brought by de Soto allows a clearer understanding of how, through this combination of two different types of deposits, the bank’s activity turns into one in which storage becomes completely a sight deposit that uses the so appealed system of fractional reserves.



Therefore, the banks have the opportunity to increase the quantity of money in circulation creating credit based on sight deposits, although these ones, unlike term deposits can be withdrawn at any time and should be kept permanently at the client’s disposal. According Jörg Guido Hülsmann's allegations (Hülsmann, 2000), allegations which can be found at Huerta de Soto as well, if we compare the banking system based on deposits and the one based on fractional reserves, we conclude that, in the first system the ownership is not transferred to the bank but it remains to the person who has the gold or the money for example. In this case, contrary to the one with fractional reserves, the bank should only keep the deposit, protect it and return it to the depositor in any moment he asks for it.

The person who realized that an extra amount of money injected in circulation would not only lead to inflation but it will also drag down the credit and the interest rate too, was none other than the founder of the business cycle theory, Ludwig von Mises (Mises, 1953). We bring loan in discussion because this is the main way in which new money enters the market. And concerning the interest rate, one might notice a clear incompatibility between this fact and the structure of prices.

In order to understand as clearly as possible the set of ideas presented until now, as well as the mechanism which helps elucidate the economic cycle promoted by the Austrian School, it is necessary to explain the way in which a *healthy system* should function, a system that hasn’t been touched by the disease brought by crisis. We are talking about the system based on the *100% reserves*, about *the private and free production of money* and, last but not least, about *free banking*.

Therefore, in a healthy economical environment, the investments are financed from credits given by the banks based on the resources drawn from the voluntary saving of citizens, through demand deposits, meaning the money they give up temporarily and conscious, in exchange for benefits obtained from the interest. Thus, by granting loans from the resources that are in the current accounts of the citizens, distorted information concerning people’s preferences regarding consumption and the savings is forwarded to the entrepreneurs. This fact leads to wrong investments, which prove, sooner or later, to be unprofitable and bring financial crisis, economic recessions and massive unemployment.

From the sight deposit made by a customer, a bank can lend the biggest part of that deposit and this part, having reached another bank can represent the basis for a new loan, and so on. Consequently, this is the way that leads to the multiplication of the money supply from circulation, preserving only 10% liquidity, while the remaining 90% are basically virtual money, created out of nothing, which only exist scripturally in the ledger of banks. Jörg Guido Hülsmann thinks that the problem draws precisely from this explanation: *“there are more headlines than money.”* (Hülsmann, 2000) This artificial credit expansion apparently stimulates the economy and seems like the ideal solution, but this is only a short term one. On long term, the adverse effects can't be hidden no more and are bound to reach crisis. *“Credit expansion from the boom periods determines entrepreneurs to act as if the level of savings has increased, although in reality no such thing really happened”* (Huerta de Soto, 2010b), says Huerta de Soto.

As a conclusion to the facts mentioned until now, we give justice to George Selgin who states that *“a crisis of 100% reserve banking system is basically impossible”* (Selgin, 1993).

### **2.1. How does an “Austrian” mind see the present crisis?**

Every financial crisis has its origins in the policies of central banks. The current crisis was no exception. From the events that occurred over time we can draw several lessons that are suitable for the current situation as well. A closer look at the crisis of 1929-1933 can give us enough clues and might help us understand better these current events. The amount of money, credit deterioration and central bank policies are common elements of the Great Depression and current events that take place in the U.S. mortgage market and global stock markets. The only difference is that the current recession manages to put an end to a very long period of credit expansion.

One of the main accusations brought by the austrian economists to the current economic situation is linked to the action of artificial credit expansion. The many investment errors that caused the current crisis sprang from the monetary expansion that took place during the tenure of Alan Greenspan at the Fed.

The old fear concerning the prospect of a possible deflation, following the bust of "dot.com" from 2000 and the events that took place on September 9, 2001, determined the Fed to revive the credit decision through a series of interest rate cuts in the interbank market, cuts that have gone from 6.5% in November 2000 and arrived in July 2003 to 1%. This incredibly small amount remained at the same value for approximately one year, until June 2004.

The value of such low interest rates, a value that has been defended by the mainstream because it is seen as a reward for a productive system, winked at us and urged new liquidity injections in the economy.

Likewise, a low interest rate, which we have been talking about so far, seemed to have urged consumers to borrow increasingly more, so we came across a situation where commercial banks, hungry for profit maximization, began to give "card only" credits (to use the Romanian version) to customers that raised many question marks.

This is the way that leads to the release of a large number of “subprime” loans, most of them having a mortgage nature. These loans had a high degree of risk as they were not given based on a warranty and had no checking for creditworthiness. This cheap money launched on the market led to a boom in the real estate market, encouraging the "trend" to have more properties than can be inhabited.

Following the continuous increase in the price of real estate, business owners have become convinced that they made the best choice investing in them and they will come across substantial gains. So in 2005, 40% of the houses bought did not work as permanent residences but as investments or holiday residences. The inevitable happened, the large real estate bubble finally burst, and things have not evolved at all as expected..

In 2004 the Fed had already begun to realize the damage that has been done, a harm translated through the inflationary effects created and the policy of cheap money, therefore he resorted to a gradual increase in interest rates in order to prevent this artificial expansion of credit. This has led, undoubtedly, to a substantial reduction in the volume of loans directed toward real estate market and real estate price collapse.

The large number of mortgage debt, a damage that is hard to repay, pressed the liquidity of banks so that they, unprepared, were not only unable to continue lending, moreover, began to turn to the interbank market in order to get resources that might help them honor their liabilities.

This situation established a state of instability, banks began to fear lending money to each other and all this, wrapped up, have only marked the road to a jam of credit and cash flow.

### **2.2. Synthesis**

The main triggers of an economic crisis, according to the **Austrian School** are:

- 1) **State interventionism** manifested by faulty monetary policies - **excessive regulation**
- 2) **Artificial credit expansion**

- 3) The volume of voluntary savings of the population increases at a slower rate than the volume of loans
- 4) The banking system is based on **fractional reserves**
- 5) The lack of a clear distinction between demand and sight deposits
- 6) **An excessive reduction in interest rates**
- 7) The explosion of the real estate bubble in U.S. as a result of a “subprime” loan growth - "mortgage boom"

### 3. How does mainstream sees the present crisis?

As it is well known, mainstream represents an orthodox doctrine released in the U.S. and one might say that it found its ideological origins about freedom in the work of Milton Friedman (1980). Following this ideology steered the U.S. economic policies, prior to the current situation. That is why, its most important representatives were involved either in the management of major national banks or in politics, with a tendency to be subjective while analyzing the causes that triggered the crisis.

From mainstream's point of view, the abnormal development of the system is based on providing very low yields for safe financial securities, which determined investors to move capital to highly risky financial derivatives, CCC-rated, to ensure a reasonable profit.

In this situation, as Alan Greenspan claimed "*history has not proved to be too gentle with the times that followed extended periods of low risk premiums*" (Greenspan 2008, p.508). Most often, in situations when the economy seems to work perfectly, the state of general euphoria persuades investors to ignore the risk of lower class financial products, getting to the point where they are guided only by the value of efficiency.

As long as a price collapse can not be foreseen, information is perceived by investors as being a distorted one, causing the appetite for risk, in an unconscious and continuously growing way. Such a stage of irrational exuberance was met in 1996 when the Dow Jones index first exceeded the 6500 level.

The same trend was framed in 2002 as well, with a higher level of direct investment turned towards the property sector, caused partially by redirecting investments from the dot.com sector, a sector which collapsed in 2000. From the description above we see that there *were two speculative bubbles*: one in the real economy, on the **real estate market** and one on the **financial market**.

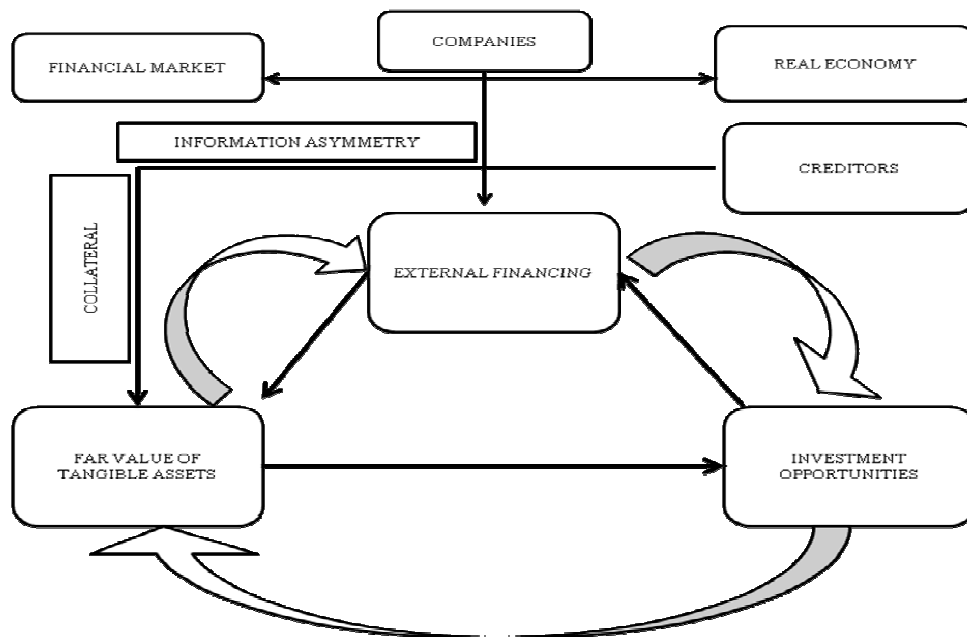
#### 3.1. The release mechanism of the crisis

Due to the increasing propensity to save, registered at a global level, with a higher rate than income growth, pressure have been exerted on interest rates. The fall of interest rates has driven savings from banks to purchase shares, bonds, real estate and various financial derivatives. Directing investors who wanted to improve their rates of return towards the lower-class assets, exerted increasing pressure on them, and all this gradually reduced the spacing between risky and safe assets.

Meanwhile, the real estate market euphoria was bigger than ever. Substandard loans, representing approximately 7% of total loans in 2002, managed in only three years to reach a 20% share. Securities transactions derived from the guarantee claims have managed to conquer a market share of over 80% while three years ago about 50% of the loans were guaranteed. Mainstream sees this development as an important factor that contributed to the crisis. In addition, excessive demand for securities boosted the banks to give increasingly more “subprime” loans, having increasingly more cash by selling financial market risks in the form of CDO-s (collateralized Debt Obligation). According to Alan Greenspan, Fed chairman at the time, the higher tranches of such financial derivatives, were rated AAA (low risk) which led to the establishment of a proper price to this assessment, well below the assumed risk. When investors realized the danger, they began to sell these exotic derivatives and to revoke the small yield investments but in a very safe way, as the case of the U.S. treasury tickets. Banks have started to lose liquidity and have problems because of the long-term financing of illiquid securities with short-term funds. This was not a problem at first, but afterwards, the financial market demand kept on growing.

This is how the credit crisis was triggered using the mainstream vision and, during the following paragraphs, we will try to bind it with another mechanism used by the same school, a mechanism that serves to explain how the shock has propagated in the economy. We are talking about the financial accelerator of Ben Bernanke, the current president of the Fed. For a better understanding, we will try to explain it with the help of a scheme, in order to facilitate a clearer understanding of the link between its representatives and loan crisis.

#### Figure 2: The financial accelerator



As inferred above, the financial market and the real economy affect each other. In normal conditions, the imbalances created in one of these markets are balanced and triggered by the other via the credit needs of firms that seek to take advantage of investment opportunities. The most important issue that arose in the current crisis is generated exactly by the credit jam.

A company can borrow an amount of money directly proportional to the value of its tangible assets or, more specifically, the higher its financial market value is, the larger the amount of money obtained by creditors will be. The creditors, in turn, require debtors to demonstrate their ability to repay loans through guarantees in the form of collateral assets. What else can effectively increase the net asset value of a company, if not investments? But once the investments are related to the value of assets and on the financial market they are pulled off by a shock, this is reflected in the account balance of firms, reducing immediately their ability to borrow for any possible investment that might improve the situation.

Once the reliability is reduced, a noticeable reduction can be observed in the volume of outputs generated by the firm as well. This is nothing but a further pressure on the asset values.

Overall, this is the complete model for the economic boom, followed by the investor's financial market euphoria and ending with the current crisis, from mainstream's point of view.

### 3.2. Synthesis

The main triggers of an economic crisis, according to the *mainstream* point of view are:

- 1) **Low yields of safe financial products**
- 2) The decrease of the spacing between safe and risky financial products yields
- 3) **The exponential growth in the number of substandard loans**
- 4) Securing a large number of substandard loans
- 5) The increasing demand for real estate loans
- 6) The artificial increase of property prices
- 7) The increasing shares of developing economies in the global income
- 8) A high propensity to save among the population from developing countries
- 9) An increasing propensity to save beyond the investment potential
- 10) The financing of long-term illiquid financial securities with short-term funds

### 4. Keynesians and their perception of economic crisis

*"I believe that markets are vital center of any successful economy but that markets do not function well left to their own."*

*From this point of view I belong to the tradition of John Maynard Keynes..."*

*(Stiglitz, 2010 p.16)*

For Keynesians, the depressions are part of the economic cycle. As Cristina Peicuți insists, "financial cycles begin with a phase of progression, then go into a phase of accelerated growth, which turns into a stage of chaos and disorder and, eventually, everything ends in the consolidation phase, followed by the



*recovery of the economy.*"(Peicuti, 2011, p.11) It is noted that the Keynesian school admits crises as part of business cycle. What the economy needs to solve is how we can manage markets in order to make the depression return as rarely and as less painful as possible.

The first step that must be done to correct the market's slippages is, from the Keynesian point of view, regulation. We are talking about covering legal incidence of abnormal areas that allowed the expansion of the boom. The economic problem is basically transferred to the territory of economic growth and not to the one belonging to crisis itself. Abnormal and accelerated growth sustained only by lax credit and monetary control is still the most important evil part that must be blocked by regulations.

Overall, the current crisis is seen, of course, as being based on market deregulation which added low interest rates. These factors have fueled speculative bubble. Cheap money has boosted demand for the real estate market which has grown faster than the supply, causing an expansion of prices.

Property price growth has allowed them to be mortgaged for an increasingly large amount of money. By mortgaging more properties their capital value decreased automatically. Mortgage securities withdrawals reached in one year more than 7% of U.S. GDP. Thus, America's economy was becoming increasingly linked to the expansion of the real estate price. Based on this expansion, the free market has created toxic derivatives that arise from loans given without security interest. With these derivatives, banks started borrowing more than ever until it got to the point where the amounts owed to depositors and debenture holders exceed their assets. At that time, banks were no longer solvent apart and reached the point where they either refused to lend each other, either to do so at exorbitant interest. This imbalance translated into these economic and financial crises.

#### 4.1. Synthesis

The main triggers of an economic crisis, according to the *Keynesian* point of view are:

- 1) **Deregulated market**
- 2) **The abundance of liquidity**
- 3) **Low interest rates**
- 4) The **speculative balloon** from the real estate market
- 5) Exponential growth in substandard lending based on NINJA loans (Income Non Non Non Job Assets)
- 6) The U.S. trade and fiscal deficit
- 7) An enormous reserve of dollars accumulated in China

#### 5. Conclusions

*"The future is open. It can not be predetermined and therefore can not be predicted, except by chance."  
(Popper, 1998 p.9)*

From the structural analysis determined in this paper, on the most important currents of economic thought of the moment, we can deduce quite easily the fact that the percepts of the current crisis are basically the same when references are made to the economic mechanism. The major differences of perception have a doctrinal nature, belonging in a more obvious way to the philosophical and conceptual part. This is also the chapter where solutions to revive the economy can be found.

The main figures of the *Austrian School* of economics can see pass the appearances and consider as the main cause of the present situation, hyper-reglementation and believe that the imbalances are in fact normal and *predictable expectations from a market that is suffocated by the burden of interventionism*.

Austrian school is not sagging from mathematics but manages to maintain the required lucidity in order to reserve its rightful place. We must not forget that *mathematics is an essential tool* in economic research, but *it should not be allowed to become a purpose*.

On this basis, economists representing the Austrian School have succeeded in reviving the most significant elements that have the guilt for the wrong policies, such as: the fractional-reserve problem, the role and effectiveness of national banks, the utility of hyper-regulation and last but not least, the role of risk management institutions.

The main figures of **mainstream** believe in the *impossibility of anticipating the crisis* and continue to consider the *economic cycle as being predictable through the evolution of macroeconomic indicators* which can be calculated and anticipated with the help of mathematical equation.

Another point of view starts from their opinion that nobody can obtain other results where econometrics and the risk analysis failed.

With strong beliefs in mathematical miracles, mainstream tries to quantify even what John Maynard Keynes called "*animal spirits*" through an *indicator of factorization added*. Based on these expectations, even after the lamentable failure of mathematical projections, the same trend of scientize economy is continued.

Being considered an orthodox doctrine, mainstream finds it difficult to criticize regulation or deregulation, which is why their analysis on the crisis starts directly from the business cycle without seeking the real causes in the policies applied by them. Despite their claim of mathematical accuracy, mainstream sees the cause of economic disorder as being somewhere in the unpredictable human action and not in the fundamental law under which economic activities take place.

The main figures of **Keynesianism** are passing the blame on the wrong monetary policies and see as a unique solution for recovering and maintaining economic growth, *reglementation*. Much more realistic and objective than the mainstream due to its lack of involvement, Keynesianism tries to find causes in the basis of economic act but somehow manages to find otherwise merits to the Austrian School.

Keynesianism and the representatives of mainstream basically support the same ideas but from different positions. They treat in a downwards manner the economic act, superficially treating the individual, but without hesitation when it comes to accusing him in times of crisis. On the contrary, Austrian School remains focused on the individual and his freedom of choosing how he wishes to pursue the economic act, having faith in the idea that this is the only way possible for markets to self-regulate. The need for state interventionism in economy is unnecessary and can only bring harm.

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## SUSTAINABLE DEVELOPMENT OUTLOOK ON CAPITAL

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**Abstract:** *Historically, economic development has sought to maximize monetary capital, while ignoring non-monetary assets – human health and well-being, social networks, clean air and water, biological diversity. As a result, economic development has often occurred to the detriment of human and natural resources. Societies need to manage different types of capital which may be non-substitutable and whose consumption might be irreversible: financial, natural, produced, human, and social capital. Sustainable development is the best way to manage these capital assets in the long-term as a dynamic process through which organizations, communities and individuals can balance their environmental, social and economic activities.*

**Key words:** sustainable development, capital, natural resources

**JEL classification:** O16

### 1. Introduction

The field of economic studies has existed for about two and a half centuries. For the first 200 years early economists defined productive inputs under three headings: land, labor and capital. The term land could cover any parts of natural capital, but for the most part only land itself was seen as in limited supply: the rest of nature was assumed to be limitless, and was largely taken for granted. Labor simply meant person-hours of paid work. The word capital, or wealth, meant, simply, produced capital, based on human-produced assets - goods and services that are assigned monetary value and can be consumed.

Historically, economic development has sought to maximize monetary capital, while ignoring non-monetary assets, such as human health and well-being, social networks, clean air and water, and biological diversity. As a result, economic development has often occurred to the detriment of human and natural resources.

As a concept, capital aligns very well with the temporal aspect of sustainable development. The essence of sustainability is that we wish economic production to continue for the benefit of the future (not because production is inherently good but because it contributes to human welfare). To do this, we need to maintain the means of production—or capital—intact over time. Capital embodies much of what is necessary to create the flows of services and materials necessary for economic production, today and for the future. If capital is maintained constant or growing over time, then economic production, too, can be sustained over time.

Sustainable development was defined in many different ways, such as development that ensures non-declining per capita national wealth by replacing or conserving the sources of that wealth; that is stocks of produced, human, social and natural capital. In other words, sustainable development can only occur if production occurs in ways that maintain or increase all of the necessary capital stocks. A sustainable socioeconomic system creates a flow of desirable goods and services by using its renewable capital stocks without depleting them. Although some portion of some, especially nonrenewable capital stocks may be used up in the process of production, the overall quality and quantity of the resource base for sustaining life and well-being must be preserved.

It is possible for economic activity to augment stocks of produced capital, and the replacement of old produced capital with new often brings improved quality. In contrast, the impact of economic activity on the stock of natural capital is most often negative; either the existing stock is drawn down, when natural resource inputs are used, or the quality of the stock is diminished, for example, by the introduction of waste products.

The sustainable development debate is based on the assumption that societies need to manage different types of capital which may be non-substitutable and whose consumption might be irreversible. Sustainable development is the best way to manage these capital assets in the long-term as a dynamic process through which organizations, communities and individuals can begin to achieve a balance between their environmental, social and economic activities.

A society's total capital base is seen to comprise five individual stocks from where we derive the goods and services we need to improve the quality of our lives:

- financial capital like stocks, bonds and currency deposits; it facilitates economic production, though it is not itself productive, referring rather to a system of ownership or control of physical capital; it does play an important role in our economy, enabling the other types of capital to be owned and traded, but it has no real value itself;

- natural capital in the form of natural resources - renewable and non-renewable materials, land, ecosystems providing services like waste absorption, sinks - that absorb, neutralize or recycle wastes and processes such as climate regulation, climate change, CO<sub>2</sub> emissions;

- produced capital like tools, machines, machinery, buildings, telecommunications and other types of infrastructure; it consists of physical assets generated by applying human productive activities to natural capital and capable of providing a flow of goods or services; it comprises material goods, or fixed assets which contribute to the production process rather than being the output itself;

- human capital refers to the productive capacities of an individual, both inherited and acquired through education and training; it is perceived in the form of an educated and healthy workforce;

- and, finally, social capital in the form of functioning social networks and institutions; it is the most controversial and the hardest to measure, since it consists of a stock of trust, mutual understanding, shared values and socially held knowledge. It also concerns the institutions that help us maintain and develop human capital in partnership with others, e.g. families, communities, businesses, trade unions, schools, and voluntary organizations.

## **2. Financial Capital**

In short, financial capital refers to funds which are available to acquire real capital. It has a stable value (but not a stable price) and can be traded in most places and with most people. Money, credit guarantees, and extended payments are just a few examples.

Money can be regarded as a capital stock if it is invested in some activity that produces something – at the very least if it produces more money for its owner. Financial capital is what allows all productive activities to get going, in a money economy, in advance of the returns that will flow from them.

Financial capital is defined formally to include any asset for which a counterpart liability exists somewhere on the part of another institutional unit. These include currency and other forms of bank deposits, stocks and bonds, derivatives, accounts receivable, pension funds and insurance reserves. The value of financial capital is recorded in the balance sheet accounts of the national accounts.

Financial capital is a term that refers to assets that are considered to be liquid in nature and can be used to make purchases of various goods and services or to acquire other types of assets. For business owners, financial capital is a means to secure the resources needed to operate a business and supply products and services to their customers. In other words, financial capital only refers to tangible assets that can be used as money, meaning that assets such as buildings and equipment do not qualify as financial capital.

## **3. Natural Capital**

Natural capital is the land, air, water, living organisms and all formations of the Earth's biosphere that provide us with ecosystem goods and services imperative for survival and well-being. Furthermore, it is the basis for all human economic activity.

Produced and human capitals have traditionally been measured to gauge economic performance while natural capital has been neglected. This has led to a depletion of natural environments and the loss of valuable ecosystem services.

In addition to traditional natural resources, such as timber, water, energy, mineral reserves, natural capital includes natural assets that are not easily valued monetarily, such as biodiversity, endangered species, and ecological services (e.g. air and water filtration) performed by intact ecosystems. Natural capital has also been defined as the subset of all components of nature that can be linked directly or indirectly with human welfare and are valuable, vulnerable, scarce, fragile, or irreplaceable enough to justify investments in monitoring.

The problems of valuing natural capital are as varied as the resources themselves. For most traditional natural resources (minerals, fossil fuels, timber, etc.), market prices do exist, though they seldom reflect negative externalities resulting from exploitation of the resources. For instance, timber extraction often comes at the expense of biodiversity preservation, soil protection and other environmental services provided by the same trees that give us timber. To arrive at an approximation of the accounting price of

forest capital, market prices will have to be corrected for these kinds of negative externalities. Since ecosystem services are not usually priced in the market, special methods must be employed to make these corrections. In a fair number of cases it is difficult to find reliable and objective accounting prices. Overall it is fair to say that monetary accounting for natural capital is not yet operational in the same way as for produced and financial capital. In view of these difficulties, physical measures of natural capital must be sought as part of any suite of capital-based sustainable development indicators.

#### **4. Produced (Manufactured or Human-made) Capital**

Human-made capital is what we traditionally considered capital: produced assets that are easily assigned monetary value and sold in world markets. Some examples include appliances, furniture, automobiles, buildings, dams and other elements of the built environment.

Manufactured capital refers to material goods and infrastructure owned, leased or controlled by an organization that contribute to production or service provision, but do not become embodied in its output. Examples include: tools, technology, machines, buildings and all forms of infrastructure.

Manufactured capital is important for the sustainable development of an organization in two ways. Firstly, the efficient use of manufactured capital enables an organization to be flexible, responsive to market or societal needs, innovative and faster in getting its products and services to market. Secondly, manufactured capital and technology can reduce resource use and focus more on human creativity, thus enhancing both efficiency and sustainable development.

Economists define produced capital as produced goods that provide benefits to their owners over time (as opposed to goods that provide one-time benefits such as a food). The benefits provided by produced capital goods are the services they render in the production of other goods and services. For example, a lathe provides a service over its lifespan that is the turning of wood in a particular fashion that allows the production of a variety of useful wooden products.

Economists have long recognized two fundamental features of produced capital. First, it is recognized that the extent of the produced capital service flows available within an economy is a direct function of the size of the total produced capital stock in the economy. Since production is a positive function of produced capital services, and more production is assumed better than less, the greater the size of the produced capital stock in an economy, the better, other things being equal. Second, it is recognized that produced capital deteriorates over time and must eventually be replaced if the economy is to be sustainable. This leads to the notion that some amount of total (or gross) income must be set aside during each period for investment in new capital to replace that which has worn out during the period. The income left over is net income, which is available for current consumption.

Produced capital includes fixed assets that are used repeatedly or continuously in production processes for more than one year. Fixed assets can be tangible – such as machinery, buildings, roads, harbors and airports – and intangible – such as computer software, original works of artistic value (recordings, manuscripts) and other specialized knowledge used in production. Inventories of raw materials, semi-finished and finished goods held for future sale are also included in produced capital, as are valuables such as precious stones, antiques and paintings.

The value of produced capital is recorded in the balance sheet accounts of the national accounts. It is a common assumption that observed market prices for produced and financial capital are fair reflections of their well-being effects. In other words, market prices come close to the theoretical ideal of accounting prices for produced and financial capital. In practice, however, the reported numbers are not always certain.

#### **5. Human Capital**

Human capital generally refers to the health, well-being, and productivity potential of a society. Types of human capital include mental and physical health, proper housing and sanitation, education, and work skills. These elements not only contribute to a happy, healthy society, but improve the opportunities for economic development through a productive workforce.

Human capital is defined by the OECD (Organization for Economic Co-operation and Development) as “the knowledge, skills and competences and other attributes embodied in individuals that are relevant to economic activity” (1998) or „that facilitate the creation of personal, social and economic well being” (2001).

Human capital focuses on the economic behavior of individuals, especially on the way their accumulation of skills and knowledge enables them to increase their productivity and their earnings – and in so doing to increase the productivity and wealth of the societies they live in. The underlying implication of a

human capital perspective is that investment in knowledge and skills brings economic returns, individually and therefore collectively.

It is not easy to measure. Duration of schooling and levels of qualification are the standard measures used, but the OECD itself acknowledges that these are far from capturing the extent of human capital. For example – though this is not an example the OECD uses – child-rearing develops many skills which are rarely recognized in conventional calculations of the nation's human capital.

The quality of the Human Capital is the most important condition for a successful transition towards a sustainable model of development. In order to answer SD challenges it is mandatory to develop Human Capital integrating the latest knowledge and scientific achievements regarding the concept of Sustainability.

There is a wide range of non-market benefits of human capital. Using controls for income, race, social status and other variables, the research has shown that education tends to be correlated with: better health, lower crime and delinquency rates, higher civic participation, volunteering and charity giving, promotion of education to next generation, and higher rates of self-reported happiness.

## **6. Social Capital**

The notion of social capital is the most recent addition to the capital approach. As social capital has its origins in sociology, the focus has been on identifying the positive elements of society to be conserved and further developed.

There is a growing consensus around the idea that it is social networks and their associated norms that generate benefits. The most commonly adopted definition in this conceptualization of social capital is the OECD definition: “networks, together with shared norms, values and understandings which facilitate cooperation within or among groups” (OECD, 2001).

Like other forms of capital, social capital generates benefits that improve well-being. The benefits can be grouped into those associated with institutions and those associated with culture. The former include the rule of law and administration of justice, universal suffrage, transparency of political processes and international conventions and agreements. The latter include language, religion, sports and, arguably, fashion.

There are sources, assets and outcomes associated with social capital. The sources are individuals, groups and institutions. The assets are the networks and associated norms, such as shared understandings and informal rules that influence behavior. Networks link individuals, groups and institutions. They occur in a variety of different modes and forums, including face-to face meetings, legislation and technology-assisted transmission of information. The outcomes are the positive and negative effects that come from social capital and can include identity and sense of belonging, increased knowledge and understanding, community resilience, lowering of transaction costs, conflict resolution, social exclusion or intolerance of difference, reduced family functioning and corruption.

It is widely considered that social networks serve an important purpose in generating wellbeing. The creation of social networks may have a direct well-being effect as individuals who are strongly embedded in societal networks tend to be happier and more satisfied with life than those who are less well integrated in society. Also, social capital may increase the value of other types of capital; for example, social networks can aid in the search for a new job and, in so doing, help build human capital. The stimulation of innovation when there are strong knowledge networks may increase the value of produced capital. The effects of network externalities such as trust may lead to general increases in efficiency and a decline in transaction costs. Generalized trust and the creation of commonly shared norms result in informal checks on behavior which are far less costly than formally institutionalized transactions based on contracts, formal sanctions and legal systems.

The definition of social capital is itself problematic. It owes its prominence mainly to the work of Robert Putnam in political science, James Coleman in educational sociology, and Francis Fukuyama in economic history and sociology, as well as to the active patronage of the World Bank. Its origins go back well beyond these contemporary scholars, however; clear lines of descent have been traced back to classic authors such as Adam Smith and Montesquieu. For the majority of writers it is defined in terms of networks, norms and trust, and the way these allow agents and institutions to be more effective in achieving common objectives. The most common measures of social capital look at participation in various forms of civic engagement, such as membership of voluntary associations, churches or political parties, or at levels of expressed trust in other people. Social capital has been deployed to explain a wide range of social phenomena, including general economic performance, levels of crime and disorder, immigrant employment

and health trends. Despite some ambiguity, social capital is generally understood as a matter of relationships, as a property of groups rather than the property of individuals.

Social capital focuses on networks: the relationships within and between them, and the norms which govern these relationships. Although this does not necessarily entail a specific value position on the part of those who use it as an analytic device, it has strong normative connotations, implying that trusting relationships are good for social cohesion and for economic success. However strong ties can also be dysfunctional, excluding information and reducing the capacity for innovation. There can be negative normative associations as well as positive ones – so that some networks embody the ‘dark side’ of social capital, to the detriment of the wider society and even of its own members.

Social capital, like human capital, is related to human well-being, but on a societal rather than individual level. It consists of the social networks that support an efficient, cohesive society, and facilitate social and intellectual interactions among its members. Examples of social capital include neighborhood associations, civic organizations, and cooperatives. Political stability, democracy, government efficiency, and social equity are also considered part of social capital.

## 7. Conclusions

The different forms of capital are regarded as actual or potential wealth that can be applied toward the creation of additional wealth. It is important to recognize that potentially renewable resources can easily be over-harvested, or exploited at a rate exceeding that of renewal, resulting in degradation of the resource.

It has been demonstrated that sustainable development requires non-declining per capita wealth. Development is then considered to be sustainable if and only if the stock of all assets or capital (wealth) per capita remains constant or rises over time.

So, it is essential to maintain all five kinds of capital – financial, natural, produced, human, and social capital – for the sustainability of economic development.

As the concept of sustainable development is still evolving, it means that our ability to understand the dynamics of the relationships between the five forms of capital will change as the definition of the concept(s) develops.

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## INTELLECTUAL CAPITAL - GENERATOR OF SUSTAINABLE COMPETITIVE ADVANTAGE FOR COMING OUT OF THE CRISIS

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**Abstract:** *We talk more and more about the New Economy or about the Knowledge-Based Economy, characterized by a number of factors that are different from those that once characterized the traditional economy. Among such characteristics we may mention computerization, changing in technologies, the growing uncertainty, globalization and the application of new knowledge. Knowledge quality and uniqueness makes it the most important source of competitive advantage.*

**Key words:** *intellectual capital; investment in intellectual capital; technological and organizational knowledge.*

**JEL classification:** *B41, D23, D61, D63, K00*

### **Introduction**

Technologies are reshaping communication both within and between organizations. The growing interest in intellectual capital coincides with the dawn of the knowledge society and the newly seen importance of its knowledge workers (Porter, 1993). It is within this context that many authors discuss the importance for firm survival and performance of human and social capital at the organization level (Kogut & Zander, 1996, Pfeiffer, 2002).

Furthermore, concepts such as intangible assets, intellectual capital, core competence, knowledge creation and innovation take center stage in the explanation of the firm's assets that continually create value over and above physical and financial resources (Barney, 1991, Ulrich, 1998).

Seen from a broader perspective, the term “Knowledge Society” refers to a society where knowledge is the primary production resource instead of capital and labor. A knowledge society creates shares and uses knowledge for the prosperity and well-being of its people. Activities arising from the concept of knowledge society and the measures it entails are ((Drăgănescu, 2002):

- extension and deepening of scientific knowledge and existential truths;
- use and management of existing knowledge in the form of technological and organizational knowledge;
- production of new technological knowledge through innovation;
- an unprecedented dissemination of knowledge to all people through new media, mainly through the Internet, electronic books and electronic learning methods (*e-learning*).

Many theoretical models show that redistribution causes relative low growth or capital outflows though empirically redistribution and growth are often found to be positively associated across countries. The government of a technologically superior economy may attract intellectual capital and may have relatively higher GDP growth and more resources for redistribution than in a closed economy, helping it the come out of economic crisis.

Many critics of globalization say that this is one of the causes of poverty and that it allows developing countries to be exploited by large corporations, causing people in developing countries to lose their jobs due to cheaper imports eliminating companies from the market. They also criticize foreigners for buying out local companies and for creating a homogeneous world who stampedes to multinationals.

Political risk is also an important component of international investment. If a government is overturned or if new laws are imposing restrictions on foreign funds; foreign investors often lose everything. Even countries which are not part of this localized problem are affected.

Anyone who invests in global discharge outlet places does that for three reasons: to speculate, to hedge against inflation and to arbitrage.

Most investors in international discharge outlet places are speculators; they watch the market trend and they buy or sell based on that.

Essentially, speculators assume risks. If the market goes into the right direction, speculators gain profit, if not, they lose. Other players on the global markets - hedgers and arbitrageurs balance in the direction of speculators.

Aggregate performance is a stock produce, investment stockholders, who in turn are a result of the decision taken by the investment manager.

However, performance assumptions can be tested at high levels: aggregate performance of fund levels, shareholder's stocks and individual trade.

Stock characteristics: preferences should be and important factor, which explains a normal return of trade withdrawal; adjusted-risk return is a function of the institutional characteristics of the trade.

According to Fuerst, the risk standard should have a real significance in economic activity: basic funding teach corporate managers to evaluate new investment opportunities based on both risk adjustment.

Firms are urged to invest in the middle of recession in places where the risk standard is high; for example, they have to provide a high return on new investments. Including changes in investments, the standard risk should affect sustainable orders, jobs and other measures of economic performance.

The government of a technologically superior economy may attract local and foreign capital and may lead to relative growth and more resources for redistribution than in a closed economy; government redistribution can have a high interest in advanced technologies or in economic integration. International investing companies represent a difficult business.

Essentially, countries may be regarded as companies with "a limited investment level", in those countries with a stable government and without borders for trade and investment in intellectual capital. Why is investment in intellectual capital a condition for economic development and growth in living standards?

The reasons are numerous. Increased competitiveness caused by exposure to foreign competition is also a progress factor, since it forces companies to adopt measures to increase their economic efficiency.

In addition, through foreign capital investments, a country may benefit from more investments than it could otherwise afford from its own domestic savings, which means it will register a higher growth rate. For countries with excess of capital, external relationships offer them better investment opportunities.

Last but not least, participation in the world market implies involvement in the international exchange of information and technological breakthroughs, which leads to dissemination of technical progress across world economy and implicitly to global economic growth.

A review of the literature on intellectual capital reveals a tendency to focus on some of its sub-components in considerable detail often combining theoretical strands such as human capital theory (Becker, 1964), the resource-based view of the firm (Barney, 1991) and social capital theory (Burt, 1992). Although these developments are more useful in enriching our understanding of the sub-components of intellectual capital, they do not constitute clear frameworks of what intellectual capital is and how it contributes to firm performance.

Economist highlighted the importance of intellectual capital as a production factor in comparison to traditional economic assets. There are, in fact, two theories regarding economic growth: the neo-classical theory of exogenous growth and the endogenous growth theory. Human capital is differently reflected in the endogenous model of economic growth and development. Endogenous growth model states that the total level of output is defined as a function dependent on human capital accumulation. On the long run, the permanent growth is possible only if the human capital stock modifies virtually without limits. But in the last decades, this perspective has been enlarged by including the concept of intellectual capital that also includes human capital but not only that. In this context, the work of conceptual thinkers such as Horiyuki Itami and Karl-Erik Sveiby, dealing with intangible assets, has enormous potential for contributing to business strategy. This pioneering work has been continued by many other authors.

Most of the literature on IC makes a set of claims that are related to the value and intangible nature of this resource. The term was first introduced by Kenneth Galbraith in 1969 (Bontis, 1998), who believed that IC was more than pure intellect, but included "intellectual action".

The "using" of knowledge implies that relationships (social capital) and the processes (structural capital) are needed to transform knowledge (which is owned by the individual) into a product or service that is of value to the firm and its stakeholders.

The difference in the various definitions of intellectual capital lies in the level of analysis, its temporal dimension and qualitative nature of IC. Many authors regard IC purely as an individual level construct akin to knowledge and skills that individuals have. For example Ulrich (1998, p.16) argues that intellectual capital lies with skilled employees who are committed to business goals. That is, IC equals competence multiplied by commitment.

Other authors view this asset as functioning at the collective level and regard it as a meta capacity. Rastogi (2002), for example, views IC as a firm's holistic capacity or meta-capacity to meet challenges and exploit opportunities in its continual support of and search for value creation.

Some see IC as having potential value or future earnings potential, regarding it as an input into the value creation process.

Alternative approaches that integrate different levels of analysis (individual and collective knowledge and skills together with organizational processes and structures) also view IC as a process function within and across the organization. In this case, the particular organizational routines and organizational culture, which creates value, is seen as a form of capital in itself.

### **Conclusions:**

A final set of approaches regards IC as an output, a tangible product or service within which the knowledge, skills and processes in the organization are embedded. This viewpoint often uses a multiple-level of analysis approach, combining individual knowledge and skills with intra- and inter-organizational relationships and organizational processes. The complex nature of the concept of intellectual capital caused it to have so many definitions and be perceived in different ways. It is the hidden part that determines the futures success. Furthermore, it is the condition of the roots that defines how well a tree performs in the future.

Firms seeing to invest in the midst of recession where the premium for risk is high, for example, must offer a higher rate return on new investments. By including changes in investments, the risk premium should affect new durable orders, employment, and other measures of economic performance.

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## ANALYSIS OF THE FACTS THAT HAVE GENERATED CRISIS AND THEIR IMPACT ON THE SMES IN ROMANIA

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**Abstract:** *The crisis that Romania has to deal with today is an internal crisis, a crisis of over consumption. The main causes that have contributed to the appearance and increase of this crisis are of economic nature, as well as of microeconomic nature. These are doubled by the excessive consumption of the population, consumption based on debts. The negative impact of crisis can be also noticed at the level of the SMEs. This work has two objectives: the analysis of the causes that have generated the crisis in Romania, just like they have been presented by several economists, and their impact on SMEs.*

**Key words:** internal crisis, economic crisis, financial crisis, over consumption, SMEs

**JEL:** D04, E20, G01

### 1. Introduction

Nouriel Roubini, professor of economics at the Stern School of Business (New York University) and president of the consultancy company “RGE Monitor”, called “Doctor Disaster”, stated in his most recent book, “Crisis Economics. A crash course in the future of finance”, published in may 2010 and launched in Romanian by Public Publishing house two months later: “...the recent financial disaster could be just a drop of the flood that is still to come”.

He is the only economist who predicted exactly the Great Recession that stroke America since 2007, its effects being transmitted to all tangent economies. He appealed to mathematical and economic calculations in 2006, when he sustained, in front of the International Monetary Fund that the entire system will crash under the weight of a speculative balloon that is becoming more and more dangerous. The estimative description that Roubini made to crisis that was going to happen appears now like a post-factum report.

All his warnings became true one by one, Roubini climbing on the 2nd place in the classification of the best intellectuals alive (Prospect Magazine) and on the 4th place in the classification “of the most important global thinkers” (Foreign Policy).

Roubini insists that, even when all his warnings became true, the system refuses to react in a self-regulatory manner and tends to sink in the same mistakes that have buried it, from the measures anti-crisis at macro level to the economic decisions of the individuals.

### 2. But what is crisis?

Crisis is defined by the Dictionary as “the manifestation of difficulties (economic, political, social etc.); period of tension, disorder, trials (often decisive) that manifests in society; severe shortage (of goods, time, workforce)“.

In the article “Causes, propagation and effects of crises in a more and more globalized world” Cristian Paun defined crises as “situations characterized by a pronounced instability, accompanied by an increasing volatility and uncertainty on most of the markets (capital markets, oil market, monetary and currency markets, labour market etc.)”. In crisis situations (without regard of the form it might take) there is a permanent state of anxiety and uncertainty concerning the future, fear or even panic. Our defence and preservation instinct makes us behave sometimes irrationally and emphasize even more this volatility, as every one of us, with the own cognitive capacity, filters the information and understands the phenomena in his own way transposing it then in a certain market connected behaviour.

Mishkin defined crises as “the situation in which the adverse selection and the moral hazard become severe, the markets are not able to focus their resources on the most productive opportunities and investments.”

Friedman considers that any crisis has a strong psychological dimension. Panicked by the market perspective, an extremely large number of people start to redraw money from their bank deposits so the banking system enters in a generalized collapse.

Crisis is often associated to the lack of conditions allowing making a decision (Morin, 1976).

The apparition of a crisis is difficult to anticipate, the surprise element associated to such a situation being fundamental (Reilly, 1993).

In some cases, crisis is defined as an event with a reduced probability to appear but which has important implications for the society, organisations or individuals (Mitroff & all, 1988).

The problem in defining these crisis consists in telling how big the volatility or fall of the markets is in order to be able to frame an evolution of this type in the category of a crisis. There are no very clear definitions regarding how big the inflation, unemployment or the GDP of a country would be to appreciate its entrance into a crisis.

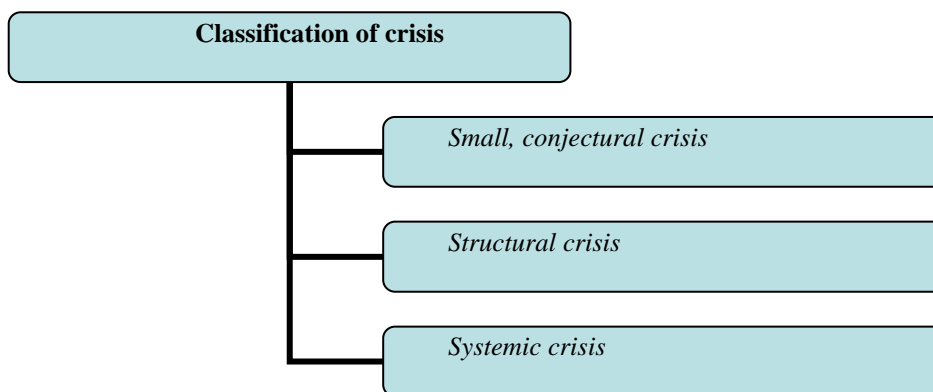
It was Conventionally established that an economy enters in recession when after 2 successive trimesters there is a GDP decrease (definition proposed by Shiskin in 1975). National Bureau of Economic Research (NBER) defines crisis as “an important decrease of the economic activity for several months reflected in the decrease of the GDP, the diminution of the individual revenues, the reduction of the level of occupancy, the diminution of industrial production and of consumption.”

Another definition of the crisis proposed by Bruno (1996) mentions “the situation in which an economy registers a diminution of the GDP for three consecutive years and this fall is greater than 9%.”

**3. Classification of present crisis.**

In the specialty literature there are several classifications of crisis:

**Figure no. 1. Classification of Crisis (Manic, 2009)**

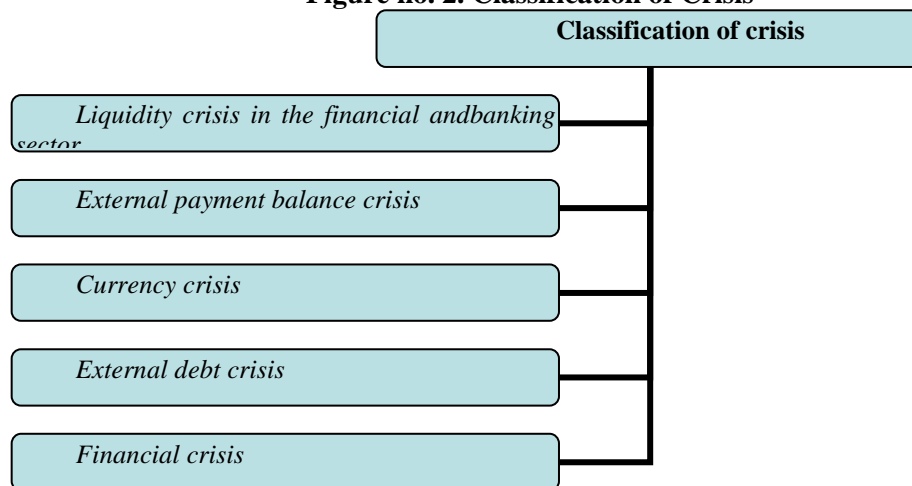


**Source:** Manic, 2009

The small, conjectural crises are the less dangerous but also the most common ones. They are generated by external shocks (increase of the oil price on international markets, boarder conflicts, natural calamities in the region) that generate a diminution of the GDP and an increase of unemployment.

Structural crisis: generated by a lack of adjustment / adoption of the internal production structure at the international conjecture. These structural crises most often lead to problems concerning the external payment balance on the grounds of the loss of external competitiveness, of the insufficient adaptation of the offer to the new demands on international markets. These crises have a prolonged and much more destabilizing impact on an economy.

Systemic crisis: there are crises that cannot find their solution within the economy in the context of a given production structure. There are crises that demand a reform of the entire system in which an economy is engaged (for instance the reform of the International Financial System).

**Figure no. 2. Classification of Crisis**

Source: Ishihara, 2005

The liquidity crisis in the financial banking sector is defined as a situation in which in a country several banks cannot honour their short term payment obligations any more (liquidity crisis) or the bank's equities are more reduced than its assets (leads to banks' insolvency). Measuring such a crisis is based on the indicator reporting the total deposits volume in the banking system and the total assets of the banks in the system (Demirguc-Kunt, Detragiache și Gupta<sup>9</sup>, 2000);

The external payment balance crisis: has been defined for the first time by Krugman and Obstfeld<sup>10</sup> as the situation in which the international reserve of a country is significantly reduced because of massive operations of currency acquisition on the currency market motivated by certain expectancies regarding an imminent depreciation of the exchange rate in the following period.

Currency crisis: is characterized by a significant depreciation of the exchange rate because of the important increase of the currency demand, inflationist pressures (Glick și Hutchison<sup>12</sup>, 1999).

External debt crisis: defined for the first time by Dornbusch<sup>17</sup> (1989) as the situation in which a country is in incapacity of honouring the service of the external debt and repay its instalments.

Financial crisis: there is not yet a unitary point of view in literature concerning this type of crisis. Financial crises are associated to a drastic reduction of the investors' trust in the financial system.

It is difficult to make appreciations when a financial crisis becomes an economic crisis or if an economic crisis generates a financial one or vice versa. In principle, we always talk about an economic crisis generated by financial, political or social causes. The financial crisis is only a form of manifestation of the economic crisis and it reflects a lack of confidence in the financial system, an important diminution of the stock market transactions volume, a deregulation of the market mechanisms.

#### **4. Causes of the crisis in Romania, started in October 2008**

As mentioned by the economist Liviu Voinea, executive manager of the Applied Economics Group, "we had these past years a growth based on consumption, financed by debt. The private consumption has been excessive, but population should not be blamed: all macroeconomic measures have been pro-cyclical, stimulating consumption; and the most harmful of all, the flat rate income tax, is still defended by its initiators who don't want to admit they were wrong. The flat rate income tax stimulated consumption and we have today the first over consumption crisis in Romania."

The main cause is the excessive consumption based on debt. Population can be in the future better informed and certainly more careful concerning the expectations of their own income. The government can be criticised for making a huge strategic mistake: in a period of economic growth has consumed all this growth and additionally contracted debt.

It is absolutely inadmissible (Voinea, L., 2009) to have a growing budgetary deficit during a period of important economic growth, attracting the increase of its short term financing costs.

The international financial crisis has only been the beginning of the economic internal crisis because it affected the financing sources. We consume on debt and now we borrow with a higher interest or not at all. This state of facts is available for the government as well as for the companies and population. The vulnerabilities of an unbalanced economy, with multiple structural reforms that have been delayed, have

become now obvious. Work places are being lost and this is just the beginning. The fact that the NBR is stimulating crediting by reducing interest and the minimum mandatory reserves will not be enough.

The solution for exiting an over consumption crisis is not the same undifferentiated stimulation of consumption. In the best scenario, the high point of the crisis can be delayed this way for a few trimesters.

According to Zaman Gh., Director of the National Economy Institute, the causes of crisis in Romania, started in October 2008 are:

- Unsustainable economic growth based on internal and external economic-financial unbalances;
- Transfer and external impact (banks, insurance);
- Foreign capital volatility;
- Exaggeration of the speculative character on capital market (inadequate ratio between primary and secondary capital market);
- Lack of synchronization between real and nominal economy (lack of correlation between profit, interest and economic growth);
- Distortions on the labour market, workforce shortage for the building sector;
- Expansion of the real estate sector.

### 5. Crisis impact on SMEs in Romania.

The negative effects of the financial crisis can be first noticed on the SMEs, especially on those from sectors such as trade, building and real estate. The number of bankrupted SMEs doubled in the first half of the year 2009, compared to the same period of 2008. This is a consequence of the fact that the crediting rhythm of SMEs decreased by 30%, impeding their development and having as main effect the reduction of their banking solvability.

Ovidiu Nicolescu appreciated that “six out of ten entrepreneurs have had problems caused by the crisis”. The reasons of this situation can be found in the political instability, the global crisis, the fiscal instability, the banks’ policy to increase interest and block credits as well as in the lack of payment or late payment of the state's debt to economic agents. During this crisis period, companies first reduced their administrative expenses, then, in reverse order, they reduced their investments, have renegotiated contracts with the suppliers, have dismissed personnel, have reduced salaries, have closed the unprofitable lines, have reduced production and then sold the inefficient production lines.

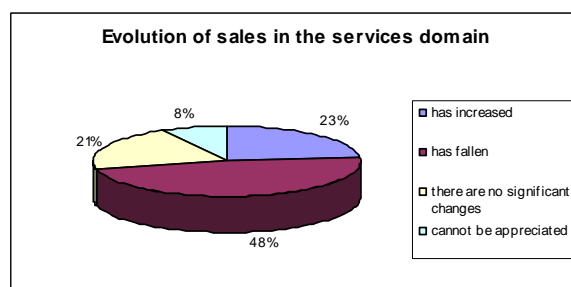
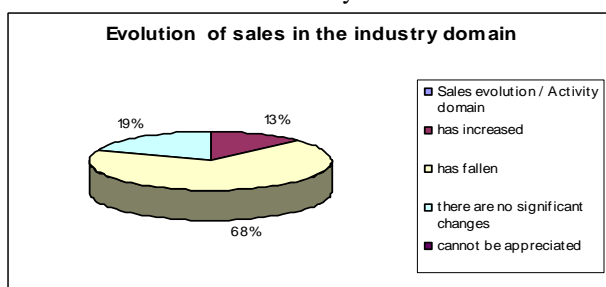
A study realized at the end of the year 2009 by CNIPMMR (National Council of Private Small and Medium Enterprises in Romania) with the consultancy company Cult Market Research SRL, aiming to analyse the impact of the crisis at company level with the best performances in 2008, has revealed the following aspects:

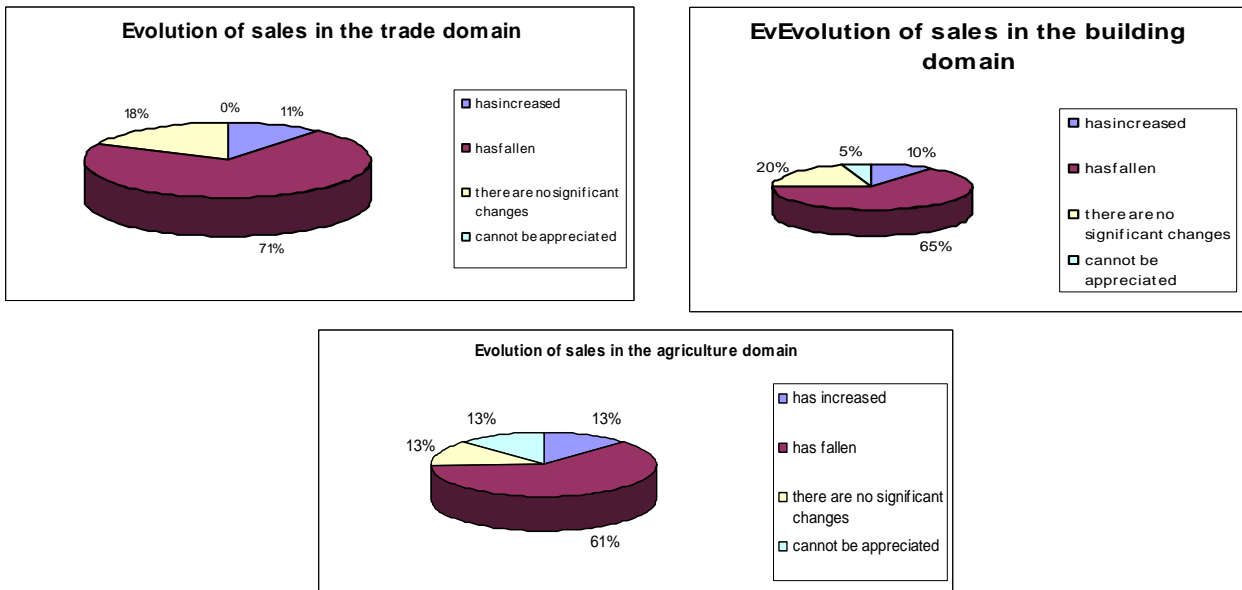
Sales volume in 2009 compared to 2008 is represented in table no. 1

**Table no. 1: Sales volume in 2009 compared to 2008 (%)**

Sales evolution / Activity domain	Industry	Services	Trade	Building	Agriculture
has increased	13	23	11	10	13
has fallen	69	48	71	65	63
there are no significant changes	18	21	18	20	13
cannot be appreciated	0	8	0	5	11

Source: CNIPMMR Survey





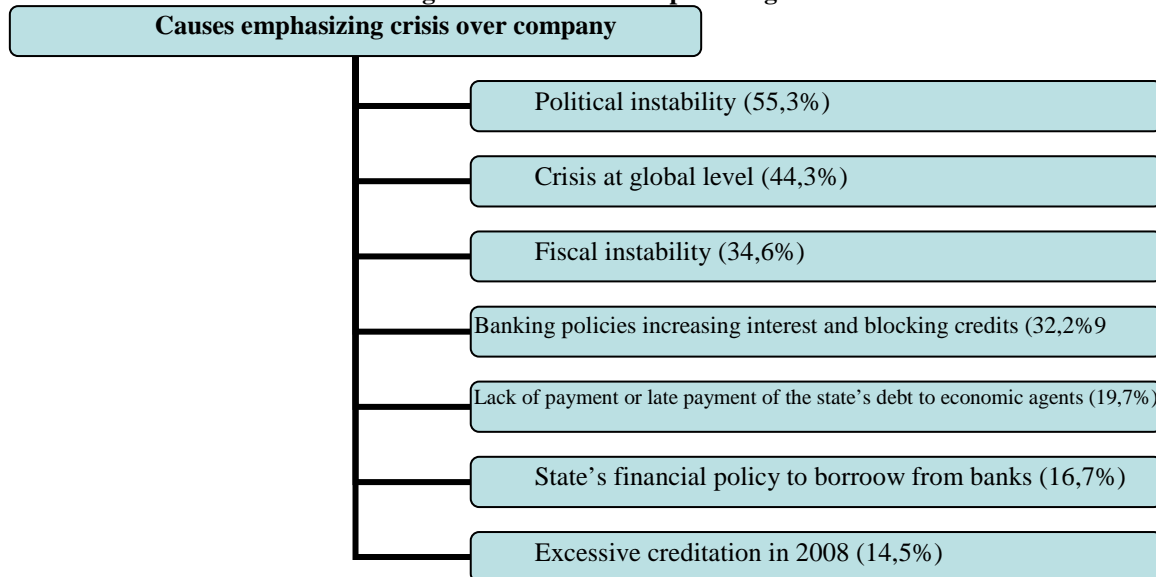
Source: authors' processing

From the table no. 1 it results that the volume of sales registered the most important growth, of 23%, in the domain of services, followed by industry and agriculture, trade and building.

The most important decrease of sales is registered in the domain of trade (71%), followed by industry, building, agriculture and services.

Another problem approached in the survey refers to the causes emphasizing crisis over the company (fig.no.3)

Figure no. 3. Causes emphasizing crisis



Source: CNIPMMR Survey

Among the problems that the company has to deal with there are: the late payments from customers or partners (68,9%), the reduction of demand for the company's products or services (52,6%), the increase of the euro exchange rate (45,2%), the company's cash flow (32,9%),the lack of capital (21,5%), the inflation (16,7%), the reduction of all operational expenses (12,3%), the reduction of the number of employees (7,5%), the reduction of the company's market capitalization (4,8%).

The domains in which SMEs reduced their costs are: the reduction of administrative expenses (71,9%), the diminution of investments (57,7%), the renegotiation of the contracts with the suppliers (42,5%), the dismissing of the personnel (31,6%), the reduction of salaries (22,4%), closing the inefficient business lines (21,1%), the reduction of production (16,2%), no special measure (7,9%), selling the inefficient business lines (0,9%).



The volume of the sample was of 228 questionnaires, distributed on development regions as it follows: Bucharest-Ilfov 27,2%, Center 7,9%, North-East 14,5%, North-West 10,5%, South-East 8,3%, South-Muntenia 15,4%, South-West Oltenia 3,1%, West 9,2%.

## 6. Conclusions

Romanian crisis doesn't have the same causes as the one in the USA or the EU; in consequence it cannot be treated in the same way. It is first and internal crisis, a crisis of a development model (Voinea, L., 2009). Certainly, the poorest part of the population has to be supported during these periods. But the first impulse doesn't have to be to spend more money from the budget and to increase consumption, when the budget doesn't have any more money and the consumption has been excessive until the present moment. The solution of consuming Romanian goods is not the best one neither – which are, after all, the Romanian goods? Dacia is a French mark, and a plan of salvation of the car industry must be conceived at European level, as the car market has communitarian dimensions.

The solution for exiting an overconsumption crisis is more complex than a package of state help that risks to throw us back in time to large deficits and two figures inflation.

It has to be started with the elimination of wasteful expenditure by the reduction of the administrative budgetary expenses. The cheapest money is the one that you have and you can save. From the savings made this way one could make up an investments plan in infrastructure, as these can create work places and have an important effect of engagement in economy. But investments in infrastructure must be made within a multiannual budgetary programming, the only valid solution of reducing additional costs and eliminating the wrong allocation of the public money. Of course, the fiscal policy mistakes must be corrected also – not necessarily for increasing budgetary revenues, which is difficult in crisis, but in order to distribute more equitably the fiscal burden and to allow those who have a more difficult access to credit to pass through the crisis period.

We have an overconsumption crisis. It can be surpassed by eliminating wasteful expenditure, by investing in infrastructure on the basis of multiannual budgetary programming, by a fiscal reform that shouldn't be neutral and by implementing structural reforms.

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## DIFFERENT FINANCIAL CONDITIONS IN THE EMU COUNTRIES BEFORE AND AFTER THE ECONOMIC CRISIS<sup>7</sup>

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**Abstract:** *We study the changes introduced by the process of euro adoption on the financial conditions existing in the Euro zone countries. We find that at a supranational level, this process has been on average beneficial, inducing a smaller average inflation rate, accelerating interest rate convergence and financial market integration. However, there are disparities between countries at the national level and these disparities tend to persist in time, regardless of the above-mentioned positive effects.*

**Key words:** EMU, inflation, financial, integration

**JEL classification:** E31, E44

### 1. Introduction

Twelve years after the start of the third stage of EMU, on 2<sup>nd</sup> of May 1998, and the introduction of the common currency on 1<sup>st</sup> of January 1999, the euro has become one of the most recognized symbols of Europe. It is associated by the majority of European citizens with the remarkable results that took place in this short period of time, being identified as the main reason for the ensuing economic stability, trade increase and accelerated financial integration that happened within the borders of the Euro area. From the eleven states that initially adopted the single currency, the number increased at seventeen currently, and the final goal is that in the future all the countries that belong in the European Union to participate also in the Economic and Monetary Union. The European Union, through its 27 members, represents the most powerful economic entity in the world (European Commission, 2009), surpassing the United States of America in the share of total world GDP.

At the moment of euro adoption, the desire was to achieve two main goals (European Commission, 2004): first, it was hoped that a more stable macroeconomic environment will develop, through the elimination of the inherent exchange rate risks and the increase of political credibility; second, it was expected that the economic efficiency will increase, through the elimination of the costs associated with currency transactions, the positive effects of price transparency on competition and through the acceleration of economic and financial integration.

After more than a decade, reaching a high level of macroeconomic stability is probably the most important result of the single currency introduction. The coherent monetary policy conducted by the European Central Bank, policy that was specifically targeted at inflation containment, achieved the consolidation of future inflation expectations, with remarkable effects. The average annual inflation in the euro area during the first ten years of euro existence was around the desired target of 2%, compared with 3.3% during the '90, or 9.3% and 7.5% during the '70 and respectively '80 (European Commission, 2009). Unfortunately, during the last years, inflationary pressures have emerged in the Euro area, mostly because of the negative effects induced by the international price increases of food and energy. It is hoped that the European Central Bank will contain these pressures, with minimum spill over effects in the real economy.

If the goal of high level of stability was met, unfortunately the optimism concerning the economic growth fuelled by euro introduction was not founded. In the first ten years, the annual average GDP growth was around 2%, at the same level with the average growth recorded in the previous decade.

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Moreover, the average GDP per capita growth remained at the same level recorded in the United States of America (Almunia, 2009), thus maintaining the economic disparities between the two economic powers.

In the period before 2007 the macroeconomic stability of the Euro zone states was enhanced through responsible fiscal policies. Thus, in 2007 the total Euro zone deficit represented a mere 0.6% of the total area GDP, and in that year none of EMU participating countries recorded a deficit higher than the target of 3%. Moreover, ten out of the 15 states that at that date were using the euro currency managed to obtain a budgetary surplus or were very close to equilibrium (European Commission, 2009). Unfortunately this changed after 2008, at present many EMU countries recording increased fiscal deficits, some of them in two digit numbers.

The process of financial markets integration was accelerated after the introduction of the single currency. The monetary markets were fully integrated, while the cross-country financial transactions increased after 1999. On the other hand, even if the state bond yields converged a lot after the euro introduction (European Commission, 2008), currently, in the midst of the economic crisis, the differences are yet again increasing, reflecting the elevated perceived risks that some countries possess.

Reducing the economic disparities between countries was another aspect that was facilitated by joining EMU. The macroeconomic stability, the low interest rates, the implementation of cohesion policies or the possibility of accessing structural funds, all created the perfect conditions for accelerating this convergence process. Thus, it is no surprise that the majority of European countries are striving to meet the objectives needed in order to adopt the euro currency also.

In this process, euro became in a short period of time the second most important international currency. Euro represented 25.9% of the total international currency reserves in the first quarter of 2009, compared with only 18.3% in the last quarter of 2000 (Viceira, 2009). This increase hurt mostly the American dollar, which diminished its quota from 71% to 64.9%, during the same period.

## 2. Different inflation conditions in the EMU countries

In the last four decades the Euro zone inflation rate witnessed a constant decrease, and after the euro adoption, the target rate of 2% set by the European Central Bank was reached. This represents a stark departure from the inflation rate recorded during the '70, with an average of 9.3% (European Commission, 2009), mainly determined by the two oil shocks.

**Table 1: The evolution of average inflation in the Euro zone countries**

Period	Average inflation	Maximum inflation rate	Year with maximum inflation
1960-1969	3,7	5,1	1963
1970-1979	9,3	13,6	1974
1980-1989	7,5	12,8	1981
1990-1999	2,8	5,0	1990
2000-2009	2,0	4,1	2008

Source: European Commission

After that, the inflation decreased substantially and in the decade preceding the euro adoption this rate was 2.8%, a level mainly determined by the sustained efforts of the participating countries to fulfil the adoption criteria. Then the inflationary pressures induced by the spike in the oil price at the middle of 2008 had an immediate effect on the inflation rate, which surpassed 4%. As the global crisis took a firm grip on the Euro zone economy, the inflation receded, up to the point where it switched into deflationary territory of -0.5%. In 2010 the trend reversed again, mainly due to increases in food and energy prices, which have started to endanger the EMU economy.

During the twelve years of euro existence a curious phenomenon was observed in the countries participating in the Economic and Monetary Union – the existence and persistence in time of different inflation rates in various countries. This fact comes in contradiction with existing theories regarding a common currency and the free movement of capital, merchandise and labour, with in turn could lead to the equalisation of market conditions. Still, in reality, these conditions are far from being perfect, different countries possessing different economic environments, with direct effects on the way different exogenous shocks influence the inflation movements. It has been observed (Beck, 2006) that on average the inflation rate is determined 75% by factors from Euro zone level and 25% by national, specific factors, with these two

numbers varying from country to country. Thus, at the supranational level, the main factors influencing the inflation rate are the effects of the common monetary policy, the oil price movements and the euro exchange rate against other currencies. At the country level, the main factors are the share that the agricultural sector has in the total production, the rate of GDP growth, the volatility of the rate of GDP growth and the size of the national economy. In countries in which the agricultural sector is greater, or the rate of GDP growth is higher, the influence of supranational factors is smaller.

**Figure 1: The evolution of the inflation rate in the Euro zone (indicating the year 1999 as the moment of euro adoption)**



Source: European Central Bank

On the other hand, countries that have a high volatility of the rate of GDP growth are influenced stronger by the supranational factors. Moreover, in a bigger economy the influence of the supranational factors is stronger, because there are a lot of active national and international companies that compete among themselves, and thus the national prices adjust quicker towards the international prices.

*Table 2: Average yearly inflation, 1999-2010*

Euro zone 2,0		United States 2,5		Japan -0,3	
Austria	Belgium	Germany	Spain	Finland	France
1,8	2,1	1,5	2,8	1,8	1,8
Greece	Ireland	Italy	Luxembourg	Netherlands	Portugal
3,3	2,5	2,2	2,6	2,2	2,5

Source: Eurostat/Own computations

If the differences between national inflation rates can be explained by the different weight of the national and supranational factors, a puzzling fact arises from the persistence of these differences during the existence of the Economic and Monetary Union. It was hoped that the convergence process between countries would eliminate these differences, but this did not take place. The main factors responsible for this were the incomplete synchronization of the business cycles and the artificial regulations introduced on the national product markets (Andersson, 2009). The unsynchronised business cycles from different countries were the main reason for the antagonistic results induced by the common monetary policy conducted by the European Central Bank. Moreover, the states tried to introduce rules and regulations aimed at “administering” the prices for certain products when these negative events happened – because they lacked the national monetary policy tool – further destabilizing the markets.

This reality of different inflation rates across EMU states presents some negative implications. The announced target of 2% can be at times sub optimal, taking into consideration the huge differences between countries. For example, the average yearly inflation since the euro introduction for Greece (3.3%) is more than double the one registered in Germany (1.5%). On the other side, the strict anti-inflationary stance of the European Central Bank reduced the long-term uncertainties in the Euro area, and thus the inflation expectations have consolidated (Caporale, 2010), with beneficial effects for the future efficiency of monetary

policy. Moreover, there is the risk that by raising this target above the 2% ceiling, countries with low aggregate inflation (Germany, France, Austria) will be subjected to the undesired effect of deflation. Still, in the absence of a national monetary policy, political forces at the national level use alternative mechanisms in order to counter the undesired effects of inflation on real wages or the rate of unemployment. These measures invariably lead to other unbalances, most of them being fiscal (Honohan, 2003) in nature.

The inflation persistence plays a major role in the implementation of monetary policies, and central banks conduct exhaustive studies to determine this degree of persistence – the speed at which prices revert to their long-term equilibrium after a shock appeared in the economy. It was thus determined that not only the national inflation differed from country to country, but also the level of inflation persistence was different among states. Moreover, the introduction of the single currency did not alter the degree of inflation persistence (Angeloni, 2006), after 1999 this being even a little higher. The inflation persistence plays an important role in determining the long-term effects on consumers. For example, in countries with low income per capita, the food and energy expenses represent an important quota of the total disposable income. If the inflation persistence is higher in these two sectors, the negative results of an economic shock have a double effect: on one hand, the disposable income for other expenses drops faster, on the other hand this negative situation has a longer duration.

The inflation persistence is present both at the Euro zone macroeconomic level and at sectoral level. Moreover, there are differences in the recorded inflation persistence even within the same economic sectors belonging to different countries, but these tend to be smaller. It was determined (Altissimo, 2006) that the inflation persistence has the following traits:

- At the Euro zone level, under the current monetary policy, the inflation persistence can be characterized as moderate;
- The retail sector from the Euro area present a higher degree of price stickiness, when compared with the United States;
- Across sectors, or even products, there is significant heterogeneity in the degree of inflation persistence;
- Contrary to expectations, price decreases are common. All in all, decreases represent on average 40% of the total number of price modifications, with the sole exception being in the services industry, where the price decreases represent just 20% of the total price modifications.

If we spread the analysis to the sectoral level, it can be observed that certain sectors/products exhibit higher or lower degrees of adaptability to the appearance of an economic shock. It was determined that the sectors with the highest degree of inflation persistence are the energy, methane gas, electricity and heating. Treading close come telecommunications, processed foods (meats, cans, breads) and alcohol. On the other side, a low degree of inflation persistence can be found in the seasonal foods (vegetables), durable goods and textiles (Lünnemann, 2004). This constitutes a confirmation of the fact that individuals from less developed countries who adopted the single currency are more affected by negative developments in prices, because they must use a higher percentage of their income and on a longer period to meet the basic needs (food and energy). We can also conclude that the countries who export more from the second category (vegetables, textiles), are at a disadvantage, because the external prices for these goods tend to adjust quicker than the prices of the inputs used in the production process – and here we are referring mainly at energy inputs.

As already mentioned, the degree of inflation persistence at the Euro zone level can be characterized as moderate. Moreover, if its evolution is analysed across different periods, there are important variations in its value, variations that coincide with the important modifications in the monetary policy stance (Altissimo, 2006). Thus, an important modification in the degree of inflation persistence took place at the beginning of the '80, a period in which the European Monetary System was launched and France, Italy, the Netherlands or the Benelux countries began pegging their currencies to the Deutsche Mark. Another break in the level of inflation persistence took place at the beginning of the '90, when a large majority of European central banks adopted inflation targeting as their main objective, or, in the case of the twelve countries that eventually adopted the euro, trying to fulfil the Maastricht criteria.

### **3. Different financial integration conditions in the EMU countries**

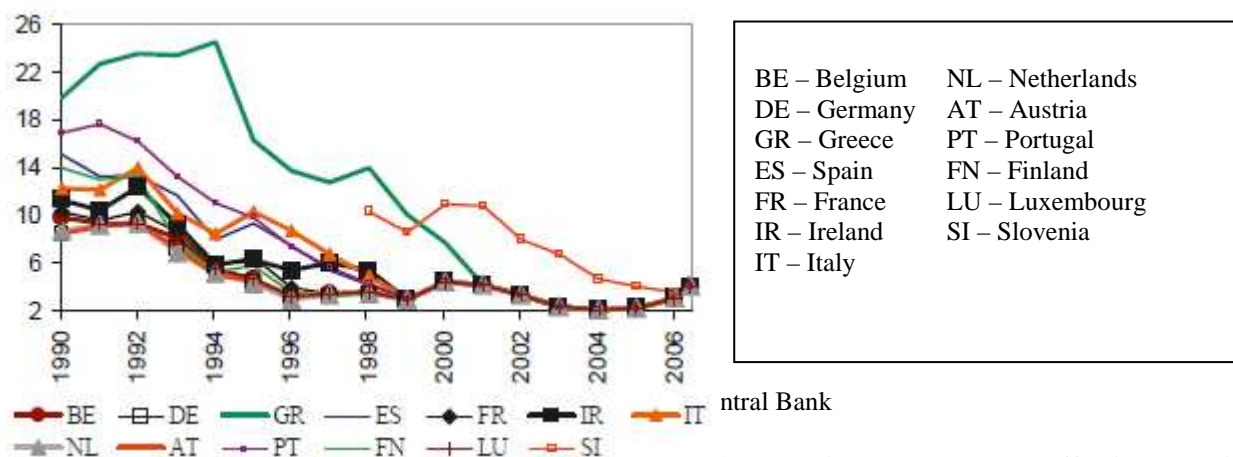
There is a symbiotic relationship between the Economic and Monetary Union and the process of financial market integration. The euro adoption had a strong effect on this process, through the elimination of the currency risk associated with the capital movements, the single currency thus stimulating the demand and supply of cross-country financial services. On the other hand, the convergence of the legislative policies had



a direct effect on the increase of cross-border financial transactions (Kalemli-Ozcan, 2010). This accelerated financial integration spurred the general financial development, having a big impact on the durable economic growth, and allowing the successful mitigation of the asymmetric risks that appeared. It was estimated that the increased financial integration accounted for 0.2% of the Euro area annual GDP growth rate, while the convergence of laws and regulations accounted for 0.1% of this growth rate (Guiso, 2004). It is worth mentioning that even if this process is in full development, with general positive results, the financial markets are still largely fragmented. Eventually the contribution of the increased financial integration and legislative convergence are not homogenous across member countries or even across economic sectors.

Starting with the euro adoption, the market participants recognized the mandate of European Central Bank as the sole conductor of monetary policy. This led to a rapid convergence of inter bank interest rates in the countries participating in the EMU. The process was also facilitated by the existence of TARGET (Trans-European Automated Real-time Gross settlement Express Transfer system).

**Figure 2: Evolution of 3-months inter bank interest rates (in %, annualized)**



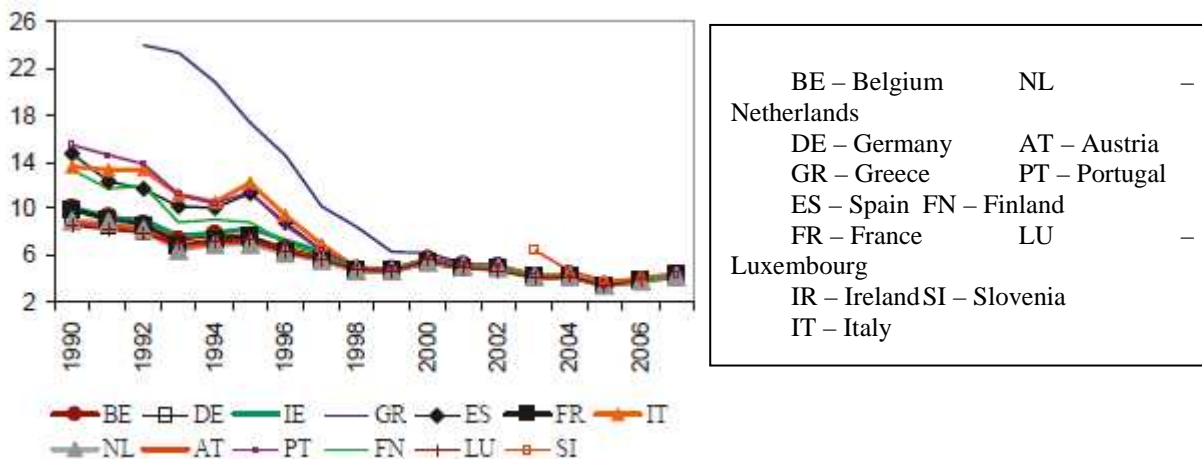
Also negative consequences, affecting especially the countries in which the rates were initially high – Greece, Portugal, and to some extent even Ireland. These countries experienced a boom of their internal consumption - associated mostly with an increase in personal consumption and an increase in real estate investments -, a deterioration of the current account and a real appreciation of their currencies (Fagan, 2008). The increase of internal consumption was made possible through the strong increase of credit, which took place mostly three years before euro adoption and had a peak in the year in which the single currency was introduced, after which this trend subsided. Still, for each of the three countries mentioned, this increase in credit was during the mentioned period around 20-30% yearly, in real terms (Brzoza-Brzezina, 2005). As a consequence, the ratio between the size of the credit and GDP doubled on average in the period 1995-2003, for all three countries. Most of this credit went into the real estate sector, which determined a sustained increase in prices.

The euro denominated derivative market started after the creation of the single currency. It grew at a rapid pace, partly because investors realized the potential of these derivative instruments, partly because the market for the underlying was very thin, especially the bond market. As an interesting point to mention, the vast majority of these derivative transactions denominated in euro take place outside the Euro zone, in London.

The government bond market, a very important reference point for determining the price of other financial instruments, experienced also an accelerated integration. Over time, the yields for these bonds also converged, resulting in a homogenous supranational market, with differences in yields not surpassing 0.50%.

Immediately after euro adoption (1999-2002) the difference in yields between the German 10 year bonds and the yields of equivalent government bonds from France or the Netherlands did not exceed 0.14%, while for Italy and Portugal this difference stood around 0.32% (Codongo, 2003). At present the euro denominated governmental bond market is comparable in size with the markets from United States or Japan. After the emergence of the global crisis, the differences between the bond yields from different Euro zone countries widened again. This is due to the perceived increased risks induced mostly by fiscal vulnerabilities existing in countries like Greece, Ireland, Portugal or even Spain. Also, this increased difference in yields reflect also a lack of liquidity for these bonds, when compared with the bonds that are perceived as being safer, as it is the case for the German ones.

Figure 3: Evolution of governmental bond yields

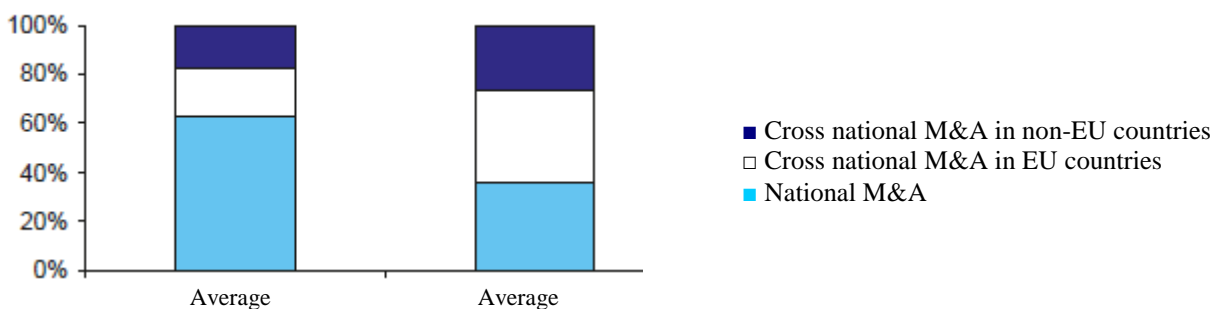


Source: European Central Bank

Regarding the equity markets, after the euro adoption, it was observed an increase in the co movements of different national stock exchanges. Most of this synchronization was due to the financial sector, the industrial sector and services (Cappiello, 2008). Still, the speed of integration for the equity markets was not as great, because of specific factors that appear during cross border transactions. First, equities are a heterogeneous class of financial instruments, governed by specific national legislation, most of the time very different from country to country. Second, there is the strong home bias of the investors, even if recent studies determined that after the euro introduction, the number of national equity holdings in the total portfolio decreased from approximately 80% to 60% (European Commission, 2009). From the positive aspects that facilitated the equity market integration it is worth mentioning a greater participation of investors, once returns from other markets started to diminish, and the increase in the number of trans national investment funds. Another factor generating deeper integration was the adoption of common rules and regulations that eliminated the existing barriers against the process of investing internationally in equities.

The developments from the banking sector were not so great, because the expectations for a significant increase in Euro zone retail banking operations proved to be wrong. Moreover, an increase in banking concentration could be observed at the national level, but not at the supranational level. This situation can be explained by different regulations from country to country regarding the labour conditions, varying tax systems, or even different cultural factors – all of these contributing to a decrease in costs when banking operations are conducted just on a specific national market. Moreover, in all countries existed a strong political will to create big national banking entities, which can successfully compete with the ones existing in other countries. The strategic factor was decisive in this case, the approach being seen as a way to counter the risk of depending on foreign financing.

Figure 4: M&A conducted by banks from Euro zone



Source: European Central Bank

Still, after the banking groups strengthen their positions at the national level, they started M&A operations at the European level. The last years before the global crisis saw this process in full action, but

still concentrated on specific regions, like Benelux, or on adjacent zone, as it is the case for Scandinavia and the Baltic states or Austria and the South-Eastern European countries. This intensification of supranational consolidation can indicate the fact that the national banking systems have reached their maturity and that the intense competition and the unstable market conditions are forcing them to implement new measures in order to preserve their edge.

#### 4. Conclusions

The euro adoption had a beneficial effect on the financial conditions existing in the Euro zone countries. The average inflation rates decreased over time in all the states participating in the Economic and Monetary Union, with the exception of the last years, when the full effects of the economic crises appeared. Regarding the integration process, the markets experienced a phenomenon of convergence, especially of the main inter bank interest rate, governmental bond yields and regulatory environments.

Still, there have been prolonged discrepancies across countries, and these persisted from the inception of the EMU. There are countries that lagged behind regarding the inflation rates or the governmental bond yields. Moreover, these discrepancies widened after 2008, up to the point where they introduce strong pressure in the unified monetary system. Time will tell if these problems are just long term and eventually will be surpassed or if the whole construction of the EMU system is flawed and must be changed in the future.

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## DETERMINANTS OF INCIDENCE AND UNEMPLOYMENT DURATION FOR ISCED 3 UNEMPLOYED SUBJECTS ON THE GORJ COUNTY LABOR MARKET

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**Abstract:** *The aim of this study was to identify the determinants of incidence and duration of unemployment for the ISCED 3 subjects registered as unemployed on the Gorj County labor market during 1<sup>st</sup> January 2007-31<sup>st</sup> December 2010. The obtained results show that gender, age, geographical area and unemployment benefits influence both incidence and duration of unemployment for the ISCED 3 group.*

**Key words:** unemployment incidence, unemployment duration, probability

**JEL Classification:** J64, J21

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### 1. Introduction

In this paper the authors analyze the determinants of incidence and duration of unemployment for subjects registered at the Gorj County Agency of Employment (AJOFM) during 1<sup>st</sup> January 2007-31<sup>st</sup> December 2010, belonging to the ISCED 3 educational group. The ISCED 3 educational group represents 33.9% from the total unemployed persons registered at the AJOFM Gorj during the analyzed period.

According to the manual published by the Ministry of Education, Research, Youth and Sport Romania, regarding the indicators of education, in our country we have the following levels of educations: ISCED 0 – pre-primary level, ISCED 1 – primary level, ISCED 2 – gymnasium level, ISCED 3 –high school, ISCED 4 – post-high-school, ISCED 5 – tertiary education, first level (college and university) and ISCED 6 – tertiary education, second level (master + PhD). In this paper we focused our attention on the unemployed subjects that are theoretical high-school and vocational high-school graduates.

Several studies related to determinants of incidence and duration of unemployment have been published over time. Rubery et al (1996), Wadsworth (1991) showed in their studies that men and women have different social roles and act differently on the labor market. In the traditional outlook, men have a greater degree of involvement in the labour market than women, and although the gender differences regarding active participation in the labour market have been weakened over the past decades, at home women still have much more responsibilities than men. This affects women's participation in the labour market, their career and even the salaries received (Fagan and Rubery, 1999). Hunt (2004) in a study made for Germany showed that there is gender gap regarding the duration of unemployment for German unemployed persons. D'Agostino and Mealli (2000) results show that in Belgium, Greece, France, Spain, Denmark, and Portugal women have lower probabilities of leaving unemployment compared with the male subjects. Similar results were obtained by Tansel and Tasci (2005) for Turkey, Kavkler and Borsic (2009) for Slovenia, Tevdovski and Tosevska (2009) for Macedonia and Bicanic (2009) for Croatia. Blank and Shierholz (2006) demonstrated an increase of employment probability and wage increases for female persons compared with male persons over the period 1979-2004, on the US labor market. Boehm (2009) shows that women have a higher probability of employment on the Austrian labor market, during 2000-2003.

Kooreman and Ridder (1983) showed in their study a negative association between *age* and duration of unemployment on the Dutch labor market. Kupets (2006), in a study for Ukraine, shows that age has a negative impact for the employment probability. D'Agostino and Mealli proved that in Portugal, France, and Denmark difficulties in leaving unemployment are encountered mainly by older subjects, whereas the young

and the old subjects have lower probabilities for reemployment in Italy, the UK, and Spain. Kavkler and Borsic (2009) show that on year increase of the age variable led to a 2.4 % decrease of employment probability for the analyzed subjects. The same result was obtained by Tevdovski and Tosevska (2009) for Macedonia (1% decrease of the hazard rate of employment probability), Boehm (2009) for Austria (2.4% decrease of the hazard rate of employment probability) and Bicanic (2009) for Croatia (2.4% decrease of the hazard rate of employment probability).

The impact of *unemployment benefits* for the duration of unemployment is a controversial and intensely debated subject in the recent economic literature. Job search theory emphasizes that individuals chose to remain as unemployed persons for a longer period if they receive unemployment compensation (Mortensen, 1977, van der Berg, 1990). Thus, unemployment benefits led to an increase of the unemployment duration of an individual. Atkinson and Micklewright (1991) showed in their study that the unemployment benefits had a negative influence for the exit rate from unemployment in the OECD countries. Kettunen (1999), in a study about the impact of unemployment benefits for the duration of unemployment on the Finnish labor market shows that the unemployment benefits have a negative effect on the employment probability in the first five months for analyzed subjects. After 5 months the influence of unemployment benefits becomes insignificant. A positive association between unemployment benefits and unemployment duration was emphasized by the empirical studies of Moffit (1985), Ham and Rea (1987) for the unemployment duration in US labor market. Lalive (2005) demonstrated that giving unemployment benefits to unemployed persons does not major affect their unemployment duration and the duration of searching a (new) job. Changes of the amount of unemployment benefits seem to affect the time until the subject is included in another social insurance program. Also, changes of the amount of unemployment benefits do not affect the quality of post-unemployment activity, but reduces the transition for one job to another.

Nationally, the unemployment duration and the impact of decisive factors is a topic insufficiently investigated. Earle and Pauna (1996) examine for the first time the impact of *earnings, of the educational level, of experience, of the unemployment benefit, of the staff training costs, gender, marital status and ethnic background* on the unemployment duration in the labour market in our country. The results showed a higher probability of employment for men subjects compared with women. As a person's educational level increases, the unemployment leaving rate increases too. Increase in the age variable for an individual causes a significant increase in the unemployment duration and a decrease in the probability of employment/reemployment. Dănăciță and Babucea (2007, 2008, and 2009) have analyzed the effect of age, gender and educational level on the duration of unemployment and probability of (re) employment for unemployed persons on the Gorj County labor market. 80961 subjects representing all the unemployed persons registered at the AJOFM Gorj during 1<sup>st</sup> January 2002-31<sup>st</sup> August 2006 were analyzed during their studies. The obtained results showed that age reduce the hazard rate of employment with 0.2% annually. The most advantaged educational group regarding the duration of unemployment was the ISCED 5 group, and the most disadvantaged was the ISCED 0 and 1 group. In a recent study, Ciuca and Matei (2010) examine the impact of the same variables, *gender, age and educational level* on the unemployment duration for eight counties of Romania. The results indicate that the university graduates are not favored in the labour market, with unemployment durations even higher than the subjects with a lower educational level. The differences found between men and women are not statistically significant. Regarding the age variable, the 36-45 year group is most likely to remain unemployed.

Until now, there is no study about determinants of incidence and unemployment duration for ISCED 3 unemployed subjects.

## 2. Data

Statistical data used in this study were obtained from AJOFM Gorj. The sample has 26679 subjects, with information concerning the start date and the end date of the unemployment spells, gender, age, urban/rural area, with or without unemployment benefits and the reason of unemployment leaving for each registered person. From 26679 registered subjects, 13922 are women (52.2%) and 12757 are men (47.8%). The youngest subject has 18 years old, and the oldest 62 years old. The incidence of unemployment by age is the following: 18-24 years, 36.2%, 25-34 years, 21.2%, 35-44 years, 25%, 45-54 years 15.2% and 55-64 years 2.4%. 46% from the registered subjects are belonging to the rural area, and 53.2% are from urban area. 49.6% from the registered subjects received unemployment benefits during the analyzed period, and 50.6% did not received benefits.

The minimum duration of unemployment for ISCED 3 group was 0 days, and the maximum 1389 days, with a mean of 165 days and a median value of 159 days. The mean duration of unemployment for women was 170 days and the mean duration of unemployment for men was 149 days. By age group, the mean duration of unemployment was the following: 118 days for 18-24 years age group, 138 days for 25-34 years, 209 days for 35-44 years, 243 days for 44-54 years and 257 days for 55-62 years group. The mean duration of unemployment for rural area was 158 days, and 171 days for urban area. The mean duration of unemployment for ISCED 3 subjects that received benefits was 294 days, compared with 70 days the mean duration of unemployment for those without benefits.

From this preliminary analysis of statistical data we observe that gender, age and geographical area are influencing both incidence and unemployment duration of ISCED 3 subjects on the Gorj County labor market, during 1<sup>st</sup> January 2007-31<sup>st</sup> December 2010. The share of unemployed men is with 4.4% lower than the share of women, and the mean duration of unemployment is with 30 days lower than the mean duration of unemployed women.

The higher incidence rate was registered for the young subjects, 18-34 years group. As Katz (1974) emphasized, although older workers are protected by the seniority rights and by their experience, the probability of finding a new job for this category is decreased by their advanced age. We can observe that the incidence of unemployment for 45-54 years age group and 55-62 years age group recorded the lowest values, but the duration of unemployment for these age groups is the highest. From the preliminary analysis of statistical data we can note the existence of a positive association between age and duration of unemployment for the ISCED 3 subjects. Another determinant factor of incidence and duration of unemployment is the area, urban versus rural, of subjects. The rate of unemployment for rural area is lower compared with the urban area, and the duration of unemployment for rural area is lower with 13 days.

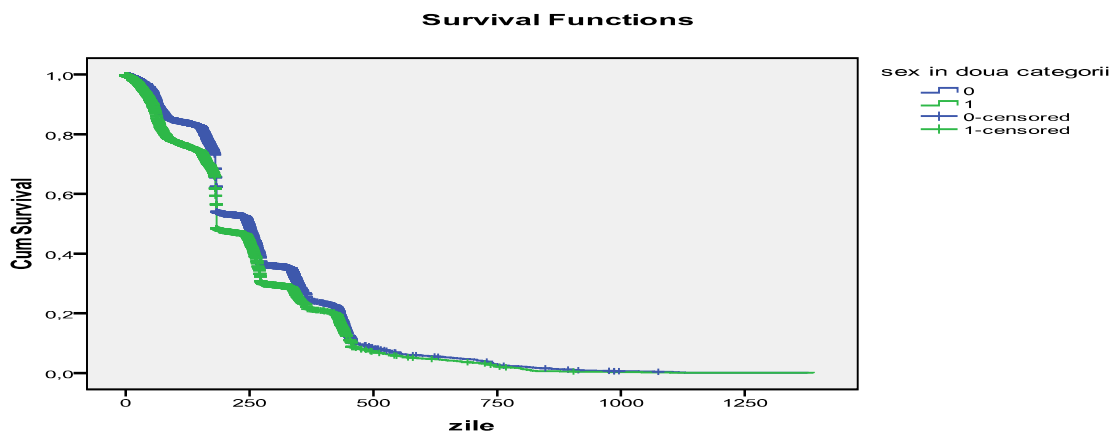
Unemployment benefits cause an increase of the duration of unemployment for ISCED 3 unemployed subjects. The subjects that received benefits had the duration of unemployment longer with 224 days compared with those that did not receive benefits. From 26679 ISCED 3 subjects who were registered at the AJOFM Gorj, only 36.2% became employed at the end of the analyzed period. 50.5% from these subjects are women and 49.5% are men. 23 % are subjects belonging to the 18-24 age group, 27.1% are subjects belonging to 25-34 years age group, 29.1% are 35-44 years old, 18.1% are 45-54 years old and 2.6% are 55-62 years old. 42.7% of the total employed subjects at the end of analyzed period came from rural area, and 57.3% from urban area. 71% from the total employed subjects are subjects that did not received benefits, and only 29% are subjects that received benefits.

### 3. Econometric analysis results

In the previous section of our study we empirically identified the determinants of incidence and duration of unemployment for ISCED 3 subjects registered as “unemployed” at the AJOFM Gorj during 1<sup>st</sup> January 2007-31<sup>st</sup> December 2010. Next step was to use the survival analysis to visualize the impact of these determinants for the duration of unemployment and to tests potentially differences between survival curves. We used as a methodology the Kaplan –Meier method, and the Log Rank and Breslow tests. The analysis was performed with the SPSS 17.0 program package. The gender factor was coded as 1 for the male unemployed and 0 for the female unemployed, the area factor was coded as 1 for urban unemployed subjects and 0 for rural unemployed subjects and the unemployment benefit factor was coded as 1 for the subjects that received benefits and 0 for those without unemployment benefits. The pre-established event for our study is employment, this event being ascribed the value 1. The subjects that didn’t achieve the event, or their track has been lost were right censored, being ascribed the value 0. From the 26679 observed subjects, only 36.2 % did achieve the event –employment; 48.2 % of the subjects were right censored and 15.6% are cases with missing values.

In the figure 1 are presented the survival curves for men and women ISCED 3 unemployed

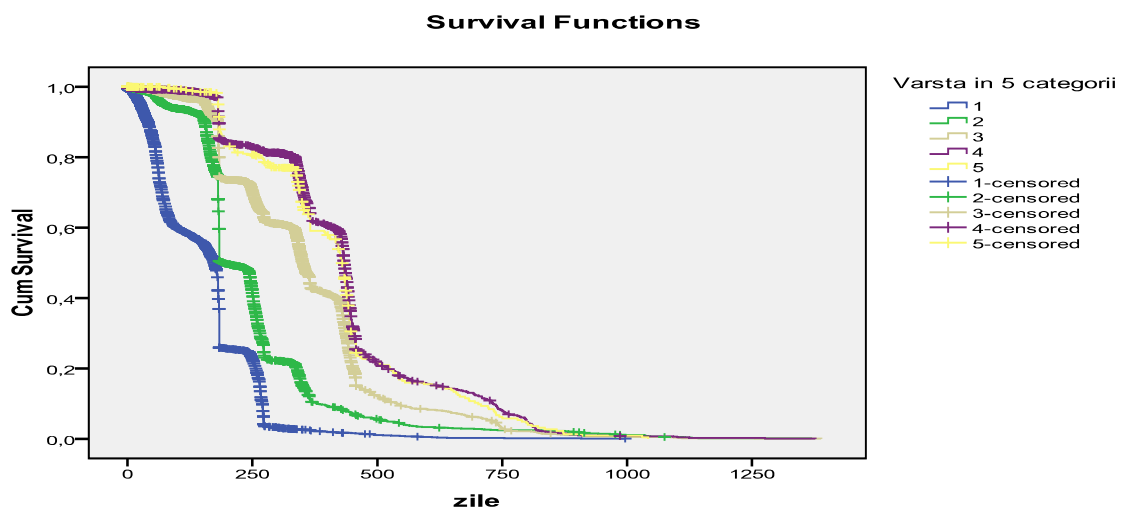
Figure 1: *Survival curves for men and women ISCED 3 unemployed*



Analyzing the figure 1 we can notice that, for the ISCED 3 group, women have a higher probability to remain unemployed a longer period than men (blue line). Indeed, from the preliminary analysis of data we observed that women have a longer duration of unemployment compared with men (21 days). We also notice that after 500 days of unemployment the survival curves start to coincide, thus the gender factor tends to lose its influence on duration of unemployment. We tested the observed differences using the Log Rank test and Breslow test. The result of the Log Rank test and Breslow test show that the observed differences between men and women unemployment spells are statistically significant (Table1).

In the figure 2 are presented the survival curves for each age group of the ISCED 3 subjects.

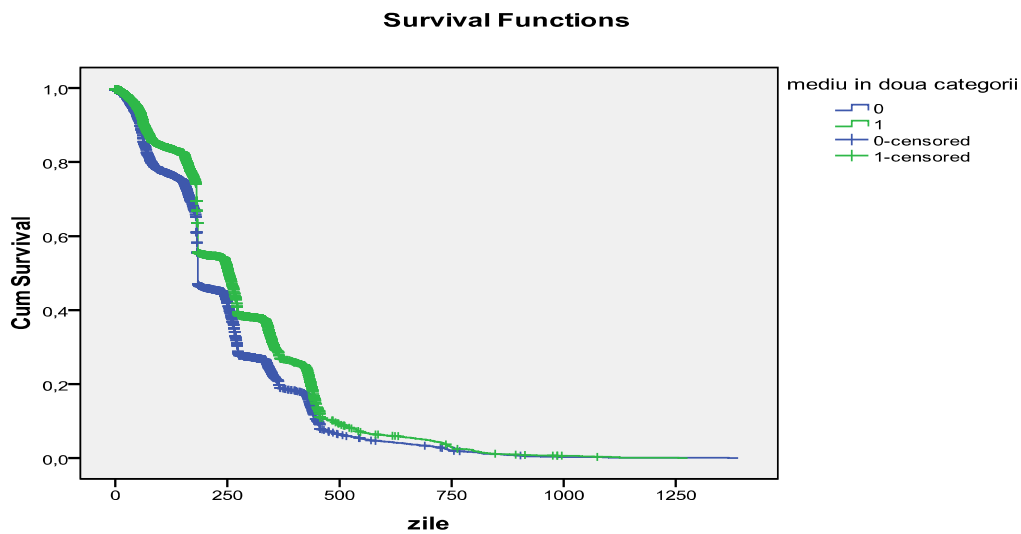
Figure 2: *Survival curves for age groups 18-24, 25-34, 35-44, 45-54 and 55-62*



We notice that with the increase of the age factor increase also the probability of remaining unemployed for ISCED 3 subjects. Also, only after 1000 days of unemployment the age factor lose its influence on the unemployment duration. The Log Rank test result and Breslow test result show that the observed differences between different age groups are statistically significant (Table1).

In figure 3 we have the survival curves for ISCED 3 unemployed subjects from rural and urban area.

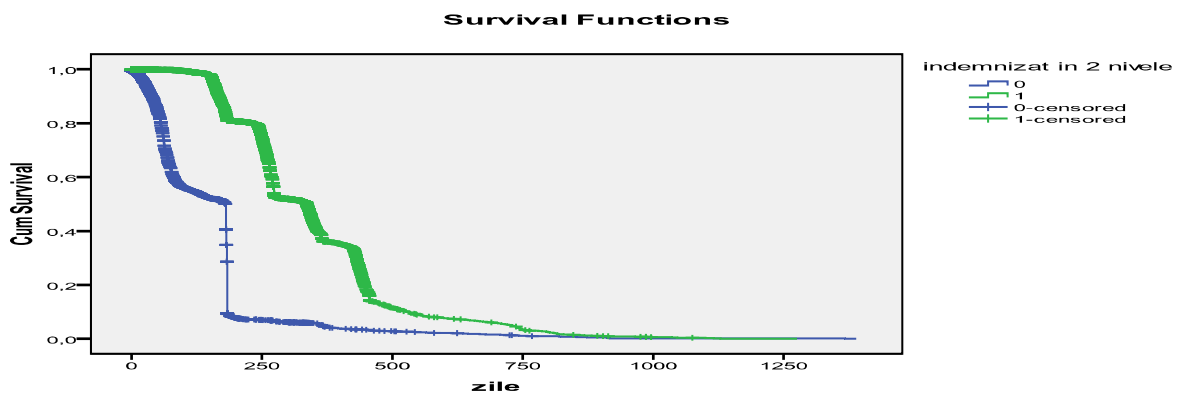
Figure 3: *Survival curves for ISCED 3 unemployed subjects from rural and urban area*



As we can notice, the survival curves show that ISCED 3 unemployed subjects from rural area (blue line) have a lower unemployment duration compared with those from the urban area. After 750 days of unemployment the differences between these two groups are diminished, the area factor losing its influence on the duration of unemployment. The Long Rank test result and Breslow test result show that the observed differences between rural and urban are statistically significant (Table1).

In figure 4 we have presented the survival curves for ISCED 3 unemployed subjects that received benefits and those that have not received unemployment benefits during the analyzed period.

Figure 4: *Survival curves for ISCED 3 unemployed subjects that received benefits and those without unemployment benefits*



We can notice an important difference between ISCED 3 unemployed subjects that received benefits (green line) during the analyzed period and the ISCED 3 subjects that have not received unemployment benefits (blue line). The estimate survival curve for unemployed with benefits decrease to 0 with a much slower rate, indicating that unemployed subjects that did not received benefits during their unemployment duration have a shorter length of their unemployment. Both Long Rank results and Breslow test results shows that we have statistical significance for the noticed differences between these two groups.

Table 1. *Results of the Log Rank Test for all the analyzed factors*

Factors	Test		DF	Significance
	Log Rank	Breslow		
Gender	60.175	114.922	1	0.000
Age	6551.424	5981.715	4	0.000
Area	169.721	203.370	1	0.000
Unemployment benefits	6337.213	7536.302	1	0.000

#### 4. Conclusions

In this study the authors identified and analyzed the determinants of incidence and duration of unemployment for ISCED 3 unemployed subjects registered at the AJOFM Gorj during 1<sup>st</sup> January 2007-31<sup>st</sup> December 2010. The highest percent, 33.9% from the total registered unemployed from Gorj County are ISCED 3 subjects. Thus the importance of identifying the determinants of incidence, duration of unemployment and risk groups is evident.

The analyzed sample has 26679 subjects, with information concerning the start date and the end date of the unemployment spells, gender, age, urban/rural area, with or without unemployment benefits and the reason of unemployment leaving for each registered unemployed. 52.2% from the analyzed subjects are women and 47.8% are men. Thus, we have a higher incidence of female unemployment compared with male unemployment. Regarding the duration of unemployment, women had an average duration of unemployment of 170 days, and men had an average duration of unemployment of 140 days. The observed differences between women and men duration of unemployment are maintained for all age groups, being most pronounced for 45-54 age group and 55-62 age group.

From 13922 women registered in our database, only 4920 women leave unemployment due to employment. The mean duration of unemployment until the employment occurs is 92 days for women and 64 days for men. Therefore, the conclusion that emerges from the empirical analysis and from the survival curves analysis using Kaplan-Meier Method is that women belonging to the ISCED 3 group have an inferior position on the labor market compared to ISCED 3 men. The observed differences were tested and the results of Log Rank test and Breslow test show that the differences are statistically significant. These differences are a consequence of the actions of cumulative economic and social factors: on the one hand, the economic profile of the county, on the other hand, the social status of ISCED 3 women. Moreover, the resistance to changes is greater for women compared to men, the type of work carried out by the ISCED 3 group favors men, and we have wage discrimination for women on the Gorj County labor market.

Regarding the *age* factor, 36.2 % from our subjects are 18-24 years old, 21.2% belonging to 25-34 years group, 25% are 35-44 years old, 15.2% are 45-54 years old and only 2.4% are 55-62 years old. Therefore, we have a higher incidence of youth unemployment for the ISCED 3 group. Usually, older workers are protected against the unemployment by the seniority rights and by the experience gained until that date in the labour market. The incidence of unemployment is lower for older workers compared to younger workers. At the same time, their probability of finding a job is much lowered by the advanced age. As a rule, this age group has a lower incidence of unemployment, but when it occurs, the unemployment duration of this age group is the longest. Indeed, the mean duration of unemployment for the 18-24 age group is 118 days, for the age group 25-34 years is 138 days, for 35-44 years is 209 days, for 44-54 age group is 243 days and for the 55-62 years group is 257 days. The results of the Kaplan – Meier analysis show that as the age of a ISCED 3 person increase we have also an increase of his/her duration of unemployment. The observed differences are statistically significant.

46% from the registered subjects are belonging to the rural area, and 53.2% are from urban area. Therefore, we have a higher incidence in the urban area, registered also at the entire country. The average duration of unemployment for ISCED 3 subjects belonging to the rural area is 158 days, and the average duration of unemployment for ISCED 3 subjects belonging to the urban area is 171 days. Men from the urban area are on average less than one day unemployed compared with men from rural area. Women from rural area spent 167 days as unemployed, and women from urban area 189 days. However, there is the possibility that unemployed people in rural area do not register at the AJOFM Gorj and their number to be much higher in reality. Thus the recorded differences between urban and rural mean duration of unemployment would have no correspondent in reality.

Regarding the unemployment benefits, the average duration of unemployment for ISCED 3 subjects receiving benefits is 294 days, higher than those without unemployment benefits with 224 days. Women who

have received unemployment benefits have an average duration of unemployment of 303 days, compared with 77 days for those who have not received compensation. Men who have received unemployment benefits have an average duration of unemployment of 282 days, compared with 64 days for those who have not received benefits. 9742 ISCED 3 subjects became employed at the end of the analyzed period. The mean duration of unemployment until employment occurs is of 230 days for those who have received benefits and only 17 days for those without benefits. Results of the Kaplan-Meier analysis showed significant differences between survival curves of unemployed with benefits and unemployed without benefits. Thus, giving benefits for unemployed subjects led to substantial increase of their unemployment duration, especially for ISCED 3 female unemployed.

These are our findings. However, due to the fact that the initial database provided by AJOFM Gorj had records that were manually removed (exit date from unemployment was lower than entry date from unemployment, thus a negative time of unemployment, or unspecified education record or unusual disparities between age and other characteristics) the results of this study should be interpreted with caution. The study highlights the determinant factors that influence the incidence and duration of unemployment for ISCED 3 subject; the findings may be helpful for socio-economic policy makers.

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## DETERMINANTS OF INCIDENCE AND UNEMPLOYMENT DURATION IN ROMANIA

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**Abstract:** *The purpose of this paper is to identify the determinants of incidence and duration of unemployment in the Romanian labour market, being the basis for a future econometric study of the quantified impact of these factors for the unemployment duration and employment/reemployment probability.*

**Key words:** unemployment, duration, unemployment rate

**JEL Classification:** J64, J21

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### 1. Introduction

Unemployment and implicitly the employment are an important part of the economic equilibrium and a vital component of macroeconomic and macrosocial policies. The main features of unemployment about which information is systematically collected are the absolute level of unemployment, its size and intensity, unemployment duration and its structure and composition. In this study we will analyze the factors influencing the incidence and duration of unemployment in Romania.

The persistence of a high level of unemployment and its long duration is a challenge for any society, and especially for economies that have gone through the stages of transition, where virtually unemployment was non-existent 20 years ago. Nivoroyhkin (2006) shows that the social costs of unemployment may be reflected in terms of goods and services that are not produced, but equally important are the personnel costs generated by unemployment. Fedorov and Sahn (2005) show in their study that unemployment is one of the major factors affecting children's health. Klugman and Kolev (2001) emphasize in their study a negative association between the unemployment duration and the household welfare. Stakunas, Kalediene, Starkuviene and Kapustinskiene (2006) reveal the existence of a high frequency of major depressive episodes in the long-term unemployed people compared to the short-term unemployed subjects or who have left unemployment by being employed. These are just a few examples that prove the importance of a quantified analysis of the impact of decisive factors of the unemployment incidence and duration. Understanding the correlations between different socio-demographic factors such as age, gender, educational level, experience, occupation, marital status, region, ethnic and religious background, the unemployment compensation and unemployment duration play a key role in identifying vulnerable groups, the persons affected by social exclusion and the development of viable policies to combat unemployment and improve the employability of the workforce, in establishing programs of occupational retraining and insertion/re-insertion into the labour market, adapted to the unemployed people's needs.

### 2. Literature Review

Over time there have been published several studies that address issues related to the factors influencing unemployment duration and incidence.

Rubery et al (1996), Wadsworth (1991) showed in their studies that men and women have different social roles and act differently in the labour market. In the traditional outlook, men have a greater degree of involvement in the labour market than women, and although the gender differences regarding active participation in the labour market have been weakened over the past decades, at home women still have much more responsibilities than men. This affects women's participation in the labour market, their career and even the salaries received (Fagan and Rubery, 1996).

In the economic literature there are several empirical analysis and studies on the impact of *gender* on the unemployment duration and the probability of employment/reemployment of unemployed people. Hunt (2004) proves that there are gender differences concerning the unemployment duration for the German people declared unemployed. Grogan and van den Berg (1999) found very interesting gender differences on

the labour market in Russia over the period 1994-1996. Thus, unmarried women have a lower unemployment duration compared to men with the same marital status, but the ratio changes for married people; the women in this group have significantly higher unemployment durations than the male subjects. The estimation results of the gender factor influence on the unemployment duration showed that for Belgium, Greece, France, Spain, Denmark and Portugal women are less likely to leave unemployment (D'Agostino and Mealli, 2000). Similar results were obtained by Tansel and Tasci (2005) for Turkey and Stetsenko (2003) for Kiev, Ukraine, Borsic and Kavkler (2009, 2010) for Slovenia, Bicanic (2009) for Croatia, Tevdovski and Tosevska (2009) for Macedonia. In contrast, Boehm (2009) shows that women are more likely to leave unemployment by being employed in the Austrian labour market, during 2000-2003.

The relationship between *age* and unemployment duration is complex (Katz, 1974). Older workers are usually protected against the unemployment by the senior citizen's rights and by the experience gained until that date in the labour market. At the same time, their probability of finding a job is much lowered by the advanced age. As a rule, this age group has a lower incidence of unemployment, but when it occurs, the unemployment duration of this age group is the longest. Kupets (2006), in a study conducted for the labour market in Ukraine reveals a negative association between age and re-employment probability of the analyzed subjects. The results obtained indicate that the subjects older than 40 years of age that are registered as unemployed leave unemployment not by employment but due to inactivity. A negative association between age and unemployment duration was also revealed by the studies conducted by Stetsenko (2003) for Kiev, Ukraine, Borsic and Kavkler (2009) for Slovenia, Bicanic (2009) for Croatia, Tevdovski and Tosevska (2009) for Macedonia and Boehm (2009) for Austria.

The literature describes *education* as a major factor influencing the individuals' incidence and duration of unemployment (Mincer, 1991, Heckman et al., 2006, Bowles et al., 2001, Blomeyer et al., 2009). The results obtained by Grogan and van den Berg (1999) show that highly skilled workers who lost a job in Russia during 1994-1996 have a lower duration and incidence of unemployment than their less educated compatriots. Education appears in the study of Ollikainen (2006) as a variable with a strongly positive influence on the unemployment duration in Finland, especially for unemployed females. A higher level of education reduces the unemployment duration in Britain, Belgium and Ireland, while in Spain and Greece it does not seem to have a significant impact on reducing the unemployment duration (D'Agostino and Mealli, 2000). According to the studies conducted by Tansel and Tasci (2005), Kupets (2006), Nivorozhkin (2006), Borsic and Kavkler (2009), Bicanic (2009) and Boehm (2009) the higher a person's educational level, the more increased his/her probability of finding a job in Turkey, Ukraine, Sweden, Slovenia, Croatia and Austria.

The impact of the *unemployment benefit* on its duration is a controversial issue and heavily debated in recent economic literature. The job search theory reveals that individuals prefer to remain unemployed longer if they receive compensations (Mortensen, 1977, van der Berg, 1990). So, granting unemployment benefits causes an increase in an individual's unemployment duration. Atkinson and Micklewright (1991), examine the impact of unemployment benefits on the rates of leaving unemployment for OECD countries and show that they temporarily affect the individuals' rate of leaving unemployment. A positive direct correlation between the grant of the unemployment benefit and its duration is also revealed by the empirical studies of Moffit (1985), Ham and Rea (1987) on the unemployment duration in the U.S.

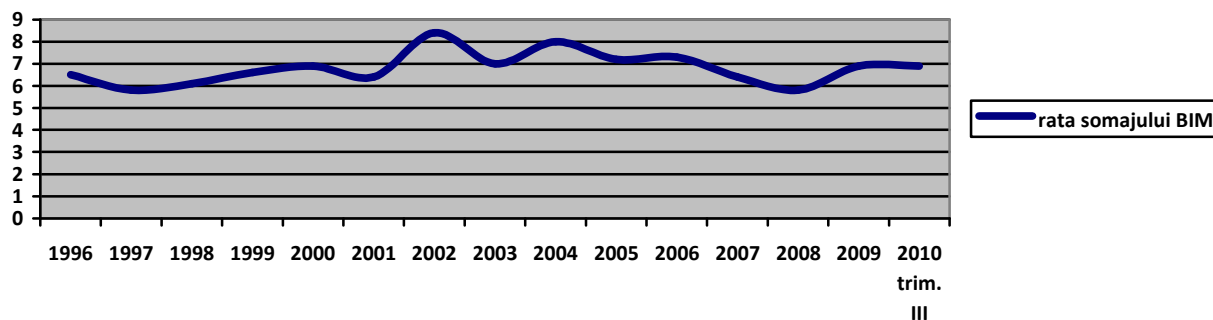
Nationally, the unemployment duration and the impact of decisive factors is a topic insufficiently investigated. Earle and Pauna (1996) examine for the first time the impact of *earnings, of the educational level, of experience, of the unemployment benefit, of the staff training costs, gender, marital status and ethnic background* on the unemployment duration in the labour market in our country. The results showed a higher probability of employment for men subjects compared with women. As a person's educational level increases, the unemployment leaving rate increases too. Increase in the age variable for an individual causes a significant increase in the unemployment duration and a decrease in the probability of employment/reemployment. Dănașcă and Babucea (2007, 2009) assesses the impact of *gender, age and educational level* on the unemployment duration for a county of Romania, Gorj county, using the duration models. The results showed that age causes a reduction in the hazard rate by 0.2 percent annually. Also, the most favoured educational group in the respect of the unemployment duration is that of university graduates and the most disadvantaged group is that of people without education or with incomplete elementary school. In a recent study, Ciuca and Matei (2010) examine the impact of the same variables, *gender, age and educational level* on the unemployment duration for eight counties of Romania. The results indicate that the university graduates are not favoured in the labour market, with unemployment durations even higher than the subjects with a lower educational level. The differences found between men and women are not statistically significant. Regarding the age variable, the 36-

45 year group is most likely to remain unemployed. Until now, there is no study to determine the quantified impact of determinant factors of the unemployment duration for the entire country. The purpose of this study is to empirically analyze the incidence and duration of unemployment in Romania and their decisive factors, constituting the basis of a future econometric study on the quantified impact of the identified determinants on the unemployment duration and the probability of employment/re-employment on the Romanian labour market.

### 3. Determinants of incidence and duration of unemployment in Romania

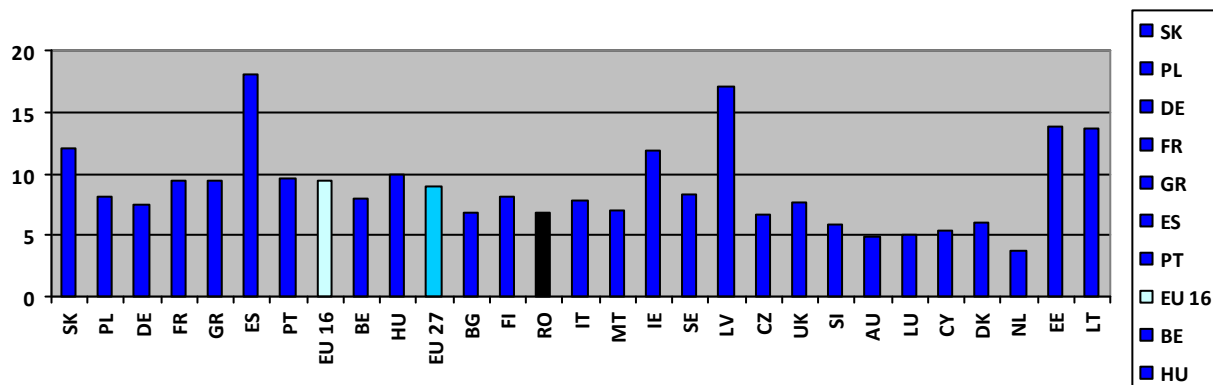
The unemployment phenomenon in Romania was officially acknowledged since 1991, with the entry into force of Law no. 1/1991 concerning the social protection and professional reintegration of the unemployed. In the previous regime unemployment was non-existent or negligible due to the nature of the economic system. The imbalances caused by the transition to free enterprise and the economic downturn determined quite an explosion of unemployment in the early years of transition, culminating in 1994 when the unemployment rate reached 10.9%. Currently the unemployment rate at the end of 2010 was 6.8%, according to NAE. According to Eurostat, the ILO unemployment rate for our country (period 1999-2010) recorded the highest values in 2002 (8.6%) and 2004 (8.1%), reaching in the 3<sup>rd</sup> quarter of 2010 a threshold of 6.9%, below the average EU (27) of 8.9%. Figure 1 shows the dynamics of ILO unemployment rate in Romania during 1996-2010, and Figure 2 shows the harmonized ILO unemployment rates in Romania and EU countries (27), in 2009.

**Figure 1:** Dynamics of ILO unemployment rate in Romania during 1996-2010



\*Data source: INSSE [Romanian National Institute of Statistics], Tempo-Online database

**Figure 2:** Harmonized unemployment rates in Romania and EU countries (27), 2009

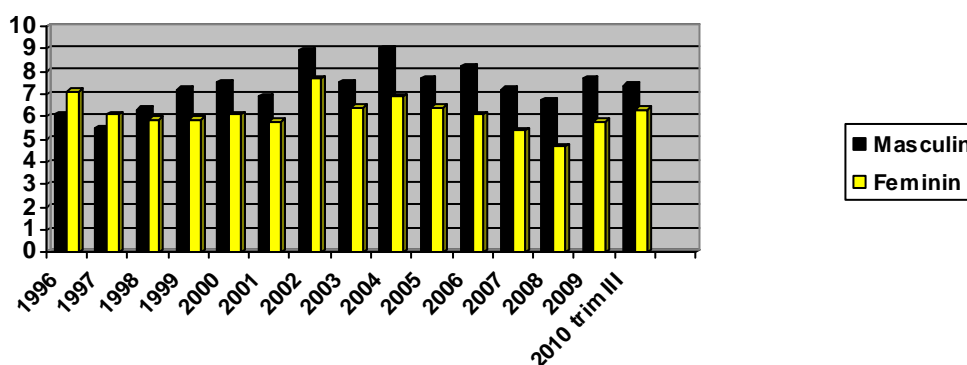


\*Data source: Eurostat

Unemployment affects differently the categories of individuals who make up the labour force. In this section of my paper I will analyze the structural features of unemployment both in terms of *incidence* and *duration* of unemployment. First I will focus on picturing unemployment differentiated by the factor of *gender*. The period under analysis is 1996 - 3<sup>rd</sup> quarter of 2010. According to INSSE at the end of the 3<sup>rd</sup> quarter of 2010 the total number of ILO unemployed was 70267 people, of which 416419 men and 286252 women (59.26% and 40.74%). According to NAE Bucharest, at the end of December 2010, the number of people registered as unemployed was 629960, the male unemployment rate increased from 7.44% in November, to the value of 7.47% and the female unemployment rate dropped from 6.38% to 6.20%. Figure 4

shows the dynamics of ILO unemployment rate for men and women for the period 1996-2010, 3<sup>rd</sup> quarter. The conclusion drawn by analyzing these data is that since 1997 the number of male unemployed persons exceeded the number of female unemployed; this gap increased since 2005. The difference between the active male and female working population and between the male and female labour resource is much lower compared with the gap witnessed between the unemployed men and women, which leads to the conclusion that since 2005 unemployment had a stronger impact on male individuals. A possible explanation is that in Romania, after 1989, the industry has been severely affected, with a series of restructuring in the mining, energy, petroleum, metallurgy sectors, which led to the unemployment of mostly male subjects. On the background of the financial and economic crisis that struck our country, industry, the automotive sector, construction and trade were strongly affected, causing an increase in the number of male unemployed. The situation is similar in other EU countries. By age groups, significant differences between men and women occurred in the age group 20-24 years, 30-34 years and 50-54 years in 2010 (INSSE).

**Figure 4:** Evolution of ILO [International Labour Office] unemployment rate for men and women, between 1996 - 3<sup>rd</sup> quarter of 2010 (%)



\*Data source: INSSE, Tempo-Online

The average duration of unemployment in Romania was about 10 months in 2005-2009; our country holds the 8<sup>th</sup> position in the European Union. Table 1 presents the dynamics of unemployment duration in Romania during 2007-2010.

**Table 1:** Unemployment duration in Romania, 2007-2010 (thousands of people)

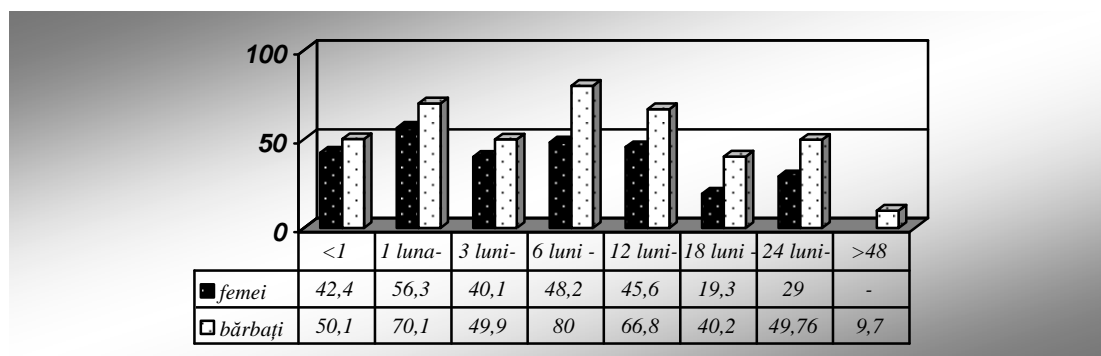
Duration (months)	Year											
	2007 <sup>8</sup>	2008	2009	2010	2007	2008	2009	2010	2007	2008	2009	2010
<1	5.3	4.7	4.9	-	8.7	9.1	-	0.8	0.1	7.2	1.3	2.5
1-2	5.5	1.2	6.1	2.8	12.4	26.5	1.1	32.2	47	42.5	8.7	26.4
3-5	1	7.9	0	0	0	8.7	6	58.9	64.8	14.1	4.8	0
6-11	9.5	7.5	6.1	6.8	0.4	1.4	9	38.1	11.4	03.9	69	28.2
12-17	9.1	2.9	2.8	7.9	8.1	1.7	0.3	5.6	8.5	03.2	07.6	12.5
18-23	8.3	7.7	9.6	8.3	1.5	6.9	9.3	1.4	9.9	5.8	2.9	9.4
24-47	1.6	17.9	3.5	0.8	2.4	4.6	2.5	4.1	1.1	0.9	0.1	8.6
>48	5.7	0.1	6.4	8.1	2.7	2.5	6.5	4.8	0.4	.6	2.6	5.1

\*Data source: Eurostat

<sup>8</sup> t-is the quarter

Figure 5 presents the structure of unemployment duration by *gender*, at the end of the 3<sup>rd</sup> quarter of 2010

**Figure 5:** Duration of unemployment by gender in Romania, 3<sup>rd</sup> quarter of 2010 (thousands of people)



\*Data source: Eurostat

As we can see in Figure 5, the duration of unemployment is higher for men compared with female subjects. According to Eurostat, the average duration of unemployment in Romania in 2010, 3<sup>rd</sup> quarter, was 12 months, namely 12 months for male unemployed and 11.7 for female unemployed. In conclusion, we can say that a person's gender influences both the unemployment incidence and duration.

Regarding the *age* variable, according to INSSE at the end of the 3<sup>rd</sup> quarter of 2010, of the 702671 ILO unemployed, 42852 belong to the 15-20 year group, 179139 belong to the 20-24 year group, 116703 people belong to the 25-29 year group, 76740 to the 30-34 year group, 76740 to the 35-39 year group, 6649 belong to the 40-44 year group, 44198 belong to the 45-49 year group, 55058 belong to the 50-54 year group, 32188 to the 55-59 year group, 3646 belong to the 60-64 year group, and 936 people belong to the 65-69 year group. Analyzing these data we can see that 59.12% of the registered ILO unemployed are young people aged between 15 and 35, showing the difficulty to absorb young graduates in the labour market in our country, and their vulnerability to unemployment. Unfortunately I had no access to statistical data on the unemployed registered with NAE by age group for the period under review, for a comparison with ILO unemployed. According to NAE, at the end of September 2010 the share of people belonging to age group 30-39 years was 24.56% and that of people belonging to the age group 40-49 years was 27.77%.

Table 2 shows the distribution of ILO unemployment rate for young people (15-34 years) by age groups and gender, from 1996 to 2010, 3<sup>rd</sup> quarter.

**Table 2:** Distribution of ILO unemployment rate by age groups (15-34 years) and gender, from 1996 to 2010, 3<sup>rd</sup> quarter (%)

Age groups	Unemployment rate	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
15-19	Total	8.27	7.33	7.40	7.37	7.30	7.32	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	26.2
	Male	8.23	7.41	7.13	7.94	7.6	7.93	7.7	7.32	7.24	7.32	7.32	7.32	7.32	7.32	24.1
	Female	8.33	7.12	7.01	7.43	7.98	7.03	7.3	7.32	7.32	7.32	7.32	7.32	7.32	7.32	29.2
20-24	Total	4.16	4.67	4.59	4.96	4.81	4.58	4.9	4.17	4.22	4.23	4.23	4.23	4.23	4.23	22.3
	Male	3.14	3.74	3.58	3.88	3.95	3.59	3.3	3.18	3.21	3.21	3.21	3.21	3.21	3.21	22.1
	Female	3.19	3.57	3.61	3.08	3.61	3.58	3.4	3.17	3.25	3.25	3.25	3.25	3.25	3.25	22.5
25-29	Total	7.8	7.6	7.9	7.8	7.6	7.7	7.6	7.84	7.96	7.96	7.96	7.96	7.96	7.96	9.6
	Male	7.7	7.9	7.9	7.1	7.8	7.8	7.10	7.99	7.99	7.99	7.99	7.99	7.99	7.99	9.9

			.3	.3	0.8	.5	.1	1		
	Female	8.7	.7	.6	.8	.6	.5	6.2	9.4	
30-34	Total	6.2	.7	.6	.7	.5	.4	5.8	5.7	
	Male	5.2	.6	.6	.7	.6	.5	6.3	6.3	
	Female	7.4	.7	.6	.8	.4	.4	5.1	5	

\*Data source: INSSE, Tempo-Online database

Unemployment duration analysis by the variable of *age* in our country shows that as a person gets older, his/her unemployment duration increases. Table 3 shows the analysis of the unemployment duration in Romania, by the age variable at the end of the 3<sup>rd</sup> quarter of 2010. Another observation resulting from the analysis of data is that for the age groups 15-24 years and 25-49 years, as unemployment duration increases, the differences between the percentage of men unemployed and the percentage of women unemployed, in total, increase as well, at the expense of men. For the age group 50-64 years the lack of gender-differentiated data prevents us to formulate a similar hypothesis.

**Table 3:** Distribution of unemployment duration based on the age and gender variables, 3<sup>rd</sup> quarter of 2010 (thousands of people)

Age groups	Unemployment duration	Number of unemployed (thousands of people)			Age groups	Unemployment duration	Number of unemployed (thousands of people)			
		Total	Men	Women			Total	Men	Women	
15-24 years	<1 month	3	20	12	50-64 years	<1 month	9	-	-	
	1-2	2.6	.6	23		1-2	.4	7	-	-
	3-5	8.3	.6	7		3-5	.6	1	-	-
	6-11	2	.9	10		6-11	2.4	1	-	-
	12-17	4	.6	23		12-17	6.5	1	-	-
	18-23	0.9	.6	3		18-23	7.6	1	-	-
	24-47	3	.5	19		24-47	0.5	1	-	-
	>48 months	6.1	-	-		>48 months	2.9	1	-	-
24-49 years	<1 month	2	.2	15						
	1-2	3.7	.2	8.5						
	3-5	-	-	-						
	6-11	5	.8	23						
	12-17	0.4	.8	6						
	18-23	7	.2	40						
	24-47	0.3	.2	1						
	>48 months	5.3	.6	7						

\*Data source: Eurostat



A very important indicator to portray unemployment is the long-term unemployment rate (12 months or more). Table 4 shows the dynamics of the long-term unemployment indicator (12 months or more) based on the age variable, by comparison, in EU 27 and Romania (%). Note that long-term unemployment rate is higher for our country than the EU 27 rate for the age groups 15-24 years and 25-49 years.

**Table 4:** Long-term unemployment rate, comparison EU 27 and Romania, from 2007 to 2010 (%)

Country	Age groups	Year											
		2007 <sup>9</sup>	2008t1	2008t2	2008t3	2008t4	2009t1	2009t2	2009t3	2009t4	2010t1	2010t2	2010t3
EU 27	15-24	25.9	3.8	4.0	1.8	1.9	1.6	2.2	3.4	5.3	7.2	8.7	8.5
	25-49	35.6	4.3	2.6	1.2	5.1	7.4	9.5	9.9	3.0	2.1	0.5	7.2
	50-74	53.7	1.8	8.4	7.2	7.1	5.3	1.2	4.5	5.2	4.4	8.8	5.3
Romania	15-24	43.6	4	1.2	3.1	5.3	4	1.0	6.8	6.2	3	5.2	5.2
	25-49	47	3.4	1.5	8.4	6.7	6.8	7.7	2.9	1.7	9.9	2.5	6.7
	50-74	45	3.1	8.7	5.1	0.6	2.4	2.7	4.7	4.5	7.9	4.6	8.8

\*Data source: Eurostat

We may conclude that *age* is a decisive factor of the incidence and duration of unemployment. And within the age groups, a person's gender also affects the unemployment duration.

Next we will focus on the *level of education* variable. Unfortunately INSSE does not provide access to data regarding the unemployed registered by level of education, ILO unemployed by level of education or unemployment rate - ILO or registered - by level of education. Table 5 shows the synthetic situation of unemployment rate in the 3<sup>rd</sup> quarter of 2010, distributed by the level of education and gender, by comparison in EU 27 and Romania.

**Table 5:** ILO unemployment rate by level of education and gender, 2009 (%)

Country	Level of education	ILO unemployment rate (%)		
		Total	Male	Female
EU 27	ISCED 0-2	15.6	15.6	15.6
	ISCED 3-4	8.6	8.3	9.1
	ISCED 5-6	5.6	5.1	6.1
Romania	ISCED 0-2	6.9	8.7	4.9
	ISCED 3-4	7.8	7.9	7.6
	ISCED 5-6	5.4	4.7	6.0

\*Data source: Eurostat

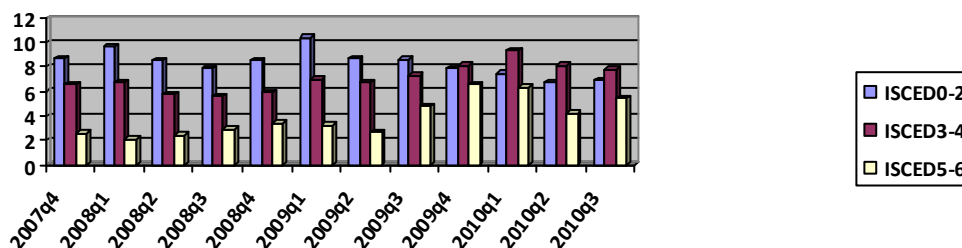
Analyzing the data shown in Table 5 we can see that both in EU 27 and in our country, as the level of education increases, the unemployment rate decreases in that group, therefore a negative association between the variable of educational level and unemployment rate. Gender is another variable which influences the unemployment rate within the educational levels in our country. The increase in the level of education from ISCED 0-2 group to the ISCED 3-4 group seems to affect the male unemployment rate adversely and the female unemployment rate, positively. Also, for the ISCED 5-6 group, higher education, gender influences the unemployment rate; the women of this group have a higher unemployment rate than men.

Figure 6 shows the evolution of ILO unemployment rate in our country during the 4th quarter of 2007 - 3<sup>rd</sup> quarter of 2010, according to the three major levels of education.

<sup>9</sup> *t*-is the quarter



**Figure 6:** Unemployment rate evolution during 2007, 4<sup>th</sup> quarter - 2010, 3<sup>rd</sup> quarter, by levels of education (%)



\*Data source: Eurostat

We note that the unemployment rate for the level of education ISCED 3-4 increased since the third quarter of 2009, exceeding the unemployment rate of ISCED 0-2 group. Also, from the third quarter of 2009, the unemployment rate of ISCED 5-6 people has risen sharply, within the economic crisis that is growing stronger in our country.

According to the report in September 2010 of the NAE Bucharest, the unemployed with primary, secondary and vocational education are the largest share of people who address the county agencies for employment in order to find a job and be employed, and their share reached 69.64% at the end of September. The unemployed with high school and post-secondary education represented 22.46%, and those with university education only 7.90%, during that period.

Unfortunately I had no access to statistical data on the unemployment duration by level of education, which would allow me to formulate a hypothesis in this direction. From a detailed analysis up to this step we can see that *education* is an important factor influencing the incidence of unemployment, and gender and age are variables that determine the differences between subjects belonging to the same group of education.

According to NAE, of the total number of unemployed registered at the end of December 2010, 329.640 were *paid* unemployed and 297.320 were *unpaid*. The counties with the largest share of unpaid unemployed in the total number of unemployed are: Teleorman (65.17%), Vrancea (63.97%), Galati (62.11%), Iași (61.00%) and Buzău (60.39%). According to INSSE at the end of 2009, of the 709383 registered unemployed, 435497 are people receiving *unemployment benefits*, representing 61.39% of the total registered unemployed. Of them, 188457 are women (43.27%) and 247040 are men (56.73%). Table 6 shows the unemployment rate of paid and unpaid subjects, by unemployment duration, during 2007-2009, in Romania.

**Table 6:** Unemployment rate for paid and unpaid subjects, by their duration of unemployment, in the period 2007-2009 (%).

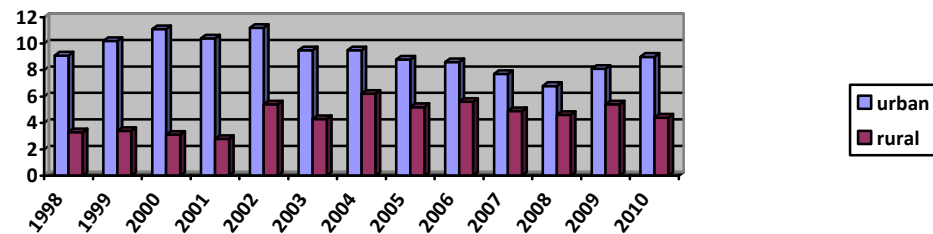
Unemployment duration	Paid/unpaid	Unemployment rate (%)		
		2007	2008	2009
1-2 months	Paid	18.8	11.8	18.3
	Unpaid	12.5	8.6	8.1
3-5 months	Paid	22.8	20.4	20.3
	Unpaid	10.7	-	7.1
6-11 months	Paid	15	18.6	22.3
	Unpaid	10.7	15.8	10.7
12-17 months	Paid	10.2	12.2	12.2
	Unpaid	8.7	11.3	15.1
18-23 months	Paid	-	-	-
	Unpaid	-	-	-
24-47 months	Paid	-	-	-
	Unpaid	11.7	9.2	13.3
>48 months	Paid	-	-	-
	Unpaid	-	-	-

\*Data source: Eurostat

Analyzing the data shown in Table 6 we can see that as the unemployment duration increases (1-6 months), the unemployment rate of paid people increases, unlike the unemployment rate of the unpaid, which decreases. The granting of unemployment benefits increases its duration in our country as well, according to the studies conducted for the European Union.

Another decisive factor of the unemployment incidence and duration is *geographical location*. Of 702671 ILO unemployed at the end of the 3<sup>rd</sup> quarter of 2010, 498491 come from urban areas and 204181 from rural areas. ILO unemployment rate was at the same time 9% in urban areas and 4.4% in rural areas. Figure 7 shows the dynamics of unemployment rate in urban and rural areas, during 1998 - 3<sup>rd</sup> quarter of 2010.

**Figure 7:** Dynamics of the unemployment rate by origin during 1998- 3<sup>rd</sup> quarter of 2010 (%)



\*D

ata source: INSSE, Tempo-Online

As shown in Figure 7, there are significant disparities between urban and rural areas as regards the ILO unemployment rate. By development regions, the highest ILO unemployment rate was recorded at the end of the 3<sup>rd</sup> quarter of 2010 in the Central region, 10.9% and the lowest unemployment rate in Bucharest-Ilfov. Figure 8 shows the structure of regional unemployment in Romania, at the end of the 3<sup>rd</sup> quarter of 2010.

**Figure 8:** ILO unemployment rate by development regions, 3<sup>rd</sup> quarter of 2010 (%)



\*Data source: INSSE, Tempo-Online

According to NAE [National Agency for Employment] Bucharest at the end of December the unemployment rate rose in 20 counties, namely Dolj with 0.58 pp, Sălaj, with 0.29 pp, Călărași, 0.29 pp, Ialomița, Brăila and Teleorman with 0.20 pp. Decreases in the unemployment rate are recorded in 21 counties and in Bucharest; the most significant decreases in the unemployment rate are recorded in the counties Vâlcea with 0.91 pp, Prahova with 0.60 pp, Mureș with 0.46 pp, Satu Mare with 0.36 pp and Maramureș with 0.32 pp. In Bucharest the unemployment rate decreased by 0.24%. The highest levels of the unemployment rate were reached in the counties of Vaslui (11.42%) Teleorman (10.76%), Galati (9.84%), Mehedinți (9.81%), followed by the counties: Dolj (9.80%), Buzău (9.73%), Gorj (9.62%), Covasna and Alba (9.58%), Ialomița (9.55%) and Călărași (9.03%). The minimum level of the unemployment rate in December, i.e. 2.29%, is recorded in Bucharest. The amplitude between the maximum and the minimum level of unemployment (9.13 pp) is higher by 0.23 pp than that in the previous month (8.90 pp). As regards the unemployment duration, according to INSSE, the counties Botoșani, Bistrița-Năsăud and Satu-Mare recorded dramatic increases in the number of long-term unemployed in 2010 compared to 2009. Thus, in Botoșani, the number of long-term unemployed increased by 720% in 2010, compared to 2009 (in absolute number, from 197 people in 2009 to 1420 people in 2010); in Bistrița Năsăud the number of long-term unemployed increased by 335% in 2010 compared to 2009 (from 264 people to 886 people in 2010) and in Satu-Mare the number of long-term unemployed increased by 244% in 2010 compared to 2009 (from 428 people in 2009 to 1047 people in 2010). Similarly, among the counties with increases in the number of long-term unemployed by at least 115% in 2010 compared to 2009 there are Maramureș, Mureș, Cluj, Iași and Bucharest. In Maramureș the number of long-term unemployed increased by 240% in 2010 compared to 2009, in Mureș long-term unemployment increased by 338%, in the county of Cluj by 241% and in Iași the number of long-term unemployed increased by 227%. Bucharest holds, according to INSSE,

the last position of the ranking, with an increase by 215%. The educational level of those people is low, according to INSSE, 70% of the long-term unemployed in the counties of Botoșani, Bistrița and Satu-Mare are graduates of primary school, secondary school or vocational school at most. The tendency is also maintained for the other positions in the rankings (Maramureș, Mureș, Cluj, Iași and Bucharest). Therefore, in the counties where the number of long-term unemployed rose by at least three times on average in 2010, compared to 2009, more than half of the subjects are not taught. The observation that emerges is that both the environment, urban and rural, and the origin county of the unemployed affect both the incidence and duration of unemployment, and the education, age and gender factor causes differentiation within the same group of subjects.

#### 4. Conclusions

In this article the authors have analyzed empirically the determinant factors of unemployment incidence and duration on the Romanian labour market. We can draw the following conclusions from the empirical analysis: a person's *gender* influences both the incidence and duration of unemployment; the unemployment phenomenon affects male individuals more intensely. On the background of the financial and economic crisis that struck our country, industry, the automotive sector, construction and trade were strongly affected, causing an increase in the number of male unemployed. The situation is similar in other EU countries. *Age* is an important determinant factor of the incidence and duration of unemployment in Romania. Older workers are usually protected in our country against the employment loss by the senior citizen's rights and by the experience gained until that date in the labour market. At the same time, their probability of finding a job is much lowered by the advanced age. As a rule, this age group has a lower incidence of unemployment, but when it occurs, the unemployment duration of this age group is the longest. We have also noticed that as a person gets older, his/her unemployment duration increases too. And within the age groups, a person's gender, education and geographical affiliation also affect the unemployment incidence and duration. Education is another decisive factor of the unemployment incidence and duration in our country. According to the report in September 2010 of the NAE Bucharest, the unemployed with primary, secondary and vocational education are the largest share of people who address the county agencies for employment in order to find a job and be employed, and their share reached 69.64% at the end of September 2010. The analysis of the empirical data on educational groups in Romania showed that, as the level of education increases, the unemployment rate decreases in that group, therefore a negative association between the educational level and unemployment rate variable. Moreover, as the subjects' educational level increases, their unemployment duration decreases. Long-term unemployment mainly affected subjects belonging to lower educational groups, ISCED 0, 1 and 2. The empirical data also show that the unemployment benefit determines an increase in the unemployment duration of individuals. As regards the geographical location, the statistical data reveal regional and urban/rural area disparities in terms of incidence and duration of unemployment in the labour market in Romania. The highest levels of unemployment rate were reached in the counties of Vaslui, Teleorman, Galati, Mehedinți, followed by Dolj, Buzău, Gorj, Covasna, Alba, Ialomița and Calarași. As for the unemployment duration, according to INSSE, the counties of Botoșani, Bistrița-Năsăud and Satu-Mare registered dramatic increases in the number of long-term unemployed in 2010 compared to 2009. The results of this study will be the starting point for a future econometric study, where we will determine the quantified impact of the identified factors that influence the incidence and duration of unemployment on the Romanian labour market.

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**PROGRESS OR REGRESSION: THE AFTERMATH OF THE CURRENT CRISIS**

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**Abstract:** *There are several major causes concerning the collapse of the current financial system. Among these, one must notice the fact that trade liberalization for goods and services played a major role. The question would be, in what way? Either in a positive way or a negative way? Is this process still the right way to go or must economists find a new paradigm in order to downgrade the effect of the current financial crisis? The current paper tries to foresee the major economic mutations concerning trade liberalization within the next years, from a global perspective.*

**Keywords:** crisis, trade, liberalization, solutions, goods, services

**JEL Classification:** B 12, E 12, E 32

Ever since the dawn of the current financial crisis, the entire world has had to reevaluate its position on what was, for decades, the framework of the global financial and market system. Until the infamous collapse of Lehman Bros., economists the world over were counting the blessings of economic liberalism. Globalization was and, to some extent, still is the major current concerning economics. Acolytes of the liberal doctrine have always considered it to be the paramount element of the world economic system. And, until 2008, no one could blame them. Statistical and empirical data suggested that free markets were the way to go.

Partisans of the „Keynesian way” were branded as outcasts, as their reality and economic scenarios were deemed improbable. In other words, everything seemed to be settled. Yet, one issue was overlooked.

Economics is a process which consists of cycles. Ergo, in accordance with Murphy’s principle of “what goes up, must come down” so should they have acknowledged the fact that an economic cycle is characterized by two major phases: upside and downside. But, willingly or not, this was neglected and the world seemed to follow a path towards economic freedom, which in itself is not a negative aspect, but we failed to take into account a key element: how do we protect ourselves from economic meltdowns.

The teachings of Lord Keynes were forsaken, until a few years ago. Everybody was talking about service liberalization, free trade, lowering trade barriers and making border tariffs disappear.

Although these measures, undertaken by global powerhouses, corporations and major international institutions such as the IMF and the World Bank have proven positive in increasing standards of living in several countries (IMF 2009), they have all, as stated, failed to foresee what would happen in the likely event of an economic crisis. This negligence was the cause for the birth of several well-founded conspiracy theories, which have given an aura of blur to the current chain of events.

Thus, in the wake of the current economic disaster, it is only fair to try and find a simple answer to a major question: was trade liberalization for goods and services a real cause of progress? Did we feel, in terms of real economic meaning, the benefits of such an endeavour? Or was this a factor which increased the scale of the current economic crunch? The answer is far from simple. And the implications of finding this answer are huge.

First, the positive aspects of liberalization: data from all current studies indicate that, indeed, measures undertaken by world governing bodies concerning trading, or, rather, deregulation of goods and services trading has increased the standard of living. A good example would be the BRIC block and even several states from the „new member states” of the European Union (EU Commission, 2010), meaning the countries which have joined from 2004 to this present day. So, on one hand, we have a global effort towards liberalization, which has proven to be somewhat successful.

Secondly, we also have the interest of major, global corporations. Either through direct foreign investment or franchising, these companies have relocated several production facilities within developing states. The impact was huge. In fact, a good example of such major investments is China. Several companies, from the IT sector for example, have invested heavily in this country, ergo contributing to its development, its increase in GDP and global competitiveness. Also, these investments have created tenths of thousands of jobs, which means, an increase in the degree of satisfaction and living standards of those within those countries.

Thirdly, we have national interest. This means that, as globalization as a process deepens, and countries become more and more connected, a country has two major options: outside or inside the so called „circle“. So, in order to avoid economic isolation, which is a catastrophe for a country, particularly a developing one, governments of developing states are willing to accept several major concessions, thus becoming vassals of economic giants, which are nameless, faceless and which only follow their own interests. Thus, a country becomes submissive to interests larger than its own, which is a death-row sentence for an emerging economy.

Economic gains should always be regarded at a macroeconomic level, this means that these gains should also be regarded in the medium and long term.

The downside to globalization however, and thus, service liberalization, as implied by the entire globalization process, is the fact that the world has become more and more connected. While this may seem like the best of scenarios, it is actually not so. This is because, as the global economic system becomes more and more connected, it becomes more and more reliant on interdependency. This means that states depend on one another to come out of economic downturns.

But what happens when the one you depend upon is also in peril? The entire system has become a „giant with feet of clay“, and this means that the more connected it became, the more entangled countries became with one another. This is the downside of too much connectivity.

Because what we have now is a double whammy, especially for developing states, meaning emergent economies. Let us expand. While the world economy was booming, world organizations were advocating towards free trade. This basically means that developing nations have become increasingly dependent on the stronger nations in order to increase the living standard of their populations. The social impact of mass-media and cultural aspects made citizens within emerging economies to always desire more: it made the Chinese worker, for example, realize that he can watch television instead of listening to the radio, that he can have jeans instead of clothes made from cheaper materials, that he can drive a car rather than a bicycle (Rotariu, 2011). A cheap car, but a car nevertheless. Now, multiply this by several million people, and not only in China, but in other parts of the world as well, to get a clear picture of why the world is as it is.

So on one hand, we have the ever increasing needs of populations hungry for better standards of living. On the other hand, we have states which are more and more unable to provide for such needs. Politicians in those states are willing to make compromises, in order to further their agendas. This means that they are willing to overburden the country either by squandering away its natural resources or by negotiating burdening deals, which literally endanger the future of coming generations.

The problem that the current crisis has brought, in terms of liberalization of trading of goods and services is that, like stated before, while the economy was in the green, this was all fine and dandy. Nowadays however, emerging economies were have lost their major markets. This happened because, in spite of all measures for economic liberalism, advocated by partisans of this economic doctrine, governments the world over, several states including the U.S., Britain and France adopted a string of protectionist measures, in order to save jobs and or businesses which were too careless and which squandered resources almost without a care in the world. Any means of state intervention within an interconnected global system, as we have seen that the current one is, basically means distorted markets. Ergo, companies within the developing states had all to lose when states granted subsidies for home companies, because competition was no longer fair. Thus, a basic liberal principle was not abided. This led to lack of competitiveness concerning several corporations, which collapsed or declared bankruptcy – only to be bought at next-to-nothing prices by larger competitors on the market.

All these explanations lead to one thing: in spite of all the calls and international lobby for bringing down trade barriers, the liberalization of trade, either for goods or services has been proven as more or less of a myth by current economic realities. The government of any country, even within the European Union – the most advanced form of economic and social integration, will always care more for its own citizens. This is to be expected of course, but it also raises several major issues concerning the credibility of major institutions.

In other words, developing states are doomed to being in eternal development, as developed nations are reorienting themselves towards producing goods and services inward. This is why products from developing nations have lost traditional markets, because these markets have, to some extent, been reclaimed by local products, as people all over the world become more and more aware of the fact that only by supporting local and national industries, a country may truly register progress in the medium and long term. Nations which have not yet come to realize this will pay dearly, with their economic freedom. The crisis has in some cases become one of over-production because products already produced and destined towards

export are now no longer required. This would not be an issue, if the teachings of Jean Baptiste Say would apply. Namely, Say's law. However, it does not, because products destined towards export cannot usually be sold within the producing country, because they are too expensive. Thus the local population cannot afford them. The state cannot intervene, because, being already indebted, it is not able to ensure subsidies, and the producer has no interest in selling their products and services at extremely low prices. This is the worst case scenario, where nobody wins. Unfortunately, it was confirmed one time too many by the economic reality of our times. And if a state tried to impose its will on private producers, the latter simply chose to relocate, further deepening the crisis which was already present at that time.

Major changes are about to come and the current crisis only speeds things up. Geopolitical and economic changes are unfolding even faster. This is partly due to the fact that the trading of goods and services has been liberalized in most of the civilized world. However, he who believes only benefits come out of this transaction is heavily mistaking (Stiglitz, 2009).

Considering all things said above, we can conclude that liberalization has benefits as well as costs. The duplicity of this economic element is that, during periods of economic boom, liberalization is a factor of growth. However, during times of economic crisis, it represents a factor which increases economic downturns.

So, which are the logical directions which the world must undertake concerning trade liberalization? Is liberalization a factor of progress or regression? What paths must we take to ensure our sustainable development?

Economists the world over are reconsidering their take on liberalism and free-markets (Korten, 2010). Particularly, from the point of view of state intervention; it has become clear that without the state – government, as an important actor on the economic stage, free markets present severe cases of market failure, which spell disaster for all the elements connected to that market, including ordinary people and households, as well as small and medium enterprises.

So, to some extent, liberalism would appear no longer to be the way to go. However, no extremes are good. This means that we cannot simply migrate from one concept to another overnight. Although liberalization of trade must, and in all fairness will continue regardless of the implications, one must reconsider the role of the state in modern economics.

A good way to do that would be to return to the solid economic principles of Sir John Maynard Keynes. The state must not be abolished within a free market economy; rather, it must be omnipresent, with the role of a catalyst. This means that, during times of growth, it must act to ensure that the growth in macroeconomic indicators is real and sustainable. Unwanted growth includes inflation and is thus undesirable. Means of doing this would be to increase fiscal pressure and combat fiscal evasion. The second side of a state's intervention within an economy, and this is the most important side of the two, is during times of recession. This is when a state must act in order to relax fiscal pressure, adopt measures of economic rebirth and help companies to fight the negative effects of the economic crisis. It is the duty of the authorities of a certain country to ensure the survival of its economy and create the premises of a new phase of growth.

In this perspective, liberalization plays a major role (Stiglitz, 2010). Because if it is done gradually, and if the economy can catch up with this entire process, then liberalization could be a factor or progress for a country.

However, and, unfortunately, this was the case of many countries, if this entire process is forced and unnatural or fast forwarded beyond the means and resources of the real economy, then liberalization spells doom for an emerging economy. There is no right or wrong answer in the end, rather, a question of choice and timing. Economics is not an abstract science, rather it is evolution, constantly changing, constantly gaining new meaning. One of the driving forces behind this evolution is trade liberalization. Progress or regression, it depends on the choice that each country makes for itself. It is not an easy choice, but it is the most important one. And we all have to make it sooner or later.

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## COUNTRY RISK AT THE END OF GLOBAL CRISIS

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**Abstract:** *The financial crises that have occurred in recent decades, affecting the entire international financial system and beyond, have highlighted the existing gaps in the models of country risk analysis, models that cannot provide, in most cases, an anticipation of the collapse. The crisis multiplication caused important mutations concerning the different features of country risk, the crises manifested worldwide creating new forms of risk, and making its assessment more complex. If Country risk is shaped by the crisis, it, in turn, may influence the manifestation of the crisis. A current example is the sovereign country risk component, which meets the characteristics that make it able to prolong the depression. What we propose in this brief paper is a "radiography" of the country risk at the end of global crisis, paving the way for future studies aiming to establish specific risk indicators, in order to facilitate the anticipation of crises.*

**Key words:** country risk, economic crisis, sovereign risk, external debt, early warning indicators.

**JEL classification:** F3 (F31, F34)

### 1. Introduction - Risk and crisis, crisis and risk

Undoubtedly, the notions of risk and crisis are in close contact. The crisis is a turning point, regardless of its character, and also an unstable condition, which involves an abrupt and decisive change. The crisis involves a manifestation of the risk, while the risk, in turn, influence the crisis, and often explains it. Regarding the form of risk that we intend to study, the country risk, it is clear from the beginning that economic developments caused by the global financial crisis that started in 2008 had a significant impact. Although, in general, degradation of the country risk was lower than expected, it is certain that there were major changes concerning it: for example, a number of developed countries, considered before as foreign to country risk, became the subject of its specific analysis.

The global crisis has created a new configuration of country risk, different from case to case:

- A focus on the sovereign risk and transfer for developing states that have little progress in terms of governance (Longueville, 2010);
- An orientation towards credit risk and market risk in the emerging countries successfully integrated into the process of globalization, states that have effectively implemented structural reforms - Brazil, India, China, etc.;
- A focus on the various components of country risk in the developed countries considered "safe" so far: sovereign risk, primarily, but also credit risk, market risk and even political risk.

### 2. Country risk and economic crises

As we highlighted in our previous elaborate, the country risk, representing the likelihood of significant losses – financial and not only – as a result of events and imbalances – of macroeconomic, financial and natural nature – specific to a foreign country, is a present reality that affect various categories of companies: exporters, investors, commercial banks. The financial crises that have occurred in recent decades, affecting the international financial system itself, have highlighted the existing gaps in the models of country risk analysis; they cannot provide, in most cases, an anticipation of the collapse.

The multiplication of crises in the last period determined important changes in the characteristics of country risk, the crises manifested in the world giving rise to new forms of risk, and doing more complex their evaluation. From this point of view, we can say that recent developments and crises enhances the variety of risks and their complexity.

In this context, more and more economic, financial, political, religious factors must be taken into account, both in terms of dynamics and links established between them.

The relation country risk – crisis emerged as evident and close when the debt crisis of the 1980s occurred. In the late 1970s and the early ninth decade of the last century, commercial banks, especially



American ones, were noted by the frenzy with which they have been competitive in their efforts to take over the *huge surplus of liquidity of the oil exporting states, and namely the petrodollars resulting from the first oil shock – 1973-1974* (Gilbart, 2004). This helped developing states in obtaining credits, their governments taking full advantage of this “cheap” funding. Of course, a logical consequence was a significant increase in external debt in developing countries, a trend that has not entailed any concern (one of the reasons why banks have borrowed heavily, without taking into account the still vague notion of country risk, was the fact that specific growth rates in developing states were higher than interest rates and, on the other hand, export prices for these countries had a favorable trend).

Following the second oil shock (1979-1980), industrialized countries have adopted a deflationary monetary policy, which led to an increase in real interest rate on short and long term, and lower prices of products exported from developing states. In these circumstances, external debt of these countries have begun to weigh more than ever. One of the indicators that showed a significant degradation has been the *external debt / exports* ratio; despite these signals, the conditions offered by commercial banks continued to improve.

After 1980, the situation of developing States experienced a marked deterioration. Consequently, the interests and debt repayment has become problematic, the need for new credits, oriented towards debt servicing, being more and more intense.

The next period was characterized by the multiplication of the cases where developing states have not been able to pay its arrears, initiating wide cycles of debt restructuring and renegotiation. In this context, country risk deteriorates significantly, boosting the debt crisis; in just a few years, the international situation, favorable to borrowing, changes dramatically, and the crisis increases its proportions (on average, between 1984 and 1990 there were made about 20 annual debt restructuring, less than half the developing states concentrating two-thirds of their total debt).

The commercial banks and international financial community as a whole finally reacted to this veritable scourge (The Baker Plan, 1985, or The Brady Plan, better known, launched in early 1989, aiming to reduce the overall indebtedness for more developing countries by converting debt into bonds, guaranteed in part by U.S. Treasury). We can say that, basically, the debt crisis has first brought to public attention the country risk, the early '80s being the moment when representatives of commercial banks realized the importance of its systematic study.

From the 1980s until now, successive crises have revealed new and new features and forms of country risk. As noted by several authors (Calverley, 1990, Gilbart, 2004, Meunier, 2005), the last 20-25 years have been extremely effervescent in terms of crises, generating real mutations of country risk; the end of the Cold War and the dismantling of Eastern Europe bloc, as well as the difficulties that have arisen in the early 1990s, showed that debt indicators can not provide sufficient data to predict an interruption of payments, for example, and that a thorough analysis of the political situation is essential for proper risk assessment. The 1990s were also marked by the succession of a large number of economic crises. We recall here the Mexican crisis of 1994-1995, or the 1997 financial turmoil manifested in Asian markets. The last 10-15 years have been characterized by the development of international capital markets, and by the explosion of banking products and services. The Mexican and Asian financial crises demonstrated that the risks are not limited to the inability to pay, but can take complex forms, such as market risk or systemic risk. If the '80s were the years of indebtedness problems, it should be noted that the subsequent decade brought important new aspects as regards the crisis. Undoubtedly, the subject has not lost its validity, but the recent crises may be put in relation to new risks.

A new category, from this point of view, is represented by the crises without indebtedness. These are crises that occur in the absence of an overall indebtedness of the states. In the absence of the concern raised by the values of the classical indicators of indebtedness, they are primed by increased liquidity risk; high short-term debt, accompanied by a low level of reserves, are among the main factors of collapse. Several cases of this kind can be evoked in this context:

- Mexico, in 1995 – of course, are many and complex causes of the crisis, with debt having the main role, however;

- Korea in 1997;

- Ukraine and Russia in 1998;

- Pakistan in 1999, Turkey in 2000, etc.

At the same time, the crises acquire a composite character; we cannot talk anymore of “pure” crises, but of multiple ones (the "Asian flu" was the one who brought the twin crises in the foreground, such as monetary and banking ones; more complex, the triple crisis are strongly affecting economies and the

internal/external payment mechanisms. The 1998 Russian crisis combined several characteristics, assuming currency devaluation, the financial sector crisis and the sovereign one). Thus, we can identify the characteristics of a banking crisis, but also of a sovereign, monetary and economic one, and, on the other hand, spillover effects become faster and more intense. These may cross – for example, through the banking channel – or have an international effect.

New crises have led, naturally, to a "new" country risk. This must be addressed by focusing attention towards various fragilities, potential sources of imbalance. They can be found both in the macroeconomic and microeconomic sphere, as well as in the political or social ones. It is also essential to identify *factors that may cause the transition from latent vulnerability to crisis* (Meunier, Sollogoub, 2005).

The new crises show, on the other hand, the fact that not only the fundamental imbalances are important in the study of country risk, but also the stability of the economic sector performances. It depends largely on issues involving several nations, *the specific combination of economic events* (Apoteker, 1998). The financial crises of the 1990s illustrate the evolution of market risks as a result of internal and external liberalization, internationalization and financial disintermediation in developing states. Among the sources of risk associated with these phenomena, we can mention:

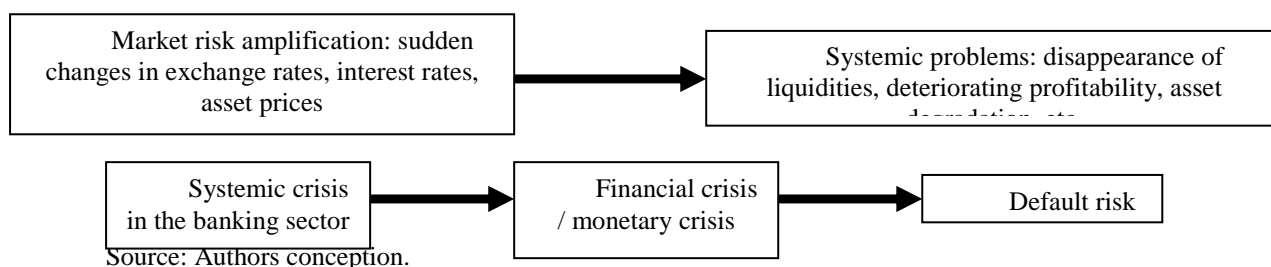
- The opening of foreign trade too quickly, in relation to internal structural adjustments and competitiveness;
- The too early liberalization of capital movements in relation to the maturity of the financial system;
- The massive securitization of the public debt, in relation to the possibilities of absorption of indigenous markets.

For the country risk analyst, market risk analysis is a serious challenge, this type of risk being more difficult to assess than, for example, the risk of default. This is explained by the higher number of indicators to be studied and correlated, and the many possibilities of interaction between them. In Guy Longueville's vision, market risk is an extension of the *generalized country risk* defined by John Calverley in the late '80s. The French analyst believes that, although some common indicators can be found for a group of states, their specificities, given by the political, economic and financial environment, play an overwhelming role in the onset and development of financial crises, but also in understanding market risk manifestation. Another component of country risk which was reported in relation to recent years crises is systemic risk. It identifies situations in which several companies that are in a state of good financial health, which run their businesses in a given macroeconomic environment, are rapidly evolving into bankruptcy and the environment is deteriorating rapidly; the effects of gender "domino" are also present. Located on the border of micro and macro spheres, systemic risk largely explains why some crises become general, sometimes leading to the collapse of an entire economy. Information asymmetry contributes significantly to this risk, which includes situations in which rational agents' reactions to the risks they perceive, instead of leading to better allocation of risk, increase the general insecurity (Aglietta, Moutot, 1993).

Systemic risk claim its membership in the country risk class, its analysis involving economic, financial and political variables, of the same kind as in the case of sovereign risk, market risk, etc. Vulnerability to systemic risk depends not only on the financial system, but also *the complex institutional arrangements, the history of societies* (Meunier, Sollogoub, 2005, p.55).

Of course, all forms of country risk are closely related, more cause-effect relationships can be identified. For example, we can formulate the following hypotheses:

**Figure 1: Relations between different forms of Country Risk**

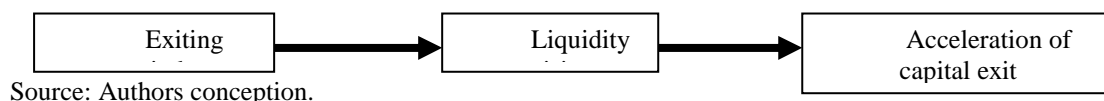


Crises manifested during the last decade of last century were favored by pre-existing vulnerabilities. Taking a look at the situation of emerging markets at the end of the twentieth century, we might ask, rightly, if only countries that have achieved this status officially have experienced a sovereign crisis; the answer is

not simple because, in theory, sovereign debt crisis involves the cessation of debt (principal) and interests payment at the maturity, this approach thus neglecting states that have avoided insolvency with the help of the International Monetary Fund, or due to a restructuring of debt; countries such as Mexico in 1995, Brazil in 2001, Turkey 2000, were assisted by the IMF, while in Ukraine in 1998 and Pakistan in 1999, the international community and the International Monetary Fund have proposed a debt restructuring. Finally, recent years crises have brought to the foreground the concept of volatility, related to the effects of contagion, described briefly above. In this context, the relevant issue is trust. Its absence entails loss of funding sources, encouraging the emergence of financial crises. In this situation, the concerned States can no longer finance current deficits; recent economic history provides examples in this context: Mexico (1994), Thailand and Korea (in 1997).

Of course, lower confidence certainly contributes to the deteriorating nature of the situation; the "vicious circle" of events is inevitable:

**Figure 2: Vicious circle of crisis**



Source: Authors conception.

The dynamics, the rapid spread of crises is overwhelmingly influenced by spillover effects. Based on the analysis of Obstfeld (1986), Nicolas Meunier (2005) identifies three types of contagion:

- Monsoonal Effects – which assume that a single significant shock causes important crises in several states simultaneously; for example, a significant increase in interest rates in a large and important economy, significant changes in the oil or energy price, etc.;

- Spillover Effects – the result of economic interdependence, of strong commercial ties; the Asian case is a good example. Among the most exposed areas to this effect, we can include Central and South-East Asia. Treating this issue, Nicolas Meunier remembers the Hungarian Stock Exchange meltdown in 1998, in the context of the Russian crisis, a phenomenon explained by the importance of the Russian market for the Hungarian pharmaceutical industry;

- The pure contagion, which is explained by factors of subjective nature (agents behavior, general climate, etc.), but also of objective type (cost of information issues, etc.).

In conclusion, we can say that events and crises of the past 15-20 years have generated new models of country risk analysis, requiring institutional diagnosis and studies related to the economies outlook.

### 3. Country risk in the post-crisis landscape

The year 2010 has brought positive developments in the world economy, at least in general terms. Of course, these improvements are differentiated in size, between the developed and emerging economies (Faure, 2010).

Several phenomena are clearly outlined, however, and have major implications for the global conjuncture and contemporary country risk:

- the increasing financial decoupling between the developed and developing countries (Longueville, Faure, 2010);

- the global increase in commodity prices;

- the implementation of restrictive monetary policies, particularly in developing states;

- the decision of maintaining the policy of "Quantitative easing" by Fed;

- the progression of bond spreads of the States situated in the "periphery" of the Euro area (we are referring

to countries such as Greece, Ireland, Portugal);

- the economic growth in emerging markets, over 7%, five percentage points higher than in the developed countries;

- the contraction, at the end of the last year, of industrial production, influenced by the decline in exports (the increase of 15.4% in the second quarter of 2010 has left the place to an increase of only 2.4% during the third trimester)

Another positive development that we note is the fact that the issue of bonds in foreign currencies of emerging markets have reached and exceeded the before-crisis level; the issuers of securities, both sovereign and private, benefit again of relatively normal financing conditions, and risk premia have decreased considerably.

Monetary policies implemented in 2010 were generally of restrictive nature, Central banks being preoccupied with the inflation and currency appreciation control and (especially in the case of emerging markets).

In the same time, currency appreciation in emerging markets presents a general nature, and it is present even a slight risk of overvaluation (Longueville, Faure, 2010). The world environment was characterized in the last year by a revival of trade; so, *world trade volume increased by 11.4% during 2010 and for 2011 it is expected a growth of 7%* (IMF, World Economic Outlook, October 2010). In addition, net private capital flows directed towards emerging countries have exceeded 820 billion dollars, in comparison to only 581 billion in 2009. Growth forecasts are also positive for emerging markets:

**Table 1: Growth forecasts (%)**

	2011	2012
<b>Global economy</b>	3,7	4,2
<b>G3 + UK</b>	1,5	2,1
<b>Emerging economies / (without China and India)</b>	6 / 4,2	6,2 / 4,3
<b>Latin America</b>	4,3	4
<b>Emerging Asia</b>	7,7	7,8
<b>Emerging Europe</b>	3,4	3,8
<b>Africa and the Middle East</b>	4,2	4,5

Source: BNP Paribas, 2010.

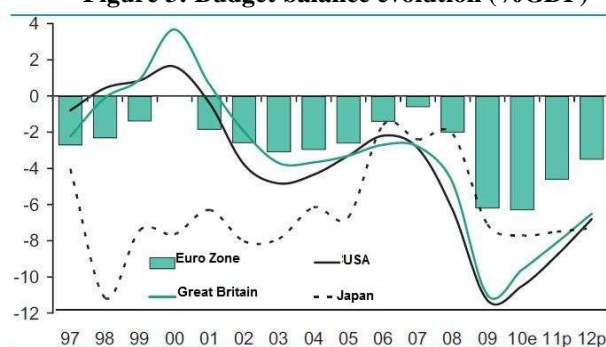
**Table 2: Growth forecasts (%)**

	2011	2012
<b>Global Economy</b>	4,2	4,5
<b>G3 + UK</b>	1,9	2,4
<b>Emerging economies / (without China and India)</b>	6,3 / 4,2	6,3 / 4,4
<b>Latin America</b>	4,0	4,2
<b>Emerging Asia</b>	7,9	7,8
<b>Emerging Europe</b>	3,9	4,3
<b>Africa and the Middle East</b>	5,2	5,1

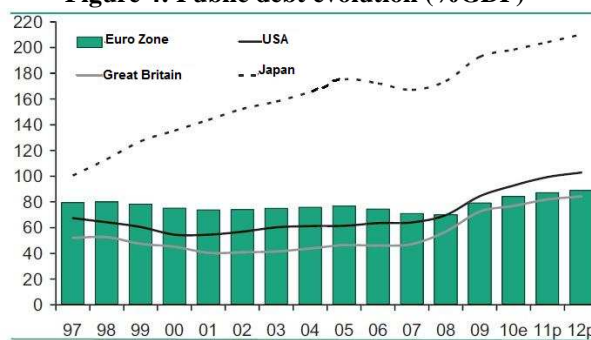
Source: IMF, 2010.

The year 2010 will remain, however, primarily related to the sovereign debt crisis in Europe. From the beginning, it should be noted that the budgetary situation in the euro area, despite some degradations, is not the most serious.

**Figure 3: Budget balance evolution (%GDP)**

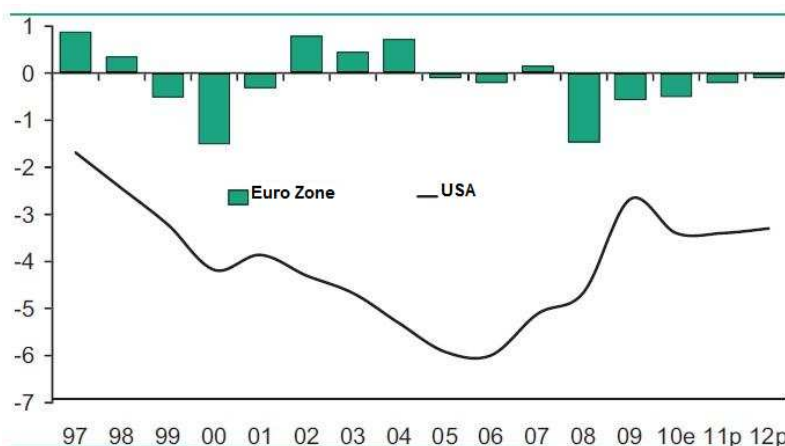


**Figure 4: Public debt evolution (%GDP)**



Source: OCDE, 2010, in D'Arvisenet, Philippe, *Crise de la dette souveraine en Europe*, Conjoncture, BNP Paribas, January 2011.

**Figure 5: Current balance evolution (%GDP)**

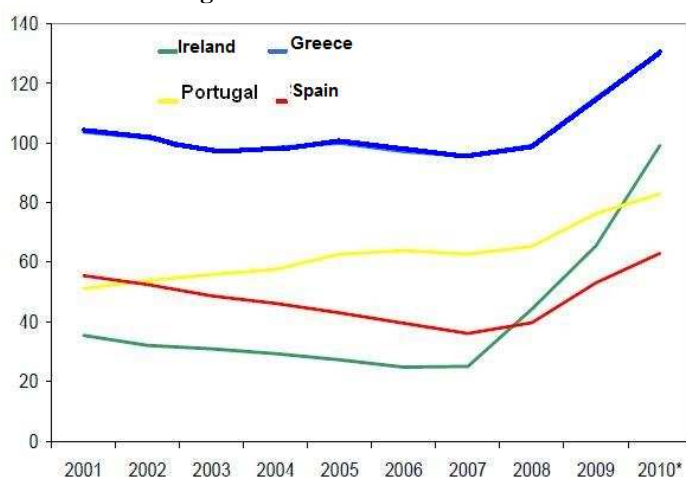


Source: OCDE, IMF, 2010, in D'Arvisenet, Philippe, *Crise de la dette souveraine en Europe*, Conjoncture, BNP Paribas, January 2011.

According to some authors (D'Arvisenet, 2011), the sovereign debt crisis manifested in the euro area is a consequence of one of the European construction weaknesses: *the joining of the common monetary policy and decentralized fiscal policies, lacking coordination – lack of budgetary federalism*. At the same time, we might mention the too low political integration, or the lack of structural reforms.

The reduction in interest rate by the European Central Bank has boosted borrowing significantly, particularly of private nature, in countries like Ireland and Spain, and especially of a public nature in Greece.

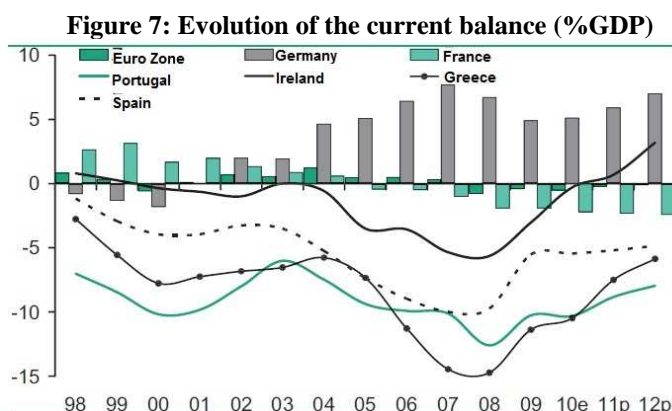
**Figure 6: Public debt evolution**



Source: Longueville, Guy, Faure, François, *Country Risk: Normalisation in most emerging countries, uncertainty in some advanced countries*, in Conjoncture, BNP Paribas, November 2010.

It should be added here that the rating agencies have ignored the developments, the absence of spreads can be observed until the onset of the crisis. On the other hand, relative to the increasing current deficits, it cannot be said that this is a worrying and unusual phenomenon at the level of a monetary union; the member states specialization pattern may itself constitute a contributing factor, some countries being specialized in sectors with inferior to average productivity. At the same time, the phenomenon can be put in relation, in some cases, with the rise in production costs.

Largely a consequence of internal imbalances, translated into excessive debt, the increase in external deficits is, however, concerning. Some plans, unimaginable just a few years ago, were made and even implemented; we mention here are already well-known "rescue package" to Greece in a joint European Union and International Monetary Fund effort, or the acquisition of sovereign bonds by the European Central Bank, etc.



Source: OECD, in D'Arvisenet, Philippe, *Crise de la dette souveraine en Europe*, Conjoncture, BNP Paribas, January 2011.

For Greece, it can be said that the economy is in a recession period. Despite reductions in wages and the incentives for exports, exiting this situation it is not expected in a time shorter than two years, and uncertainties remain high for all states that have a fragile public finances sector:

- official growth forecasts for 2011 of 1.3% for Spain and 0.2% in Portugal's case;
- suspicions concerning the adoption of additional budgetary restrictions;
- official forecast for growth in Ireland reduced from 3% (original figure) to less than 2% for 2011, announcing the new budget restrictions, etc.

The skepticism regarding the possibilities of governments to reduce deficits and to manage indebtedness control is confirmed by the actions of rating agencies, translated in the degradation of sovereign ratings for the mentioned countries.

The overall situation described above presents a considerable impact in terms of country risk. Thus, several remarks can be made:

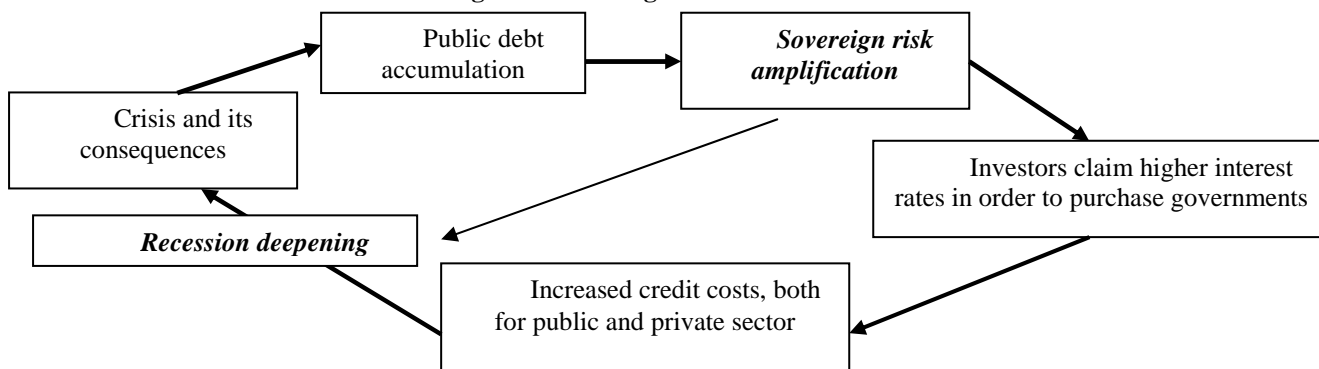
- In emerging economies, although progress is not uniform, the sovereign risk and the credit risk and reduced their intensity;
- Emerging economies have begun a sustained revival process, while in the case of developed countries, it is relatively slow and it has a low intensity;
- Market risk is the one who has seen a significant growth in emerging economies, in a context in which cycle differences make their presence felt; currently, political tensions seem to develop at a global scale. The events at the beginning of 2011 in Tunisia, Egypt or Libya, are testimony to this, and many other similar risks concern: Bangladesh, Morocco, Algeria, Iran, Nigeria, etc. In Egypt, for example, despite good economic performance in the years 2009 and 2010, the fragility of the structural fiscal imbalances, the social tensions and governance problems have led to a rapid and unexpected deterioration in country risk, enhanced by the revolt that began in late January;
- Country risk has become a reality even for developed countries, where until recently there was no question of such an analysis, this development is not foreign nor the euro area, in the light of new realities;
- Forecasts for improving sovereign ratings – but also those "corporate" – are more optimistic for emerging countries than for developed countries;
- The policy of "Quantitative easing" promoted by the FED has stimulated global liquidity and has led to the depreciation of U.S. dollar, and created also an upward pressure on emerging markets assets;
- The prices evolution of industrial raw materials and agricultural products can generate inflationary pressures, but also leads to improved external balances; in this regard, the influence on the country risk has a positive character (Longueville, 2010);
- In the European Union, despite the taken measures, there is no significant improvement in country risk, especially concerning its sovereign component; credit risk and even political risk are present, although their materialization seems unlikely.

#### 4. Concluding Remarks

Undoubtedly, the crisis impact on country risk is extremely broad and difficult to grasp in its totality and complexity, which is why we intend to study this relationship during the next period. One thing we want to emphasize here is that, if country risk is shaped by the crisis, it, in turn, may influence the manifestation of the crisis. A current example is the sovereign component of country risk, about which we can say that it meets the characteristics enabling it to prolong the depression.

The tensions associated with sovereign issues are likely to lead to the prolongation of the crisis, despite the improving condition of the international financial system, induced by the global economic recovery. A possible degradation of sovereign risk would severely affect both the national banking system and economy. Chain reactions could occur as a result of these developments:

**Figure 8: Sovereign risk and crisis extension**



Source: Authors conception.

Therefore, strengthening public finances and sovereign risk monitoring should be the priority for national governments. At the same time, the banking activity presents a particular importance, their capitalization being in particular a delicate issue; the quality of the balance sheet and the own funds level are equally essential, banks around the world facing large financing needs – about U.S. \$ 5000 billion over the next 2-3 years, according to IMF data. The research literature has tried, especially in recent years, characterized by the multiplication and diversification of crisis, to reproduce the actual phenomena theoretically, in order to identify key factors and to develop forecasting tools.

Although it is noted that there is a general consensus regarding the determinants of crises, the particular impact of each of them remains difficult to quantify, as well as the values for warning thresholds; so, the forecasts for the possible sequence of events are still outside the possibilities of the scientific apparatus. A special aspect is the opportunity to develop theoretical models able to determine the optimal level of sovereign borrowing, given that, at least at the present time, no international coercive mechanisms that ensure the sovereign debtor payment exist.

On the other hand, we must stress here the importance of the political factor. Linkages between political and country risk are present, and debt restructuring issues have a special importance, being a prime concern for the financial community. The belief that the "default" risk for sovereign bonds is minimal has proved erroneous in recent years; it has been put into question even the issue of "bankruptcy" of a state (Andritzky, 2006), yet impossible because of the specificity of the sovereign. It is also mentioned more often – since the Russian crisis – the principle of the private sector involvement in addressing the debt crisis. In this context, creditors, often generously rewarded by markets as a result of taking the risk of entering hazardous areas, are becoming increasingly concerned about the impact of restructuring.

The anticipation of crises in the context of country risk is an ambitious objective, a real challenge. In this respect, the understanding of the root causes and transmission channels is essential, in order to identify an early warning indicators system; this will be the subject and the goal of our next study.

### 5. Acknowledgments

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## A COMPARATIVE STUDY REGARDING THE EVOLUTION OF THE EUROPEAN LEGACY AND LOW-COST AIRLINES IN THE CONTEXT OF THE XXI<sup>ST</sup> CENTURY'S CRISES

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**Abstract:** *The two economic crises of the XXI<sup>st</sup> century significantly influenced the airlines' market, giving managers hard lessons. Yet, even if the companies reacted quickly at the 2008 downturn, adjusting capacities and cost levels, the recovery in profits has been slow. The purpose of this paper is to identify the evolution of the European legacy and low-cost airlines between 2000 and 2010, underling the impact of the two crises on their economic performances. To reach this objective, we have collected, tabulated and interpreted data included in various statistical reports and we have analyzed different studies conducted on the European airlines' market.*

**Key words:** low-cost airlines, legacy carriers, economic and financial crisis, business model

**JEL classification:** F23, E32

### 8. Introduction

Before the events of September 2001, many European legacy (traditional) airlines were confronting with serious problems, determined by various factors. First of all, the rapid growth of the low cost operators, especially in intra-European markets, was generating a strong downward pressure on the fares of the legacy carriers. Meanwhile, the fuel price and the labor costs were rising (between October 1998 and October 2000 fuel prices doubled). Moreover, a slowing down of the economic growth in some developed economies, such as those of Germany and Japan, generated a decrease in the demand of the airlines' services.

The bursting of the dot.com bubble in 2000 caused a three years economic downturn, with an initial reduction of global air traffic demand, especially in premium class products, and a pressure for competitive pricing (Franke, John, 2011). The events of September 2001 amplified the crisis from the airlines' industry due to the fact that the traffic significantly decreased in many key markets, especially in the North America. In this context, many traditional operators registered important profit loss in 2001, or, worse than that, were on the verge of bankruptcy. Meanwhile, the large low-cost carriers, especially from Europe (Ryanair and easyJet), took advantage of the unfavorable global situation by offering more services at low prices, in this way increasing their profits. For example, in order to enhance its reputation among consumers and to reduce the costs, Ryanair launched in 2000 a site through which it was possible to make the reservations and purchase the tickets online. This method had the expected success, in the first quarter of the year 2000, the company registering about 50000 reservations per week. Actually, in 2002 and 2003, Ryanair and easyJet won around 22 million new passengers.

By early 2006, the airlines' industry seemed to have recovered after the substantial financial losses from 2001 to 2005, both European and US legacy operators starting to increase their profits. A significant impact on this positive trend had the consistent GDP growth, registered in many developed economies, as well as the emergence of Brazil, Russia, India, and China (the BRIC group of nations), as significant economic players.

Even if the 2001 crisis has been a taught lesson for the airlines' managers, the global economic and financial situation from 2007-2008 had a significant impact for all the operators. A report of the International Air Transport Association (IATA, 2010) underlined the fact that in 2009 there was a 6.1% drop in the overall air traffic, which represents the worst decline since the World War II. Although the airlines have reacted quickly and adjusted their capacities and cost levels, the profits' recovery has been very slow for many airlines. Yet, the low-cost carriers were less affected by the crisis, mainly because their low fares were again a compelling argument for many travelers.

### 9. The Evolution of the European Legacy and Low-cost Carriers Between 2000 and 2007

The challenges brought by the 2001 crisis have forced the legacy carriers from Asia, Europe, and US to rethink their traditional business models. Under the pressure of the low-cost operators, which determined passengers to become more price sensitive, the legacy carriers have taken at least three measures to regain a competitive position (Franke, 2007):

- Substantial cost cuts;
- Mergers and acquisitions, in order to consolidate the capacities and increase the market power (some examples are: Air France/KLM or Lufthansa/Swiss);
- Rethinking the operational platforms, in order to allow the airlines to better serve the needs of specific customer segments (for example, the regional and low-cost platforms of SAS or Lufthansa).

In a top 10 EU airlines, considering their share of available seat kilometers (ASK) and the departures within Europe, British Airways, Lufthansa and Air France were the principal carriers in 2004 (see Table no. 1). These three airlines had more than half of the ASK and over 40% of weekly flights operated by the EU legacy carriers.

**Table 1: The largest EU legacy carriers in 2004, by the share of legacy airlines' ASK**

Airline	% ASK
<b>British Airways</b>	20.4
<b>Lufthansa</b>	17.8
<b>Air France</b>	14.9
<b>KLM</b>	7.6
<b>Iberia</b>	6.8
<b>Alitalia</b>	4.9
<b>Virgin Atlantic</b>	4.0
<b>SAS</b>	3.8
<b>Swiss</b>	2.8
<b>Austrian</b>	2.8

Source: Adapted from European Commission (2005), "Analysis of the EU Air Transport Industry – Final Report 2005", [http://ec.europa.eu/transport/air/observatory\\_market/doc/annual\\_report\\_2005.pdf](http://ec.europa.eu/transport/air/observatory_market/doc/annual_report_2005.pdf)

The low-cost airline sector in Europe has experienced a substantial growth since two major companies have started operating as low-cost carriers: Ryanair in 1991 and easyJet in 1995. The 2001 terrorist attacks have dramatically changed the structure of the UK airline industry: while British Airways maintained short-haul business fares and reduced capacity for leisure travelers, easyJet and Ryanair decreased their tariffs and built capacity (Mason, Alamdari, 2007). The other low-cost carriers from the continental Europe were rapidly following the same trend of high market growth. A study conducted by Credit Suisse First Boston revealed the fact that in 2004 the low-cost carriers accounted for 20% of European airlines' passengers, and 43% of the domestic UK market (Travel Weekly, 2004).

**Table 2: The Largest European Low-Cost Carriers in 2004, by share of the low-cost airlines' ASK**

Airline	% ASK
<b>Ryanair</b>	26
<b>easyJet</b>	24
<b>Air Berlin</b>	14
<b>Volare Airlines</b>	6
<b>bmiBaby</b>	4
<b>Germanwings</b>	4
<b>Hapag-Lloyd Express</b>	3
<b>Virgin Express</b>	3
<b>Flybe</b>	3
<b>Norwegian Air Shuttle</b>	3

Source: Adapted from Official Airlines Guide (2004), "OAG Report on European Low-Cost Carriers", <http://www.oag.com/graphics/lowcostcarriers.pdf>

In 2004, in a top 10 largest European low-cost carriers in terms of ASK, EasyJet and Ryanair were on the two first positions (see Table no. 2). At a short distance behind them there was Air Berlin that still operates a considerable number of charter/leisure flights, which are also included in the table. Moreover, in the same year (2004), Ryanair was the company that led the top of the global net profits. Recording a net profit of 334 million dollars, in 2004 Ryanair had 32% of the total net gains achieved by all low-cost carriers

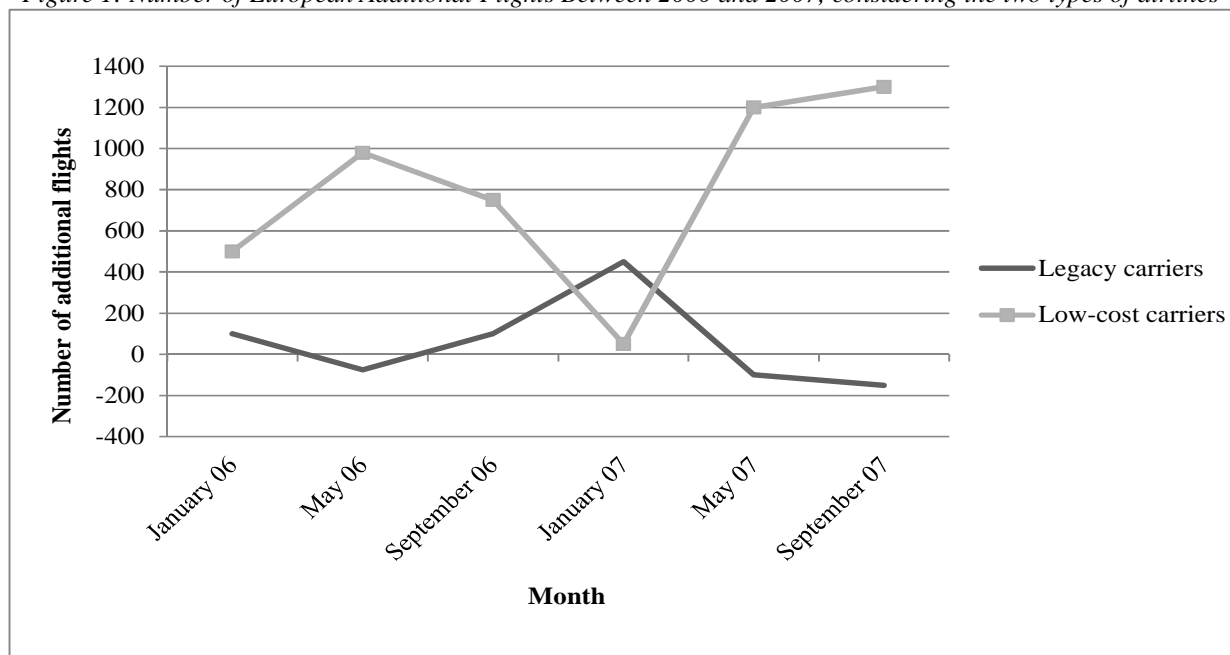
in that year (Air Transport World, 2005). Together with Southwest - which was on the second position, with a net profit of 313 million dollars -, in 2004, they were attaining 60% of the total net profit of the airlines' global market. In the same classification, easyJet occupied the fifth position, with 74.4 million USD.

The adhesion of the states from Central and Eastern Europe to the EU involved the correlation of their legislation to the Community one and the extension of the "open skies" agreement. Full membership of the single European aviation market has led to the proliferation of air services. Due to the fact that the agreement allows any airline from the EU to carry passengers and freight within the Community and to benefit, in each of these countries, of the same rights as those of the local companies, new low-cost routes were established, served not only by the existing operators but also by the new market entrants. Between 2004 and 2007, some new destinations of the low-cost companies were created in Austria, Bulgaria, Croatia, Slovenia, Slovakia, Poland, Romania, Hungary and Czech Republic (Reynolds-Feighan, 2007).

By the summer of 2004, the number of the low-cost carriers increased to 50, according to the European Low Fares Airline Association (Endres, 2004). However, except easyJet, Ryanair and Air Berlin, most of the low-cost airlines had low levels of profit. Companies such as Hapag-Lloyd Express, Norwegian, Sterling, Thomsonfly and Virgin Express were included among those low-cost carriers that were not operating profitably in 2004. This is why, at the end of 2007, a number of 45 low-cost operators were serving almost 3500 routes across Europe.

In Europe, the market share held in 2007 by the low-cost airlines reached a new record of 19.5% of all the flights, in the first half of the year registering a growth of 2.5% compared to the amount held in 2006, during the same period of time (Eurocontrol, 2007). Under these circumstances, the low-cost carriers were responsible for 69% of all the additional flights recorded (see Figure 1). But while in some countries the market share held by these companies increased with more than 5%, in other countries their share has declined.

Figure 1: Number of European Additional Flights Between 2000 and 2007, considering the two types of airlines



Source: Adapted from Eurocontrol (2007), „Low-Cost Carrier Market Update”,

[http://www.eurocontrol.be/statfor/gallery/content/public/analysis/LowCostMarketUpdateJun07\\_V01.pdf](http://www.eurocontrol.be/statfor/gallery/content/public/analysis/LowCostMarketUpdateJun07_V01.pdf), p. 7

### 10. The Evolution of the Airlines' Industry Between 2008 and 2010

By the end of 2007, the financial crisis that started in USA and rapidly extended all over the world, had significant impact on the national economies and, consequently, on the individuals' consumption decisions and, of course, on the evolution of both low-cost and traditional carriers. The value of the airlines' shares fell in 2008 and the managers were forced to take vital strategic decisions regarding the way in which to reshape their companies and adapt to current business climate. This time, the financial crisis has affected both legacy and low-cost carriers, although the negative influence on the last ones was smaller. Yet, a study conducted by Eurocontrol in 2010 shows that during 2008-2009 the European air traffic registered one of the biggest decline: there were 6% fewer flights in Europe in 2009 than in 2008 (Eurocontrol, 2010).

In order to cope with the unfavorable global situation, both legacy and low-cost carriers have implemented some strategic measures. For example, the largest airline in Scandinavia, SAS, in addition to the saving measures adopted in 2008 (about 540 million Euros), has launched in 2009 another 200 million Euros cost-cutting program. Moreover, at the end of 2008 the company was planning an additional saving of 50 million Euros from the personnel reduction and a diminishing of its capacity by 20% by taking a further 14 aircraft out of service (SAS, 2008).

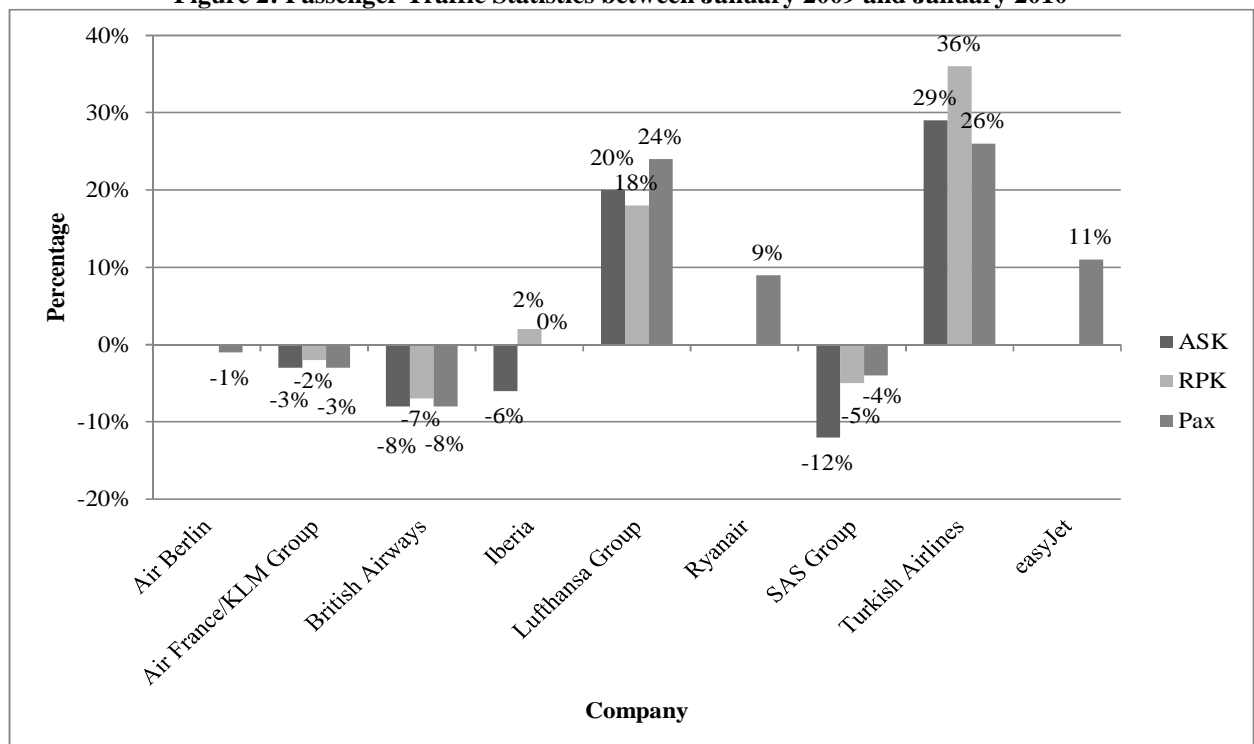
The London business airline CityJet replaced in the spring of 2010 its business offer with a new premium economy offer, entitled CityPlus, which has been designed to appeal to frequent business flyers that required value for money (CityJet, 2010).

In order to increase the market share, in February 2010 the shareholders of Olympic Air and Aegean Airlines agreed to create a merged airline, equally owned, under the name of Olympic Air. This decision was taken considering the fact that the two airlines were the largest Greek operators, according to the number of the carried passengers: Aegean Airlines carried 5978083 passengers in 2008, surpassing for the first time its rival Olympic Airlines, which had 5265729 passengers, and in 2009 the company was amounting 6600000 passengers (Aegean Air, 2010).

Although some airlines have implemented crisis measures during 2008-2010 in order to survive or increase the profit, there are still operators that could not face the global economic downturn and went bankrupt or ceased their operations. It is the case of Hola Airlines, a charter and ACMI airline based in Palma de Mallorca, which ceased its operations on 15 February 2010. Actually, the number of airlines in Spain has dramatically fallen between 2008 and 2010 (Airclass, Gadair, Girjet, Aircomet, LTE, Futura, Bravo Air, Lagun Air, Orionair, Pronair and Quantum Air), due to the difficult economic situation of the country. In France, Noor Airways was put into liquidation in February 2010, due to its financial difficulties.

A study conducted by Eurocontrol on both legacy and low-cost carriers shows the differences in passenger capacity (measured in Available Seats Kilometers - ASK), in traffic (measured in Revenue Passenger Kilometers - RPK) and in number of transported passengers, between January 2009 and January, for nine operators (see Figure no. 2).

**Figure 2: Passenger Traffic Statistics between January 2009 and January 2010**



Source: Adapted from Eurocontrol (2010), “Long Term Forecasts: Flight Movements 2010-2030”, <http://www.eurocontrol.int/statfor/gallery/content/public/forecasts/Doc415-LTF10-Report-Voll.pdf>, p. 4

As Figure no. 2 shows, according to the Eurocontrol’s study, among the airlines that have registered decreases in traffic and capacity, between January 2009 and January 2010, are British Airways, Air France (KLM Group) and SAS Group. Meanwhile, the German low-cost airline, Air Berlin, recorded a slight

decline in the number of the transported passengers (-1%). Yet, there were two companies that recorded increases in capacity, traffic and number of transported passengers: Lufthansa and Turkish Airlines. The data available for Ryanair and easyJet show that their number of transported passengers increased with 9% and, respectively, 11%. During 2009-2010, Iberia recorded a growth in traffic of 2%, but a significant decrease in capacity (-12%). Meanwhile, the number of the passengers transported by Iberia in 2010 was the same as in 2009. Considering the information given by this graphic, we may conclude that the nowadays economic and financial crisis, which started in 2007, has a stronger impact than the previous one, from 2001, even on the largest legacy carriers such as British Airways or Air France (KLM Group).

### **11. Future Possible Trends on the European Airlines' Market**

There are many studies that agree with the fact that, due to the difficulties the legacy carriers face in short-haul markets, these operators will increasingly focus on longer haul markets and use franchisee or small alliance partners to feed their long haul networks. A research conducted by Mason and Alamdari in 2007 underlines the fact that, because the legacy carriers will never be able to achieve the cost structures of the low-cost operators in their short-haul markets, the first ones will increasingly focus on long-haul markets where they can obtain sustainable profits. Moreover, according to them, the legacy carrier market in the EU will considerably consolidate until 2020, especially through mergers and acquisitions, which will be the results of some airlines' failures. Consequently, in about ten years, the competition will take place between maximum five dominant legacy carriers (Mason, Alamdari, 2007). Although this scenario is a little bit discouraging, it could be noticed that such a trend has already started, if we consider the mergers and acquisitions that took place up to now. Some of the most recent mergers and acquisitions are: Air France and KLM in 2004; Continental Airlines and United Airlines in 2010 – which have formed United, the world's largest legacy carrier according to the passengers' traffic; Delta Airlines and Northwest Airlines, between 2008 and 2010, forming the second world's large legacy carrier by passengers' traffic; British Airlines and Iberia have signed in 2010 a merger agreement; Air Jamaica acquired by Caribbean Airlines in 2010 and Air Train bought by Southwest Airlines in 2010.

Other researchers consider that, although mergers and acquisitions have become a viable option to drive integration even further, the global alliances may experience a renaissance in future (Franke, John, 2011). Partnerships and alliances will be an important factor that will favor the scale economies and, consequently, superior services at the same price. Moreover, while mergers and acquisitions' activities absorb not only cash, but also considerable management attention, the alliances give the opportunity to integrate the benefits at limited risk.

Yet, there are some voices that do not agree with the idea that most of the legacy carriers will face acquisitions, mergers or alliances that will lead to only maximum five large airlines, because they consider that the small and medium sized airlines will gain profits by focusing on the niche markets (Pompl, Schuckert, Möller, 2005).

Some other researchers argue that it will be necessary for the legacy carriers to make capacity adjustments. Actually, starting with 2008, many operators, especially from US, have already diminished the number of their planes, as a response to the financial constraints (Franke, John, 2011). Yet, while these adjustments were necessary to stabilize the business in the short run, in future it is possible to appear the need of reintroducing that capacity at very high cost.

Another important aspect considered by the specialists refers to the low-cost subsidiaries established by the legacy carriers. Although in the past some legacy airlines have created their low-cost divisions in order to compete with the low-cost carriers (for example Delta has established the low-cost operator Song in 2003, United Airlines launches its low-cost carrier, named Ted, in 2004, British Airways created Go in 1998 and KLM established Buzz in 1999), the general belief expressed by various researchers is that, in future, this trend will stop. Actually, the example given by Go and Buzz makes us believe that, indeed, the large legacy carriers will not rely very much on the low-cost subsidiaries (Go was sold to easyJet in 2002 and, next year, Buzz was bought by Ryanair). Yet, it is possible that the medium size legacy airlines adopt the low-cost business models since this will be the only way to ensure their survival.

While the low-cost sector is likely to gain a very significant share of the intra-EU market, not all the low-cost operators will prosper. Mason and Alamdari (2007) considered that, in 2015, more than half of intra-EU traffic would be carried by low-cost airlines but the number of these operators will be reduced only to two or three. As an argument for this view, they give the example of the US market where three carriers dominate the sector. From our point of view, the reduction in the number of the low-cost airlines is likely to happen in future, considering the financial results obtained by these operators in the last two years and the

acquisitions that took place among the low-cost carriers. Moreover, if we take into account some estimation, in 2030 the passengers will travel farther than they do now, the average distance per journey increasing with 5%-10% between 2016 and 2030 (Eurocontrol, 2010). The rising demand for long-haul will require bigger aircrafts, with increased seating capacity, thing that could happen only in the case of the large low-cost carriers.

A forecast made by Eurocontrol for 2010-2030 presents a positive trend of airlines' services in Europe. According to the survey, the number of the flights will increase, on average, with 1.6%-3.9% annually, but this augmentation will be stronger in Eastern Europe and faster for arrivals/departures to/from outside Europe than for intra-European flights. Moreover, while Turkey will be the largest generator of extra flights in Europe, Germany will have the biggest number of additional flights in its airspace. Due to the fact that the increased airline traffic in Europe will require bigger airports, it is estimated that, in 2030, 13 to 34 airports will handle more than 150000 departures per year, traffic currently achieved only at seven airports in Europe (Eurocontrol, 2010).

## 12. Conclusions

The events of September 2001 had significant impact on many key airlines' markets, especially in the North America. Many traditional operators faced with important profit loss, some of them being on the verge of bankruptcy. Meanwhile, the large low-cost carriers, especially from Europe, did not seem very affected by the economic downturn. Moreover, they took advantage of the unfavorable global situation by offering more services at lower prices.

Full membership of the single European aviation market has led to the proliferation of the air services, generating an increase in the number of the low-cost carriers.

By the end of 2007, the economic and financial crisis that started in USA and rapidly extended all over the world, has influenced this time both the legacy and the low-cost operators. Even if some airlines have implemented crisis measures during 2008-2010, in order to survive or increase the profit, there are still operators, especially low-cost, that could not face the global economic downturn and went bankrupt or ceased their activities.

In future, it is possible that the legacy carriers, due to the difficulties they face in short-haul markets, direct towards the longer haul markets and use franchisee or small alliance partners to feed their long haul networks. Although in the past some legacy airlines have created their low-cost subsidiaries in order to compete with the low-cost carriers, in future this trend may stop.

While the low-cost sector is likely to gain a very significant share of the intra-EU market, not all the low-cost carriers will prosper. According to the estimations, the number of these airlines will be reduced only to two or three. Yet, it seems that the global number of the flights, operated by both low-cost and legacy carriers, will increase, this augmentation being stronger in Eastern Europe.

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## DEMOGRAPHIC FACTORS' IMPACT ON ROMANIAN SUSTAINABLE ECONOMIC DEVELOPMENT IN THE CRISIS CONTEXT

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**Abstract:** *The paper investigates how aging can influence social and economic development potential of a country. After a short presentation of the official forecasts for Romania until 2060, the paper deals with the theoretical approaches related to the effects of demographic trends on global economic performances, followed by the statistical and econometrical analysis of the labour market structure in Romania compared to other European countries. A final part discusses research outcomes and conclusions.*

**Key words:** aging, labour market, employment structure, sustainable development

**JEL classification:** J11, J21, O16

### 1. Introduction

According to the projections made by international and national institutions, in addition to financial and economic crisis that our country is currently experiencing, in the coming decades Romania will face a severe demographic crisis.

This will affect the endogenous potential for growth not only by reducing the size of one of the main factors of production, labour force, but also by deteriorating its quality and increasing social spending at the expense of investment.

EUROSTAT projections (EUROPOP2008, convergence scenario) bring back into attention the powerful negative impact exerted by the population aging on the public finances (pensions, health insurances and long term care), employment, productivity, economical growth and other areas on long term. Life expectancy is supposed to rise, and the "baby boom" generation is going to decrease.

Regarding Romania, the downward trend of recent years is going to be maintained for the next period. If in 2008 the population number was 21.5 million people, decreasing by 4.4% compared to 2000, in 2060 it is projected to reach 16.9 million, by almost 20% less than the number recorded in 2008.

Even if the hypothesis of a population of 16.7 millions inhabitants in 2060 will not be realised, being one of the most pessimistic, Romania is going to be affected by a strong *aging process*.

First of all, this phenomenon is supported primarily by the *population age structure*, characterised by the increase of the elderly (population over 65 years) and the decrease of young people share (population under 15 years) in the total population.

Thus, in Romania, the old dependency rate is going to record an accelerated growth, being estimated to overcome the EU average in 2045 and reach a value of 65.27% in 2060.

In these conditions it is expected that the economic effects of the projected demographic trends to be very strong, and a long term sustainable development to be questioned. The main cause is represented by the decrease of the number of population capable to work and, consequently of the activity ratio, this fact having a direct effect on reducing the output creation and slowing down the economic growth process.

### 2. The effects of demographic trends on global economic performances

The negative demographic trends of recent years and those planned for the coming decades will affect the overall performance of the European Union economies in a very complex manner.

In the study entitled *The economic impact of ageing populations in the EU25 Member States* (Carone and Costello, 2005) the authors identify two types of effects and many channels through which these effects can be propagated in the economy: direct effects (demographic aging affects the quality of labour supply capital / labour ratio and technical progress) and indirect effects (effects on budgets and through them on the whole economy).



First of all, aging affects the level of labour supply, given that the working age population is going to decrease as a consequence of two factors: the growing number of older people and decreasing number of young people who are supposed to replace it.

Then, one of the medium and long term effects on the economy may be the change of its sectoral structure due to changes in the composition of consumption and domestic demand (Börsch-Supan 2003). A consequence of these shifts across economic sectors will be the increase of the mismatches between the skills required by the labour market and those held by the available work force (Carone and Costello, 2005).

De la Fuente and Cicone (2002) have pointed out that productivity and capacity of economies to adopt new technology are enhanced by the skills that individuals possess.

However, aging adversely affects a country's overall economic performance due to deteriorating the quality of human resources, which reduces labour productivity. In this respect, Thießen (2007) demonstrates that aging contributes to the increase in some economic sectors, but these are mainly characterized by low productivity growth.

Skirbekk (2003) has shown that labour productivity related to age tends to follow a reverted U-shape, a strong decrease occurring in the case of persons over 50 years. In the short term this effect may be offset by increasing the education of the workforce, at least theoretically young people having a higher education level compared to the old one whom they are supposed to replace at a certain moment.

From this perspective, Rodriguez-Pose and Fratesi (2004) have proved that economic returns of investments in education are in many cases (e.g. peripheral regions) much more important than investments in areas such as infrastructure and business environment.

Also, the reduction of labour resources will increase the capital labour ratio, which will result in both labour productivity and output per capita growth (Carone and Costello, 2005).

However, aging may adversely affect the medium and long term economic performance through its effect on total factor productivity and innovation. It is expected that older people become less adaptable to changes and more difficult to involve in training activities, which could affect the process of innovation and adaptation to new technologies (Barth et al. 1993).

To these direct effects of aging on the competitiveness of an economy the indirect but not less important ones are also added. As is already visible in most European countries, expenditure on pensions and health insurance continue to rise, fact which directly affects the policy of budgetary allocations being neglected, for example, the investments.

High social contributions which are paid by the employed people have effects not only on the labour supply but also on the entire economic activity, by increasing the share of underground economy (for example, "illicit work").

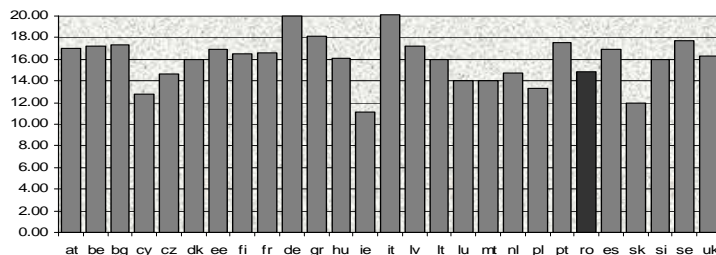
Regarding labour force demand, it is directly affected by high social security contributions that companies must pay, fact which has a direct impact on the role of small and medium enterprises to grow and create new jobs.

Also, in countries like Romania, the social contributions paid by employees are very high and the aging of the population, already visible not only led to the need for measures to increase the retirement age, but also to apply health contributions to the pensions.

### **3. Aging and structural changes in the Romanian economy compared to other European countries**

In 2008 and 2009 at the European Union level countries most affected by ageing were Italy, Germany and Greece with a proportion of elderly (population ages 65 and above) that exceeded 18%. Among these countries, Germany recorded the strongest growth rate of 23.7% in 2009 compared to 2000 (Figure 1).

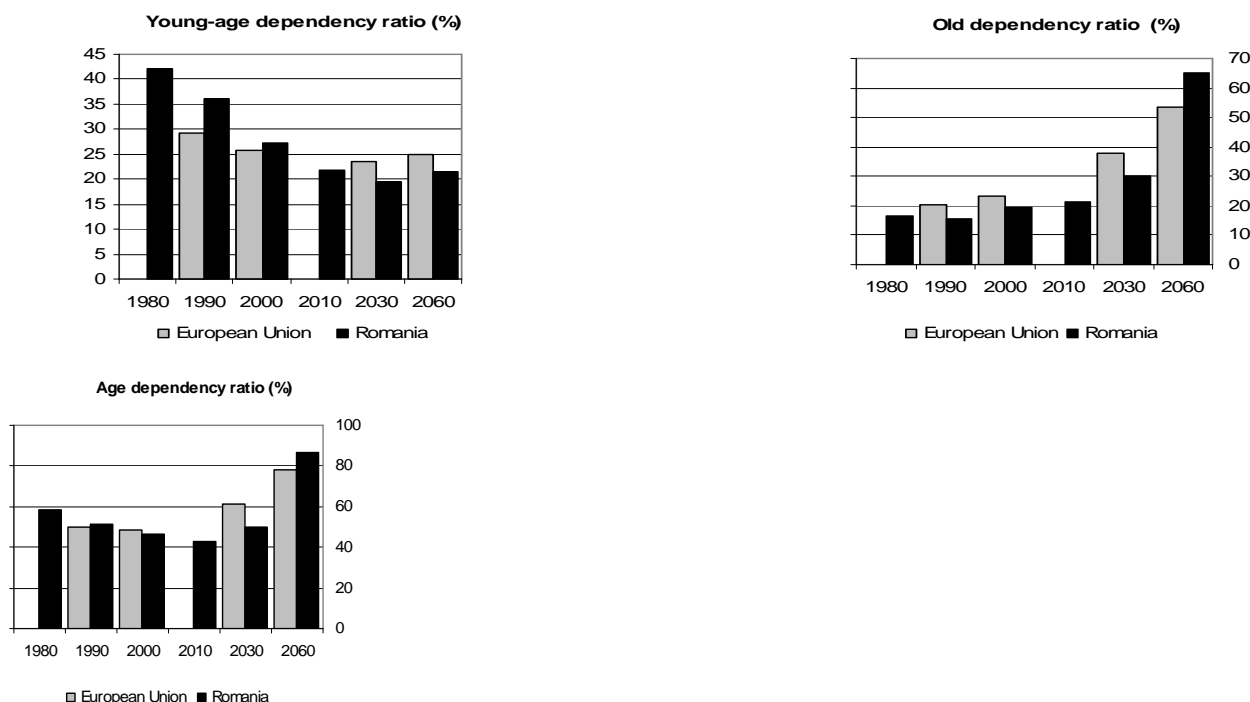
**Figure 1. Population ages 65 and above (% of total) in 2008 EU-27**



Source: World Bank, World Development Indicators

In Romania the share of elderly is about 15%, not very large compared to the countries already mentioned. However the forecast for the next years shows that this indicator will increase to 20% in 2030 and will exceed the European average in 2060, reaching 30% (EUROPOP2008, convergence scenario).

Figure 2. Age dependency ratio (Romania versus EU-27 1980-2060)



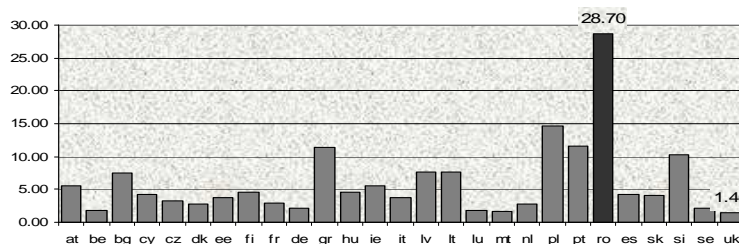
Source: EUROSTAT, Population and social conditions

It is worth noting that if Romania's demographic policy will not change, in 2060 demographic dependency ratio will reach around 85% and the old dependency ratio 65%, both higher than the European average (Figure 2).

As it has been previously presented, one of the direct effects of aging on the economic activity is going to be the change of the demand structure for goods and services fact which is going to have a significant influence on this market, but also on labour and capital markets (Börsch-Supan 2003).

In 2008, European countries were very different in terms of employment structure on the three main branches: agriculture, industry and services.

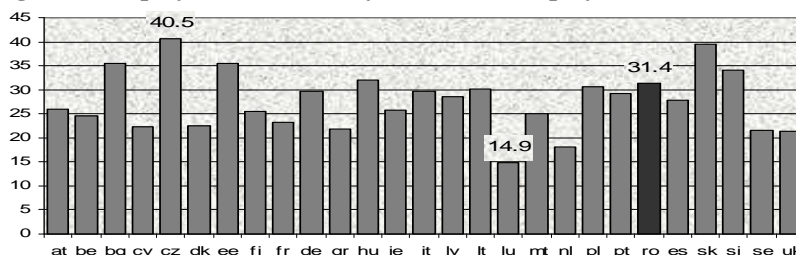
Figure 3. Employment in agriculture (% of total employment) EU-27 2008



Source: World Bank, World Development Indicators

Thus, the difference between Romania, a country with the largest share of employment in agriculture, and the United Kingdom with the lowest, was very large, of 27.3 percentage points (Figure 3).

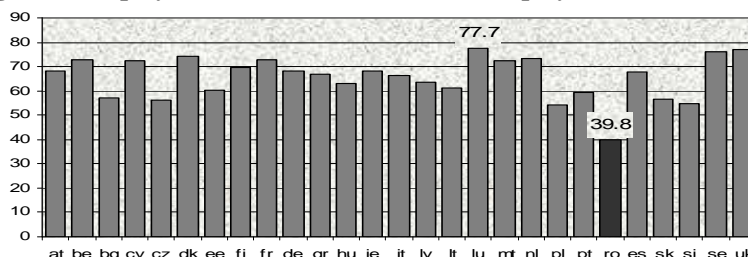
**Figure 4. Employment in industry (% of total employment) EU-27 2008**



Source: World Bank, World Development Indicators

Luxembourg had the lowest percentage of population employed in industry at a distance of 25.6 percentage points from the Czech Republic located in the first place, but at the same time the highest percentage of working force employed in services at a distance of 37.9 percentage points from Romania. An equally large difference exists between the two countries in terms of GDP per capita. In 2008, Romanian GDP per capita represented 5% of those registered in Luxembourg (Figure 4, 5).

**Figure 5. Employment in services (% of total employment) EU-27 2008**



Source: World Bank, World Development Indicators

The analysis of these indicators' evolution (the share of older people and employment structure) lead to a normal conclusion that for most of the countries there is a direct relationship between aging and employment in services and an inverse one between aging and employment in agriculture.

In this respect, in the paper entitled *Aging and Structural Change* (ThieBen, 2007) using a regression function with panel data the author analyses the impact of aging on the structure of the economy.

The results sustain the idea according to which aging will accelerate de relative decline of some sectors as agriculture and extractive industry, the increase of the financial sector, real estate and that of social services and entertainment, and also will slow down the decline of manufacturing industry.

The most interesting result of the research is the fact that aging will sustain the increase of the sectors with quite low productivity that will affect on long term the economic growth process.

For Romania, the situation is more difficult. Thus, a simple analyse proves the fact that in order to maintain the same standard of living recorded in 2009 for the 19676.4 thousand persons that will represent the population of Romania in 2060 (GDP/capita of 2607 USD), the productivity of the 11083.4 thousand persons at the working age should be by 28% higher (this in order to obtain the production realised by the 15478 thousand persons at the working age in 2009).

But, if we intend to reach the level of the developed countries, the productivity should rise more than that.

**4. What can we learn from European countries' experience?**

For Romania the impact of aging process overlap other structural vulnerabilities: deficient economic structure, low productivity and consequently low living standards (Table 1).

**Table 1: Key economic indicators for Romania versus EU-27 (2000-2009)**

G EO	RO	RO	EU27	RO	EU27
Y ears	GDP EU2	Real labour productivity (Euro per		GDP growth (annual %)	

	7=100 (%)	hour worked)			
2000	26	2	25.6	2.1	3.9
2001	28	2.2	26	5.7	2.0
2002	29	2.5	26.4	5.1	1.3
2003	31	2.7	26.8	5.2	1.3
2004	34	3	27.3	8.4	2.5
2005	35	3.1	27.6	4.2	2.0
2006	38	3.3	28.1	7.9	3.2
2007	42	3.5	28.4	6.0	2.9
2008	47	3.8	28.3	9.4	0.6
2009	46	3.5	28.0	-8.5	-4.3

Source: World Bank, World Development Indicators, EUROSTAT, National Accounts

In these circumstances it is useful to know how Romanian labour market structure should look like i.e. more similar to European model, in order to be able to ensure its sustainable economic growth and to reduce disparities against the other EU countries.

Thus, three regression models can be constructed using data from Databank - World Bank for the 27 EU countries and 19 years (1990-2008):

$$agr_{it} = \alpha + \beta_1 gdp_{it} + \beta_2 (gdp)_{it}^2 + \gamma X_{it} + \varepsilon_{it} \quad (1)$$

$$ind_{it} = \alpha + \beta_1 gdp_{it} + \beta_2 (gdp)_{it}^2 + \gamma X_{it} + \varepsilon_{it} \quad (2)$$

$$serv_{it} = \alpha + \beta_1 gdp_{it} + \beta_2 (gdp)_{it}^2 + \gamma X_{it} + \varepsilon_{it} \quad (3)$$

Where *AGR* represents employment in agriculture, *IND* employment in industry, *SERV* employment in services (% of total employment), *GDP* (gross domestic product per capita at constant 2000 US\$) and  $X_{it}$  includes five control variables denoted by *POP* number of population, *AGE* population ages 65 and above (% of total population), *EDU* school enrolment, tertiary (% gross), *RES* agricultural, ores, metal and fuel exports (% of merchandise exports), *INV* gross fixed capital formation (% of GDP).

According to model 1 (Annexe 1) built with panel data and all coefficients constant across time and individuals, the Romanian employment structure should be much different from the current one in order to follow the European model: employment in agriculture should not exceed 13%, employment in industry to be around 40% and in services to be involved at least around 50% of the workforce (Table 2).

**Table 2. Employment structure by braches (real and from regression)**

Years	Employment in agriculture (%)		Employment in industry (%)		Employment in services (%)	
	Real	Regression	Real	Regression	Real	Regression
2000	4	21	26	31	3	47
2001	4	20	26	33	3	47
2002	3	19	30	33	3	47
2003	3	19	30	34	3	47
2004	3	19	31	34	3	48
2005	3	18	30	33	3	48

005	2				8	
2	3				3	
006	1	18	31	33	9	49
2	3				3	
007	0	15	31	37	9	49
2	2				4	
008	9	13	31	37	0	49

Source: World Bank, World Development Indicators and author's calculations

This simulated labour market structure has the advantage to reflect in a much better way how economic sectors contribute to gross value added creation.

As expected, the results of the second model, a fixed effects regression (Annexe 1), reveal that for the 27 Member States in European Union aging leads to a decline in primary sector and the industrial one, but determines the advance of the tertiary sector.

The third regression model with fixed effects proves that the increase in population education level will lead to the increase of employment in services while for agriculture and industry the effect will be reversed.

### Conclusions

The recent financial and economic crisis question the past Romanian model of economic growth, with the need for adjustments aimed at increasing domestic savings, reduce dependence on external financing and stimulating economic growth based mainly on the exploitation of endogenous human and material resources.

In addition to financial and economic crisis that our country is currently experiencing, in the coming decades Romania will face a severe demographic crisis. This will make the human resource diminishes, and along with aging workforce quality to decline.

Aging will affect not only the national budget through increased social spending but also the economic structure by reducing employment in primary sector and increasing employment in industry and services.

These changes will have multiple effects. One of them will be the need to adapt labour force qualifications to the requirements of the new created jobs.

In these circumstances, it is expected that the economic effects of the future demographic trends to be very sharp and sustainable economic growth slowed down. A possible solution to these problems is to increase the quality of the workforce through education and appropriate skills and use it efficiently.

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**Annexe 1. The results of the regression model with panel data for the primary, secondary and tertiary sector**

Indepe nd. Varia bles	Agriculture			
	Model	1	2	3
<b>Const</b>		29.47	35.2	26.7
		5	72	51
		14.25	22.3	18.7
		2***	38***	60***
<b>GDP</b>		-	-	-
		0.001	0.001	0.001
		-	-	-
		13.931***	7.246***	6.068***
<sup>2</sup> <b>(GDP)</b>		0.000	0.00	0.00
		0	0	0
		8.482	5.67	6.04
		***	8***	4***
<b>POP</b>		0.000		
		0.897	-	-
<b>AGE</b>			-	
			0.754	
		-	5.944***	-
<b>EDU</b>				-
				0.066
		-	-	5.502***
<b>RES</b>		0.149	-	-
		3.470	0.067	0.079
		***	1.985**	2.288**
<b>INV</b>		-	-	-
		0.512	0.185	0.152
		-	-	-
		7.179***	4.915***	3.942**
<b>F- statistic</b>		100.8	232.	222.
		11	515	584
<b>R<sup>2</sup></b>		0.531	0.94	0.94
			5	8
<b>Obser.</b>		452	452	414
<b>Indepe nd. Variables</b>	<b>Industry</b>			

Model	1	2	3
<b>Const</b>			26.7
<b>ant</b>	28.529	35.272	51
	22.354*	22.338	18.7
	**	***	60***
<b>GDP</b>	-0.001		000
	-	0.000	1.73
	9.712***	0.862	8*
<b>(GDP)</b>			-
<sup>2</sup>		-0.000	0.000
	0.000	-	-
	2.383**	4.561***	3.490***
<b>POP</b>	0.000		
	4.904**		
	*	-	-
<b>AGE</b>		-1.190	
		-	
	-	12.238***	-
<b>EDU</b>			-
			0.086
			-
	-	-	8.571***
<b>RES</b>			-
	-0.317		0.007
	-	0.009	-
	11.990***	0.363	0.245
<b>INV</b>			0.21
	0.453	0.248	0
	10.293*	8.606*	6.45
	**	**	9***
<b>F-statistic</b>	143.635	181.72	140.
		4	752
<b>R<sup>2</sup></b>	0.617	0.931	0.91
			9
<b>Obser.</b>	452	452	414

Independent Variables	Services		
	1	2	3
<b>Model</b>			
<b>Const</b>	41.57	20.8	45.1
<b>nt</b>	2	09	59
	19.23	12.4	28.3
	1***	32***	48***
<b>GDP</b>		0.00	0.00
	0.002	1	1
	19.24	6.12	3.54
	3***	5***	9***
<b>(GDP)<sup>2</sup></b>			
	-	-	-
	0.000	0.000	0.000
	-	-	-
	10.548***	2.194***	2.420***
<b>POP</b>			
	0.000		
	-		
	3.138***	-	-
<b>AGE</b>		1.95	
		8	
		14.5	
	-	69***	-
<b>EDU</b>			0.16
	-	-	

			1 12.0 32***
<b>RES</b>	0.166 3.705 ***	0.06 1 1.68 4*	0.09 0 0.31 43
<b>INV</b>	0.066 0.887	- 0.056 - 1.407	- 0.046 - 1.077
<b>F- statistic</b>	179.3 24	324. 563	278. 900
<b>R<sup>2</sup></b>	0.668	0.96 0	0.95 8
<b>Observ ations</b>	452	452	414



## CORRELATION OF DEMAND AND SUPPLY SHOCKS BETWEEN ROMANIA AND EURO AREA

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**Abstract.** *The objective of this study is to identify the degree of correlation between economic shocks affecting Romania and the euro area, applying the methodologies used in economic literature. These methods suppose the decomposition of shocks affecting output and inflation in aggregate demand and aggregate supply shocks. Applying a SVAR model to identify the aggregate supply and demand shocks, we have estimated a weak correlation between Romania and the euro area, which shows significant differences between the macroeconomic policies and economic structures of the two economies.*

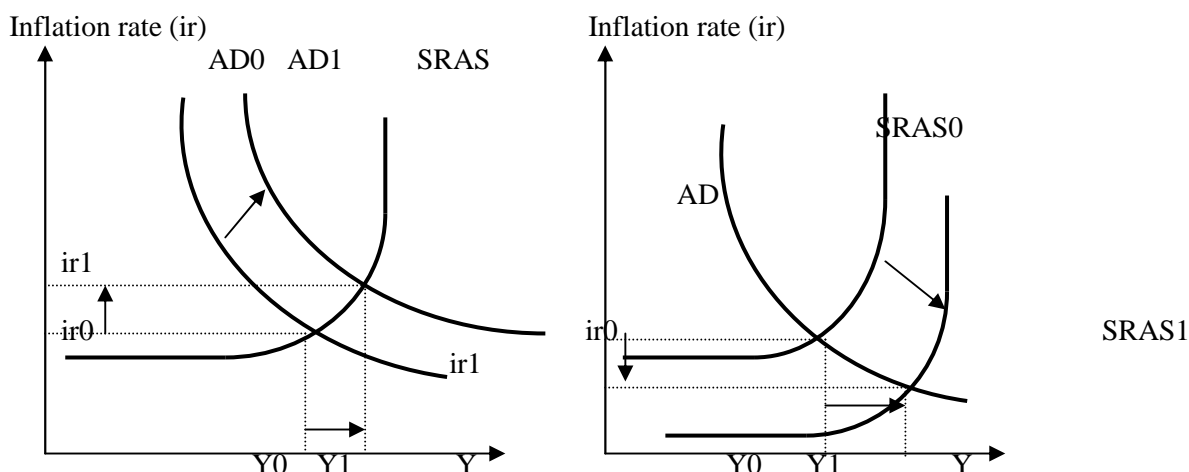
**Key words:** demand shocks; supply shocks; SVAR model; impulse-response function

**JEL classification:** E32; E37

### 14. The theoretical background of the supply and demand shocks

Adoption of the euro currency by Romania involves abandonment of two instruments that could be used to neutralize the shocks affecting the economy. These shocks will become more rather asymmetric because there are significant divergences between the economic structures of Romania and the euro area and between their models of development. Decomposition of supply and demand shocks involves using a structural VAR type, whose restrictions are inspired by traditional economic model of aggregate demand and aggregate supply. Rising inflation leads to a reduction in real GDP as a result of the event called wealth effect, the interest rate change and change in net exports. The increasing form of the short-run aggregate supply can be explained by the law of marginal returns, saying that as production increases, unit cost decreases first, then inevitably begin to rise. Demand and aggregate supply shocks are interpreted according to the deviations from short-run macroeconomic equilibrium, respectively from long-run equilibrium. In the short run, growth in aggregate demand causes an increase both of the production and of the inflation rate, so that there will be a direct relationship between these variables. (figure 1). Demand shocks can be generated by macroeconomic policies adopted, the change in external demand, the change in consumer preferences or economic actions depending on the degree of confidence in economic change.

The growth of short-run aggregate supply increases domestic production and decreases inflation rate, so there is an inverse relationship between these variables (figure 2). In the long term, aggregate demand and supply shocks will be analyzed with reference to long-run macroeconomic equilibrium. If an economy which produces at level of potential GDP registers a positive shock to aggregate demand, then it will generate a both increase of inflation rate and of domestic production. However, the economy will register an increase of the price of resources, because it is an inflationary gap, which will generate a rise of production costs and a supply decrease to level of potential GDP. Therefore, there will be no long term than a price increase, while production levels unchanged. Therefore, in the long term there will be only a price increase, while the level of production remains unchanged.

**Figures 1 and 2: Short-run effects of the positive demand and supply shocks**

### 15. The main results in the literature

The most used methodology for decomposition of shock is that of Blanchard and Quah (1989), was further developed by Bayoumi and Eichengreen (1992). It aims at identifying the aggregate demand and aggregate supply shocks from economic shocks that influence the inflation rate and production. To estimate the aggregate supply and demand shocks, Blanchard and Quah have used gross national product and the unemployment rate, the first variable being expressed as first difference in logarithm, to become stationary data series. Bayoumi and Eichengreen have used as variables the first difference of the real GDP expressed as logarithm and first difference of inflation rate expressed by change of GDP deflator. Econometric methodology used involves in a first stage the expression of the two variables in the function of the errors of estimation as an infinite moving average. In the second stage, they created a structural VAR to isolate the aggregate supply and demand shocks from the residuals of the two previous models.

As well, the methodology was used to estimate the impact of expanding the monetary union with countries from Central and Eastern Europe. Using data for ten emergent economies and for euro area economies, Fidrmuc and Korhonen (2001) estimated that Hungary, Latvia and Estonia registered a high correlation with the EMU on the supply side shocks during 1994-2000 years. For others, the estimated correlation was close to zero, suggesting a reduced structural convergence of these countries with the EMU. Correlation of demand-side shocks is generally lower than the supply side, this situation reflecting the macroeconomic differences between these countries. Latvia and Lithuania were the less correlated aggregate demand-side countries, the latter also registering the lowest correlation of the supply side shocks. Horvath and Ratfai (2004) examined the correlation between demand and supply shocks between the Baltic countries and the Visegrad group, on the one hand, and Germany as a reference. In this case, Hungary is characterized by the highest correlation of aggregate supply shocks and the lowest correlation to the aggregate demand side.

Taking into account the different data sets for the EMU countries (1990-1995) and CEE countries (1996-2001) to show comparable situations in terms of period up to euro area accession, Weimann (2002) estimated that Bulgaria, Czech Republic, and Hungary have registered the strongest correlations of shocks on the demand side with the euro area. Also he explained that the openness of the economy has a significant positive influence on the correlation with the supply shocks, being a positive relationship between openness and geographic location of each country. Frenkel and Nickel (2002) found that there are significant disparities between the nature, intensity and ability to adjust the shocks of the CEE countries and the euro area, but for some new member countries are a strong correlation with monetary union countries. According Babetski (2003), lower correlation of demand and supply shocks with monetary union economies should not be a risk factor because the situation might improve in the euro area. Adapting the hypothesis of the optimal currency areas endogeneity, the economist pointed out that adopting the euro for some new members would lead to intra-industry trade increase and to higher demand shocks correlation.

Applying the methodology of Bayoumi and Eichengreen, Arfa (2009) has calculated the correlation between euro area shocks and those of the different acceding countries. He found that several new member countries of the European Union have a quite high correlation of demand shocks with the euro area however

supply shocks are asymmetric. The correlation between euro area and Central and East European countries is negative. Therefore, it can be concluded that joining the European Monetary Union is not yet possible: Central and East European countries have to make structural changes to join the European Monetary Union.

**16. Short presentation of the shocks decomposition methodology**

VAR type models allow the simultaneous analysis of exogenous and endogenous variables and the identification of a variable response to a shock. It is part of a variable that can not be explained by its past values or other variables included in the model. Thus, the term appears as a shock error (residual) from a certain stochastic equation. A VAR-type model with two variables can be written in the following form, where each variable is influenced by current and lagged values of other variables and by its lagged values. The model described by equations (1) and (2) is structural one and the error terms are considered as structural shocks.

$$y_t = b_{10} - b_{12}z_t + c_{11}y_{t-1} + c_{12}z_{t-1} + \varepsilon_{yt} \tag{1}$$

$$u_t = b_{20} - b_{21}y_t + c_{21}y_{t-1} + c_{22}u_{t-1} + \varepsilon_{ut} \tag{2}$$

where variables  $y_t$  și  $u_t$  are stationary,  $\varepsilon_{yt}$  și  $\varepsilon_{ut}$  represents the errors with standard deviations  $\sigma_y$  și  $\sigma_u$ , which are not correlated  $\text{COV}(\varepsilon_y, \varepsilon_u) = 0$ .

Blanchard and Quah directly associated structural shocks  $\varepsilon_{1t}$  and  $\varepsilon_{2t}$  with  $y_t$  și  $u_t$  variables, as a bivariate moving average. In the model estimated by these economists,  $y_t$  is the logarithm of real GDP and  $u_t$  is the unemployment rate. Since the first variable was not stationary, they resorted to writing them as the first difference:  $\Delta y_t = \log(\text{real GDP}_t) - \log(\text{real GDP}_{t-1})$ . The shocks  $\varepsilon_{1t}$  și  $\varepsilon_{2t}$  represents the aggregate demand shocks, respectively supply aggregate shocks, which influences the two variables.

The vector composed by the two endogenous variables will be written as an infinite moving average vector of structural shocks, including demand and supply shocks:

$$X_t = C_0\varepsilon_t + C_1\varepsilon_{t-1} + \dots + C_n\varepsilon_{t-n} = \sum_{n=0}^{\infty} L^n C_n \varepsilon_t \tag{3}$$

where,  $X_t = \begin{bmatrix} \Delta y_t \\ u_t \end{bmatrix}$ ;  $\varepsilon_t = \begin{bmatrix} \varepsilon_{1t} \\ \varepsilon_{2t} \end{bmatrix}$  and L is a lag operator;  $L^0\varepsilon_t = \varepsilon_t$ ;  $L^1\varepsilon_t = \varepsilon_{t-1}$ ;  $L^2\varepsilon_t = \varepsilon_{t-2}$ ....

The  $C_n$  matrixes are impulse-response functions, which propagate the effects of structural shocks on the variables (elements of the vector  $X_t$ ). These can be written in the form of a moving average of the two types of shocks, as follows:

$$\Delta y_t = \sum_{k=0}^{\infty} c_{11(k)}\varepsilon_{1t-k} + \sum_{k=0}^{\infty} c_{12(k)}\varepsilon_{2t-k} \tag{4}$$

$$u_t = \sum_{k=0}^{\infty} c_{21(k)}\varepsilon_{1t-k} + \sum_{k=0}^{\infty} c_{22(k)}\varepsilon_{2t-k} \tag{5}$$

Into compact form, the equations (4) and (5), can be written as:

$$\begin{bmatrix} \Delta y_t \\ u_t \end{bmatrix} = \begin{bmatrix} C_{11}(L) & C_{12}(L) \\ C_{21}(L) & C_{22}(L) \end{bmatrix} \begin{bmatrix} \varepsilon_{1t} \\ \varepsilon_{2t} \end{bmatrix} = \sum_{k=0}^{\infty} L^k \begin{bmatrix} c_{11(k)} & c_{12(k)} \\ c_{21(k)} & c_{22(k)} \end{bmatrix} \begin{bmatrix} \varepsilon_{1t} \\ \varepsilon_{2t} \end{bmatrix} \tag{6}$$

where,  $C_{11}(L), \dots, C_{22}(L)$  represent polynomials written using the lag operator L, which correspond to individual coefficients  $c_{11(k)}, \dots, c_{22(k)}$ . For example,

$$C_{11}(3) = c_{11(0)}\varepsilon_t + c_{11(1)}\varepsilon_{t-1} + c_{11(2)}\varepsilon_{t-2} + c_{11(3)}\varepsilon_{t-3}$$

The variance and covariance matrix of shocks is written as in equation below:

$$\Sigma = \begin{bmatrix} \text{var}(\varepsilon_{1t}) & \text{cov ar}(\varepsilon_{1t}, \varepsilon_{2t}) \\ \text{cov ar}(\varepsilon_{1t}, \varepsilon_{2t}) & \text{var}(\varepsilon_{2t}) \end{bmatrix} \tag{7}$$

Blanchard and Quah assumed the normalization of shocks, so their variances are equal to 1. Also there is no correlation between shocks, resulting a covariance equal to 0. Therefore, the equation (7) will rewrite as follows:

$$\Sigma = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \tag{8}$$

If demand and supply shocks are not correlated between them, then it results that will have different causes, such as macroeconomic policies affect aggregate demand, while technology shocks affect the aggregate supply. In fact, factors as taxation applied to labour will have an influence on both aggregate demand and aggregate supply. Real GDP will decrease, but the evolution of the inflation rate will be dependent on how taxation changes aggregate supply relative to demand change.

Assuming that long-term demand-side shocks ( $\epsilon_{1t}$ ) exert an influence only on prices and not on production, then must be put the follow condition in the equation (4):  $\sum_{k=0}^{\infty} c_{11(k)} \epsilon_{1t-k} = 0$ .

As demand and aggregate supply shocks are not directly observable, they must be deducted from a VAR estimation of the two variables included in the vector given by equation (3).

$$\Delta y_t = \sum_{k=0}^{\infty} a_{11(k)} \Delta y_{t-k} + \sum_{k=0}^{\infty} a_{12(k)} u_{t-k} + e_{yt} \tag{9}$$

$$u_t = \sum_{k=0}^{\infty} a_{21(k)} \Delta y_{t-k} + \sum_{k=0}^{\infty} a_{22(k)} u_{t-k} + e_{ut} \tag{10}$$

The VAR model can be rewrite:

$$\begin{bmatrix} \Delta y_t \\ u_t \end{bmatrix} = \begin{bmatrix} A_{11}(L) & A_{12}(L) \\ A_{21}(L) & A_{22}(L) \end{bmatrix} \begin{bmatrix} \Delta y_{t-1} \\ u_{t-1} \end{bmatrix} + \begin{bmatrix} e_{yt} \\ e_{ut} \end{bmatrix} = \sum_{k=0}^{\infty} L^k \begin{bmatrix} a_{11(k)} & a_{12(k)} \\ a_{21(k)} & a_{22(k)} \end{bmatrix} \begin{bmatrix} \Delta y_{t-1} \\ u_{t-1} \end{bmatrix} + \begin{bmatrix} e_{yt} \\ e_{ut} \end{bmatrix} \tag{11}$$

Into compact form, the equations (11) can be written as:

$$X_t = A(L)X_{t-1} + e_t$$

The vector  $e_t$  can be interpreted as estimation error of the vector  $X_t$  and can be rewrite:

$$e_t = X_t - E_{t-1}X_t$$

It results that:  $e_{yt} = \Delta y_t - E_{t-1}\Delta y_t$  și  $e_{ut} = u_t - E_{t-1}u_t$ .

On the basis of equations (4) și (5), it results that:

$$e_{yt} = \sum_{k=0}^{\infty} c_{11(k)} \epsilon_{1t-k} + \sum_{k=0}^{\infty} c_{12(k)} \epsilon_{2t-k} - E_{t-1} \left( \sum_{k=0}^{\infty} c_{11(k)} \epsilon_{1t-k} + \sum_{k=0}^{\infty} c_{12(k)} \epsilon_{2t-k} \right)$$

$$e_{ut} = \sum_{k=0}^{\infty} c_{21(k)} \epsilon_{1t-k} + \sum_{k=0}^{\infty} c_{22(k)} \epsilon_{2t-k} - E_{t-1} \left( \sum_{k=0}^{\infty} c_{21(k)} \epsilon_{1t-k} + \sum_{k=0}^{\infty} c_{22(k)} \epsilon_{2t-k} \right)$$

$$e_{yt} = c_{11(0)} \epsilon_{1t} + c_{12(0)} \epsilon_{2t} \tag{12}$$

$$e_{ut} = c_{21(0)} \epsilon_{1t} + c_{22(0)} \epsilon_{2t} \tag{13}$$

Above equations link VAR model residuals and structural shocks of demand and aggregate supply, which can be written in vector form:

$$\begin{bmatrix} e_{yt} \\ e_{ut} \end{bmatrix} = \begin{bmatrix} c_{11(0)} & c_{12(0)} \\ c_{21(0)} & c_{22(0)} \end{bmatrix} \begin{bmatrix} \epsilon_{1t} \\ \epsilon_{2t} \end{bmatrix} \tag{14}$$

If we know the coefficients  $c_{11(0)} \dots c_{22(0)}$ , then can we find the structural shocks from residuals  $e_{yt}, e_{ut}$ .

### 17. Applying the methodology for Romania and the euro area

To estimate the SVAR model for each of the two economies, we have used econometric package Eviews 6. The variables used were quarterly data series GDP and inflation rate between 1998:1 and 2010:3. Real GDP is expressed as indices with base year 2000, and inflation rate is the percentage change of GDP deflator. Source of the 51 observations was Eurostat. Before to estimate the each SVAR model, must be eliminated the seasonal component of variables. Thus, according to figure 3, the seasonal fluctuations recorded Romania's GDP, production in quarters 3 and 4 are approximately 50% higher compared with the first two quarters. In comparison, the euro area GDP quarterly fluctuations recorded much lower contribution of each quarter to obtain the GDP is approximately equal.

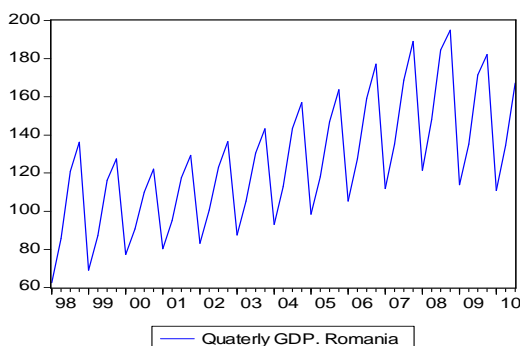
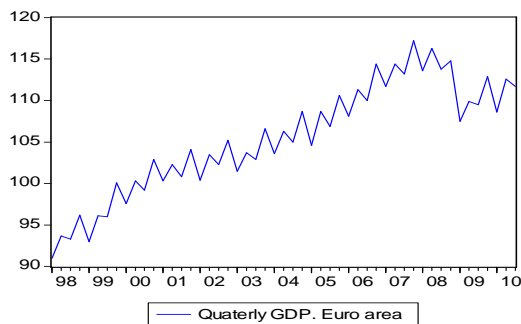


Figure 3: The evolutions of the qaterly real GDP in Romania and euro area



Source of data: Eurostat (2011)

To remove the influence of seasonality on macroeconomic variables, we have used the procedure TRAMO Seats. Realizing the correlation between stationary data series of real GDP and inflation rate for Romania and euro area, it results the lack of correlation until 2008 year and a weak correlation (in the case of real GDP) if one takes into account the entire period (Table 1). It follows that economic recession which affected the economies, caused a positive relationship between inflation rates (0.09) and a higher positive correlation between economic growth rates.

**Table 1: The coefficients of correlation between Romania and euro area**

correlation between...	1998-2008	1998-2010
real output growth	0.03	0.40
inflation rate	-0.22	0.09

Source of data: Eurostat (2011); our estimations in Eviews 6.

Both variables which we have included in the VAR analysis, real GDP and GDP deflator, are suspected to have a unit root. To validate this assumption, we have used the common Unit Root tests Augmented Dickey Fuller (ADF). For all the series expressed in logarithm, we found that these have a unit root and the null hypothesis of the unit root tests cannot be ruled out. However, the first difference of each variable does not have a unit root and it is stationary as the null hypothesis of the test can be ruled out. The results of ADF stationarity test are shown in Table 2, in which we included the probabilities to have a unit root. Thus, if the probability is less than the 1%, then is refuted the null hypothesis, ie, the two variables have not a unit root at first level of integration. Thus, I can conclude that the variables are I(1). Therefore, we have differenced these variables and introduce the first difference in logarithms in the VAR analysis.

**Table 2: Applying the ADF test of stationarity**

	Real GDP growth		Inflation rate	
	I(0)	I(1)	I(0)	I(1)
	H0: there is an unit root (lack of stationarity)			
<b>Romania</b>	0,8544	0,0072	0,5854	0,0000
<b>Euro area</b>	0,5386	0,0005	0,4605	0,0000

Source of data: Eurostat (2011); our estimations in Eviews 6.

Since the economic growth and inflation rate variables expressed as first difference are stationary, we can build a VAR model type for each of the two economies. For a valid VAR model, it must satisfy the conditions of better representation (choosing the optimal number of lags), its stability (roots lower than unity) and residual validation (by autocorrelation, normalization and heteroskedasticity tests). To identify the correct number of lags of the VAR model for Romania and the euro area we used the criteria provided by LR Sequential tests, Final Prediction Error, Akaike Criterion, Schwarz and Hanna-Quinn Criterion tests. To validate these tests we applied the Lag Exclusion Wald Test, whose null hypothesis is rejecting the choice lag. If its probability is below 1% or 5% the optimal lag is selected. According to estimates, it results that the VAR model has four lags for Romania and one lag for the euro area (table 3).

**Table 3: Identifying the number of lags in VAR models**

	Sequen	L	A	S	F	Probabilities	Optimal
--	--------	---	---	---	---	---------------	---------

	tial LR	PE	IC	C	Q	of Lag exclusion test H0: the statistics $\chi^2$ rejects the selected lag	lag
<b>Romania</b>	4	4	4	4	4	0,000261	4
<b>Euro area</b>	1	1	1	1	1	0,000136	1

Source of data: Eurostat (2011); our estimations in Eviews 6.

The residual of the VAR model should also meet all the necessary conditions for a good representation: normal distribution, absence of heteroskedasticity and errors autocorrelation. Table 4 presents the methodology which is specific to testing a VAR, and the conclusion is that of entirely validating the selected model. The probabilities of the three tests are higher than 5%, which generate the acceptance of null hypothesis.

**Table 4: Residual tests in the VAR model**

	Autocorrelation LM test	Cholesky (Lutkepohl) Normality test	White Heteroskedasticity test
	H0 no errors correlation for the choice lag	H0 the residual VAR has a normal distribution	H0 no heteroskedasticity
<b>Test probability in Romania</b>	0,2815	0,4411	0,3486
<b>Test probability Euro area</b>	0,2105	0,2485	0,2979

Source of data: Eurostat (2011); our estimations in Eviews 6.

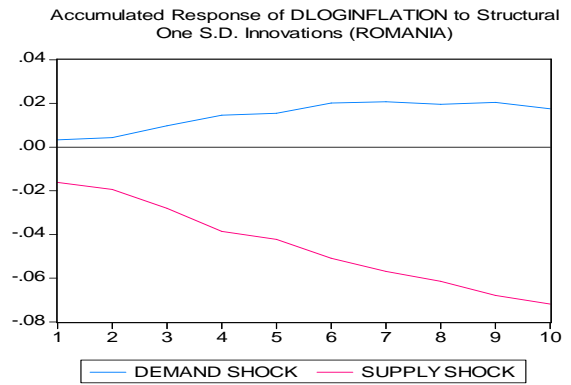
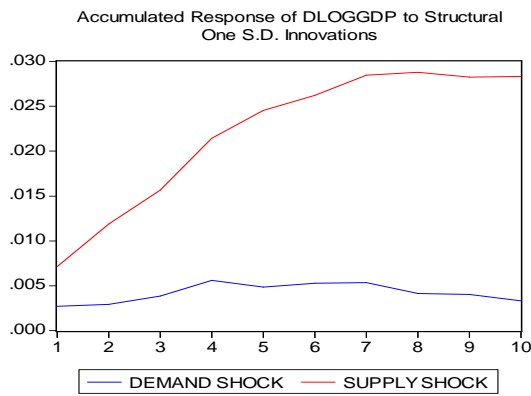
After the final VAR form is established we have imposed the structural restriction, namely the restriction that the aggregate demand shock does not have a permanent effect on output. Further on we have composed the series of the structural aggregate demand and supply shock for each of the two countries and study the relations among them.

To achieve compatibility between the theoretical model (aggregate demand - aggregate supply) and SVAR model, the latter must meet the following conditions:

- Aggregate demand shocks on GDP are some temporary, while aggregate supply shocks are some permanently. Therefore, the accumulated response of economic growth rate to aggregate demand shocks should be register a neutralization, while the response to aggregate supply shock is permanent. In other words, an aggregate demand shock has only temporary and positive influence on output.
- Positive aggregate supply shocks on inflation induce its increase, while positive shocks of the aggregate supply decreases the rate of inflation.

According to Figure 4, the SVAR models for Romania and euro area meet the two conditions above. Thus, in Romania's case, a shock of the aggregate demand by 1% leads to cumulative growth rate of 0.05% after four quarters, the effect disappearing after about 18 quarters. A shock of aggregate supply by 1% leads to cumulative growth rate of 0.26% after four quarters, the effect stabilizing at about 0.23% after 20 quarters. If in the case of inflation rate, Romania is characterized by its immediate reducing due to supply side shocks action. A shock of aggregate demand by 1% determines the increase by 0.2% of the inflation rate in the long term.

**Figure 4: Accumulated responses of GDP and inflation to demand and supply shocks in Romania**

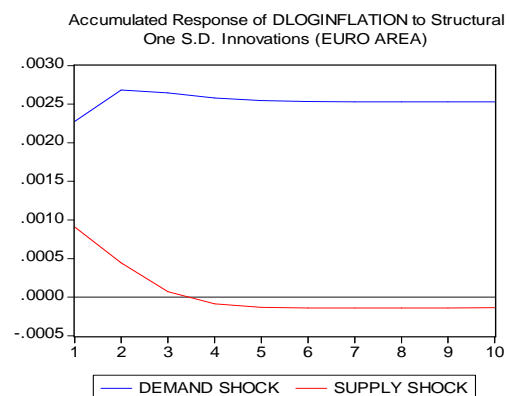
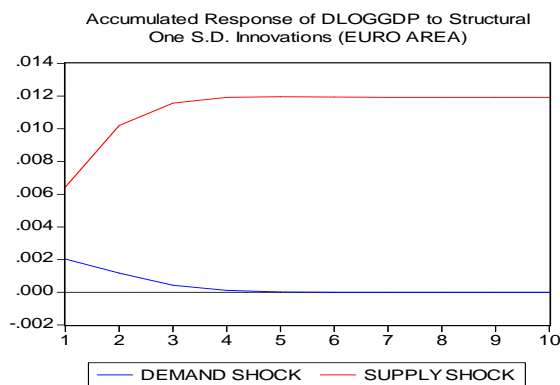


Source of data: Eurostat (2011); our estimations in Eviews

6.

In comparison with Romania, the euro area is characterized by a smaller and more limited influence of the demand shocks on economic growth (positive impact disappearing after about four quarters). Also, over three quarters, a positive supply shock induces an increase of the inflation rate, then it has reduced (figure 5).

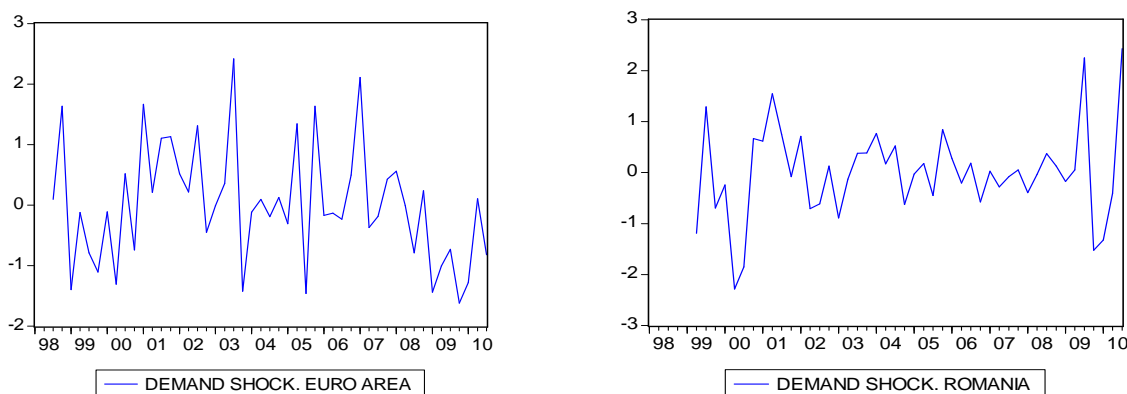
**Figure 5. Accumulated responses of GDP and inflation to demand and supply shocks in euro area**



Source of data: Eurostat (2011); our estimations in Eviews 6.

Comparing the evolution of aggregate demand and supply shocks in Romania and the euro area (figures 6 and 7), it results the existence of larger fluctuations for European Monetary Union. Generally positive aggregate demand shocks are the result of active macroeconomic policies promoting. The intensity of aggregate demand shocks in the euro area was higher, both for the positive and negative changes. The existence of large negative shocks after significant positive ones, may be evidence of budgetary austerity measures or reduction of inflation in the euro area. The economic downturn that has affected both economies was due to negative demand shocks from 2007 year (in the case of euro area) and from 2009 year for Romania. Their amplitude for Romania was about -3.5%, while -1.5% for the euro area.

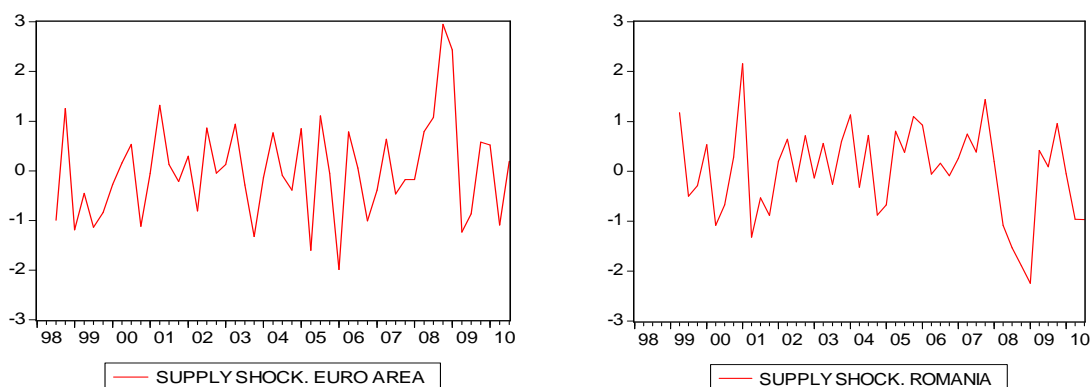
**Figure 6: The demand shocks for Romania and euro area**



Source of data: Eurostat (2011); our estimations in Eviews 6.

For aggregate supply shocks is observed a different pattern between Romania and euro area in period that preceded the economic downturn. Thus in the euro area the aggregate supply grew by about 3.5% as a result of incentives to employment and investment. In Romania the economic crisis was preceded by tendency to reduce aggregate supply, due to decreased production of total factor productivity. The trend of overheating in the economy generated more expensive intermediate goods production and higher costs, leading to reduced aggregate supply. Return to aggregate supply (since 2009 year) trend may be attributed to lower production costs due to unemployment increase.

**Figure 7. The supply shocks for Romania and euro area**



Source of data: Eurostat (2011); our estimations in Eviews 6.

To identify the link between the intensity of shocks affecting Romania and the euro area, we used Pearson correlation coefficient. According to it, the correlation between aggregate demand shocks is 0.13, while that of aggregate supply shocks is 0.17. Therefore there is a positive relationship, but very weak between Romania and the euro area, which can be explained by:

- Differences between economic, trade and financial structures of the two economies.
- The existence of different exchange rate regimes and different rates of inflation.
- Differences between stages of development, Romania recording a higher growth rates compared with the euro area.
- Practicing divergent macroeconomic policies, as a result of different economic developments.

Between the two shocks, those on the aggregate supply side have acquired greater importance in view of accession to the euro area, because it will decisively influence the convergence between business cycles with euro area. Those on the aggregate demand side will automatically become more related, in the context of a common monetary policy and a more strictness national fiscal policies.

## 18. Conclusions

The methodology applied in this study is a useful framework to analysis the risks of adopting a common currency, because it allows the identification of the nature of the shocks and more appropriate responses to their action. The basic idea is that aggregate demand shocks affect real GDP only short term,



while the impact on inflation is one permanently. Also, in these cases there is a direct relationship between the changes in the short term of the production and inflation rate. Instead, aggregate supply shocks have a permanent influence on the short and long term both on prices and production, the relationship between these being one inverse (increasing the aggregate supply increases production and reduce inflation). These conditions are validated in the case of Romania and the euro area, as we have estimated with SVAR models. Between these countries, there are positive but weak correlations between demand shocks, i.e. between supply shocks.

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## CHALLENGES TO ROMANIA'S JOINING THE EUROZONE. SUSTAINABILITY OF THE MAASTRICHT'S CRITERIA

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**Abstract:** *The empirical evidences recorded during the crisis demonstrated the fact that the most affected economies have been those which encountered structural problems, more precisely competitiveness problems. Moreover, on the background of the intense structural problems, the lack of competitiveness, mainly of the economies' productivity, constituted the main cause which resulted in the severe worsening of the public finance. The researches try to show that it is necessary to rethink the criteria required by the Maastricht Treaty, as an "entry ticket" for the Eurozone and/or to think of some accompanying tools which could provide their sustainability. Are they sufficient for providing the macroeconomic stability after joining the Eurozone?*

**Key words:** nominal convergence, real convergence, monetary policy

**JEL classification:** E61, F15

### 1. Introduction

According to the Treaty of Amsterdam, all the countries becoming members to the European Union, should adopt the Euro as a circulation currency, after a certain period, more or less extended. Thus, a country's EU integration automatically involves its integration to the European and Monetary Union (EMU). For the purpose of constituting a stable and sustainable monetary zone, The Maastricht Treaty (1993) established restrictive conditions for the member countries which want to join the Eurozone: budget deficits which are within the limit of 3% of the GDP, the public debt within maximum 60% of the GDP, the inflation rate close to the average inflation rate of the member countries which have recorded the best performances with reference to the price stability, stable interest charge on a long (close to the level of the best countries in terms of price stability), stable rate of exchange for two years at least, if joining the exchange rate mechanism (ERM II).

Since its membership, Romania should join the EU economic policies coordination mechanisms. Romania has been accepted to the European Union on January 1st 2007. The next step for us is the adoption of the unique currency (probably at the earliest in 2015, according to the official forecasts), and this practically means the acceptance to a superior integration stage – the Economic and Monetary Union integration.

The path chosen by the Economic and Monetary Union has been made of three stages; for the new members, the European Union's strategy for the Euro currency's being accepted is also made of three stages. The first stage supposes that the candidate countries are accepted in the European Union. At the acceptance moment, the new member state could be considered to already have reached the first EMU stage – the free movement of capitals. The second stage supposes the achievement of the nominal and real highest convergence with the European Union countries, as well as joining the exchange rate mechanisms II (MRS II or ERM II). During this stage, the countries should implement convergence programs and they also should coordinate their economic policies with the other countries, based on the guiding lines required by the Commission. The joining to the MRS II, as an intermediate stage of the monetary integration, supposes that the national currency is related to the Euro currency and it also supposes the maintenance of the exchange rate maintenance in a certain fluctuation range. Immediately after acceptance, the MRS II resolution should be observed, and the next step is that the central banks of the involved countries should sign a BCE agreement on joining this mechanism.

Along with the European Union membership, the central banks of the new EU members will be SEBC members – voteless – to the Governing Council. As a candidate country, Romania will be considered as a country which has derogation from adopting the unique currency, according to Art. 122 in the Treaty, an EU member country which does not meet the membership criteria for adopting the unique currency and

which is waived of the provisions referring to the Eurosystem's operability. Finally, during the last stage, subsequent observing the nominal and real convergence criteria, the countries will join the Economic and Monetary Union, by introducing the unique Euro currency into circulation. This stage supposes the observance of the convergence criteria and, since acceptance, the waiving of the monetary policy independence, and also of the exchange rate mechanism, as means for adjusting the economic unbalances. After the EMU membership, the countries should comply with the Stability and Growth Pact and they should elaborate stability programs.

Both for the new members and also for Romania, along with the development of the European membership process, there will be necessary to adopt severe country analyses referring to the EMU participation, which could answer the questions: how should be prepared the EMU acceptance? Which conditions should be met by the Eastern countries to join the Monetary Union without risks, or with minimum risks?

So that economies should not encounter major shocks as a result of waiving the exchange rate mechanism adjustments or the monetary policy, there should be analyzed – first of all – the degree of observing the characteristics of the optimum currency areas (OCA), and, secondly, the convergence criteria should be met, so that Romania, as a EU member, could be accepted to EMU. As for Romania, the Romanian authorities proposed 2015 as a target for joining the Eurozone. For Romania, the EMU acceptance stages are synthesized in the table below.

**Table 1: Romania's EMU integration stages**

<b>January 1<sup>st</sup> 2007 – EU membership</b>	<ul style="list-style-type: none"> <li>Until the date of January 1<sup>st</sup> 2007</li> <li>– meeting the Copenhagen criteria</li> <li>– adopting the Euro reference</li> <li>– the law on amending the NBR statute</li> <li>– capital account liberalization</li> <li>– changing the NBR monetary policy strategy – targeting inflation</li> </ul>
<b>Joining ERM II</b>	– meeting the Maastricht criteria
<b>2015</b>	– adopting Euro

In 2003, the Council of the European Union asserted that EU will accept Bulgaria and Romania joining the European Union, in case these countries meet the membership criteria. After years of hesitation, these two countries' performance has got improved, as they have succeeded in meeting the required criteria and thus they have joined the „club”. The EU requirements referring to the candidate countries have been based on the conclusions of the Copenhagen European Council (1993), which settled the conditions to be met by the countries in order to become EU members. The Copenhagen criteria are as it follows: the political criteria (stability of the institutions which ensure democracy, the rule of law, the human rights and the protection of minorities); the economic criteria (the existence of a functional market the capability to cope with competitive pressures and market forces within the European Union); the technical criteria (the capability to assume the member state obligations, including those referring to joining the political, economic and monetary objectives of the Union – implementing the *acquis communautaire*).

As for the economic criteria, even though it has been accepted in the European Union, Romania has been declared as having a functional market economy, although uncompetitive, this fact denoting that Romania is still having a low capacity to cope with the competitive forces existing in the European Union.

The Economic and Monetary Union convergence criteria represent the economic assessment test for the stage of preparing an economy for this Union membership. However, the Maastricht Treaty does not stipulate a strict calendar for adopting the Euro currency, this process being up to each country, meanwhile taking advice from the European Commission and the European Central Bank (The Copenhagen criteria are as it follows: the political criteria (stability of the institutions which ensure democracy, the rule of law, the human rights and the protection of minorities); the economic criteria (the existence of a functional market the capability to cope with competitive pressures and market forces within the European Union); the technical criteria (the capability to assume the member state obligations, including those referring to joining the political, economic and monetary objectives of the Union – implementing the *acquis communautaire*). However, the Treaty stipulates that only the countries which do not prove reaching a sustainable convergence may join the final stage of the Economic and Monetary Union.

## 2. Sustainability of the Maastricht's Criteria

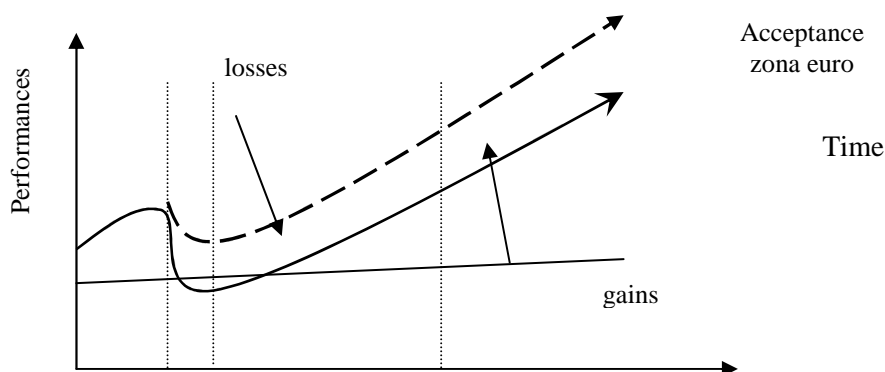
The introduction of the convergence criteria has generated important debates in the academic world, starting with the necessity of such conditions up to the connection between such macroeconomic convergence criteria and the characteristics of the optimum currency areas (economic spaces where the factors of production are mobile enough to make an adjustment in case of occurrence of an asymmetric shock). Actually, the European Union is now facing the following problem: initially thought of as a "club" of the rich/average-rich countries, it will have to accept in the club now, for the first time, countries which are less rich, actually average-poor countries, such as Romania and Bulgaria.

The first dilemma encountered by the developing countries is as it follows: the nominal convergence followed by the real convergence, or vice-versa? In other words, should they meet the restrictive nominal convergence criteria required for joining the Eurozone, at the risk of a low economic growth, consequently a low real convergence, respectively a lower living standard? or should they focus on reaching a real convergence as high as possible, thus delaying the moment of joining the Eurozone? The empirical evidences of the developing countries (such as the Czech Republic, Poland and especially Hungary) show that, generally, the countries are more interested in achieving a sustainable economic growth, which could guarantee the receiving of effective benefits after the acceptance to the Eurozone and less the meeting of some criteria „on paper”. Is it possible to find a strategy which could help them in reaching these convergences at the same time?

At the same time, ERM II also represents a stage for generally testing the central rate and the convergence sustainability, the rate of exchange necessarily reflecting the economic performances related to the Eurozone. Thus, the completion of joining ERM II supposes the settlement of an exchange rate of the national currency conversion into Euro, and this will have a significant impact upon the future evolution of economy. The Eurozone membership with a too high rate of exchange would determine a lower competition of exports, and this will negatively affect the economic growth process; on the contrary, an exchange rate with a currency which is depreciated if compared to Euro would generate an inflation raise.

The empirical evidences show that the nominal convergence can initially generate a decrease of performances, but the complete meeting of the Maastricht criteria is able to provide a higher macroeconomic stability, and this will create premises for a superior economic growth rate. Romania's economic evolution, as well as that of the future Eurozone member countries could be described by means of a J curve, its shape being dependant on the intensity of the adjustment costs.

**Figure 1: The J curve for the member countries**



We can say that one of the significant challenges of the Eurozone membership is constituted by the optimization of the J curve's shape, by implementing policies which suppose the short-term lowering of the costs with macroeconomic stabilization (the dashed curve). The higher an economy's flexibility, the faster the adjustment to a new macroeconomic system, and this will result in a shorter period during which the economy records a performance decrease.

However, we should not forget that the two processes (nominal convergence and real convergence) are complementary, so that they should be supervised in parallel, as both the nominal convergence process, and also the real convergence one influence the nominal variables.

The real convergence process influences the nominal variables: (i) in a favorable manner – the structural reforms triggers the GDP/citizen convergence, and this will result in a non-inflationary raise of wages; it also determines an income increase, a taxation increase and, consequently, a fiscal consolidation; the convergence of the productivity level determines a cost reduction, thus accelerating the deflation in the sector of tradable goods; and also (ii) in an unfavorable manner – the productivity differences between the tradable goods sector and that of the non-tradable goods (the Samuleson effect), under the terms of a consistent wage raise, will generate the persistence of a higher inflation level (the convergence of the prices for the non-tradable goods with EU, which is not supported by the productivity increase); a fast real convergence (under the terms of inflationary pressures) will suppose the implementation of a restrictive monetary policy.

However, meanwhile, the nominal convergence process also influences the real variables: (i) in a favorable manner – the reduction of the inflation rate and of the interest charge (for meeting the Maastricht criteria) determines an investment increase and, consequently, a GDP increase. The empirical evidences suggest that, under the terms of a low inflation rate, the economic performances are better than under the terms of a moderate inflation). Moreover, when the inflation rate is lower, the wages convergence process is accelerated. A stable exchange rate of the national currency (which fluctuates within settled margins) determines an increase of the ISDs and of exports (of the opening degree) with favorable effects upon the real convergence process), and also (ii) in an unfavorable manner – the requirement of meeting the Maastricht criteria (especially that referring to the budget deficit and the public debt) may affect the convergence process of the economies in which there is a low investment level; the existence of sustainable budget deficits (although higher than 3% of the GDP) may contribute to a faster structural adjustment of these economies to the EU requirements. The decrease of the inflation rate determines an increase of the real interest charge, thus attracting external capitals, appreciating the currency but reducing the net exports (the external crowding-out effect).

The moment of joining ERM II should be very carefully chosen. A country should become a member only in case the policies for the demand management can provide sustainable price stability and a high nominal convergence degree – with reference to inflation, interest charge and budget deficit. One main advantage of joining ERM II is that the inflationary forecasts can be anchored, so that the latter one may work in the benefit of stability. So that all these things could have a positive finality, the markets should be confident that the economic bases are strong and that the authorities are totally involved in maintaining the price stability. There is also a dilemma regarding the optimum period for staying in ERM II. There is a strong argument according to which the necessary period should be at least two years, as after this period there is a risk of an unjustified increasing pressure upon the rate of exchange, as a result of convergence capital entries, when the policies are on a credible way towards adopting the Euro currency.

The risks refer to the fact that the markets will speculate an appreciation of the rate for the final Eurozone entrance, especially taking into consideration the precedents in Ireland, Greece and Slovakia, where the re-assessments were performed within ERM II. In case of an excessive appreciation, expensive interventions could be necessary as in the case of Greece, for example. In many cases, the period for staying in ERM II has been suggested to be extended, for the reason that this will help in disciplining the developing countries to a greater extent, so that they could learn how to continue the implementation of the policies oriented towards stability and so that they could learn how to live with a stable rate of exchange. Another advanced argument for a too long staying is that it could allow the rate of exchange to find its exact “balance” level.

Under the terms of speculative capital entries, determined either by the convergence expectations or by its absence, the perspectives that the rate of exchange could better find its balance level after a longer staying in ERM II are not very promising. Some of the member countries which are currently in ERM II seem to have to stay longer, as they will not be capable to meet the inflation criteria as fast as they initially anticipated. This is not a strong reason to choose from the beginning to stay in ERM II longer than it is necessary. It is rather an indication that the authorities mis-approximated the inflation stabilization rate. As a consequence, there is a quite obvious contradiction between the two criteria of the Maastricht Treaty and, unfortunately, it is not the only one. There are also significant contradictions between the nominal and the real criteria. The faster increase of the GDP per citizen represents a threat for the nominal criterion of inflation. Moreover, the increase of the opening degree of the exterior commerce may generate pressures upon the stability of the exchange rate. The problem of the contradiction between the Maastricht criteria is detailed below.

### 3. Occurrence of the Balassa-Samuelson effect in the EMU integration process

After making an analysis of the Maastricht nominal criteria, the result is that there is a contradiction inside them. Thus, two of these criteria – the inflation criterion and the exchange rate criterion – are contradictory, under the terms in which the countries should also cope with the catching-up process. The inconsistency between these two criteria is presented below.

At the half of the last century, the economists Bella Balassa (1964) and Paul Samuelson (1964) noticed, for the developing countries, a situation which was similar with the actual one encountered in the Central and Eastern European countries. In these countries, as a result of the catching-up process, fast productivity increases occur in the sector of the external tradable goods, which, however, are not accompanied by a similar situation encountered in the sector of external non-tradable goods. The productivity increases in the tradable sector will result in the increase of the average wage within this sector. Under these terms, the unions require a raise of wages also within the non-tradable sector, and this raise will not be accompanied by a similar productivity increase. As this raise of wages is not supported by a productivity increase, it will be reflected in the cost of the goods from the non-tradable sector and, consequently, it will contribute to the raise of prices within this sector; then the result will be a chain raise of prices for the goods and services in the economy, and, consequently, an inflation increase, measured by means of consumer price index (CPI).

In order to demonstrate the occurrence of the Balassa-Samuelson effect, de Grauwe and Schnabl (2003) elaborate a model taking into account two open economies; both tradable and non-tradable goods are produced in both economies. The model's assumptions are as it follows: perfect competition between the markets of the "tradable" goods in the two countries; perfect labor mobility within the national market, but not between the two countries; inexistence of direct competition between the "non-tradables" sectors in the two countries; inexistence of competition between the "tradables" and "non-tradables" sectors within each of the countries. The production of tradable and non-tradable goods in each of the two countries is represented by means of two Cobb-Douglas type production functions, one for the tradable (T) sector, and the other one for the non-tradable (NT) sector:

$$Y^T = A^T (K^T)^{\gamma^T} (L^T)^{1-\gamma^T}, 0 < \gamma < 1$$

$$Y^{NT} = A^{NT} (K^{NT})^{\gamma^{NT}} (L^{NT})^{1-\gamma^{NT}}, 0 < \gamma < 1,$$

where:

$Y^i$  = production (in real terms) obtained in the "i" sector, (i = T, NT);

$A^i$  = constant related to the technology used in "i" sector;

$K^i$  = capital used in "i" sector;

$L^i$  = labor used in "i" sector<sup>10</sup>.

Both in the tradable sector, and also in the non-tradable sector, production is obtained by combining the three factors of production: technology (A), capital (K) and labor (L). Starting from the fundamental objective for each sector – results maximization –, we shall impose the condition that the marginal product of labor should be equal to the real wage, in each sector.

$$\frac{\partial Y^i}{\partial L^i} = (1 - \gamma^i) A^i (K^i)^{\gamma^i} (L^i)^{-\gamma^i} = (1 - \gamma^i) \frac{Y^i}{(L^i)^{1-\gamma^i}} (L^i)^{-\gamma^i} = (1 - \gamma^i) \frac{Y^i}{L^i},$$

where:

$$(1 - \gamma^i) \frac{Y^i}{L^i} = \text{marginal product of labor in "i" sector;}$$

$$Q^i = \frac{Y^i}{L^i} = \text{average product of labor in "i" sector;}$$

$$\frac{W^i}{P^i} = \text{real wage in "i" sector, defined as a ratio between the nominal wage and the price level.}$$

The result is:

$$(1 - \gamma^T) \frac{Y^T}{L^T} = \frac{W^T}{P^T} \qquad (1 - \gamma^T) Q^T = \frac{W^T}{P^T} \qquad (1)$$

<sup>10</sup>  $L^T + L^{NT} = \text{constant.}$

$$(1 - \gamma^{NT}) \frac{Y^{NT}}{L^{NT}} = \frac{W^{NT}}{P^{NT}} \quad (1 - \gamma^{NT}) Q^{NT} = \frac{W^{NT}}{P^{NT}} \quad (2)$$

The nominal wages in the tradable and non-tradable sectors are supposed to be equal as a result of assuming the hypothesis of the perfect labor mobility between the two sectors:

$$W^T = W^{NT} = W \quad (3)$$

Dividing equation (1) to (2), taking into account the relation (3), and multiplying by (-1) we will obtain:

$$-c \frac{Q^T}{Q^{NT}} = -\frac{P^{NT}}{P^T}, \quad (4)$$

where:

$$c = \frac{1 - \gamma^T}{1 - \gamma^{NT}} = \text{positive and constant.}$$

Starting from equation (4), if productivity in the non-tradable sector is constant ( $Q^{NT} = \text{constant}$ ), then a productivity increase in the tradable sector ( $Q^T = \text{increasing}$ ) will result in the raise of the relative prices within the two sectors ( $P^{NT}/P^T = \text{increasing}$ ). Taking into consideration the fact that the calculations for the consumer price index (CPI) take into account a basket of goods made of tradable goods, and also of non-tradable goods, then the inflation, which is measured by means of CPI, is also increasing. The modality for producing the Balassa-Samuelson effect in the economies of the developing countries is illustrated in the following figure:  $P_E$  - corresponds to the price level recorded within the Eurozone.

$E_{A/E}$  - nominal rate of exchange of the national currency compared to the Euro currency;

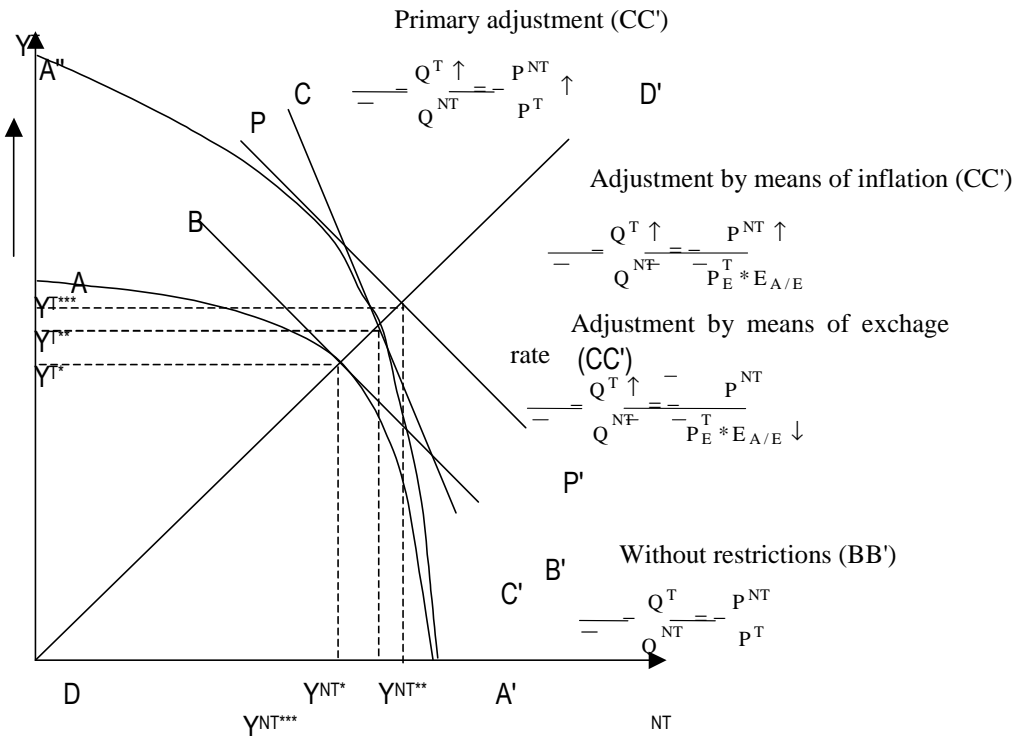
$c$  - constant and equal to 1;

$AA'$  - border of the production possibilities;

$BB'$  - line of budget restrictions (line of price,  $-P^{NT}/P^T$ );

$DD'$  - line of demand.

**Figure 2: Balassa-Samuelson effect – fixed rate of exchange or constant inflation**



$$-c \frac{Q^T}{Q^{NT}} - \text{rate of marginal productivity, corresponding to the slope of border } AA'$$

$$Y = P^T * Y^T + P^{NT} * Y^{NT}$$

In figure 2, the balance is settled in point E( $Y^{NT*}$ ,  $Y^{T*}$ ), where the line of the relative prices is tangent to the curve of production possibilities and where equation (4) is demonstrated. Point E( $Y^{NT*}$ ,  $Y^{T*}$ ) is also found on the line of demand. For simplification purposes, the assumption was that, irrespective of the income level, the structure of *tradable* and *non-tradable* goods consumption remained the same:  $\frac{Y^{T*}}{Y^{NT*}} = \frac{Y^{T**}}{Y^{NT**}}$ .

Assuming a productivity increase within the tradable sector in the adhering countries, including Romania, under the terms of the constant maintaining of productivity within the non-tradable sector, we will encounter a change in the ratio  $\frac{Q^T}{Q^{NT}}$  in terms of its increase. The curve AA' will turn into curve AA''. With the same

capital and the same labor used, currently existing in the adhering countries, more tradable goods will be produced. If  $Q^{NT} = \text{constant}$ ,  $L^{NT} = \text{constant}$ , results  $Y^{NT} = \text{constant}$ , and the intersection with axis X remains the same. The change of productivity within the tradable sector ( $Q^T = \text{increasing}$ ) will result in a change in the line of the relative prices ( $\frac{P^{NT}}{P^T} = \text{increasing}$ ); the actual line of the relative prices, CC', is more abrupt. The

balance is now settled in point F( $Y^{NT**}$ ,  $Y^{T**}$ ). The new balance settled in point F, the tangent of the budget restriction line CC' to the new production border AA'' can be achieved in two ways, as it can be noticed in the previous chart: either adjustment via inflation, under the terms of a fixed rate of exchange, or adjustment exchange rate, under the terms of a floating rate of exchange (de Grauwe and Schnabl, 2003).

As the previous analysis demonstrated, during the catching-up period, the impact of the productivity increase within the external tradable goods sector upon inflation depends on the regime of the rate of exchange existing in that country: in case the rate of exchange is fixed, the productivity increase within the external tradable goods sector, which is not accompanied by a productivity increase within the external non-tradable goods sector, but it is accompanied by a similar raise of wages within this sector will result in the inflation increase; in case of a flexible rate of exchange, the productivity differences between the two sectors, under the terms of maintaining constant prices within the non-tradable sector, will be reflected in the nominal appreciation of the rate of exchange.

In conclusion, irrespective of the regime of the rate of exchange settled by a country, the impact of the relative productivity gains within the tradable and non-tradable sectors upon the real rate of exchange is the same: the real appreciation of the national currency. Actually, this is the second dilemma the developing countries have to cope with, if they desire to join the Economic and Monetary Union faster.

#### 4. Conclusions and recommendations

The nominal convergence criteria for being accepted to the select group or the Economic and Monetary Union countries have proved their limits in providing financial stability and in favoring a sustainable and balanced economic growth within the member countries. Although the critics addressed to the EMU fundamentals in terms of requirements to be met by a optimum currency area are not recent, the new debates of the European authorities bring the necessity to intensify the real convergence process within the Union on the front page, simultaneously with the improvement of the mechanisms belonging to the security elements of the financial system. Under these terms, the series of conditions for the new EU member countries to be accepted to the Eurozone should be completed with elements which could provide economic competitiveness. The next stage is represented by the structuring and integration of these parameters into the mix of macroeconomic policies of our country, so that the moment of acceptance to the Eurozone should not affect the chances of a sustainable economic development of Romania. The necessity to reform the Eurozone, at least taking into account the previously mentioned aspects, is obvious. Moreover, it is necessary to make a more careful analysis of the criteria which should be met by the countries "aspiring" to be accepted to the Eurozone. And this is because their reformulation, at least a partial one, would be benefic for everyone. Here are at least three arguments which could result from the above analysis:

- Based on the catching-up process, under the terms of the occurrence of the Balassa- Samuelson effect, countries such as Romania (and, generally, the developing countries) may encounter problems in meeting two of the Maastricht Treaty criteria at the same time – the inflation criteria and the rate of exchange criteria (they are incompatible with each other);



- The deep restrictive characteristic of the criteria slows down the real convergence process. Thus, inconsistency occurs, if not the divergence between nominal and real. This is the reason why Eurozone entered a vicious circle during the crisis, which has been explained above;
- The deep lack of competitiveness in Romania (and, generally, in the ex-communist countries which aim to be accepted to the Eurozone) would turn us into a country with obvious net costs for entering Eurozone.

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## CHANGES IN MALES' AND FEMALES' WORK TIME DURING THE ECONOMIC CRISIS

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**Abstract:** According to the European Union Study women work less than men because there is a segregated labor market. Women work in sectors where work is less valued and less paid. In this article we analyzed the working time by gender and the labor supply elasticity for males and females during the 2005-2009 time-frames. The study conducted revealed that men work more than women, but this difference diminished over time, so that in the year 2009 there are more women than men working mainly in public administration and real estate transactions.

**Keywords:** spare time, work time, the elasticity of labor supply, wages

**JEL classification:** J29, J20, J31

### 1. Literature study

Time can be analyzed in economic terms as a date, as a time-frame or as a good. Its essential feature is that it is undoubtedly irreversible. The paper considers time as a good because any economic agent must make a choice between working time and leisure.

Maurisson-Barre (2004) split time in five categories: *working time* (carrying a remunerated activities, job search, training courses), *time to domestic activities*, *psychological time* (sleep), *personal time* (walking, reading a book) and *parental type* (child care, escorting children to school, etc.).

Survey MATISSE DFT (1999) showed that there are differences between women and men regarding the allocation of time on the five categories (Table 1). The table below shows that women spend less time in professional work and more time for domestic and parental activities than men.

**Table 1: The allocation of time between women and men in France**

	Men (in full-time)	Women (in full-time)
<b>Professional time</b>	30%	26%
<b>Domestic Time</b>	7%	17%
<b>Parental Time</b>	8%	12%
<b>Personal Time</b>	16%	11%
<b>Psychological time</b>	39%	24%

Source: Barre-Maurisson, 2004, p. 27

Survey "Time Use in Romania" (2001) split time in three categories as follows: *personal care time*, *time for work* (education and travel, and household care) or *leisure* (Table 2).

**Table 2: The allocation of time between women and men in Romania (%)**

	Men (in full-time)	Women (in full-time)
<b>Employment, Education, Travel</b>	27.5%	31.7%
<b>Personal Care Time</b>	21.2%	50.8%
<b>Leisure</b>	51.3%	17.5%

Source: INSSE, Time Use in Romania, p.29

From the above table, we see that women devote more time to the first category (labor, education and travel) rather than leisure. To see a clear distinction between women and men in terms of *Employment, Education and Travel* this category was divided as follows (Table 3):

**Table 3: The allocation of time between women and men in Romania segment Employment, Education and Travel (%)**

	Men	Women
<b>Economic Activity</b>	43.3%	21.1%
<b>Studies</b>	6.0%	3.9%
<b>Household Care</b>	35.8%	65.8%
<b>Travel</b>	14.9%	9.2%

Source: INSSE, Time Use in Romania, p. 34

Table No.3 shows that women take up more housework than men and because of that interrupt their career or fewer hours of work performed, leading ultimately to a less financially rewarding career path.

Beller (1982 ) states that "institutions that seek to support women and decrease the income gender gap between them and men usually fail because they don't succeed in bringing women into jobs with a level of expertise equal to men or in making women invest enough in their schooling."Because of the weak specialization in the market sector activities, some women have to specialize in non-market sector (household) in order to survive.

In exactly the same way, Schmeer (1993) noted a significant difference between the salaries and positions obtained by people who are part of a traditional family, consisting of a husband who works in the market and a wife without a job, who takes care of the household, and people who belong to a "modern" family in which both spouses work.

The findings of this study noted that "married men are better paid than the unmarried, while married women are paid less than unmarried". This difference apparently provides reasons for a traditional family in case of men and for a modern family in women's case.

The difference can be explained by differences in productivity due to specialization: a married man in a traditional family should specialize less in outside the market activities because the affairs of this sector are traditionally handled by his wife, while an unmarried man must specialize both in the market and in the outside market sectors. Therefore, an unmarried man will have to do the work and specialize himself in both sectors, thus preventing him to progress in career.

In regard to women, it was observed that the married ones, engaged in a traditional family, have less success in career, while single women or those engaged in a modern family manage to obtain higher wages. Again the motivation is the specialization in one of the two sectors. From an empirical point of view cited by G.S. Becker (1963), single women clearly work more in the market segment than married ones while single men work less than married ones.

In this respect, Borjas (2000) conducted a survey in the U.S. in terms of how to divide time between the sexes. The table below, shows that married men work more than unmarried men and that they spend more time in domestic activities at the expense of leisure activities. In the same time, women work less, but devote more time to household activities (Table 4.).

**Table 4: Distribution of time between women and men**

		Time for work	Time domestic	Leisure	Total
<b>Men</b>	<b>Married</b>	40,2	14	113,5	168
	<b>Unmmarried</b>	32,9	12	123,1	168
<b>Women</b>	<b>Married</b>	16	34,9	116,4	168
	<b>Unmmarried</b>	22	23	122,3	168

Source: Borjas (2000), Labor Economics

Table 5 shows some important studies regarding the elasticity of labor supply for married women and men. Note that labor supply is inelastic, meaning that a change in wage modifies working time less. For men the coefficient of elasticity is more rigid and we even got negative coefficients compared to women workers elasticity. This can be explained by the fact that the male employees already work in average more hours than women and because of this changes in wages cannot modify very much the number of hours worked due to fixed time budget constraints.

**Table 5: Elasticity of labor supply**

Authors	Sample	Elasticity Coefficient
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<b>Married Women</b>		
<b>Cogan (1981)</b>	<b>USA</b>	0.65
<b>Hausman (1981)</b>	<b>USA</b>	0.45
<b>Arrufat and Zabalza (1986)</b>	<b>Royaume Uni</b>	0.62
<b>Blundell and Walker (1982),</b>	<b>Royaume Uni (without children)</b>	0.1
<b>Arellano and Meghir (1992),</b>	<b>Royaume Uni (children)</b>	0.29
<b>Married Men</b>		
<b>Ashenfelter (1978)</b>	<b>USA</b>	0.17
<b>Johnson and Pencavel (1984)</b>	<b>USA</b>	0.02
<b>Hausman (1981)</b>	<b>USA</b>	0.03
<b>Blundell and Walker (1982),</b>	<b>Royaume Uni</b>	-0.23

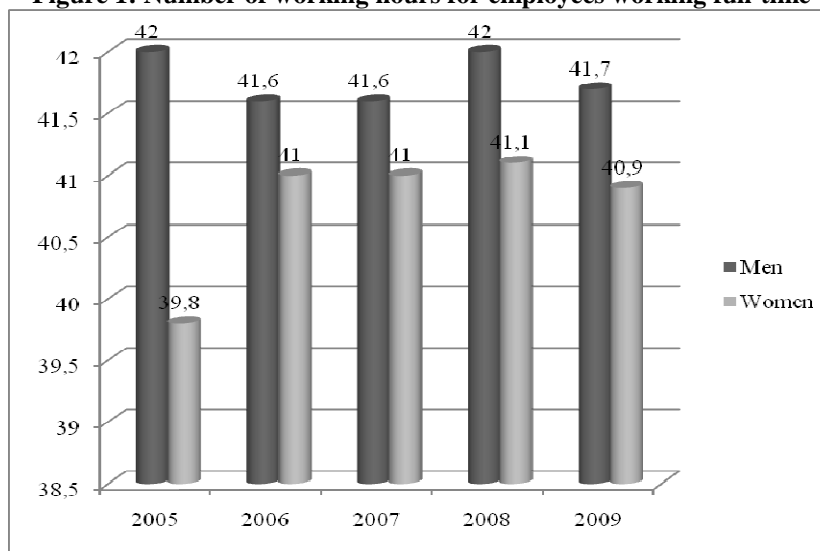
Source: Cahuc et Zylberberg (2001), Le marche du travail,p.41

Empirical studies have shown that labor supply is different for women and men, and that the latter can also be negative. Moreover, the women labor sensitivity may be associated with a greater change in the number of people who want to work rather than with a change in the number of working hours. Thus, a salary raise would lead to an increase in employment rather than more work-hours. In Romania's case, a significant relationship can be calculated between the diminishing gender pay gap and the fertility decrease that we face today, as women salaries got closer and in many cases equaled men's wages (Barbulescu,Dobre 2010).

## 2. Working time and labor supply elasticity in Romania

As mentioned above average man is working more hours in Romania than average woman, which is why they are more prepared to extra-familial activities, while women are more traditional and more attached to the household (Figure 1). However, in recent years, the difference between women and men in terms of number of working hours decreased.

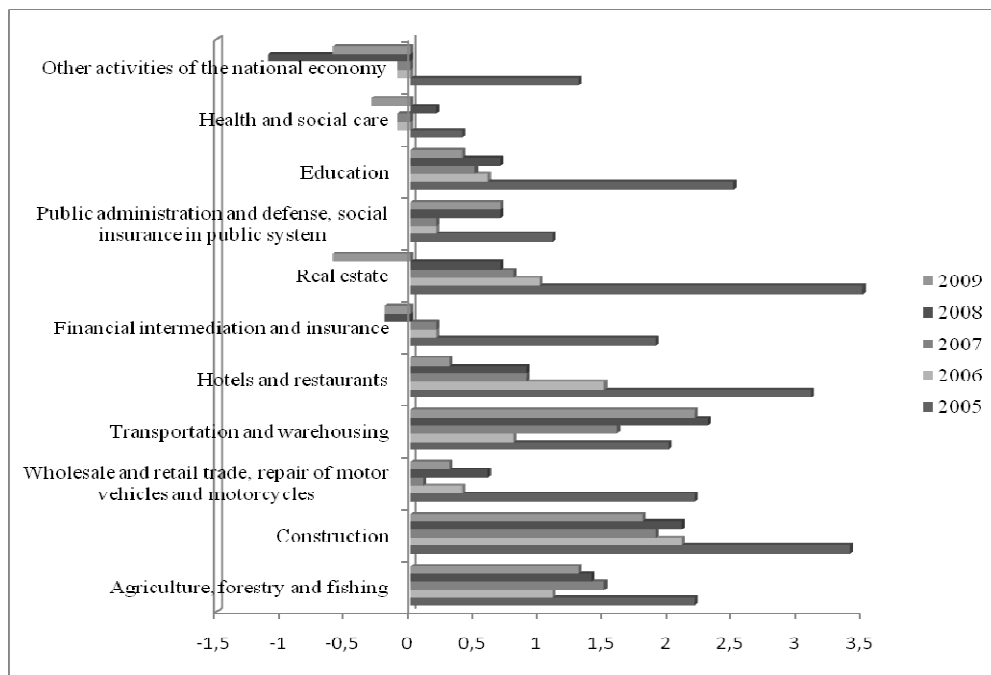
**Figure 1: Number of working hours for employees working full-time**



Source: INSSE, Labor Force in Romania. Work and Unemployment, 2005-2009

The analysis of time worked in market activities over the period 2005-2009 shows that more women work in the following sectors than men: *public administration, real estate transactions* and *other activities* for the years 2008 and 2009 (Figure 2). This situation can be due to two main reasons: in such sectors women are better paid than men (Dobre, 2010) and in terms of employment of these activities show a pronounced degree of "feminization."

**Figure 2: The gap between men and women in terms of work time**



Source: INSSE, Labor Force in Romania. Work and Unemployment, 2005-2009 and authors' calculations

In terms of *labor supply elasticity with respect to hourly wage* over the 2006-2009 period one can find that the supply is inelastic even negative in 2006, which means that the income effect is dominant (a decrease in the number of working hours and an hourly wage increase, except for education). For 2007 and 2008 respectively, labor supply is inelastic, which means that wages rose more than work time. Year 2009 is atypical because it was recorded either a decline in the number of hours of work in certain sectors (agriculture, construction, trade, hotels, health) or a decrease in salary (public administration) or a decrease in both variables (construction, financial intermediation, real estate, education). This can be explained by the economic crisis that led to the restriction of many activities, especially in reducing public sector wages, in increasing taxation and in increasing workers' preference for black labor (Table 6).

**Table 6: Elasticity of labor supply with respect to Males hourly wage**

Men	2006	2007	2008	2009
<b>Total</b>	-0.05	0.00	0.04	-0.13
<b>Agriculture, forestry and fishing</b>	-0.12	0.01	0.06	-0.10
<b>Construction</b>	-0.04	0.01	0.03	0.26
<b>Wholesale and retail trade, repair of motor vehicles and motorcycles</b>	-0.14	-0.03	0.03	-0.22
<b>Transportation and warehousing</b>	-0.11	-0.13	0.02	-0.07
<b>Hotels and restaurants</b>	-0.10	0.23	-0.01	-0.16
<b>Financial intermediation and insurance</b>	-0.16	0.00	-0.01	0
<b>Real estate</b>	-0.09	-0.01	0.03	0.69
<b>Public administration and defense, social insurance in public system</b>	-0.02	0.00	0.04	0.00
<b>Education</b>	0.16	0.04	-0.01	0.21
<b>Health and social care</b>	-0.02	0.01	0.04	-0.41
<b>Other activities of the national economy</b>	-0.14	-0.02	0.24	0.15

Source: INSSE, Labor Force in Romania. Work and Unemployment, 2005-2009 and authors' calculations

For female workers the situation is similar, the supply of labor is even more rigid in the year 2009, because women have difficulty adapting to changes occurring in the labor market. In 2009, work time has declined in all sectors of activity just like in men's case, while female wages increased for agriculture, transportation, hotels, health and other activities contrary to the situation of male workers (Table 7).

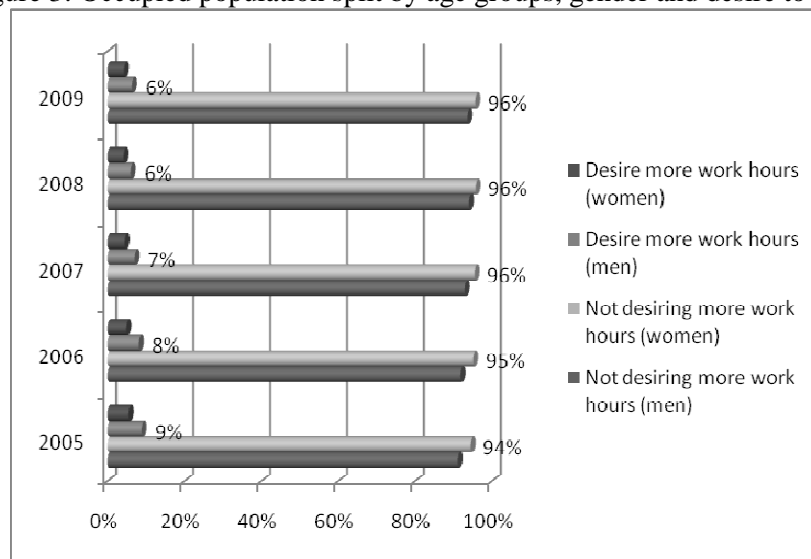
**Table 7: Elasticity of labor supply in relation to the hourly wage for females**

Women		2007	2008	2009
<b>Total</b>		0.19	0.00	-0.10
<b>Agriculture, forestry and fishing</b>		0.00	-0.03	0.07
<b>Construction</b>		0.21	0.02	0.01
<b>Wholesale and retail trade, repair of motor vehicles and motorcycles</b>		0.12	0.00	-0.02
<b>Transportation and warehousing</b>		0.03	-0.17	0.00
<b>Hotels and restaurants</b>		0.33	0.21	-0.01
<b>Financial intermediation and insurance</b>		0.18	0.00	0.04
<b>Real estate</b>		0.35	0.00	0.18
<b>Public administration and defense, social insurance in public system</b>		0.04	0.00	0.06
<b>Education</b>		0.58	0.09	-0.01
<b>Health and social care</b>		0.02	0.02	0.00
<b>Other national economic activities</b>		0.08	-0.03	-0.08

Source: INSSE, Labor Force in Romania. Work and Unemployment, 2005-2009 and authors' calculations

Even if an increase in the number of work hours means an increase in income and consumption, over 90% of workers do not want to work extra hours or are unwilling to work more in the formal economy while there is not enough accurate information regarding the black labor market. There is no differentiation in this respect between male workers and female ones, or the percent of the latter is even higher (Figure 3).

**Figure 3: Occupied population split by age groups, gender and desire to work**



Source: INSSE, Labor Force in Romania. Work and Unemployment, 2005-2009

### 3. Conclusions:

Empirical Studies have shown that men spend more time in professional activities over the household activities, while for women the situation is exactly the opposite. In Romania working time is on average about 41 hours per week without big differences between the sexes. Formal market male workers average 42.8 hours worked in agriculture, industry and construction 41.9 hours and 42 hours per week in services during the year 2009. Females are working 41.4 hours, 41.3 and 41.1 respectively in agriculture, industry and construction and services. These differences can be explained by the fact that men are more involved in extra-familial activities, while women are more traditional.

An analysis of working time between the two sexes showed us that more women than men work in public administration and transactions estate, and that over the analyzed period the difference between women and men decreased in the other sectors due to increased labor flexibility.

Labor supply in relation to hourly wage is rigid, even negative especially for males, which means that rising wages lead to small changes in working time, or both variables decrease due to the economic crisis.

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## THE COPENHAGEN ACCORD. THE CHRONICLE OF A PREDICTED FAILURE

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**Abstract:** *The European Union leads among the world competitors that fight to reduce climate changes that can have serious negative consequences for the entire planet. Great Britain has announced the most substantial pollution emissions reductions a country may have. There is a meaningful silence from Asian countries, starting with China, India, Japan on the one side and from the USA on the other side...*

**Key words:** climate change, Copenhagen Accord

**JEL classification:** Q5

### 1. Introduction

The United Nations Environmental issues conference from Copenhagen that took place from December 7th to December 18th (2009) did not have the expected success. Delegates from 192 countries, including around 100 presidents and prime ministers, as well as many scientists, have classified this summit as the most important global conference of all times. Danish Prime Minister Lars Løkke Rasmussen underlined before the summit opening that „more than ever, a common, powerful, ambitious commitment regarding climate changes is required from the world countries”. The UN Copenhagen summit should have replaced the Kyoto Protocol (to which some industrial countries including the USA refused to adhere), that expires in 2012. Never before in the last 17 years since global warming has been on the public agenda, have there been so many countries to propose plans and solutions to stop global warming. The conference in Denmark’s capital proposed global objectives for reducing pollutant emissions in the Earth atmosphere and consolidating the adjustment capacity of the earth countries to climate changes. The Accord established, at least theoretically, the limits of the greenhouse effect gases pollution, thus replacing the Kyoto Accord (also known as the Kyoto Protocol).

### 2. The Preliminaries

The Climate Savers Programme, launched by World Wild Found (WWF) and the Tokyo Declaration from February 2008 demonstrated the important part the business world can play in initiating successful actions against climate changes. The companies have a considerable impact on the environment, but, through technological innovation, initiative and collaboration with business partners, authorities and the civil society they can also be a part of the solution. We hope that the internationally undertaken actions will find echo in the Romanian business environment too, where the climate changes consequences are more and more visible. Identifying and implementing realistic and efficient solutions for long lasting businesses in order to reduce the environment impact must be a priority for the companies. Because what is healthy for the environment is also healthy for the business world. By signing the Tokyo Declaration, the companies from the Climate Savers Programme have reaffirmed the need and the benefits of the innovative actions against climate changes.

The actions against the issues of global warming and the relations with the Mediterranean countries were among the main items discussed by the EU leaders during the March 13th-15th 2008 summit, traditionally held in Brussels. The leaders have agreed that the discussions over a series of measures to fight climate changes were to be finalized until the end of 2009. Last year, the member states have offered their support for an action plan proposed by the European Commission that established several objectives regarding greenhouse effect gas emissions and renewable energy as well as measures for creating an internal EU energy market. One of the measures stipulated by the European Commission is the reduction of greenhouse effect gas emissions by at least 20% until 2020, compared to the levels of 1990, as well as increasing the wind, solar, hydrological and wave energy quota in the total energy consumption to 20% against the current 7% in the block. The plan also stipulated a minimum target of 10% by 2020 for biofueling passenger vehicles. The negotiations were tough, due to the reserves of the member nations regarding the economic impact implied by reaching the objectives and the potential risk that the European industries move to countries with lower ecological standards.



Half June 2008, the heads of the biggest 99 concerns in the world – including the heads of Deutsche Bank and British Airways- requested the top industrialized countries to take over the initiative regarding global warming and decide the severe reduction of greenhouse effect gas emissions. The completions to the Tokyo Accord must take into account the functioning of the retail markets, be consistent, long-term and efficient, said the heads of the biggest world companies.

At the beginning of 2008 took place under UN patronage a 12 days summit at Poznan, Poland with a participation of 190 delegates from all over the world, dedicated to greenhouse effect gases reduction issue and replacing the Kyoto Protocol on global warming that expires in 2012. On the occasion, the Head of the UN on climate issues warned against what he called „cheap and dirty energy” as a fast remedy to the global financial crisis, appreciating that it would lead to a new economical disaster. Yvo de Boer believes that governments must not try to save money by giving up high technology in favour of the very pollutant „low cost” energy sources, such as coal. He qualified this as a new generation of bad investments and estimated that solar and wind power stations will become a necessity in maximum 10 years.

In June 2009, the strongly industrialized countries group, G8, adopted a global temperatures increase maintenance target of up to 2°C from the pre-industrial period to present. The China dominated developing countries group, G77, proposed a threshold of only 1,5°C, considering that none of the strong industrialized countries adopted policies for stopping greenhouse effect gas emissions in order to reach this objective. The accord must be a compromise between the rich industrialized countries and the developing ones. Meanwhile, the preoccupation of civil society with global warming has lately seen a significant raise.

On October 8th 2009 a new treaty on pollutant effects has come into operation: The Pollutant Emissions Protocol and the Chemical Polluters Index at the UNECE Convention from Aarhus, adopted in Kiev in May 2003. The Protocol provides the identification of the biggest polluters from the European communities, including greenhouse effect gases that contribute to climate changes. The Protocol asks from the companies to report yearly on pollutant emissions into the atmosphere as well as the chemical industry polluters, including greenhouse effect gases, dioxins and heavy metals such as mercury. The information is then uploaded in a public register accessible on the Internet. The pollution sources, small but very spread, as well as the traffic ones, emissions from agriculture and from small and medium enterprises are included in the national pollution registers. There has been an improvement in the companies’ behaviour towards the environment in the countries where there are already registers and the pollution information is listed.

### **3. The European Union commitments**

In Copenhagen, in December 2009, EU will announce that it will commit to limit the increase of the global temperature with less than 2°C compared to the average recorded temperature, based on solid scientific evidence, according to which the climate changes will become dangerous if this threshold is crossed. In order not to cross the 2°C threshold, the global emissions must not increase before 2020 and after this date they must decrease to less than 50% from the levels in 1990 until 2050, according to a European Commission official statement. This will require the mobilization of both the developed and developing countries. The developed countries must take the initiative and reduce their collective emissions by 30% compared to the levels in 1990 until 2020 – specified the European Commission in a statement dedicated to the preparation of the Conference. The European Commission statement proposes to this end, specific parameters that ensure a comparable level of efforts for reaching the national objectives, as well as the urge for all the EU and Economical Development and Cooperation Organization member countries, the candidate and potential EU candidate countries to assume these objectives on emissions.

Regarding the developing countries, except for the poorest of them, they should limit by 2020 the increase of their collective emissions to a 15-30% lower level compared to the one reachable without any measures. This limitation should include a rapid cut of the emissions generated by the tropical forests exploitation. Also these countries should commit to adopting low carbon emission development strategies that would regulate all the key pollutant sectors by 2011. All of these strategies will be evaluated by a new international mechanism that will find the appropriate external support for the proposed actions. According to the European Commission, it could become necessary to increase the net, global investments of the planet countries to approximately 175 billion euro per annum starting 2020 in order to reduce the emissions – according to some independent previsions. More than half of this amount will be necessary for the developing countries. The financial support for the actions overcoming the internal resources of a country should come from sources including public funds and international credit mechanisms regarding carbon emissions.

The Copenhagen accord should have provided the countries a support function in view of adapting to the inevitable climate changes. To this purpose, it should have been imposed on all the developed and developing countries the elaboration of national adjustment strategies, while the small island states and the less developed countries must be helped to adapt. The European Union has offered to explore the possible innovative international financing sources based on the „polluter pays” principle and on their solvability. By 2015, the EU should pursue the development of a carbon market on the Economical Development and Cooperation Organization countries level by connecting its own ETS system to other comparable limiting and trading systems in order to diminish climate changes and to raise funds to fight them. The market should be extended to include the big emergent economies by 2020, in view of creating a world carbon market.

At the beginning of September 2009, two months before the Copenhagen Conference, the EU declared its disappointment about the lack of results in the negotiations on climate changes and predicted a failure of the December summit: „Everybody is disappointed of the negotiations’ rhythm, even if personally I did not expect much. No compromise has been reached yet. We are still a long way from an accord in Copenhagen and we only have 60 days left for negotiations.” said the EU Climate Unit Head, Artur Runge-Metzger. The European negotiator mentioned „intention statement actions” but also „obstacles” during the two weeks „pre Copenhagen” negotiations in Bangkok. „We will not have an accord before the last Copenhagen night” said the EU negotiator adding that it was obvious that a detailed accord could not be reached. These would have to be worked out in the future, he explained.

The EU announced a 100 billion euro per year support by 2020 to the poor countries to fight global warming. This amount was agreed on by the European leaders reunited in Brussels at the end of October 2009. The distribution of this amount is still to be decided. The climate changes control financing issue has been a subject of the Copenhagen negotiations: another main discussion topic was about how much money are the industrialized countries – considered responsible for the global warming – willing to give to help the poor countries adapt to the climate changes. The distribution of the amount among the 27 community countries and other world countries is not settled yet. The EU leaders have established that all the member countries contributions must take into account the less prosperous community countries capacities by an internal adjusting mechanism.

« We have a difficult path ahead of us and we must not be distracted by Plan B discussions, if we do not want to end up with a Plan F, for failure », warned the President of the European Commission, Jose Manuel Barroso, adding that « as a non profit organization has recently shown, there is no Plan B since we do not have a Planet B ». The preliminary meetings in Bangkok have been followed by discussions at the UN in Barcelona on November 2<sup>nd</sup> and 3<sup>rd</sup>.

#### **4. Deaf dialogue**

In the process of limiting human aggression on nature, the two present economical super powers, the USA and China must each an accord on pollution. These two economies are issuing together, on the entire planet scale, 40% of the greenhouse effect gases. China wants to play a constructive part in improving the situation and asked from the Americans to improve their former offer on greenhouse effect gases emission by 2020. China could „discuss” the objective of a 50% greenhouse effect gases emissions reduction by 2050, on condition that the industrialized countries also commit for a considerable reduction, and, mainly, increase their financial support for the developing countries who need large amounts to adjust to this evolution.

The USA have established before the Copenhagen summit a target of 17% below the 2005 level of pollutant emissions, for the next 10 years. The USA intention is to cut the emissions by 83% by 2050. The target observes the current legislation from both chambers of the American Congress and shows a significant contribution to an issue that the US has neglected for too long.

George Soros, the billionaire, has suggested that the funds for the carbon emissions reductions and the financial concentration targeting the climate changes limitation be hosted by the International Monetary Fund and the rich countries be able to contribute to it. George Soros is also considering the EU offer to donate annually 100 billion euro to the countries affected by climate changes.

Among the usage objectives for these amounts are the tropical forests protection, afforestations, modernizing farms and sustaining energy programmes. The American Congress must approve the plan to create such a fund. It is also known that France and Great Britain have made a partnership of 2 billion dollars in this domain.

#### **4. The World Environment Union**

The Environment Union is the next big project for the EU in fighting the climate changes. At the beginning of September 2009, British Foreign Affairs Minister David Miliband requested the European leaders to show more determination in their efforts to finalize an accord on climate changes until December 2009 when the Copenhagen Summit was scheduled. He warned that a global post Kyoto accord is uncertain and he suggested among other things that EU member countries start an Environment Union which should constitute a “catalyst” for a world that has overcome the threat of carbon dioxide”. Absorbed by the numerous priorities of the present, such as economic straightening, the situation in Afghanistan and nuclear non-proliferation, we do not see a problem until it is too late. To balance the situation, at the beginning of September 2009, the British government has started a new diplomatic initiative with its European partners from France, Finland, Denmark and Sweden focusing on four fronts.

First of all the climate changes must be removed from the „environment protection” category. A global accord is not only desirable but more likely imperative for the national security and the medium term sustained economic straightening. Moreover, it must be given the same attention as fighting terrorism. The high petrol and food prices have started the current economical crisis, have led to global financial imbalance and have increased the interest rate. The resources crisis together with the credit crisis is the second recession activating factor. The climate changes will cause mass migration, draught and water supplies diminution. All of these will generate tension as well as national and international conflicts. If now the global warming is not on the UN Security Council agenda it will certainly be if we do not cut the carbon emissions.

Secondly, we need an accord to allow the mobilization of all political factors and of citizens to reduce the effects of our actions on the planet climate. The climate changes are a non-linear phenomenon. Scientists warn that at an increase of global temperature by more than 2°C, the effects on the planet can become catastrophic. Even worse, there is an increased risk that this situation creates a vicious circle which in its turn will produce uncontrollable climate changes such as the melting of the permafrost.

On the third hand, the biggest provocation of closing an accord in Copenhagen is the equal distribution of the responsibilities between the developed and developing countries. The developed countries have a historical responsibility for this issue and they issue more carbon dioxide per capita. But, in the future, the developing countries will be responsible for most of the emission increases and will sustain the highest costs of the climate changes. The developed countries must operate ambitious emission reductions equivalent to 25% up to 40% by 2020. These countries must offer the necessary technology and finances to allow the poorer countries to develop low carbon emission energy sources and to adapt to the already existing climate changes. In exchange, taking into account the current development level, we cannot expect the poorer countries to reduce the general emissions level but to commit to operate changes in their economy based on high carbon dioxide emissions.

On the fourth hand we need a tactical change. The climate changes are not a game where everybody loses or wins all the same, so we should not adopt such tactics. If the poor countries know that the rich ones are ready to assume responsibility, I believe they will become more involved. Thus, the Japanese government’s decision to cut pollutant emissions from 8% to 25% by 2020 as compared to the levels in 1990 is salutary. We need examples and radical interventions in the pollutant emissions reduction area to allow the poorer countries to begin their transition to development and adjustment based on low carbon emissions.

Great Britain has announced through their Foreign Affairs Minister its decision to give a positive example that will facilitate the conclusion of the accord. Great Britain is the first country which has established a compulsory target from a legal point of view, to reduce the emissions by 34% by 2020 as compared to the levels in 1990 and by 80% until 2050. However, Great Britain’s example could have a higher impact if there was mobilization on EU level.

The EU disposes of the first carbon market in the world, a market that transfers funds to the poorer countries where the emissions reductions are the most advantageous from an economical point of view. The EU is at the same time the biggest unique market in the world. When it sets standards, the EU takes into account the stimulation of innovation. The EU is the second biggest world donor after the USA when it establishes a financing package dedicated to fight the climate changes, it can encourage action from the developing countries. The climate changes must have a top position on all the agendas of the debates organized by the EU responsible. The next big project for the European Union – the Environment Union – will be the “catalyst” for a world emerging after the threat of carbon dioxide. The fight against climate changes implies science, economy and technology. Nevertheless, reaching the accord depends on political decisions.

Audio recordings from beside the scenes of the UN Summit in Copenhagen regarding climate changes, which have come into the possession of the German publication *Der Spiegel*, reveal opinion

differences between France, Germany and the USA on the one side and China and India on the other side, bigger than what was believed so far. The recordings were „accidentally” made during a reunion of 25 leaders among which German Chancellor Angela Merkel, French president Nicolas Sarkozy, American president Barack Obama and the China and India representatives.

Angela Merkel expressed her frustration to the Indian representative who refused to make a precise commitment on the CO<sub>2</sub> emissions reduction targets: „This means you do not want anything legally compulsive!” said Merkel who was contradicted by the Indian official: „Why are you making assumptions? This is not correct.” When Angela Merkel presented Europe’s request for a commitment to reduce by 50% the greenhouse effect gases emission by 2050, the Chinese chief-negotiator suddenly replied: „Thank you for all the proposals. We have already said that we cannot accept the long term 50% reduction target” said the Beijing representative. At that point French president Nicolas Sarkozy intervened: „With all respect and friendship for China, the West has already undertaken a 80% reduction by half century. And China, who will soon be the first economy of the world says now „These commitments are for you, not for us. This is unacceptable. Somebody must react to this hypocrisy”, said the French president.

Barack Obama tried to moderate the discussion but he also expressed his frustration that the Chinese Prime Minister preferred to remain in the hotel and send his chief negotiator to the meeting: „I know there is Chinese Prime Minister in the area, one that makes important decisions”, said Obama who subsequently addressed the Chinese chief negotiator He Yafei: „The Prime Minister gives you instructions to this end”. „I do not speak for myself here. I speak for China. I have heard president Sarkozy speaking here of hypocrisy. I would avoid such terms.” said He Yafei, who added that the industrialized countries must assume their part of responsibility after causing 80% of the greenhouse gases emissions for a century. Do not avoid this.” also said the Chinese official.

Angela Merkel explained after the summit that one of the reasons of the Copenhagen failure was that the discussions took place in a limited leaders circle and the „regional groups felt excluded from the debates”.

Denmark’s former chief negotiator in this file, Connie Hedegaard - who meanwhile has become European Commissioner for climate changes – defended the organisation of the event by her country in an interview for British daily paper *The Guardian*: „It is always easier to say after the event that we should not have done a lot of things. If we had not done what we did, we would not have had this debate and there would not have been the mobilization we see today.”

### 5. Romania’s position

Romania took part in the highest level UN reunion, president Traian Basescu representing the country on December 17th and 18th in Copenhagen. The mandate of our country’s delegation was the one established by the EU country and government heads reunited in the European Council. Thus, even before the Copenhagen Conference, the EU member countries have voluntarily assumed the ambitious 20% greenhouse effect gases reduction target by 2020.

Romania unconditionally supported the EU’s commitment to real targets in fighting climate changes, motivating at the same time that each country must assume responsibilities and costs according to its own emissions. From a national point of view, although a future post Kyoto accord may prove constraining for the economic agents, it is estimated that the carbon emissions reduction policy is consequent with the long term modernization and development trend of Romania, with the final end of limiting pollution effects on the population.

### 6. Conclusions

The Copenhagen accord proposed global atmosphere pollutant emissions reduction targets and, such as it was negotiated before the conference opening, it laid the foundation of the world countries’ adjustment capacity consolidation to the climate changes. The accord sets the limits of greenhouse effect gases pollution thus replacing the Kyoto Accord followed by the Bali Accord.

The creation of a Green Climate Fund by the developed countries, that would provide the imagined financing of 100 billion euro for the production of “clean” energy, requires at the same time the official acceptance from the emerging economies of their co-responsibility in making efforts for the climate.

The World Union on Environment or the The World Union for Environment – which the EU proposed for the first time in its capacity of institution charged with pollutant emissions reduction as source of the climate changes – is a parable whose evidence needs no further demonstration. The wide globalization phenomenon is already under the influence of this parable.

Our country is also a participant in the world process of pollutant emissions reduction as the main source of climate changes diminution. It is necessary that Romania demonstrate its most active presence on the carbon certificates market which already allows the mediation of a new kind of trade – the atmospheric emissions trade, depending on the level of economic development of the respective country.

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## THE RECONFIGURATION OF THE ROLE OF STATE IN ECONOMY AT THE BEGINNING OF THE 21<sup>ST</sup> CENTURY FROM THE PERSPECTIVE OF THE EUROPEAN MODEL

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**Abstract:** *This paper presents preliminary research results from the literature review related to the evolution of the State as an economic actor from the Great Depression to current crisis, in Europe. Based on the conclusions of bibliographical and direct documentation regarding the two parallel processes: the fragmentation of power, the transformation of the Nation State and the affirmation of the European Union as a new system of “governance”, the goal of the paper is a radiography of the reconfiguration of the role of State in Economy and of the trends regarding the “European governance” at the beginning of the 21st century.*

**Key words:** *Role of State in Economy, Nation State, European integration, European governance, exiting the crisis*

**JEL Codes:** *B22, H10, H75, H77, N44.*

### Introduction

The first activity in the project: “*Growth and regional development economic policies. Challenges for Romania in the context of economic-financial crisis and European model integration*”, has noticed in the study of the literature dedicated to *the role of State in economy at the beginning of the 21st century*, in order to contextualise the study referring to the European Union, taking into consideration both the characteristics of the European model and the theoretical perspectives the key concepts are used in. Thus, we carried out a review of most of the documents, studies, scientific papers using the concepts such as the *role of State in Economy, State versus Market, Nation Stat, globalization, localization, European integration, governance, European governance, multi-level governance, policy network, multi-level policy network, better regulation, smart regulation, exiting the crisis* etc., following the way in which they are referred to, as well as the stages, current trends and future challenges.

The results of this analysis are presented considering the evolution of the State as an economic actor from the Great Depression of 1929-1933 to current crisis, started in 2008, an evolution synthesised in three major stages: *the State versus Market “pendulum movement”* (the second half of the 20<sup>th</sup> century); *the National versus European versus Global “policy pendulum”* (the threshold between the 20<sup>th</sup> century and the 21<sup>st</sup> century); *“the road of complexity” in European governance to “exiting the crisis”* (the beginning of the 21<sup>st</sup> century).

### ***The State versus Market “pendulum movement”. The second half of the 20<sup>th</sup> century***

The State as an economic actor has been facing since the Great Depression of 1929-1933 to the current crisis started in 2008 the *attraction* (“call for help”) versus *rejection* tendencies.

In our opinion, the role of the State in Economy is autonomous, it can be distinguished separately from the political process, by pertaining to the Market as a fundamental economic space, respectively with the maturation of the three distinctive roles that the State has in Economy: *allocative, distributive, and regulating*, a stage which we call – *the State - an economic actor* (Dodescu, 2000).

The autonomization of the role of the State in Economy is related to the consequences on the State – Economy relation determined by the First World War and the Great Depression of 1929 – 1933. The end of the war triggered special public spending: subsidies to better the war damages etc. and, implicitly, the relative rise of public spending, which, after war, reached almost 30% of the annual national wealth in 1870 – 1914. Financing these spending was possible only by following the budget deficit way. Although generated by exceptional circumstances, the trend to rise the public spending does not record a reduction in the following years, yet, the consequences of the Great Depression of 1929 – 1933, trigger a new wave of public spending rise. The tough lesson of the Great Depression and the influence of Keynesian ideas represented the

premises of several important administrative and legislative actions (the Roosevelt administration's New Deal) and the reconsideration of the role of the State in economy. Vested with a new function – *economic stability*, the State becomes an economic player, an intrinsic component of an economic mechanism structured from now on into: private sector and public sector. The *protective attitude* of the State is amplified (the social protection systems are consolidated in all the European countries); moreover, the *productive attitude* of the State gave birth to. The incidence of Keynesian ideas regarding the need for public action on the global demand makes “the iron rule” of the balanced budget to be forgotten, the public budget becoming a means of active implication of the State in Economy. The occurrence of economic objectives and the emphasis on the social objectives in the field of public spending trigger a new expansion and, implicitly, the fiscal accrual (Dodescu, 2000).

The Second World War supplies another series of so-called “exceptional circumstances” further determined by the trend of public spending rise. The end of the Second World War consolidates a new hypostasis of the State as an economic player, we are witnessing, as it is normal, considering the context, the legitimating and expansion of the authority of the Western European Nation-States, justified by the need for economic reconstruction after the war and the need to insure public goods related to insurance, security, public order etc.

For our analysis, the year of 1945 has two important meanings. The first meaning is related to the *right/left* or *West/East division of Europe* and, implicitly, to the European Nation-States, considering the guilt blames for the war horrors. Considering that the guilt for the two world wars belongs to capitalism, the States in Eastern European will abandon capitalism and democracy, choosing, under the influence of the Soviet Union, the “*left path*”, the Marxist-Leninist doctrine, the solution of instituting socialism as an economic system and centralizing the political power. On the other side of Europe, in defence of capitalism and democracy, the European nations will choose the “*right path*” and the solution of tight integration in a future unified Europe, towards what Winston Churchill called in 1946 – “The United States of Europe” (Baldwin and Wyplosz, 2009, p. 7). The second meaning is related to *the birth of the Welfare State*, in Western Europe, as a result of the more insistent demands for the increase of the State's responsibility regarding the risks of injustice of the capitalist system. According to the consecrated meaning of the term – that of a State taking responsibility to ensure its citizens a certain level of welfare, the hypostasis of “Welfare State” reflects the *social-economic function* of the State as an economic actor.

In the second half of the 20th century, the evolution of this function was permanently followed by litigations. They refer, first of all, to the existence, apart State, of a set of factors which contribute to the individual's welfare: the family, the community, the non-governmental organizations, the charitable organizations, the relief networks etc. within a so-called “society of welfare”, “mixed economy of welfare” or, more suggestively, a “pluralism of welfare”, which suggests that the State is not the only instance responsible for and capable of ensuring people's welfare.

Even though differently worded from country to country, *the evolution of the “Welfare State”* means in the 50's – 70's the expansion of the social assistance systems and of the institutional and legislative arrangements meant to help the latter. The most debated trend regarding the evolution of the State-economy relations at the end of the 20th century is *the trend to increase the public sector and the degree of the State's involvement in Economy*. Measured based on the percentage based ratio between the volume of total public spending, less the expenditure of public enterprises, and the gross domestic or national product, the size of the public sector recorded a spectacular evolution in the second half of the 20th century, and in the 80's it reached between 40% and 50% in the greatest part of developed economies. On the whole, the European states doubled their public spending in 1988 compared to 1938, as a percentage of GDP (Roubini and Sachs, 1989). In spite of all these, in the interval 1982 – 1988 there is *the tendency to decrease the public spending*. The cause of the sensitive decreasing of the public sector after 1980 is the application of an ample development policy. The *denationalization, privatization experiences* contributed to the occurrence of some theories regarding the cyclicity of the degree of State's involvement in Economy (Dobrescu, 1992), and the State-Market “*pendulum movement*” or nationalization-denationalization (Dogan and Pelasy, 1992).

The area of action for the State at the beginning of the 90's contains fields like: national defence, justice, security, social protection, education, research, health, culture, transports, energy, communications, environment protection etc.. The Welfare State is more and more accused of having become a huge machine of inequitable transfer and that, under the cover of the protection net promising welfare, spreads its “tentacles” on the entire economy, suffocating it (Dogan and Pelasy, 1992). Friedman and Hayek's technocrat and conservative version of capitalism gets ground in Europe, too, due to the litigations against the Welfare State which is required to withdraw from some economic sectors, to give up to some capabilities

in terms of public policy. These requirements come, on one hand, as a result of the *change of paradigm regarding the degree of State's involvement as an economic actor*, on the other hand, they are the result of the *development of common policies at European level* as result of the Treaty of Rome (1957): commercial policy, policy in the field of competition, agricultural policy, regional policy, to start with. In the same time, the Nation-States became more cautious and careful to divide the competences of economic policy; the increased attention paid to the principle of subsidiarity at the end of the 80's being an argument in this view.

There is more and more often the idea of the "*Nation-State Crisis*" based on the launch of the informational society and the process of economic *globalization* (Toffler, 1996). In Naisbitt's words, "the macroeconomics of the Welfare State gives ground to the microeconomics of informational society" (Naisbitt, 1989, p. 223). In Korten's view, this crisis is originating in the divergence between local, national, and corporate interests, in an accelerated social and ecological disintegration process, due to the continuous pursuit for economic growth, as a principle of organization of public policy and the transfer of power from the governments to financial corporations and institutions whose objective is by far the public welfare (Korten, 1998). The decentralization of economic policy, the synchronization of public interests at the local, regional, sector level with the local interests and needs is more and more called down. There is, also, the opinion that the world order has changed, the "thickness of institutions" (Amin and Thrift, 1993), the increasing of uncertainty and vulnerability, divergence of interests and constraints, responsibility and risks creates a "risk society" (Beck, 1992), the dependence on international financial bodies; the economic-financial interdependence; the economic integration etc. make the traditional role of national governments, that of administrator of national economy, not to be justified, that the national governments are "morally eroded" (Ohmae, 1990).

The situation is completely different in Central and Eastern Europe where, during 1950 – 1990, socialism evolved towards totalitarianism, and the *Party-State* or the bureaucratic State towards an "institution controlling and corrupting the State, society, and economy" (Hermet, 1984, pp.159-179). The collapse of the communist block was followed by the radical limitation of the role of the State and the "*deconstruction*" of the *Party-State* (Rose, 1994).

Summarising, the evolution of the State at the end of the 20th century, in Europe, is characterised by the following major trends: *the expansion of the public sector, the hypertrophication of the bureaucratic apparatus; the depreciation of the Nation-State* (Dodescu, 2000, p. 27).

### ***The National versus European versus Global "policy pendulum". The threshold between the 20<sup>th</sup> and 21<sup>st</sup> centuries***

The threshold between the two centuries, characterised by the phenomenon of globalization, finds, on one side, the European national States labelled as "inadequate", "colossus with feet of clay" (Dogan and Pelassy, 1992), on the other side, finds an institutionalized European Union, as an attractive, sophisticated, elitist, and, implicitly, adequate alternative to the political process at the level of Nation-States.

Helen and William Wallace suggestively point out, in our opinion, using the "*metaphor of a pendulum*", this complex context from the end of the 20th century and the beginning of the 21st century, in which the global, European, transnational, and national arenas and dimensions interweave (Wallace and Wallace, 2000). It is actually, a context of competition between the Nation-States of the European Union for *the preservation versus the supranationalization* of economic policies, but, also the stating of the superiority of the European Union only in condition to provide inaccessible political solutions at national level in the context of globalization. According to Helen and William Wallace, "the policy pendulum that swings between the national political arenas of the participating member states, on one side, and the transnational arena, with its global and European dimensions, on the other and the transnational arena... Each of these arenas is a kind of magnetic field that attracts or repels the policy-makers, the claimants of policy, and would-be policy-influencers" (Wallace and Wallace, 2000, p. 45). The tendency to reconfigure and stabilize a policy at European level or, on the contrary, to preserve it at the level of the Nation-State depends, therefore, on the relative strength of these magnetic fields.

Moreover, Helen and William Wallace show that there is a debate regarding the globalization-Europeanization relation, a debate reminding of the "story of the hen and the egg" (Wallace and Wallace, 2000, p. 53). According to the authors, on one side, the most common features defining globalization – are overlapping not only the four "freedoms of movement" characteristic to the single European market stipulated by the Single European Act (1986), but, also the "arenas" of common policies identified previous to any debates on globalization by The Treaty of Rome (1957). On the other side, the European Union is a reaction to globalization, common economic policies: single market, commercial policy, single currency,



environmental policy or social policy etc. have reduced Western Europe's vulnerability to the phenomenon of globalization. In this context, the characteristics specific to Western Europe must be underlined, characteristics whose roots are in the same time historical – the preoccupation for collective security and geopolitical stability, geographical – overpopulation, political – the tendency towards democratic liberal systems, and economic – the development of the Welfare State, of some different social insurance systems etc. (Wallace and Wallace, 2000, pp. 54-56).

These characteristics are explanatory for the *European model* that combines *economic growth, political freedom and social cohesion*, economic growth and social cohesion are, particularly for European model, the core issues of political freedom (Dinu, 2010, p.467). Architecture of the European model, which, of all known models, according to Dinu, “relying on risk-free to regulate sacrifice” is not random, just as there is no random earlier development of the Welfare State. The explanation is tied the fact that Europe has asserted, through its state and its development models, its humanistic culture alignment (Dinu, 2010, p.467).

The complexity of the changes at the beginning of the 21<sup>st</sup> century is given by the simultaneous relevance of *globalization, Europeanization, European regional integration and localization*, the combined influence of globalization and localization being suggestively represented by the concepts “*glocality*” - an intermediate position between the two polar opposite cases of a fully territorialized – “economy of interdependencies and specificities” - and the fully deterritorialized “economy of flows and substitutions” (Storper, 1995, p. 605-644) and “*glocacity*”, concept introduced by OECD, that became very popular, with the meaning of the capability to act locally with a global perspective, and to be effective globally with both global and local perspectives.

The analysis of the reconfiguration of the role of State in Economy at the beginning of the 21<sup>st</sup> century from the perspective of the European model requires the need for a parallel analysis of two categories of *theoretical debates*: those related to the *power/decline of the Nation State* and those related to the *intergovernmental/supranational perspective regarding European integration*, respectively the need for a parallel analysis of two *processes*: *the fragmentation of power and the transformation of the Nation State*, on the one hand, and *the affirmation of the European Union as a new system of governance*, on the other hand (Milward, 2000, pp. 352 – 425).

According to Antje Wiener and Thomas Diez, there are three stages in the evolution of the debate regarding the European integration in the second half of the 20<sup>th</sup> century: the 60's – explaining integration (the debate between neofunctionalism and intergovernmentalism), the 80's – analyzing governance (the interdisciplinarity), the 90's – constructing the EU (Wiener and Diez, 2004).

The debate between *neofunctionalism/supranationalism* versus *realism/intergovernmentalism* regarding European governance - exploring the nature of “the beast” (Risse-Kappen, 1996) - has actually never ended (Wincott, 1995 *versus* Moravcsik, 1995), determining the occurrence of a series of alternative approaches: *new institutionalism*, “*multi-level governance*”, “*network-governance*”, “*multiperspectival policy*”, “*policy network*”, “*misfit governance*”, “*good governance*”; debates about the goal or finality of EU integration, EU governance, and the normative implications of particular EU policies focused on substantial question about “constructing”, and limiting EU integration, “*social constructivism*” etc. (Nugent, 2006; Wiener and Diez, 2004; Sandholtz and Stone Sweet, 1998).

Of all the alternative approaches, without being well out of it (Rhodes, 1996) “*multi-level governance*” (Piattoni, 2010; Hooghe and Marks, 2001, 2005; Marks, Hooghe and Blank, 1996) is the most “prominent” approach (Börzel, 1997), enjoying the reputation of most accurately expressing the transformation of the Nation-State under the impact of European integration. The European construction, considered a prototype of the post-modern State, represents an exquisitely elaborated form of this multi-level system of governance (supranational, transnational, euro-regional, national, regional, local etc.), of the pluralism of the actors involved in the decision-making process (supranational actors – European Commission, European Parliament, Council of the European Union, and European Council; national actors – EU Member States; subnational actors – regional and local authorities; private actors – interest and lobby groups; civil society) and of the shared competences.

Very frequently, “*multi-level governance*” is criticised for the predominant emphasis on the “*multi-level*” component (referring to the relations between the territorial levels of *government*) against the “*governance*” component (referring to the relations between the public and private areas) (Börzel, 1997) or for the use of the term “*level*” implying a ranking, recommending the term of “*location*” which better responds to the process of policy making in the European Union, from local to global, noting that we can rather speak about a variety of *localizations* than *levels* (Wallace and Wallace, 2000, p. 80).

The concept of “*multi-level policy networks*” (Börzel, 1997) as a result of the combination of the concepts of “*multi-level governance*” and “*network governance*” most appropriately responds to criticism and most appropriately corresponds, in our opinion, to the way in which the policies are designed and implemented in the European Union, in the context of complexity resulted from the contrary current trends: globalization *versus* localization.

***The “road of complexity” in European governance to “exiting the crisis”. The beginning of the 21<sup>st</sup> century***

In the European Commission’s acceptance, the concept of “*European governance*” “refers to the rules, processes and behaviour that affect the way in which powers are exercised at European level, particularly as regards openness, participation, accountability, effectiveness and coherence. These five “principles of good governance” reinforce those of subsidiarity and proportionality.” (European Commission, 2007). The debate in the European Union regarding “*European governance*” was launched by the European Commission, when drafting the *White Paper on European Governance*, adopted in July 2001, that was meant to contain the rules, procedures, and practices affecting the way in which the power within the European Union is exercised, in order to adopt new forms of “*governance*”, which should bring European Union closer to its citizens, to make the democracy in Europe more efficient and to consolidate the legitimacy of the institutions in the EU. The White Paper hallmarks the beginning of the new public policy making process which should involve more people and organizations in the delineation and application of the EU policy. Five principles: *openness, participation, accountability, effectiveness and coherence* and five levels of governance: *global, European, national, regional and local* are established in the White Paper (European Commission, 2001).

As it results from the analysis of the White Paper, “*European governance*” requires a more pregnant involvement of the citizens; the reorientation of policies and institutions; better policies, regulations, and public performance. The most innovative aspects of the White Paper are related to the regulating process: the participation of the civil society, the evaluation of the impact of public policies, the use of experts, the decentralization by regional agencies, the convergence of national policies etc. For the present analysis, of an utmost importance is the way in which the White Paper describes the geographical decentralization of the EU policy – the involvement of local and regional actors in the decision making process and the implementation of community policies, the use of “tripartite concepts” and the division of the skills and responsibilities at the level of EU – Member States – regions, the systematic and proactive approach of the key networks in order to implement the decisions and policies, to create the framework and to get the EU support for the cross-border cooperation between the regional and local actors (European Commission, 2002).

The debates on the White Paper subject were not isolated. Furthermore, promoting *new forms of European governance* represented one of the strategic priorities of the European Commission in 2000 - 2004. Since 2001, the development of the concept of “*European governance*” has been on the European Commission’s agenda – at the debates regarding the *Future of Europe*, the *European Constitution* and the *Treaty of Lisbon* and, more recently, the *Europe 2020 Strategy*.

It is worth noticing the way in which “*European governance*” has become, as a result of the White Paper implementation on the three directions of reform: *more involvement of the citizen and more openness; better policies, regulation and delivery; and the “global governance” dimension added to the European governance*. Following the evolution of European governance as it results from the strategic stages and documents mentioned above, there can be inferred a series of *trends* regarding the EU’s efforts to “*shape the globalization*” and respond to the higher uncertainties in the world economy, culminating with *global economic crisis*, combining openness with the protection or the legitimate defence of European interests:

1. ***The configuration on different hierarchical “levels” and different “locations” of European governance concomitantly with the reconfiguration or fragmentation of the power of the Nation-State*** – the increase of the supranational regulatory capacity by accentuating the importance to use the *acquis communautaire* concomitantly with the increase of the preoccupation for the decentralization of the economic policy competences at the regional level complying with the principles of subsidiarity and proportionality, for the inter-sectorial approach and coherence of the EU policy programmes, especially the cohesion policy and the national programmes (European Commission, 2001, 2003, 2005a, 2007, 2010a).

2. ***The accentuation of the role of networks in making and implementing policies, the transformation of “European governance” into “network governance”*** considering the efforts regarding a more involvement of the citizen and more openness (White Paper) and participative democracy (Treaty of Lisbon) had led to what was subsequently called - “*network governance*” due to the “matrix of partners” connected to

“*trans-European networks*” specific to policy making and governance: the European Union, local and regional governments, the so-called “*organised civil society*” formed of: social partners (trades unions, employers organizations), trade associations, professional organisations, and non-governmental organisations (NGOs), such as environmental organisations, human rights organisations, consumer associations, charitable organisations, educational and training organisations, and community-based organisations (CBOs) such as youth organisations, family associations, organisations through which citizens participate in local and municipal life, even churches and religious communities. In the European Commission’s terms, these European actors are “*stakeholders*”, and “*multipliers*”. The development of networks has become in time a reality inseparable from the “European governance” due to their capacity to be flexible in managing some complex issues resulting, on one side, from the outside of the Union – the international trends, on the other side, from the inside – the diversity of the administrative structures and cultures at the level of the Member States. Including in the debate an important number of partnerships and “stakeholders”, the networks allow the making of policies in accordance to the diversity of continuously growing needs and, subsequently, the increasing of the acceptability for policy implementation. Currently, in the European Commission practice, there are four categories of networks: networks for information and assistance to citizens and organisations on Commission policies or programmes; networks for consultation when defining or reviewing a policy or a programme); networks for implementing and adapting EU policies such as programs or legislation); networks for developing policies/policy making, including regulation) (European Commission, 2007).

3. ***The “emancipation” of the regulating policy from “better lawmaking” to “better regulation”, and to “smart regulation”*** considering the increasing acceptance of the idea, especially considering the economic-financial crisis, that “the markets do not exist isolately”, and cannot achieve exclusively on their own, “unlike the regulating plays a positive and necessary role” (European Commission, 2010a). Compared to “*better lawmaking*” (European Commission, 2002) and “*better regulation*” (European Commission, 2005b), the “*smart regulation*” (European Commission, 2010a) refers to the entire policy cycle – from conceiving a legislative document to its implementation, compliance, evaluation, and revision; it implies shared responsibility of the European institutions and Member States and it takes into consideration the points of view of the “most affected by norms” (European Commission, 2010a). The objective is to conceive and make norms complying with the principles of subsidiarity and proportionality and having the highest qualitative level possible. The instruments are the *ex post* evaluation of legislation, evaluation of adequation, evaluation of impact, preventive actions, the consultation of citizens and stakeholders, the consultation of experts etc. The preoccupation for the reduction of bureaucracy and administrative tasks is mentioned.

4. ***The progressive accentuation of the importance of economic growth as a strategic objective of European governance under the progressive impact of globalization and economic-financial crisis*** - starting from stating the priority of economic growth in the context of a development strategy of the EU - Lisbon Strategy, re-launched in 2005, which contained priorities related to social dimension, information and communication technologies, flexicurity, energy and climate changes (European Commission, 2005b) to an integrated approach of smart, sustainable and inclusive growth, within a special growth strategy – Europe 2020. In order to “*exiting the crisis*” and to accelerate Europe’s economic recovery, Europe 2020 Strategy established three main fields for a “*mix European governance*”: a rigorous fiscal consolidation to increase the macroeconomic stability; structural reforms ensuring the increase of the employment rate and measures to stimulate the growth (European Commission, 2010b).

### Conclusions

The current analysis did not intend to cover the entire literature of the field, but to synthesise the key concepts, to delineate the stages and the trends concerning the reconfiguration of the role of State in economy at the beginning of the 21<sup>st</sup> century from the perspective of the European model. Two processes: *the fragmentation of power and the transformation of the Nation-State* and *the affirmation of the European Union as a new system of “governance”* are hallmarking the evolution of the State as an economic actor from the Great Depression of 1929-1933 to the current economic-financial crisis.

The complexity of the 21<sup>st</sup> century changes – the simultaneous relevance of globalization, European regional integration and localization, requires the renunciation to the traditional approach of the role of State in Economy, based on the approach of the public sector by analogy and in opposition to the private sector, *State versus Market* “mirror approach” (Dodescu, 2010) characteristic to the literature on the public economics at the end of the last century (Atkinson and Stiglitz, 1980; Brown and Jackson, 1990) and the introduction of spatial dimension, in a “*multi-level type approach*” of the role of State in Economy.

Of the different levels of governance of the European model, the *regional governance* reflects most faithfully, in our opinion, the complexity of the reconfiguration of the role of State in Economy, at the beginning of this millennium, within the space of the European Union and it presents the highest practical importance for Romania, as a new Member State of the European Union, whose future decisively depends on the way in which public policies will internalize the principle of sustainable development at the regional level, where the structures are more flexible and the good practices are more rapidly assimilable. Our future approaches will have in view the analysis of the decentralization of the competences of economic policy at the regional level.

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## ECONOMIC ASPECTS OF MEAT PROCESSING: COST CONTROL DURING PRODUCTION

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**Abstract:** In this paper were followed the economic aspects of the meat industry considering the necessity to find technological solutions designed to optimize energy use. From these reasons, after a presentation of energy consumption from different sectors of the meat industry, was proposed a useful objective method to establish the technological parameters and thus to optimise energy consumption, which will be reflected in the cost of the product meat

**Key words:** energy consumption, meat industry, production costs

**JEL classification:** L66

### 1. Introduction

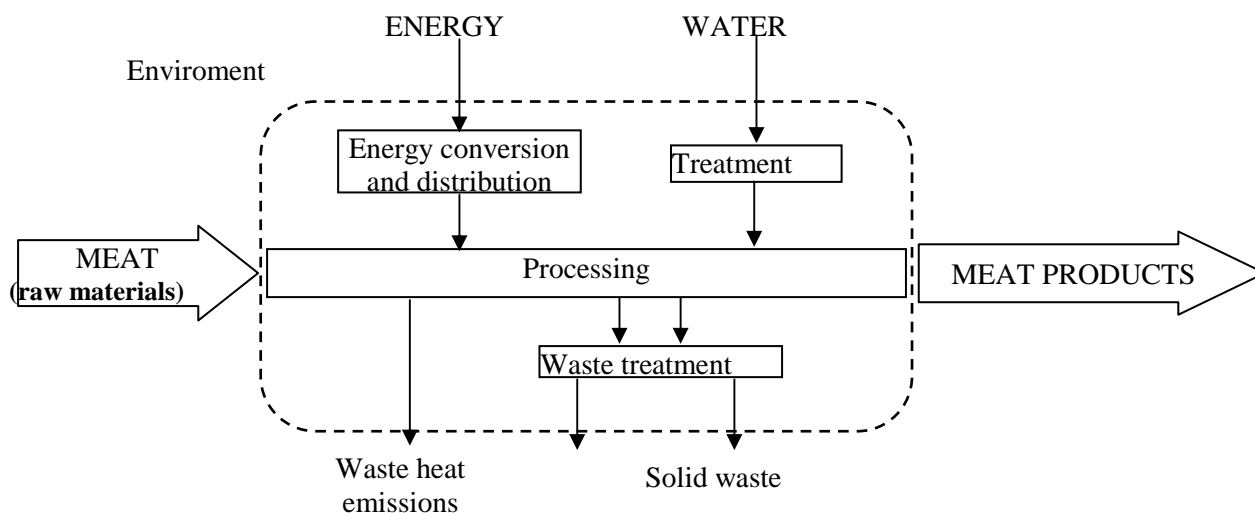
An understanding of energy flows in meat industry is principal in order to analyse the investment in and development of strategies to use energy.

The goal of this paper is twofold. Firstly to present energy consumption in the meat industry which influences the cost price of the finished product and secondly, propose an objective method for choosing the process parameters so as to optimise energy consumption and consequently the finished product price

### 2. Mass and energy flows in a meat processing

In the meat industry can be found mass and energy flows, which are presented graphically in Figure 1. Horizontal flows represents the transformation of meat as raw materials into meat products. Vertical flows are represented by the energy and water. Maximising the horizontal flows and minimising the vertical flows will minimise the production costs and environmental impact.

Fig.1 Mass and energy flows in a meat processing unit



Adapted from Muller et al., 2007

Processing, in general, and in the meat industry in particular, requires, therefore, inputs and outputs of materials, energy and information (not shown in the figure above), which are characterised by variable The variables that influence technological processes can be grouped as follows (Visan and Ghiga, 2002):

- independent variables:
  - Controlled variable – these can be modified by the operator to achieve the desired purpose (eg. the relationship between meat and fat, the amount of auxiliary materials, time parameters - temperature, etc.).
  - Uncontrolled variable – called interference, random in nature and can not be controlled by the operator. They may be given by:
    - the composition and quality of meat and auxiliary materials, animal size, etc.
    - existing equipment and facilities – e.g. they can / can not process the raw material tempered
    - economic factors - the price of raw materials, the presence / absence of subsidies, the existence / absence of taxes, buying power
    - social factors - workforce availability and their qualifications,
    - political factors - the existence of requirements or international conflict
- dependent variables:
  - performance variables - allow economic and technical evaluation of processing performance by setting the cost of production, the quantity of finished products, items, etc.. During processing, controlled variables must be set so as to achieve the desired performance values (eg. recipe is so determined that the benefit to the maximum price for a relatively low cost of the finished product)
  - intermediate variables - are those variables of the process technology that can be adjusted according to the independent variables, so that performance variables are not modified (eg. modification of a sausage recipe depending on raw material composition so that the physico-chemical properties of the finished product remain constant or changing sterilization regime where raw material has a higher microbial load)

**3. Energy balance**

Energy balance, in general, is based on the law of energy conservation and highlights the energies involved in a plant, or a technological process.

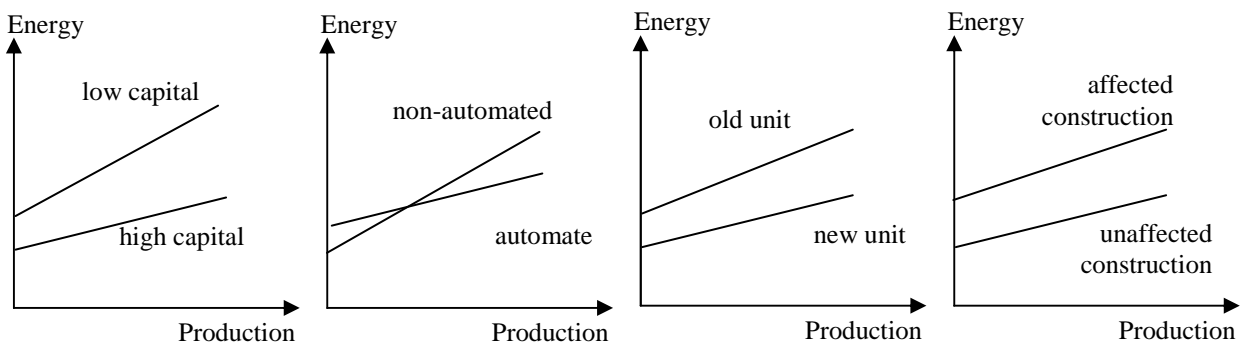
The meat industry must give particular attention to the energy aspect, especially since numerous studies show that in this area there is a close link between income and energy efficiency.

Energy management is an important element in designing a new meat processing unit, but also in the design changes to an existing plant for base load reduced energy consumption and minimise energy consumption during processing

In Figure 2 are shown (Cleland, 1997) four possible scenarios for energy consumption of the production processing unit. From the outset it is noted that as production increases are greater differences

**Fig.3 Possible scenarios for energy consumption of the production processing unit**

**a - effect on investment; b - the existence or absence of automation equipment; c - length of service processing unit; d - build quality without taking into account the technological process**



Source: Cleland (1997)

Energy distribution in meat processing vary by subsector and type of energy used. In general, fossil fuels are used mainly for heat production, while electricity is mainly used for cooling

**Table 1: Energy consumption in the meat industry**

	Energie electrică		Combustibil	
	Activitate	%	Activitate	%
Pigs slaughter	cooling	49a – 70 b	gas oven	60 a - 65 b
	slaughtering	5 b – 30 a	cleaning and disinfecting	18 a – 20 b
	water cleaning	5 b – 7 a	singeing	15 a,b
	lighting	2 a – 8 b	space heating	7 a
	evisceration	3 a		
Cattle slaughter	slaughtering	26 a	cleaning and disinfecting	80 b,c – 90 a
	evisceration	3 a	space heating	10 a,b – 20 b
	cooling	45 a,b – 70 c		
	compressed air, lighting, machines	30 c		
Poultry slaughter	cooling	52 c – 60 b	singeing	60 b
	compressed air and machines	30 b	cleaning and disinfecting	30 b
	lighting and ventilation	4 b	space heating	10
Meat Processing	cutting and mixing	40 b	cleaning and disinfecting	25 b
	cooling	40 b	space heating	15 b
	packing	10 b		
	lighting	10 b		

Source: Ramírez (2005)

<sup>a</sup> Pontoppidan and Hansen (2001)

<sup>b</sup> Infomil (1996)

<sup>c</sup> European Commission (2003)

It is noted that in the case of slaughterhouses, the cold (refrigeration, freezing, storage enclosures) is the biggest consumer of electricity (about 45-90% of total electricity) and that consumption reaches 100% during non-productive.

The development of energy efficiency achieved in the meat industry can examine through, energy use per unit of physical production, called the specific energy consumption. In addition, the meat industry specific energy consumption varies over time and from country to country. Reference specific energy consumptions in the meat industry, according to data presented by Nielsen (2004) and Schreurs (2004) for some products are presented in Table 2

**Table 2 Specific energy consumption in the meat industry**

Product	CSE ref	Unit
Cattle, sheep	1390	MJ / t carcass
Birds	3096	MJ / t carcass
Pigs	2097	MJ / t carcass
Meat products	5500	MJ / t finished product

Source: Nielsen (2004)

An energy saving strategy in the meat industry, involves using a computerised monitoring system and energy planning. The system continuously monitors

- fuel, electricity, hot and cold water;
- temperatures in the, work areas;
- whether refrigerated / freezing tunnels and deposits doors are open or closed;
- if cold installation is turned on or not.

Some technical improvements can be made are:

- insulation vessels used for sterilisation of knives used in the slaughter and cutting.



- insulation cleaning equipment facilities (apron, boots, gloves)
- insulation and rationalisation of steam pipes, water and compressed air
- real-time control of the carcasses necessary temperature drop during chilling
- computerised control valves for hot water and steam
- use warning systems when the freezer doors are left open and follow-up time as these doors are open
- insulation rooms to be well done, (walls, ceiling, ceiling)
- reduce the heat lighting by installing energy efficient lighting, which produces less heat
- cleaning to do better with, cleaning agents than hot water to prevent heat retention
- space in chillers to be used effectively and to consider whether the unused space can be separated
- applying best practice guide for operators, with respect to opening closed doors and avoid light in unoccupied spaces

**4. Thermogravimetry - objective method for choosing the process parameters**

Drying is an energy-intense process. Efficient drying is maintained only by heat that penetrates to the centre of the food, forcing moisture to the surface for evaporation or the point of lower vapour pressure area of the food particle (Mujumdar, 1995).

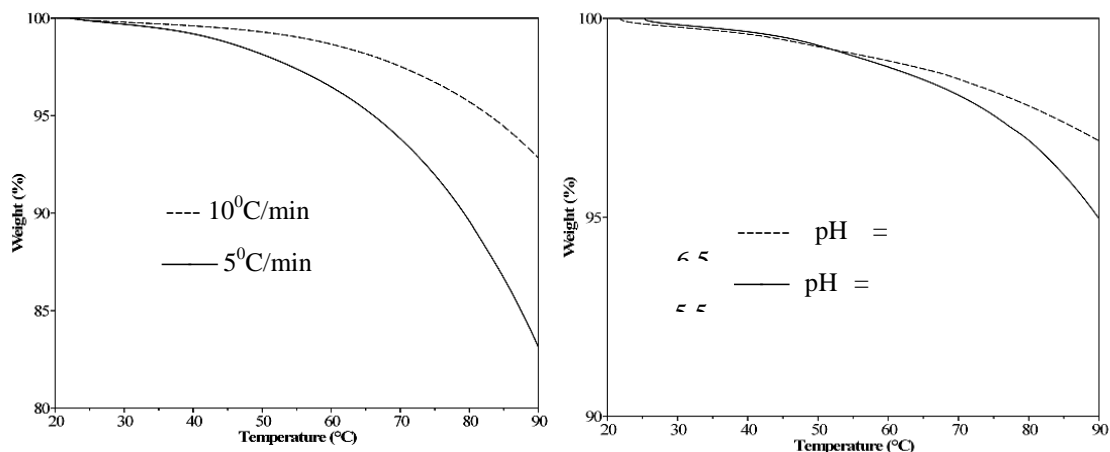
Designing a drying room requires understanding the mechanism and kinetics of the food product to be dried. On this basis then it is necessary to establish quantitative relations between process time and drying conditions. The variables that determine the time of drying of a material are variables related to air-drying (temperature, velocity, humidity, flow characteristics, etc.) and variables related to the product (moisture, size, shape, structure, etc.).

For dry meat products mass transfer is very important. From the interior of the product, water moves by diffusion to the surface where it is then removed by evaporation. The conditions must be properly balanced. If moisture is allowed to evaporate too rapidly from the surface, a hardened layer (called "case hardening") will develop and make it difficult for water remaining in the interior to migrate through to the surface. If surface water is not evaporated rapidly enough it will collect and allow the possibility for growth of undesirable microorganism (Cassens, 2005).

For economic aspect is important both: the quality of the finished product and working parameters chosen, which are reflected in the final energy consumption.

For this reason thermogravimetry can be useful. This technique continuously measure the mass of a sample as a function of temperature whilst sample is heated or cooled at a controlled rate, or is held at a particular temperature for a period of time. The record is the thermogravimetric curve. This techniques is useful for monitoring processes that involve a change in the mass of a food or food component, e.g., drying or absorption of moisture.

Fig.3 Curves obtained under certain conditions: different drying speeds (left) and at different pH values of



Source: original  
meat (right)

As can be seen in Figure 3, by reducing the heating rate or by lowering the pH of the meat, increase weight loss during drying. For this reason, the energy consumption required (eg fans) should be increased to be able to remove a larger amount of water and thus be able to get a quality product. It must be said that in this case the drying process will be shorter and therefore energy consumption will be shortened in time, extension is not justified from the economic point drying.

### 5 Conclusions

As energy costs and fuel share in production costs of products is relatively high, some measures should be taken to limit energy consumption of any kind, and to reduce energy losses.

An equally important role, have measures for improving processing technology and production organisation. In this connection, thermogravimetric technique can provide valuable results, technological parameters and default costs can be optimised according to the independent variables controlled.

### 6. Acknowledgements

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# THE CRISIS OF TEACHING ECONOMICS IN ROMANIA: A TOTAL QUALITY MANAGEMENT APPROACH

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**Abstract:** *Teaching into Romanian universities for economic studies has undergone capital changes related to the transition from a planned economic system to the market economy and to the European educational changes. The first part of our paper sets out the main concepts and the theoretical frame concerning the quality of teaching and the relationship between teaching and total quality management in universities. The second part presents the contents of Economics. Also, it is substantiated the necessity to change the curriculum. The third part is intended to the teaching and assessment methods, in order to provide solutions for quality improvement. The main conclusions of this paper are the following: the process of improving quality in teaching is in initial stage; it is necessary to increase cooperation inside departments and between departments; the implementation of TQM can be adjusted and applied within universities.*

**Keywords:** TQM, higher education, Economics, teaching methods

**JEL Classification:** A2

## 1. Introduction

After 1990 the economic education in Romania has undergone radical changes related to the transition from a planned economic system to the market economy and also related to the European educational changes. These transformations concerned important formal elements such as the number of university years, university curricula, syllabus, university subjects timetable and, more general, the legislation in education. More aspects were added to these elements such as redefining the relationships between students and teachers, changing the teachers' vision, particularly the young teachers' view on their own career, and modification of the way university reports itself to the business, political and social environment where it functions. The adjustment to the new way of economic organization and adherence to EU led to a process of institutional reconstruction and university reform with no historical antecedent. On the other hand, in the universities in EU 15, USA or Australia, since late last century we have witnessed an enhancement of debates and polemics on what a quality university education should mean. University is seen more and more as a corporation with specific education and research activity, a perspective providing support in applying the principles of total quality management, i.e. TQM.

Therefore, the main objective of our paper was to clear the concept of the quality of teaching, applied to Economics in order to identify the ways to improve quality. Thus, the work starts with a review of reference literature on the approached topic and methodology, emphasizing our perspective on the relationship between TQM and the quality of teaching in the academic education. We went on presenting the curriculum of economics in order to emphasize the need to modify it in terms of integrating the new theories significantly developed after the '80s, last century. Having defined the theoretical frame, we focused on the teaching methods, so that we may identify ways of improving quality on the basis of our educational and international experience. The work ends with the conclusions which, in our view, can be applied to all the teachers from economic education and to most of the economic disciplines.

## 2. Theoretical references

The economic literature on TQM approaches mainly three issues, such as contents of TQM, implementation process of TQM within corporations and TQM impact on performance of organizations. The exhaustive presentation of works on TQM and implicitly, of polemics regarding the conceptual delimitations and empirical studies on its implementation are not the scope of our paper. We started our study with the well-known and accepted conclusion stating that „the key message of TQM remains relevant” in time (Victor, Boynton, and Stephens-Jahng, 2000); in this scientific context, we had in mind to clear the concept of TQM and its relation with the quality of teaching. According to its founders - W. Edwards Deming, Joseph Juran, and Kaoru Ishikawa – TQM is defined in psychological terms as „something similar to social movement”, to philosophy and to specific practices related to „organization improvement” (Hackman and

Wageman, 1995). This so-called „ideology” consists of hypotheses, principles and interventions often empirically certified as enhancing quality within organizations. TQM is considered as a new paradigm of the organization design, characterized by mixing what English literature calls „doing” with „thinking”, and the standardized execution with creative thinking (Victor, Boynton, and Stephens-Jahng, 2000). From economic and organizational point of view, TQM is „a new organizing technology, non-hierarchy and non-market oriented based on science”. This encourages “the set-up and usage of the organizational expertise” and implies the modification of “the game rules, performance measurement systems and reward and punishment systems” (Wruck and Jensen, 1994). The principles of TQM are the following: knowing as well as possible the clients requirements, focussing on work process and on variation analysis into process and revenues, management by fact, continuous learning, treating quality as an endless process and cooperation with business partners (Hackman and Wageman, 1995). This philosophy and also new way of organizing process is based on the team work, defined as a colaboration between all stakeholders. A new element is the emphasis on scientific methods of collecting and refining the information, decision making and performance monitoring, such as statistic methods, probability theory, Pareto analyses and so on (Hackman and Wageman, 1995). TQM uses modern microeconomic concepts defined by the transaction cost economy and property rights theory. Thus, the firm is seen as a hierarchy where continuous contract adjustment is performed by authority relationships, by subordination. The firm is also characterized by a specific structure of property rights and decisional rights. TQM implies a transfer of decision rights within the hierarchy from the manager towards mostly an interdepartment team, having the required specific knowledge. In other words, the scope of this transfer is to bring together the decision rights and the relevant knowledge holders. Controlled decentralization of the decision rights and of team work lead to the adjustment of the way of action of the principal – agent issue, resulting in the review of performance assessment instruments, and provoking mechanisms with a higher concern on performance based on team, and non-financial remuneration (Ittner and Lacker, 1995). A synthesis of the TQM philosophy and the changes at the level of an organization are shown into the following table:

Table 1. TQM: brief presentation

<b>TQM Philosophy</b>	
<b>Assumptions</b>	<b>Change principles</b>
Low <i>quality</i> is more expensive than the development of processes that produce goods and services.	<i>Focus on work processes</i> : processes are the most important as they generate products; employees must be taught how to assess, analyze and improve the quality of work processes.
<i>People</i> perform quality work naturally if they are motivated accordingly, they have the necessary instruments and training, and there are no inhibitory mechanisms (they are listened and they can express themselves freely).	<i>Analysis of variability</i> : discrepancies must be identified, controlled, analyzed and solved.
<i>Organizations</i> are systems comprising independent parts => the main problems are cross-functional problems, which can be solved only by cross-functional teams.	<i>Management by fact</i> : data collecting, statistics usage and solution testing through experiment.
<i>Top management</i> is the final responsible for the quality and development, implementation and continuous refinement of the processes aiming to the improvement of quality.	<i>Learning and continuous improvement</i> : handling the quality improvement as an endless process.
<b>TQM Interventions</b>	
<i>Explicit identification and measurement of customer requirements</i> : this ensures a correct answer to the customers' requirements, both internal and external ones.	
<i>Creation of supplier partnerships</i> : choosing quality suppliers, even if the prices are higher.	
<i>Use of cross-functional teams to identify and solve quality problems</i> : set-up of distinct cross-functional teams to identify problems, to diagnose the causes, to experimentally test the solutions. The teams can function temporally or permanently.	
<i>Use of scientific methods to monitor performance and to identify points of high leverage for performance improvement</i> : statistical instruments such as control charts, Pareto analysis, and cost-of-quality analysis.	
<i>Use of process-management heuristics to enhance team effectiveness</i> : flowcharts, brainstorming, and cause-and-effect diagram.	
<b>Divergences observed into the USA practice</b>	
<i>Limited role of the scientific methods</i> ; this is the most important divergence.	
<i>Use of remunerations related to performance</i> to motivate and control the employees, mostly based on <i>quantitative targets</i> .	

Source: adaptation after Hackman, J.R. and R. Wageman, 1995, p. 3 - 11

To sum up, TQM is focused on customer, it takes into account the process rather than the employee, it emphasizes team work and cooperation, continuous improvement and innovation, and concerns the decisional decentralization relating with power increase and employee's accountability. This synthesis allows us to state that TQM principles can be adapted to and applied in the higher education system in order to increase its quality and performance. This statement is supported by various studies on TQM application in education, such as Sherr and Teeter (1991), Bateman and Roberts (1992), Gilbert, Keck, Simpson (1993) or Todoruț (2007). Bateman and Roberts (1992) state that „TQM approach to improve specific individual teaching processes offers more than any other „general principles of pedagogy” resulting from the researches. These researches show that TQM transfer from business sector to education requires adjustments and conceptual clarifications.

First, it is necessary to give a definition to the term *quality of teaching*. Felder and Brent (1999) state that it is difficult, if not impossible, to define the concept of quality of teaching „in a useful way from operational point of view”. They define good teaching as „the training process leading to effective learning, that is the insight and long term acquisition of knowledge, skills and values intended to be submitted by the teacher and institution.” (Felder and Brent, 1999). Alton-Lee (2003) finds quality teaching as „the teaching focused on the enhancement of all students' achievements, including social achievements”, which observe cultural diversity, use modern means, report to best practices and are founded on the partnership professor – student – family – school – community. Fenstermacher and Richardson (2005) state that a good teaching activity means that “the content taught accords with disciplinary standards of adequacy and completeness, and that the methods employed are age appropriate, morally defensible, and undertaken with the intention of enhancing the learner's competence with respect to the content studied”. They distinguish between good teaching and successful/quality teaching, the latter being a combination of the content quality of the taught discipline (the scientific knowledge) and the professor's own specific manner of teaching (pedagogical qualities). Quality is measured in terms of teachers' qualification and experience and in terms of students' benefits (Ingvarson and Rowe, 2007). Therefore, the quality of teaching is inseparable from the teacher's quality, his/her knowledge, competences and professional experience (Moroney, 2001). From TQM perspective, the teacher is both the tenderer and the manager of the teaching act. Whilst in a corporation the main responsables for the improvement of quality are the top managers, in education the improvement of quality stands mainly with the teacher. TQM application is facilitated by the teachers' natural predilection for their lecture improvement, their habit of bringing together „doing” and „thinking”, their larger freedom within organization – unlike business sector employees – and their research activity generally implied by a higher education entity. Taking into account the fact that TQM is focused on „the customer's continuous, best and most efficient satisfaction” (Bateman and Roberts, 1992), there comes the issue of identifying the client in education. The student is considered the customer of the teaching activity, not in a common sense but through the window opened by TQM, the one of client – tenderer team. Thus, the student is a coproducer customer due to the fact that he/she actively participates into the teaching process, assesses the teacher but, in turn, he/she is monitored by the teacher tenderer/manager. Therefore, TQM application in education implies redefining the student – teacher relationship in terms of giving up the teacher's paternal attitude, translations of decisional rights towards mixt teams of teachers – students and enhancing the student's decisional power keeping in mind the fact that the ultimate responsibility for the continuous quality development stands with the teacher.

Taking as reference the literature on TQM designed previously, on the grounds of our teaching and research experience, we create an empirical analysis of the economics teaching process. This starts with the presentation of the economics contents from historical view and in comparison with the experience of the first three universities from the QS World University Rankings, 2010. It continues with the critical review of the teaching and assessing methods applied in Economics, supported by our teaching experience and up-to-date teaching methods used at international level. Our analysis proves that the TQM principles can be applied to increase the quality of teaching this discipline.

### **3. What does Economics mean within the higher education from Romania?**

Before 1989, in the Romanian universities Political Economy was taught, a subject consisting of two main components Socialist Economy and Capitalist Economy. Political economy was “the science of the development of men's social-productive, i.e., economic relations. It explains the laws which govern production and distribution of the necessary articles of consumption-personal as well as productive-in human

society in the different stages of its development". (Raya Dunayevskaya, 1944). Two major works were the basis of that period: Marx's „Capital” and „The General Theory of Employment, Interest and Money” by J.M. Keynes. To them there were added the internal political documents and internal sources rarely coming from outside. Once the transition period came out, Political Economy turned suddenly and dramatically to Economics. „Dramatically” is a word better expressing the speed of the transformation process and its related costs. The change was an immediate one, of shock-type, i.e. the transition from specific command economy themes in December 1989 to specific decentralized economy themes in February 1990, mainly due to the competences of the professors who were teaching Capitalist Economy. There were necessary almost five years to reach a satisfactory level of the quality of lectures. In our opinion, the professors Constantin and Aura Gogoneață's works dated 1995 and Niță Dobrotă's dated 1997, less known outside due to the linguistic barrier, are the ones marking the end of syllabus capital transformation and stabilization period. The main costs were kept by the teaching staff and represented many working hours, generally without a raise in salary, and psychological costs such as transformation of the value system, stress and mostly, adaptation costs. There were also added institutional costs related to professional training, information and documentation. An important role within the transformation process of the Political Economy into Economics had the donations of teaching materials, modern technique and funds received from developed countries. At present the Principles of Economics subject, often called Economics, taught to 1st year students from faculties with economic profile, has as general objectives students' familiarization with capital economic concepts and shaping an economic thinking. The Economic Science most used definition, emphasizing the line of economic thinking, is: science which studies the human behaviour related to the tense relation: unlimited needs – limited resources, relation generating the necessity of rational use of resources.

During the last fifteen years, in terms of contents, the Romanian economic universities kept almost the same teaching subjects: consumer's theory and demand, producer's theory and supply, market forces and government interventions, pure competition, imperfect competition, national income theory, money, banking and inflation, labor market and unemployment, growth and business cycle, international trade, balance of payments and exchange rate. The thoroughness of the theme approach is the one found in the textbooks „Principles of Economics” by G. Mankiw, fourth edition, 2006 and „Economics” by P.A. Samuelson and W. Nordhaus dated 2004. Although there are Romanian textbooks elaborated at Economics departments, many teachers are in favour or at least use additionally the above mentioned textbooks. For the students who choose a licence in Economics, due to the more extended number of hours allotted to teaching this subject, even from the first university year the thoroughness of themes is higher, using textbooks like „Intermediate Microeconomics” by Hal Varian, „Microeconomics” by Pindyck and Rubinfeld, „Macroeconomics” by G. Mankiw or „Macroeconomics” by Olivier Blanchard. Therefore, what is being studied in Romania for the Principles of Economics is not very different in theoretical contents from other universities in the world, such as Harvard, USA or University of Cambridge. Moreover, in Romania like in other universities of the world, there appear more and more frequently debates on the need of a new economic science paradigm – as it is called by some people, and the need of modernization and increase of the economic science applicability – as it is called by others. These debates have impact on the contents of Economics. As teachers, the main question we ask ourselves is: why is it useful for our students to know Economics? Knowing macroeconomy is explicitly useful: it allows individual adaptation to the business environment and it also allows a better management of resources and risks at the level of any economic entity. Briefly, our students get to know the macroeconomic environment where they live. We have never had difficulties in convincing and motivating our students to learn Macroeconomics. It is not the same with Microeconomics. If it is clear the utility of certain themes such as demand, supply or market forces, things tend to become complicated when marginal analysis and pure and perfect market come into discussion. From our experience we can say that theoretical models referring to consumer, producer and perfect market do not come to common terms in the first year students' mind with the idea that the economy study offers them the opportunity to know the real world and the real industrial structures. Microeconomics study seems to be for our students much too abstract, much too far from reality, in other words, as it can be noticed even from the Annual Meeting of the American Economic Association from 1926 „very intangible and unreal” (Bye, 1926). There are almost two solutions to this problem: introduction of new subjects in teaching and teaching methods modification. Among the themes we consider interesting for our students, there are: introduction in games theory, the transaction cost perspective of the firm, network economy and lock-in, elements related to experimental economy and to behavioral economics. Such subjects reflect the changes from real economy, as for example, the transition from undivided firm to network firm, the significant decrease of spatial and temporal constraints of business

by developing informatic technologies, emphasizing incertitude or quasi-generalization of strategic behaviours. Their introduction would bring a change into the Economics: Economics becomes the science which studies the social mechanisms through which cooperation and adjustment of individual behaviours are realized in order to rationally allot the resources (Ricketts, 2002). Therefore, Economics is „the science which studies the human behaviour within the activity of limited resources allotment for covering unlimited needs”, but the focus is changing from individual economic unit towards mechanisms through which the economic entities interact each other. Relatively new concepts, such as transition, contract, routine, frequent into the research papers, ask for a larger space within the Economics lectures and textbooks. Including the new subjects into teaching economy, requests the reorganization of Principles of Economics textbooks, both at national and international levels, in terms of a greater importance given to new theoretical development (as it is proposed into Alauddin and Foster’s works, 2005 or Becker’s, 2003).

In conclusion, to increase the quality of teaching Economics, the first step would be the significant modification of the curriculum by taking into account the changes within the Economics literature and the actual world economy and by integrating the national experience and particularities.

#### **4. Teaching and evaluation methods in Romanian higher education for economic studies**

For teaching activities, the education plan provides lectures and seminars where teachers and students meet face to face. The lecture, using chalkboard, was and remains the main teaching methods for courses, as it happened at the end of 90s in the United States (Becker and Watts, 1996, 1998). In the last five years, due to the modernization of education spaces and technologies, the lecture was completed by the use of video projector and, rarely of Internet. As for the seminar, this is mainly for information thoroughness gained during lecture and training students in order to pass their exam. The methods used during the seminar activity are more various, namely: debates on taught lectures and on themes settled at the beginning of the semester come first, but also reports and problem solving, and in addition, games, projects and case studies.

The main principle of TQM focuses on client, defined above as the student. This principle is supported by a survey done by the Agency for Governmental Strategies in Romania in 2008, on a group of 2400 students from the entire university education, including the economic one. This survey shows the client satisfaction with an error of 2.82%, and it advises that 77.3% of the state university students are satisfied and very satisfied with lectures and seminars quality, 80.2% of them are satisfied and very satisfied with teaching staff quality, 42.7% attend all lectures and 63.5% attend all seminars, and 83.7% go with pleasure to faculty. Moreover, with reference to the quality of scientific content of disciplines 74.5% of the students consider that the scientific information received during their faculty period is useful and very useful for their future profession. Surprisingly, approximately 47% of the students declared they had the desire to attend doctoral lectures, fact showing a high interest for the thoroughness of studies. Unfortunately, there are no distinct data for economic education. The survey conclusions contradict the Presidential Commission’s report on the analysis and development of policies within education and research (2007), in accordance to which “the university education and research from Romania show weak performances” and “Except several isolated isles of excellence, due to personal merits rather than to the institutional policies, the quality of the teaching and research staff within universities is at a very low level.” There are not available in Romania the most relevant indicators related to the percentage of students who get a job in the studied field and the ones related to the period of time they succeed to do this. Also, there are not published surveys to measure the employers’ satisfaction. The high level of students’ satisfaction regarding lectures, seminars and teachers quality could arise from the lack of reference, or from not knowing the alternatives. This idea is sustained by below 50% attendance to lectures, by the fact that in the same questioners only 9.8% of students tell they go to the library weekly and that the average time spent for preparing themselves for faculty is of 9.38 hours per week.

From experience, we can tell that from all 500 students we work with annually, not more than 30% continuously learn and regularly prepare themselves for lectures and seminars. Thus, the following statement is true: “a significant proportion of students wish to maximize their probability of passing the course rather than achieving as high a mark as possible” (Lumsden and Scott, 1983). The following question appears naturally: how can students be motivated to learn economics to enrich their knowledge and not just to pass their exam? In other words, how can we answer the principle arising from TQM stating that a quality education is the one enriching students with all knowledge and skills that the teacher wanted to submit. In reconsidering the teaching techniques we can start from the „indestructible triad of education”, „to know – to know to be and to become, to develop – to know to do” (Iovan, 2004). Teaching is generally focused on

recurrent values, relatively rigid. It reflects a static perspective of the learning process and, in this case, the interaction between the teaching methods and the subject contents occurs, emphasized by the supporters of TQM. Knowing is necessary but it is also important learning to know, finding out, evolving and acting, i.e. the dynamic perspective. The first year student's interest in Economics is woken up when you succeed in making him/her understand what you teach and how he/she can use the received information. This objective can be achieved by using a cluster of teaching methods. One first method is *approaching the course as a logical construction*: it is built step by step through consecutive questions and answers by means of which students learn to think and they seem to find out alone the theory. If the theoretical subject allows, the construction can be realized on the patterns of a real economic situation (Fels, 1974, Becker, 2003). Another complementary method is the one of *team teaching*, the team consisting of professors only, or lecture professor and one or several students. Moreover, team work is another important principle of TQM. *Inviting guest speakers*, recognized for their realizations in the field of economic practice, is a method through which students are convinced by the utility of what they should study. If these guest speakers are well-known personalities of the economic science, the personality argument motivates the students.

A method still inexperienced by the staff that we belong to and we believe could be useful is the *use of program television*. This method comes to complete the perspective on *lecture as a show*, in the good sense of this word, without breaking the scientific rightness. The main risk of this approach, in our opinion, is related to its scientific quality, to the question if the teacher has enough experience and ability to rule the audience. This risk can be easily limited by drawing up a course support, clear planning of lectures, studies and supplementary reading, keeping in touch permanently with students by internet, good organization of seminar activities and last but not least correct evaluation of students.

The evaluation of students in the Romanian economic education is still an improving activity. There cannot be found yet standards for the evaluation process or assessment strategies at national level or at university level. Evaluation consists of two parts: a continuous evaluation of the student's activity at seminars and a final evaluation by examination. In making up the examination subjects the focus is generally laid on theory recognition and good students are not advantaged. A change by diversifying the examination subjects (adding questions with short answers, synthesis questions, case studies, problems, text interpretation and eventually, oral examination in addition to the written exam) is a way to limit value alteration induced by a predominant passive examination, so that students should be well motivated. This method of evaluation remains the professor's exclusive attribute. The assessment techniques in the economic education in Romania are tributary to the static perspective of the learning process. Students are not involved in the evaluation system design, even if the UK studies state that "there is a strong case for the inclusion of student self-assessment" (Taras, 2008).

The analysis of the teaching and evaluation methods emphasizes an implicit and non-methodic application of TQM principles and the poor involvement of the so-called stakeholders in the educational process. We believe that it is required the foundation of a network of didactic laboratories, in the form of an experiment for the first phase, within Romanian universities in order to facilitate the continuous improvement of quality in education.

## 5. Conclusions

The translation of TQM philosophy from business to education brings into discussion conceptual problems, the most difficult being, in our opinion, the quality of teaching definition and measurement. Synthetically, a quality teaching is centered upon student, essentially depends on teacher's quality and combines a relevant scientific content with performant pedagogical practices. The promotion rules' tightening within the university education performed during the period of time 2005 – 2011 encourages the growth of the professors' scientific quality, at individual level, but they do not sufficiently motivate the team work at the departments level. Therefore, we consider that the implementation of a system of evaluation, monitoring and compensation based on the department performance, and scientifically agreed, is a solution for the growth of training level, of cohesion and cooperation within departments and also, a prerequisite for the continuous improvement of quality.

Of all the disciplines taught within university education, Economics is the one that has suffered the most dramatic changes, due to its political load before 1989. Moreover, it is affected by the process of seeking a new paradigm into the economic science that is in progress at the world level. The focus tends to turn from the individual to cross-individual relationships. The internationally well-known manuals have



reached their limits and there are sought, including in Romania, new structures, closer to the real economy and the economic scientific research.

With reference to the pedagogical practices, we can say that passive teaching of knowledge is still dominant in Romania and it does not answer yet to the actual concept of quality in teaching. Successful teaching makes reference to the concept of “teaching as bricolage” (Rynes and Trank, 1999), according to which the teacher is free to use all the instruments he owns – scientific, pedagogical, psychological, technical – in order to create an animated and relaxed atmosphere, without giving up control and scientific strictness. Innovation in scientific content and in didactic methodologies by means of teachers – students – stakeholders cooperation, can have as background networks of research laboratories at national level. In conclusion, the TQM implementation into the teaching of economics is considered a novelty, it is possible but it implies the redefinition of the institutional, organizational and methodological framework of the educational process.

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## UNDECLARED WORK – PERSONAL CHOICE OR NECESSITY?

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**Abstract:** *Motivation of undeclared work has different reasons. For some individuals it is a necessity, their only alternative or the best option in a given context. For others, however, is conditional on the satisfaction and personal welfare, social obligations or a desire to supplement the main income. However, the causes of undeclared work are primarily economic, but are closely tied to the education received by the representatives of labour supply. In Romania today work in the formal sector is a survival strategy, based on lack of alternatives, rather than a source of wealth and prosperity. The alternative offered by illegal employment is a vital source of income, which provides, first of all, survival. Based on such considerations, the paper aims to showcase some features of the phenomenon called undeclared work.*

**Keywords:** undeclared work, labour market, taxes, social security, international labour migration

**JEL classification:** I00, H20, J60

### 1. Introduction

Popular term, used for undeclared work is “black market”. It is a profitable activity, but within non-legally regulated, so that services provided under clandestine, and declared as the true value. Beyond any legal peculiarities, mainly working activities are grouped into two categories, namely permitted and prohibited. It follows that any involvement in a prohibited activity will be considered undeclared work, without having even the theoretical possibility of a worker or a favourable interpretation of the organizer activity. In France, illegal employment is defined as:

- exercise a lucrative activity that does not comply with certain obligations to register the trade register, tax or social statements, concealment of wages;
- hiring foreigners without work authorization;
- borrowing staff from official business of temporary jobs;
- facilitate entry into the French circuit of employment for foreigners (Bişa et. al.2005).

In Denmark, is regarded in the underground work of any unincorporated business tax authorities and therefore not included in the tax system and where all participants receive a benefit as a result of unpaid taxes. It is considered undeclared work activity that results in gains, both cash and in goods or services (See also Graversen, E., K., Smith, N, working paper nr. 01/ 2001).

The coverage is very wide, from the home, household, community, through work in agriculture, construction, various industries, including high-tech times.

Undeclared work is generally the result of personal choice, is influenced by many factors. In Romania, the experience of recent years has highlighted the fact that work in the formal sector does not always ensure sufficient income for subsistence. There are also situations where people who work illegally would prefer to work in the formal economy if they were offered such an opportunity.

The current financial and economic crisis has reinforced some existing imbalances in labour market in our country, requiring additional efforts to achieve a level of development of the labour market also Western countries.

### 2. Dual theory of labour market

Undeclared work is not recorded, reported, taxed, socially insured, protected, the worker is thus totally at the disposal of which provides for work. It produces such an alteration in the balance of the labour market because there is a disruption of supply and demand and thus creates a labour market parallel underground.

According to dual labour market theory, it can be divided into four main categories (Table 1.1): primary, secondary/underground, informal and illegal. These categories actually reflect contemporary social stratification.

### Labour market categories

Table 1.1.

Primary sector	Secondary sector	Informal sector	Illegal sector
- big wages - confer social security - well regulated	- small wages - reduced social security systems - weak regulated	- free enterprises - freelancers - household work - unregulated	- illegal activities - unregulated

Source: Losby Jan L., Else John F., Kingslow Marcia E., Edgcomb Elaine L., Malm Erika T., Kao Vivian – Subteran Economy Literature Review, ISED Consulting and Research & The Aspen Institute – Charles Stewart Mott Foundation Grant, December 2002, p. 4.

The work is remunerated according to the primary sector labour law, declared and taxed. The second area involves work less well protected from the social point of view, with a lower level of remuneration, partially covered. The informal sector consists of individuals who can not get into the two previous sectors. Work is done by freelancers or entrepreneurs, individuals or employees of undocumented workers under temporary arrangements, paid cash. The last sector includes work done in illegal activities that generate income.

Work on the black market is done generally by those who offer their services directly against amounts of cash, have not received regular jobs or who are employed illegally. Work can give rise to "black" and monopolies in certain activities imposed by the inhabitants of specific areas, pushing for blue-collar workers in other localities. Such work arrangements can be discussed but also as a strategy imposed by the restructuring of large firms, in order to minimize costs and maximize flexibility in contracting production. Individuals are thus transferred to the secondary / underground labour market.

The work is remunerated according to the primary sector labour law, declared and taxed.

Another form of irregular work is done in the form of the second job held after hours or during the formal program, undeclared or partially. The most common form of undeclared work but work is partially declared; limit the exercise of legal regulations in the field, with negative repercussions on social and health insurance budget and the state budget.

There is a positive correlation between the socio - economic and undeclared work. In general, the undeclared work offer come from pensioners, the unemployed (the unemployment benefit or pension payable in addition to income resulting underground), young graduates, undocumented resident foreigners, employees working overtime unreported, but are paid by their employers, people overqualified for the job they hold which may carry out undeclared work alongside their regular work.

Based on these observations we develop a typology of undeclared work as follows:

- Activity qualitative variables;
- work partially visible and taxed;
- Conventional work;
- lucrative, illicit trade and smuggling;
- occasional or seasonal work;
- Domestic work;
- work in the "trial period", unregistered.

Undeclared work supporters are generally people with low education and training, who have real difficulties finding a job and found work on the underground market for alternative employment, but also people forced to work in the regime part-time "and those who prefer activities free of constraints. A special category are the so-called "prisoners of undeclared work" (Patroi, 2006, p. 221), who, however, have no other option, such as, for example, those living illegally in a foreign country . At the other extreme, but in small numbers, are overqualified people who benefit from higher education and intellectual capacity are arranged against amounts of money, to get involved in organizing and carrying out economic activities such as informal.

So for some people involved in the informal economy provides an opportunity to obtain a primary source of income, while others combine a salary of underground income in the formal sector, with private investment and savings. In the latter case, employment in the informal economy is equivalent to a part-time job that provides an additional income for the formal sector employees.

Motivation undeclared work has different reasons. For some individuals it is a necessity, their only alternative or the best option in a given context. For others, however, is conditional on the satisfaction and personal wellbeing, social obligations or a desire to supplement the main income. However, the causes of undeclared work are primarily economic. Unauthorised work offers significant advantages in the short term employer reduce their tax expense and social security contributions and increase their profits. The employee is also advantageous because it has the higher net financial resources, but long term is severely disadvantaged in terms of social security. The employee does not receive the minimum wage, the wage increases, per diems and allowances, leave, insurance, pensions and benefits. In principle, both parties avoid tax and social spending. In this context we can say that illegal employment is a particular form of tax evasion.

Another factor contributing to development activities as part of undeclared work is represented by international migration. International migration flows are directed generally from developing countries to developed countries. But the impact is not stationary, if we consider the overwhelming economic crisis that workers return to their countries of origin.

Facing hostility citizens of host countries, migrants have managed the money sent to their home countries to generate a positive effect on national economies, thereby reducing labour market pressures and increasing tax revenues. The positive effect can be observed only when the workers. If people felt a loss of highly qualified staff is well prepared for the countries of origin.

Another mitigating factor is undeclared work unemployment, inefficiency or that the low level of social protection. Aiming at reducing the transitional phenomena of underground formal economy, but falling to a level inadequate to achieve this, the social protection system will generate increasing pressure on the labour market and increase the uncertainty of those already excluded, they find work survival as an alternative to black.

One of the biggest problems posed by illegal employment is that undermine the social insurance system and can lead to "wage dumping", which causes a decrease in income of all workers in a particular sector (Popa Nicolae, February 2008).

Underground economic sector makes its presence felt in the construction and household activities. The development of informal activities of this nature is of particular importance both economically and socially and politically. Socio-economic importance lies primarily in the fact that revenues thus obtained shall be invested in housing, intended primarily for personal, long-term investments that do not involve any kind of support from the authorities. Construction, engaged in the informal economy, thus ensuring the free expression of the right to property which, viewed from a political perspective, offers additional incentives for individuals to fight for their rights of citizenship, to take responsibility, overcome difficulties, to participate free from political changes.

Using the term "underground economic activities" in services is somewhat imprecise and inadequate. The presence of such activities is identified in invisible trade in services, urban transport services, etc., activities which by their nature are public and visible. In industry, however, we can speak truly underground activities that occur either by "moving" all or only part of the informal sector production in response to higher costs and taxes involved in the formal sector, either by hiring workers undocumented in the manufacturing sector (textile industry - leather - clothing, furniture production, auto repair, etc..).

In terms of public services in their own share of the largest shipments, the price of these services is determined according to subjective criteria or "little understanding" (freight, passenger, taxi, etc..).

### **3. Undeclared work features in Romania**

Informal Employment in Romania can not be analyzed without knowledge of its diverse nature. It is present in many sectors such as construction, agriculture and services and takes many forms, including unregistered firms, false employment, and non-reporting of income. While some opt for employment outside the formal system, others have no choice in terms of informal employment (Denis Drechsler, Theodora Xenogiani (2008).

Undeclared work has multiple causes: higher taxes on employment, labour relations bureaucracy, lack of legislation, unemployment, etc.. In general the causes of undeclared work are economic nature; it offers significant advantages in the short term both employee and employer. The phenomenon of undeclared work is difficult to quantify. In the first nine months of 2008, representing 50.8% of black workers in the informal economy, and in 2009, moonlighting represent 12% of GDP (<http://standard.money.ro/>).

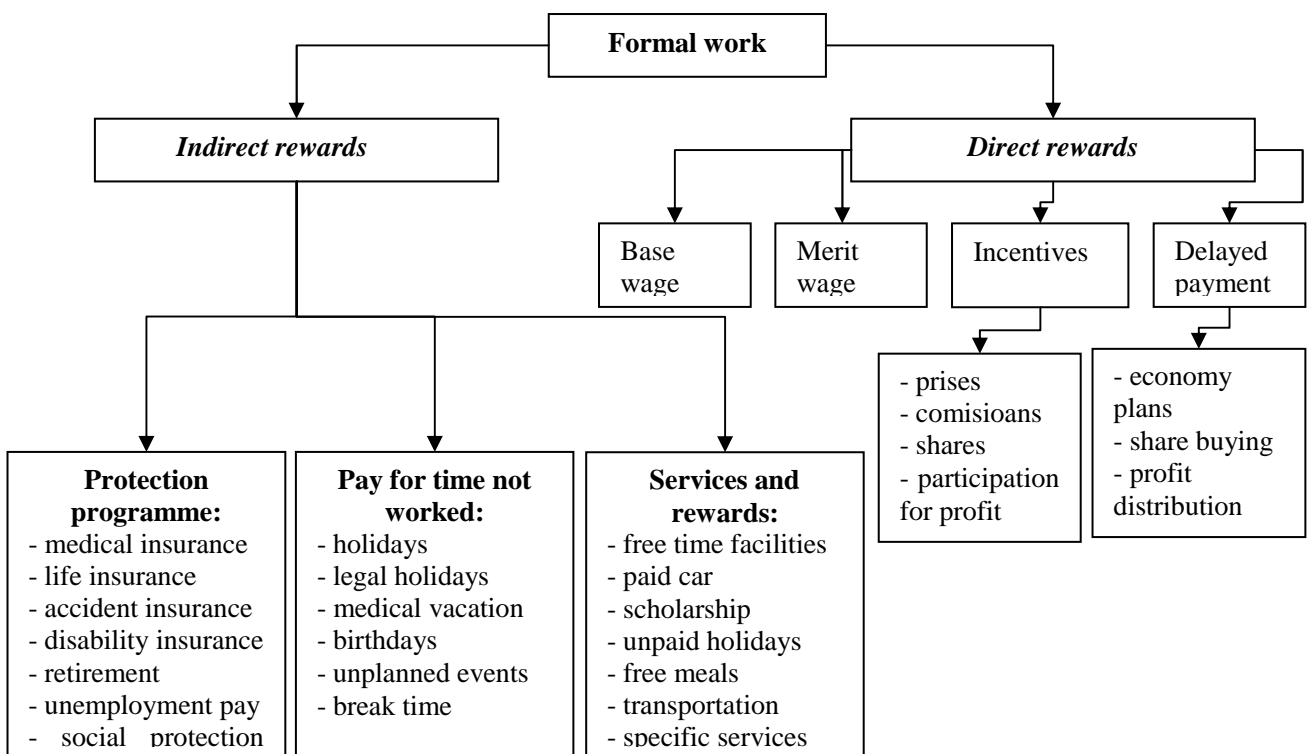
It is noted a particular situation in Romania for undeclared work after 1990. Promoting the land restitution policy of collective farms owned by individual owners in smaller areas or larger, has played a very important but not decisive in the survival of the urban unemployed and workers in the formal sector. Owners of such land have been drawn into the underground easier because they preferred to work illegally in the context in which the land was not a sufficient source for a decent living, but offered a degree of autonomy.

In general, people active, entrepreneurs with initiative and sense of risk are more likely to engage in the underground sector, employment in this sector as an alternative to the formal economy, which does not offer too many choices acceptable.

Highly motivated people (for example, wish to buy a home is a very strong motivation) will be willing to perform any work to get the revenue necessary to achieve its purpose, while those who have modest expectations about the minimum standard Life will show a moderate behaviour in this regard.

Also, those working in construction, transport, telecommunications, facilities, etc.. are more likely to get a job than those working in informal education, for example. The explanation could be the fact that education is a priority of state, without having too many alternatives in this informal sense. Moreover, specialization and qualifications of such people, but dignity and pride, does not opt to work "demeaning." Willingness to acquire new skills could push to the underground sector.

Mobility is another factor that may influence undeclared work. People who have a significant experience in a particular area are less willing to accept any work. Moreover, if they are based on certain and regular income will not risk endangering the situation by engaging in other activities such as informal.



**Figure 1 – Benefits of formal work**

Source: adaptation after C.D.Fisher, L.F.Scjhoenfeldt and J.B.Shaw, quoted by Sasu Horațiu – Rewards for employees, in Tribuna Economică nr. 45 / 7 November 2007, page 35.

Studies have shown that women are less likely to work in the informal economy. One reason is mainly physical work that it requires occasional jobs.



Therefore one can say that the choice of working illegally at the expense of the official whole process is based on motivation (Adaptation after Sasu Horațiu, November 2007) which is composed of a number of factors such as personal reasons individual behaviour object or individual goals feedback, etc..

Personal reasons are related to human needs and expectations.

Individual behaviour is influenced by a series of economic incentives intrinsic motivational and relational factors. Economic incentives, necessarily takes the form of value money. They are considering income size and free time available to the individual. Intrinsic motivational factors were the nature of work, that interest in it. Regarding relational factors because they occur on the basis of friendly relations is taking place into the informal system but also the desire of affiliation and accession to a base material which can provide a certain social status.

**Individual goals** aim to have high expectations regarding the standard of living. It's really about how meaning that interest is focused individual. The incentive offered by the desire to achieve a certain objective proposed origins primarily financial / material plays an important role in the informal sector at the expense of the election official.

**Feed-back** is the possibilities offered by the economy compared with those offered by the formal economy. Failure to find a formal job will materialize by frustration and cause the individual to move towards an informal job. Also a formal job poorly paid jobs will be offset by an informal but very well paid.

It should be noted, however, that undeclared work (undocumented) has some disadvantages for both employee and employer. (Figure 1).

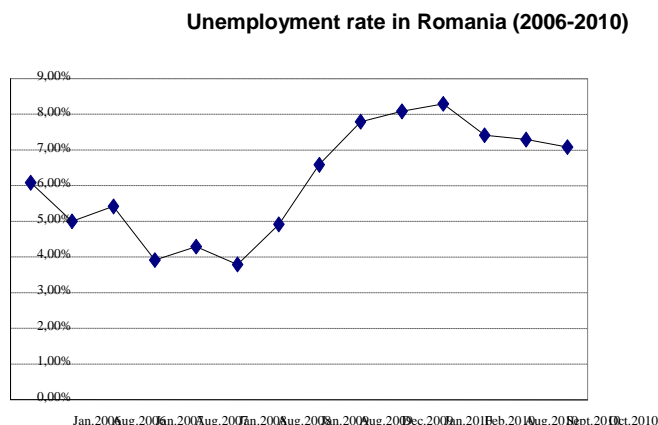
Undeclared work does not provide employee any of the formal labour benefits shown in Figure 1. Conversely some of the disadvantages can be enumerated as follows:

- not receiving the minimum wage salary merit, salary increases and various other incentives;
- do not benefit from reducing the normal time because of working conditions;
- not paid any compensation and rewards;
- not entitled to leave;
- is not insured for any risks;
- not entitled to compensation for temporary disability caused by common illnesses, occupational diseases or work accidents;
- do not receive social benefits and social assistance health care;
- no pension benefits;
- unemployment benefits and allowances not support;
- non-beneficiaries in the event of pleasant or unpleasant;
- not entitled to free training courses, retraining and retraining and other active steps to legally regulated employment to exercise or a job;
- not collective exercise of constitutional rights such as freedom of association in trade unions, collective labour contract negotiations;
- is limited right to bank loans.

The failure of government economic and social policy is a major cause leading dynamic economy that undeclared work. A direct consequence of high taxation high public spending without reasonable and consistent basis but also reduce the number of jobs and working time is in this context causes of undeclared work. Allocation and reallocation of labour income in society must pursue clear objectives, allowing correction of such distributions in accordance with the proposed social policies.

Often government intervention in the fiscal budget is seen as generating social injustice. It calls for policies of social justice equitable allocation, etc.. In this context the black growth is generated by the state's inability to adapt direct and correct interventions according to the wishes of the majority population. But because in Romania the performance of such social expectations could generate massive reduction in government revenue current government policy ignores the wishes and needs of citizens.

Unemployment is another issue, perhaps most important, for the extension of the black market. The explosion of unemployment rate in Romania (figure 2) and permanent upward trend require special attention to this issue especially since as the unemployment rate is higher; the temptation to employ individuals in the underground sector is higher.



**Figure 2.** Unemployment rate

Source: EUROSTAT, <http://epp.eurostat.ec.eu.int> & The National Institute of Statistics, Monthly Statistical Bulletin, 2007-2010, [www.insse.ro](http://www.insse.ro)

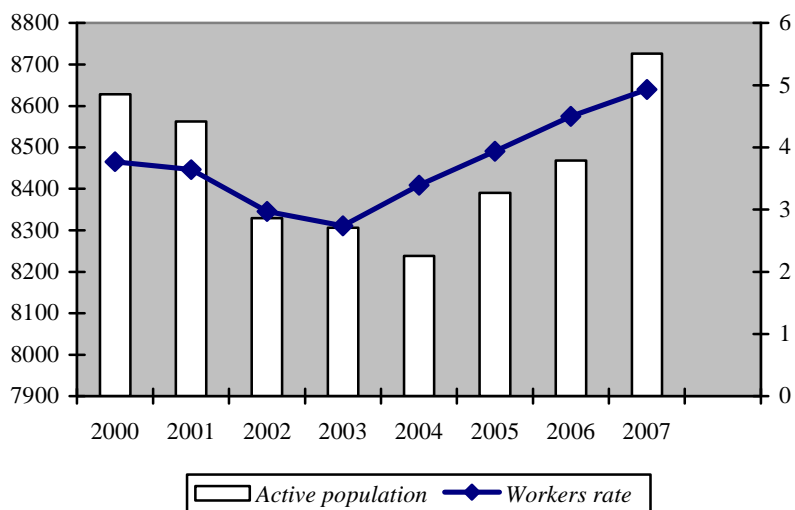
Unemployed people that are in this situation for a relatively long period of time are also those willing to work illegally, whatever the nature and risks of such work, to get rid of this 'stigma' and to access, sooner or later, the higher incomes than those offered by the State or in the form of unemployment benefits, either as formal wages are low.

The level of unemployment and lower wage incomes are other causes of the underground sector employment expansion. In the next period of 1990, the system provides for the payment of unemployment benefits small, but for long periods. The relative level of benefits gained at the expense of unemployment was higher than the official minimum wage, which is why people were tempted to remain unemployed rather than trying to obtain a well paid job. The failure of employment policies in that period resulted in a very slow dynamic formal labour market. They were created as necessary and sufficient conditions for the unemployed to "taste" the fruits economy, particularly in sectors such as trade and agriculture. A similar behaviour was observed for workers made redundant as a result of privatization or restructuring of various state enterprises. Compensation payments received, equivalent to several months' pay, have resulted in the first phase of lack of interest in finding a new job. Later, they opted for black labour either because it offered higher income than they could get a salary of the formal economy, either because they were given an alternative. Where income is higher than net income informal formal re-entry upon retirement or in the public unemployment, individual income allocated by the state will not be able to provide it exceeded a threshold of poverty. This is accentuated by periods of crisis / economic downturn, the number of new jobs is very low and access to informal labour market is conditioned by the ratio of net salaries and total cost of formal employment. Maintaining economic decline for long periods of time is equivalent to the degradation of living standards and social welfare, i.e. reducing the formal wage in real terms. In recent years, the number of formal workers has declined significantly, probably due to the phenomenon of international migration. An impressive number of Romanians have chosen EU states to work in formal or informal economies of these countries. This flow of foreign labour has the effect of reducing the taxable base of wages and forced tax increases on the total cost of jobs.

Faced with the real costs of increased labour force, employers have opted for undeclared employment or wage "envelope" (without being taxed). The process is widely practiced in Romania. Most of the companies in our country is negotiating a salary with the employee who is working on a book drawn level equal to the minimum wage in the economy and the rest, the amount originally negotiated is paid directly to the employee "in envelope" without being registered in the records and then taxed. The employee accepts such a commitment because it has provided a minimum level of social protection and present income higher minimum wage.

Another element of service is the number of undeclared self-employment and the "unpaid". The share of own-account workers and those "unpaid" in total employment is higher, the tendency to work in the informal sector is more pronounced. Self-employment situation and the unpaid in Romania during 2000 - 2007 compared with active work force are presented in Figure 3.





**Figura 3** – Freelancers number evolution compared with total active population

Source: National Statistical Institute, Household work (AMIGO) – 2000 – 2007 and own calculations.

The evolution shown in Figure 3 shows the period from 2004 to 2007 an increase in self-employment (up 3% in 2007) at a rate exceeding the occupied civilian population growth (an average of 16%). At the same time statistics show a modest increase in the number of employees in the economy (less than 1%). The reason for this increase in the number of self-employed and those "unpaid" is found in relatively large number of firms / small businesses that use the labour and they pay the profits taxed at 16% and not based employment contracts whose level exceeds the 40% tax.

A large part of undeclared work is concentrated in agriculture. People who work in this sector are either labourers (undocumented) or as workers in their own households. Almost all of their activity is informal in nature. They do not pay taxes because most of their production destination states as having their own consumption.

A flexible schedule that can intervene to increase the black is what allows people to hold two jobs one formal and one informal.

Recently, alternatives have been raised social spending to reduce unemployment and the current government approaches that highlight the possibilities of providing more flexible wage structures keeping the redistribution of jobs paid work or reduce the normal work. It must distinguish between the forced reduction of working hours and flexibility of working hours. State intervention in this regard should be based on legal rules that provide for a redistribution of labour by a general reduction of working hours at national level in all fields not only in the public sector. Otherwise, there is the possibility of certain social groups, whose program of forced labour has been reduced and whose salary was reduced accordingly to opt for a second job informally in sectors affected by such measures or even refrain from work for informal formal.

Such a solution (reduction program / work hours) does nothing more than provide opportunities for informal employment not unemployment and reduce spending but to reduce revenues. The solution is suitable only in a context where it is considered that the population is unable to work or want to maximize their leisure time available. How this is unreal, the reduction of working hours will increase the potential for unauthorized workers and / or informal activities. These issues have been ignored when it was discussed by the government a possible reduction of working hours for state employees.

Promoting part-time jobs is also an issue that deserves to be addressed. As long as the option for such a job is driven by the desire to have more free time to devote to family study, etc., increase their employment opportunities is a matter falling within the area economy. But if the intention of accepting a job as an individual is motivated by the desire to have more free time to commit illegal activities then it is a problem. The relationship between the two is somewhat ambiguous in this respect. Furthermore, it is difficult to judge the choices and wishes. But it is understandable that every individual if he can "escape" from an environment that provides freely available for low or high costs and low average earnings and to access in an environment that gives them free time zero cost and average earnings or large will opt for such a solution.

In Romania more people unemployed self-employed but also increasingly more young people with higher education tolerates various manifestations of black labour preferring to work "without papers" than not. Such situations are endless as there are few cases in which employers recruit the long term without

labour contracts with those employees. Employees accept the conditions imposed for different reasons: either no experience and seek to acquire be a considered a temporary solution until a new job or need money and so they have no choice.

#### 4. Conclusions

In 2011 Romania is no longer only black working in construction, restaurants and hotels repairs and maintenance household or agricultural field. Information and communication technology has created many informal activities. Creating web sites and software that informal job or outside working hours has become a solution for obtaining or supplementing income for many young people. Also students use different companies for achieving an alternative market research companies agreed that such contracts avoid formal very expensive, specialized firms.

State level losses due to illegal labour are high but the actual size of the phenomenon is difficult to predict. Therefore, the state must be actively involved in illegal employment. In some areas irregular work is gaining ground and the underground economy alarming proportions. However, we believe that mutation spent moonlighting structure may be more important than the statistical figures about the size of the phenomenon. It is worrying that greatly increased the share of skilled labour and an increasing number of high added value sectors are penetrated by undeclared work.

#### Acknowledgments

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## CREDIT CRISIS: CAUSES, CONSEQUENCES AND REMEDIES

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**Abstract:** *The credit crises are events that impact in every economic and financial field, both on national and international scale. What are the main trigger causes of the credit crisis? How we can prevent a crisis from happening? What are the best intervention methods to reduce the negative effects? Those are some questions that I tried to answer. In this study, section 1 presents an analysis of the trigger credit crisis causes and also centers on Romania during the recent credit crisis. The second section centers the evaluation of the credit crisis effects and last two chapters summarized some reconsideration about banking supervision, prudential reglementation and measured applied.*

**Keywords:** Credit crisis, central bank, financial stability, banking supervision

**JEL classification:** E58, G01, G18, G21

### 1. INTRODUCTION

In this study I tried to analyze the main causes that triggered the credit crisis, to underline the connection between development of the credit markets and movements in asset prices. I argue that the main causes of the credit crises are global imbalances and loose monetary policy.

This study contributes to the literature both by extending the analysis of the credit crisis on a global scale and in this context on Romania, not only to compare United States in different moments of experienced crisis. The parallels between Great Depression and Great Credit Crisis of 2007 have been widely debated, and the main analyzed subject was comparing the United States then and now. Even if they both started in the United States, were and are global phenomena. In the same time I tried to evaluate the effects of the credit crisis and to determine a connection between banking supervision, prudential regulation and the instability and fragility of financial institutions.

The bank variables are obtained from Annual Reports and Financial Stability Reports of the National Bank of Romania. The dataset it covers all the credit institutions from Romania (including domestic banks, foreign bank branches and Credit Coop). I use annual bank level, structural indicators and the evolution of the ownership of credit institutions from Romania over the period December 2007 – December 2010. Table 1 lists the structural indicators of the Romanian banking system and also lists the indicators that measure the profitability, watching in parallel the evolution and implications of the change in the banks during the credit crisis. In choosing the proxies for bank profitability, I used ROA and ROE and I follow their evolution from 2007 until 2010.

The rest of the paper is organized as follows. Section 2 reviews the literature and underlines the main directions in analysing credit crisis with a description of research methodology. Section 3 presents an analysis of the main credit crisis causes worldwide and in Romania and section 4 centers especially on Romania and there are evaluated the effects of the credit crisis. Conclusions and some suggestions are offered in the final section.

### 2. CREDIT CRISIS REFLECTED IN LITERATURE

A highly debated subject in literature, a question to which many economists tried to find the right answer was and still is: what are the main trigger causes of the credit crisis? Other closely related questions are: how we can prevent a crisis from happening? What are the best intervention methods to reduce the negative effects? Why are repeating these credit crises on some intervals? And why doesn't anybody try to find a model of these crises and after this to prevent them?

Mitchell (1913) testified that “the organization of credit is more important than the question of bank notes”, the harmonization of money supply with credit demand under a stable monetary policy remains a challenge.

An earlier opinion about the existing crises reason and their triggering events is the excessive debt accumulation during a boom, whether it be by the government, bank, corporations, or consumers, often poses greater systemic risks than it seems [Reinhart, Kenneth, 2009, 1]. In the last 120 years the crises were followed by economic drops which in average lasted two or three years and they had consequences like GDP decrease between 5% and 10% [Allen, Gale, 2007, 9].

Banking crises even they were initiated by globalization and regulation were amplified by the monetary policy interventions. The key to a successful reform is the independence and the responsibility of the banking supervision [Rochet, 2008, 2]. Using a DSGE model (dynamic stochastic general equilibrium) Perri and Quadrini (2010) demonstrated that the last recession and its global impact can be demonstrated using market shocks. Last decade and specially the crisis from 2008-2009 were characterized by a high degree of international synchronization. More than this, the extension of the recent crisis at the international level took place in an environment where the connection between labor and productivity labor was at a minimum level in USA, and for other countries at a medium level. Considering this, credit shocks are influencing the business cycle.

Pagano find empirical support to prove the fact that a crisis can improve a poorly functioning credit system by making domestic lending rates more responsive to market returns – determined market returns and also that in countries with less corruption the credit decisions are based on rational, market wide forces rather than influence of special interest groups [Pagano, 2002, 250]. Using a set of VAR models Helbling examined the roles played by credit shocks in explaining global business cycles, the results suggest that credit shocks play an important role in driving economic activity especially during global recessions [Helbling, 2010, 3]. In this line of research Mendoza also studies how fluctuation in assets prices can affect the value of collateral required for international funding. His findings suggest that the key to reducing the probability of Sudden Stops is in promoting the attainment of levels of financial development that weaken the contractual frictions behind collateral constraints [Mendoza, 2008, 23]. Herring and Wachter demonstrated that many financial crises are the result of bubbles in real estate [Herring, Wachter, 2003, 35].

In the 21<sup>st</sup> century the crisis extended at a global level and it was based on new, unregulated, or lightly regulated financial entities. They started to play a much larger role in the financial system, undoubtedly enhancing stability against some kinds of shocks, but possibly increasing vulnerabilities against others. Technological progress went right ahead, shaving the cost of transacting in financial markets and broadening the menu of instruments [Reinhart, Rogoff, 2008, 10].

The main directions of research can be considered: one is that systemic banking crises are typically preceded by credit booms and asset price bubbles and another one is centered on the monetary policy and the low interest rate policies adopted by the Federal Reserve and other central banks after the collapse of the technology stock bubble can be triggering factors.

### 3. CREDIT CRISIS CAUSES ANALYSIS

Analysing the credit crisis causes is the most important part of a credit crisis. If we underline exactly the main triggering events and in the future we prevent them from happening we won't have a crisis. I consider that the main triggering events of the credit crisis are the lack of regulatory framework which must take into consideration the second triggering event the economic cycles.

Some economists, especially the ones from “Austrian School” observed a strong connection between money supply and economic activity. First step – the government raised the money supply and by default the funds for loans this leads to decreasing interest rates which brings the second step – individuals and companies are investing this “cheap” money and the third step – when this boom reached maturity, the business costs increased, the interest rates went up and the profits were reduced. Worldwide many of the financial markets were not functioning normally and were suffering from shortages of liquidity, central bank in the United States, the United Kingdom, the Eurozone and elsewhere have engaged large injections of liquidity, sometimes in a coordinated way.

What caused the financial crisis that is sweeping across the world? Douglas Diamond and Raghuram Rajan consider that: (i) the U.S. financial sector misallocated resources to real estate, financed through the issuance of exotic new financial instruments; (ii) a significant portion of these instruments found their way,

directly or indirectly, into commercial and investment bank balance sheets; (iii) these investments were largely financed with short-term debt [Diamond, Rajan, 2010, 1].

One of the main causes of the credit crisis is an inadequate regulatory framework for lending population and firms. I consider that bonus system should be granted for the bankers that had a healthy loan portfolio not to ones that “sell” the large number or the largest volume of loans. This is one of the important aspects that central bank should consider in creation the lending regulations. Another important aspect is the borrower profile in strong connection with indebtedness. For example in USA, in 2002, President George W. Bush declared that his objective was to increase the number of American owners. In 2004, the percentage of American owners reached a record value of 69.2% by the use of loans that were accessible even to customers with poor credit history. The combination between the main objective of the USA president to increase the number of American owners, cheap credit and loans accessible even to customers with poor credit were the steps that create the bubble. The consequences of this lending program became one of the triggering events of the credit crisis from 2007. Another example on this area could be the case of Romania, domestic credit has grown between 50% and 60% a year in the 2005-2008 period [National Bank of Romania], also the current deficit has deteriorated considerably in the same period, from 8.6% of the GDP in 2005 to over 12% of the GDP in 2008 [Romanian Statistical Yearbook, 2008]. The main consequence is an unbalanced growth of the economy based on credit, not on a real and sustained development of the economic activity.

Even if the banks from Asia and Europe had little exposure to U.S.A. securizations their economies were very affected. This conclusion leads to some new questions: an incentive problem in the U.S.A. mortgage industry caused a worldwide crisis? Considering the above informations it became much more difficult to believe this and now another question appears: what happened? The main cause of the crisis was that there was a bubble in real estate in the United States and also in a number of other countries. The conclusion is that the bubble was global and large in many ways. For example Taylor points out that Spain had the biggest housing boom as measured by the change in housing investment as a share of GDP [Taylor, 2008].

One of the important aspects that should be followed from bankers' perspective and also from the borrowers' one is short-term debt. Investors that placed long-term financing would have demanded a very high premium. In the opposite situation were short term claims, they would have been more comfortable to hold the option that allows a faster output if the bank appeared to be getting into trouble. For the bank, the granting and the monitoring process of a company financing are very important: first because the granting process should take into consideration the needs of the company and its cash-flow and the monitoring process because the bank should supervise that the short term loan should be used for short term needs not for long term ones because in that moment the company cash-flow will be unbalanced. An unbalanced cash-flow won't generate cash for loan repayment which affects both the company and the bank. This is another important aspect to follow for every central bank, in the first step because it is the main regulatory institution, and for every commercial bank because they will be directly affected by the imbalance of a funded company.

#### **4. EVALUATION OF THE CREDIT CRISIS EFFECTS**

The effects of the credit crisis can be seen as a “snowball effect”, beginning with the uncertainty of money deposits in banks, the consequences were the withdrawal of large amount of cash which affected the liquidity of financial institutions, then the stopping of loans companies declaring bankruptcy, unemployment. There was a vicious circle: the banks stopped crediting, the consumption, the production and the profit were decreasing and in the end all these led to bankruptcy.

Golden standard had a key in transmitting the crisis from America to other countries during Great Depression; it connected almost all world countries in a fixed exchange rates network. Compared to that time the recent credit crisis had spread quickly than Great Depression because on the context of financial innovation and international coordination the connection between financial systems was strong.

GDP global calculated at international level registred at the end of 2009 its first contraction over the past three decades (-0.6 percent). The decline in GDP in European Union was far wider (more than 4 percent) despite the financial packages to stimulate the economy provided by central banks and authorities. For example in mid-December 2007 the European Central Bank announced its support of about 500 billion dollars. What did go wrong? Authorities and people make the wrong decisions for a number of years, they made their decisions based on the assumption that asset prices would remain high and would continue to rise.

**Table 1: Indicators of Romanian Credit Institutions during Dec. 2007 – Dec. 2010**

Nr. crt.	Indicators	MU	12.07	3.08	6.08	9.08	12.08	3.09	6.09	9.09	12.09	3.10	6.10	9.10	12.10
1.	Number of credit institutions*	No.	42	42	41	42	43	43	43	42	42	42	42	42	42
	Of which:														
2.	Branches of foreign banks		10	10	9	9	10	11	11	10	10	10	9	9	9
3.	Assets of credit instit with maj. private capital / Total assets	%	94.6	94.6	94.6	94.7	94.8	93.7	93.2	93.9	92.7	93	93.4	93.1	92.6
5.	Assets of credit inst. with maj. foreign capital or foreign/ Total assets	%	87.7	87.6	87.7	87.9	88.2	86.6	85.9	86.8	85.3	85.7	86.1	85.6	85.1
6.	Solvency ratio*( $\geq$ 8%)	%	13.8	13	12.8	11.9	13.8	13.2	13.5	13.7	14.7	15	14.3	14.6	14.7
7.	Leverage effect* (Own funds level/Total assets averaged)	%	7.32	7.20	7.30	7.10	8.13	6.81	6.92	7.04	7.55	8.09	7.91	7.89	7.87
8.	Overdue and doubtful loans/Total loan portfolio	%	0.22	0.21	0.30	0.24	0.32	0.66	1.03	1.23	1.45	1.99	2.17	2.67	2.22
9.	Overdue and doubtful loans/Total assets	%	0.17	0.19	0.25	0.22	0.29	0.52	0.75	0.92	1.01	1.38	1.52	1.82	1.49
10.	ROA(Net income/Total assetsaverage)	%	-	1.51	1.44	1.77	1.56	- 0.25	0.05	0.28	0.25	0.55	-0.15	- 0.19	-0.09
11.	ROE(Net income/Total equity average)	%	-	16.5	15.8	19.4	17	-2.9	0.64	3.22	2.89	5.96	-1.6	-2.1	-1.02
12.	Return on core business (operating income/operating expenses)	%	-	176	164	182	180	175	149	153	157	177	169	171	156
13.	Loans to customers/ Deposits to customers	%	109	116	120	125	122	125	119	118	113	113	117	116	113
14.	Credit risk rate	%	4	4.42	4.71	5.28	6.52	9.40	11.7	14.2	15.3	17.2	17.8	20.2	20.9
15.	Non performance loans ratio (NPL)	%	-	-	-	-	-	-	-	6.46	7.89	9.11	10.20	11.7	11.8

Source: National Bank of Romania, Financial Stability Report 2010

At end-December 2009, the number of debtors with overdue loans stood at 201,701 as against 139,007 debtors in the prior year. The number of overdue loans ran at 278,111 (versus 183,627 at end – 2008), with amounts due totaling lei 7,865 million as compared to lei 3,321 million in December 2008. Considering the model of financial institutions operating in Romania, the financial products dominated by traditional banking products, the administrative and prudential methods taken by the National Bank of Romania, credit and financial institutions were not affected by “toxic assets” and financial stability was protected. Domestic credit has grown in Romania between 50% and 60% a year in the 2005-2008 period; also the current deficit has deteriorated considerably in the same period, from 8.6% of the GDP in 2005 to over 12% of the GDP in 2008. The Non Performance Loan ratio (NPL ratio) – calculated as the ratio between non-bank loans and interest on loans classified loss category 2 loans gross exposure, where debt service > 90 days or where proceedings have been initiated against the debtor or to the operation and Total loans and interest, less off-balance sheet - increased from 6.46% in September 2009 to 11.85% in December 2010.

In 2009, the Romanian economy registered a development similar to that across the region: real GDP saw a severe contraction of 7.1 percent fiscal deficit widened considerably to 8.3 of GDP and in contrast, no public funds were needed to support the banking sector [National Bank of Romania, Annual Report 2009]. I concentrate on this indicators because they are representative for every country we need to analyze and to observe the interaction between credit crisis and the direct impact on loan portfolio, liquidity and solvability of the banking system.

## 5. RECONSIDERATIONS FROM BANKING SUPERVISION PERSPECTIVE AND PRUDENTIAL REGULATION, IN THE CREDIT CRISIS CONTEXT

In order to design effective banking regulation is a very delicate and difficult issue of every central mechanism, one of the basic points that should be notice is to make a calculation what are the benefits and what are the costs. The benefit of a regulation is that it can potentially stop or diminish the damages created by crises; the cost is that it stops sometimes or slows the economic development, innovation and efficiency. One of the most important pillars in an economic, financial environment is banking regulation. The implementation of a national or international agreement had as consequences spending significant amounts by governments and banks. If the agreement is not well developed, if the important variables and the economic environment is not well observed it won't prevent a crisis and also would have very little effect in reducing its severity.

The bank regulation must cover all the structures of the financial system and one of the most important aspects that should be underlined is that there isn't too-big-to-fail or too complex to fail. Those were some of the multiplying factors of the financial crisis. An overall perspective of the financial framework is very important because it can identify the mechanism that did not exist and whose absence triggered or aggravated the crisis. Xavier Freixas considers that risks were mispriced, accumulated in neuralgic points of the financial system, were amplified by procyclical regulation and the instability and fragility of financial institutions [Freixas, 2010, p.1]. Another important aspect that banking supervision and prudential regulation should take into consideration is business cycle, because some risks were underestimated and some of them depended on the business cycle and the well functioning of the financial and economic system.

In my opinion an international collaboration, coordination and as a result an international agreement on liquidity standards is necessary to develop a healthy growth. Major players should have their own adequate reserve of liquidity not a borrowed one, if in normal times this is good; in crisis time when credit lines dry up this is not good. Competition policy is a very important aspect of the banking regulation; competition should develop under the "umbrella" of financial stability.

Taking into consideration the conclusions of Larosiere Report regarding the causes of the economic crisis and changes recommended to be made, the structural reform of the current supervisory framework focuses on: macroprudential supervision by the establishment of the European Systemic Risk Board (ESRB) and microprudential supervision by the creation of three European authorities to perform the prudential supervision of individual financial institutions (European Supervisory Authorities – ESA) and the establishment of European System Financial Supervisors – ESFS.

After almost 1 year from the moment that the crisis hits Europe, the National Bank of Romania introduces a new project regarding a series of new credit rules which provide that the revenue taken into account for granting a credit must be 20% higher than that of 2007. Considering the general environment, the global crisis, the Romanian central bank took a number of steps designed to maintain banking system stability, providing in the same time some barriers in the way of massive outflows. The IMF World Banks' stress test proves that National Bank of Romania has in place a sound banking system.

## 6. CONCLUSIONS

What are the main trigger causes of the credit crisis? How we can prevent a crisis from happening? What are the best intervention methods to reduce the negative effects? Those are some questions that I tried to answer. Less harmful interventions, with low negative effects and reduced costs should be made in treating causes of the credit crisis. Causes that aren't observed in a boom period when everybody thinks that they can borrow as much as they like or that they can buy anything on credit, but they should be watched very carefully because they are felt in a negative way during the crisis.

Another important point in crisis management strategy is to redistribute and to attract capital injections into weak institutions. A balanced growth with healthy institutions leads to a competitive market, with no monopoly aspects and also to a healthy growth on long term. There are some differences between the crises from 1929-1933 and the crisis from the last centuries and one of them is that there was an international coordination on financial market intervention, but the great chasm between real economy and financial speculations intensify any crisis.

The caution policies should be taken in a period of economic growth, not in times of crisis when there are already bankruptcies both among companies and individuals. The credit mechanism at least in Romania is opposite the way it should be. In a boom period the caution policies are almost absent, the central bank and

the commercial banks, the regulatory framework consider that this economic growth will last forever. When GNP increases with almost 6% and the consumer credit increases with 60% that economy has a problem. It is important that an economic growth must be based on an actual appreciation of the economy, not a growth based on consumption financed by credit.

The entire credit crises remind us that credit markets have an important role in macroeconomic fluctuations and in economy. If the credit markets, the financial and non-financial institutions are unbalanced, the banking supervision and the prudential regulation doesn't regulate the financial system as a whole, with all the institutions, mechanisms and interconnections between them the crisis sooner or later will appear and will spread on the entire economy both on national and international field. A very important aspect that should be underline in regulations is globalization, because now the credit crisis speed is faster than in the past because of the financial innovation.

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## IMPLICATION OF SOUTH ASIAN TRADE ON ECONOMY OF PAKISTAN BY USING CGE-MODEL

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**Abstract:** The current research investigates the impact of South Asian Free Trade Agreement SAFTA on Pakistan's Economy by Using CGE model. The Global trade analysis GTAP model is used to analyze the possible impact of SAFTA on Pakistan in a multi country, multi sector applied General equilibrium frame work. Results shows that the share of exports in GDP has also raised as the region became more industrialized. A greater reliance on exports has helped the region to sustain rapid growth rate but at the same time it has made the region more dependent upon import demand from the rest of the world particularly the industrial countries. These countries were running huge surpluses in 2000 and 2001, compared with large deficits just a few years earlier. Indeed, it is assumed that the initial export growth and trade surplus generates such favorable responses in the economy that the balance of payments surplus actually grows. s. The export of Rice, leather and cotton-made garments may be conducted by two scenarios, i.e. when normal trading relations between Pakistan and India will be restored and when there will be a free trade between Pakistan and India in the presence of South Asian Free Trade Agreement (SAFTA). Results based on this research reveal that on SAFTA, grounds, there will be net export benefits in Pakistan's economy.

**Key Words:** SAFTA, Economy. Welfare, Pakistan

**JEL classification:** -F00 F.11, F-10. F-17

### 1. INTRODUCTION

The agreement on SAFTA was signed in Dhaka in April 1993 by the SAAC members, providing a legal framework for trade liberalization and strengthening intra-regional economic cooperation. In 1995, SAFTA had been ratified by all contracting states and in accordance with Article 22 of the agreement SAFTA became operational on 7th December 1995. SAFTA followed a positive list approach, including flexible provisions for least developed countries (LDCs). At the Ninth SAARC Summit held in Male in 1997, the Heads of Governments decided to accelerate the pace of transition of SAFTA to South Asian Free Trade Agreement (SAFTA) by the year 2001 or Consumption is also quite high during Christmas. Similarly, the fruit enjoys enormous significance on the occasion of Dial and such festivals another religion. In Europe and North America, the fruit is particularly preferred during the dark winter month. Usual sales of dates are spread to a period from October to April.

The objective of this study is to present a quantitative assessment of trade liberalization exercises in Pakistan in terms of economic trade, with other south Asian countries. This paper begins with a review of Pakistan's economic reforms and their coverage. Section II discusses the methodology, offering a brief description of CGE Modeling including the GTAP. The experimental designs are discussed in Sections III. Apart from unilateral and regional trade liberalization, as a founding member of the WTO, Pakistan remained firmly committed to the multilateral trading system and has already established a large number of reforms in keeping with the GATT/WTO principles. However, the paper does not review the outcome of multilateral trade Liberalization. In Section IV, GTAP model simulation results are analyzed. Section V concludes.<sup>4</sup> **Section I** Until the late 1970s, Pakistan's economic development centered on an inward-oriented development strategy based on import substitution industrialization performed mainly by state owned firms. Both tariff and non-tariff barriers were widely used to protect domestic economic activities. Trade restrictive policies were accompanied by other regulatory policies such as control on foreign exchange, finance and foreign direct investment. These restrictive economic policies had severe adverse implications on overall economic growth, in particular growth of exports.

### 2. METHODOLOGY

It is widely acknowledged that applied general equilibrium (AGE) or computable general Equilibrium (CGE) modeling has become the tool of choice for analysis of a wide range of trade policy issues such as tariffs and non-tariff barriers (NTBs) in both developed and developing countries in a variety of settings. In particular, AGE modeling is useful for analyzing the welfare effect of trade policy that needs

to address second-best issues, where there are significant interactions between policy measures for one sector and distortions elsewhere in the economy. Such models have two distinctive features: they incorporate a number of distinct sectors, and the behavioral equations of the model deal with the response of industries and consumers to changes in relative prices (Adams et al., 1998). This development is explained by the capability of CGE models to provide an elaborate and realistic representation of the economy, including the linkages between all agents, sectors and other economies (Brockmeier, 1996) AGE analysis also provides a valuable tool for putting things in an economy-wide perspective (Hertel, 1999). The general equilibrium framework contains all commodities, factor markets together with decision-making agents who respond to price signals and are internally consistent through capturing the many important feedback effects. Therefore, conceptually, these models can explicitly capture all the economy-wide interactions and inter-sectoral linkages. Hence, these models are very useful for analyzing the changes in sectoral output, product prices, factor usage, and factor prices as well as changes in national welfare measures consequent to changes in trade regimes. CGE evaluations typically work with theoretical models, and allow for more interaction among endogenous variables in that they can capture the numerous complex relationships between variables of policy interest in the model economy.

**TABLE:1 Key Economic Indicators data for SAARC countries-2005-06**

Country	Mid Year Population	Population in Growth rate	GDP US\$ Mn	GNP Per capita US\$	Literacy rate	Life expectancy	Crude birth rate per (000)	Crude death rate exports	Exports US\$ Mn	Imports US\$
Pakistan	148.8	1.92	93,908	600	48.7	63	36	36	13,375	17,954
Bhutan	0.8	2.5	657	760	47.0	63	35	9	n.a	n.a
Bangladesh	135.2	1.3	585,68	440	41.1	63	29	8	6,608	11,276
India	1,086.0	1.6	686,08	620	61.0	63	24	8	71,763	94051
Maldiv	0.3	1.5	719	24,10	97.2	67	36	6	122	
Nepal	24.7	2.2	6,685	250	48.6	62	33	10	756	1,869
Sri Lanka	19.5	1.1	19,224	1,010	92.1	74	16	7	5,757	8000

Note:ADB key economic indicators -2005-06

**TABLE: 2.Combined Trade Policy SAFTA cum 15% Uniform Import Tariffs Estimated Welfare and Trade Effects**

Region	EV-US\$Mil. Percentage Changes	%GDP	Of QGDP	TOT	Volume of Exports	Volume of Imports	Of Export Price	Import Price	DTBAL US\$mil.
ASEAN	-134.87	-0.02	0.00	0.03	-0.08	-.0.1	0.03	-0.02	90.0
EU	-737	0.00	0.00	0.00	0.00	0.00	0.00	0.00	896.0
IND	-0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1098.00
JPN	12.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	473.00
PAK	<b>566.90</b>	<b>4.45</b>	<b>0.89</b>	<b>6.89</b>	<b>-0.44</b>	<b>9.8</b>	<b>7.8</b>	<b>0.29</b>	<b>-367.90</b>
LKA	-113.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	167.60
MIE	-511.7	0.00	0.00	0.01	0.02	0.00	0.00	0.00	234.80
NAFTA	-133.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	356.90
ROW	-109.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4555.23

**Table.3.Sensivity Analysis Estimated Percentage Change in Pakistan's Output & in Agriculture Trade Liberalization**

	15% Uniform Import Tariff			SAFTA			SAFTA cum 15% Uniform Tariff		
	Central Scenario	50% Increase In ESUBM	100% Increase In ESUBM	Central Scenario	50% Increase In ESUBM	100% Increase In ESUBM	Central Scenario	50% Increase In ESUBM	100% Increase In ESUBM
(a)									

Industry Output									
AGRI	-0.98	-1.33	-1.89	-3.1	<b>3.88</b>	5.66	2.45	3.39	<b>5.66</b>
MINQ	-8.56	-8.89	-13.01	-8.98	<b>-12.40</b>	-18.88	-16.93	-23.04	<b>-34.90</b>
PROF	0-8.56	-7.78	-8.67	-2.56	<b>-3.44</b>	-14.36	-18.88	-9.45	<b>-8.56</b>
TEXT	-6.76	-6.67	-7.78	-2.56	<b>-3.62</b>	-7.90	-10.0	-12.4	<b>-14.8</b>
PECP	1.78	1.78	2.56	1.08	<b>-21.94</b>	-39.0	4.5	-2.59	<b>-15.80</b>
MAEQ	-16.97	-23.66	-28.6	4.45	<b>-2.56</b>	4.7	4.7	-2.33	<b>-13.5</b>
TREQ	-17.08	-19.75	-21.0	81.6	<b>131.6</b>	207.6	50.7	81.3	<b>120.4</b>

**TABLE 4. Sensitivity Analysis, Estimated percentage change in Pakistan's output and Trade**  
**15% Uniform Import Tariff SAFTA SAFTA cum 15% Uniform Tariffb)**  
**Aggregate Exports**

	Central Scenario	50% Increase In ESUBM	100% Increase In ESUBM	Central Scenario	50% Increase In ESUBM	100% Increase In ESUBM	Central Scenario	50% Increase In ESUBM	100% Increase In ESUBM
AGRI	-7.9	-11.23	-12.41	33.12	-54.12	67.89	22.5	54.0	50.89
MINQ	-8.53	-12.34	-14.45	-9.89	-17.03	-23.54	-18.45	-26.56	-45.78
PROF	-17.45	-23.56	-28.97	8.89	25.27	71.4	-5.78	2.56	29.63
TEXT	-6.79	-10.78	-14.67	-14.78	23.44	27.05	6.4	12.43	16.67
PECP	23.56	43.56	56.6	-0.76	-1.65	-2.3	22.4	41.90	68.90
MAEQ	-17.09	-27.78	-34.6	-26.78	70.1	12.50	56.9	67.2	43.8
TREQ	-18.9	-27.8	-34.7	65.6	67.9	78.6	52.6	71.0	65.0

**© Aggregate Imports**

AGRI	-7.89	-9.8	-6.78	32.7	-49.0	-71.0	20.9	37.9	58.7
MINQ	-1.56	-3.78	-3.54	2.34	6.54	8.76	-0.67	2.89	6.43
PROF	23.6	27.90	34.5	41.0	31.0	19.11	31.8	40.8	50.89
TEXT	30.8	23.6	30.1	-3.03	-12.5	-14.98	12.6	2.6	4.12
PECP	-5.18	-7.56	-8.67	0.78	0.88	0.65	-4.78	8.8	11.3
MAEQ	3.04	4.64	5.78	7.90	8.89	7.14	7.98	8.66	11.3
TREQ	4.69	5.45	6.00	12.66	17.10	23.90	22.0	16.8	18.04

**SENSITIVITY ANALYSIS**

Sensitivity analysis for AGE models is critical for establishing the robustness and obtaining the acceptance of model results. Although AGE models have become important tools of analysis in the quantitative evaluation of trade policy, the solutions obtained from these models are conditional on many assumptions. Among many assumptions, one set of assumptions-the values of model parameters such as elasticities-are amenable to "sensitivity analysis." Evaluation of the robustness of the model results can also help to increase the credibility of the conclusions of the study. In the GTAP model, the substitutability among imported commodities from different sources is determined by the Armington elasticity of substitution parameter called ESUBM. According to the Armington assumption, each country has some degree of market power over its products and can influence its terms of trade because that goods from different sources are treated as imperfect 19 substitutes. Hence, to reduce Pakistan's market power, it is necessary to increase the substitutability among imports from different origins because the terms trade effects largely depend on the import-import substitution elasticities (McDougall et al., 1998). This kind of experiment could also be interpreted as a form of conditional systematic sensitivity analysis (CSSA). Under the CSSA; each parameter is separately perturbed from its central value conditional on all the other parameters remaining at their central values. The robustness of the model results is then revealed by comparison of the simulation results with the central case. Thus, three additional experiments are undertaken under the sensitivity analysis to reduced Pakistan's market power by increasing the values of ESUBM to capture the effect of possibly different adjustment capacities as a small country. Though this will affect all countries/regions' market power in the model, it will have most effect on the small countries like Pakistan.

The first experiment under the sensitivity analysis (Experiment 4) deals with the unilateral trade liberalization scenario. (15 percent uniform import tariff). The second experiment (Experiment 5) related to the regional trade liberalization (SAFTA by itself) and the third one (Experiment 6) conducted under the unilateral trade liberalization with combination of regional trade liberalization (SAFTA cum 15 percent uniform import tariff). To make these experiments manageable, two separate experiments are conducted under the Experiments 4, 5 and 6 respectively. Thus, under the first experiment, the parameter ESUBM was perturbed from its central value and then increased its value by 50 per cent in the first three scenarios- *Experiments 4-1, 5-1 and 6-1* respectively. Under the second experiment, the value of ESUBM was doubled (100 percent increase) for the other three scenarios- *Experiments 4-2, 5-2, and 6-2* respectively. With these six scenarios, it was assumed that all other parameters (except ESUBM) in the model remain at their central values.

#### SECTION IV: SIMULATION RESULTS

##### **Experiment-1: Reduction of Import Tariffs to 15 percent**

The first experiment considered the Pakistan's reduction of import tariffs to 15 percent under the unilateral trade liberalization. The impact of this scenario on regional welfare and the resulting percentage changes in sectoral output and trade are reported in Table 9 and 10 respectively. Accordingly, if Pakistan (LKA) reduces its import tariffs to 15 percent unilaterally on a global basis to maintain a uniform external tariff rate, Pakistan experiences a welfare gain around US\$ 20 201 million (1.53 percent of the GDP). Under this scenario, Pakistan's volume of imports rises by 3.3 percent while its volume of exports falls slightly by 0.3 percent reflecting the fact that the pressure to increase imports is stronger than the increase in demand for Pakistan's exports by unilateral liberalization. However, as a result of the composite export price increase by 1.1 percent, Pakistan experiences a small improvement in the terms-of-trade of 1.5 percent and the real GDP by 0.8 percent. The welfare gains or losses for other regions are quite varied under this simulation. However, since Pakistan is a small country, the impact of Pakistan's unilateral reduction of import tariffs to 15 percent will not affect other region's real GDP or terms-of-trade significantly. As shown in Table 9, the 15 percent uniform tariff will adversely affect most of the sectoral output in Pakistan because of the increased competition for import competing industries. As shown in panel (a) of Table 9, the most affected industry is the transport equipment (TREQ) sector (18 percent), followed by machinery and equipment (MAEQ) sector (16 percent). It is noteworthy that these sectors expand significantly under the regional liberalization scenarios, particularly under the SAFTA scenario. The textiles (TEXT) sector (8 percent), processed food (PROF) sector (8 percent), mining and quarrying (MINQ) sector (8 percent), other manufactures (OTHM) sector (5 percent), and agriculture (AGRI) sector (1 percent) also report a decrease in output. However, there is a considerable increase in the wearing apparel (WEAP) sector (21 percent) and marginal increases in both the petroleum and coal products (PECP) sectors (2 percent), and the services (SERC) sector (1 percent). Similarly, as can be seen from panel (b) of Table 3, export sales also decline considerably in almost all the sectors except petroleum products (25 percent) and wearing apparel (21 percent). The largest decline in export sales occurs in machinery and equipment (22 percent) followed by transport equipment (19 percent), processed food (16 percent) and services (15 percent). As shown in panel (c) of Table 3, Pakistan's sectoral imports expand mainly in processed food (26 21 percent), wearing apparel (20 percent), and textiles (19 percent) while imports contract mainly in agriculture (9 percent), services (7 percent) and petroleum products (5 percent) under this policy reform. Accordingly, the results suggest that a reduction of import tariffs to 15 percent will increase Sri Lanka's welfare and terms-of-trade as well. Although one might expect that the reduction of import tariffs would increase the domestic output and therefore increase export sales, this policy reform would adversely affect Pakistan's domestic output in most of the sectors because of foreign competition. A similar impact can be seen in export sales too.

#### SECTION V: CONCLUSIONS

The simulation results presented and analyzed here demonstrate the importance of experimental designs, and the usefulness of the global CGE modeling framework for examining the impacts of the different types of trade policy reforms for Pakistan. Although, the GTAP model cannot capture the dynamic effects of trade liberalization, it is a useful tool for generating comparative static results for a variety of trade reform scenarios. It also identifies the industries that will expand, and those that will contract, and the size of these changes as a result of various trade liberalization scenarios. The results suggest that Pakistan would experience the highest welfare gain under the combined policy reform of the SAFTA cum 15 percent

uniform external tariffs while the SAFTA on its own gives the second highest welfare gains. SAFTA allows the participating countries to achieve larger economies of scale in production, attain specialization, increase competitiveness and diversify their export basket, thus assisting domestic economic reform. Therefore, harmonizing economic policies among neighboring countries must receive higher priority in the policy making process. Although, simulation results are highly sensitive to the underlying data and assumptions regarding the reference scenarios, the results clearly provide an assessment of the implications of SAFTA.

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# THE DETERMINANT ELEMENTS IN THE PROCESS OF ACCESSING STRUCTURAL AND COHESION FUNDS

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**Abstract:** *The financial crisis which started in 2008 has dramatically altered the EU economic landscape. In 2006 and 2007, the economic growth was of approximately 3%, whereas in the summer of 2008, the GIP suddenly shrank, initially as a consequence of the financial crisis. Ever since then, the employment rate has been decreasing and unemployment has been increased a lot over the last decade. Moreover, the consumption and investments decrease, along with the public debt, have taken a dramatic jump in many of the EU member states, including our own country. The present paper is targeted at determining the most influential aspects within the process of accessing structural funds, by deploying the technique of analyzing the main components involved, so that, over the next period, this process should increase its rhythm.*

**Key words:** absorption capacity, convergence, principal components analysis, structural funds.

**JEL classification:** F36

## 1. Introduction

European Union is one of the most prosperous economic areas in the world. However as we point out, there are certain disparities regarding the productivity and prosperity between member states which may lead to major structural weaknesses. Since the integration, in May 2004 and January 2007, of the new 12 member states such disparities have become even more striking. Therefore for a better operation of the European unique Market and implicitly for increasing competitiveness, European Union encourages a cohesion policy along with the environmental protection policies and the equality of chances policies. The Cohesion Policy is financed through structural instruments. Each structural instrument has, in its turn a specific destination:

- *The European Regional Development Fund (FEDR)* was set up to stimulate the lasting economic development at a regional and local level by the mobilization of local capacities and diversification of economic structures in fields like technological research and development, innovation and entrepreneurship, informational society, SME-s, environmental protection, tourism, energy;
- *European Social Fund (ESF)* contributes to the increase of the adaptability of the workforce and enterprises, the increase of the access on the labour market, prevention of unemployment, the prolongation of active life and fights discrimination;
- *Cohesion Fund (CF)* finances projects in the field of environmental protection and trans-European transport networks, projects within the field of lasting development, etc.

*Complementary funds:*

- *European Fund for Agriculture and Rural Development (FEADR)* with the purpose of increasing competitiveness in agricultural sector, the development of rural environment.
- *European Fisheries Fund (EFF)* invests in the development of living aquatic resources, in the modernisation of fishing crafts, etc.

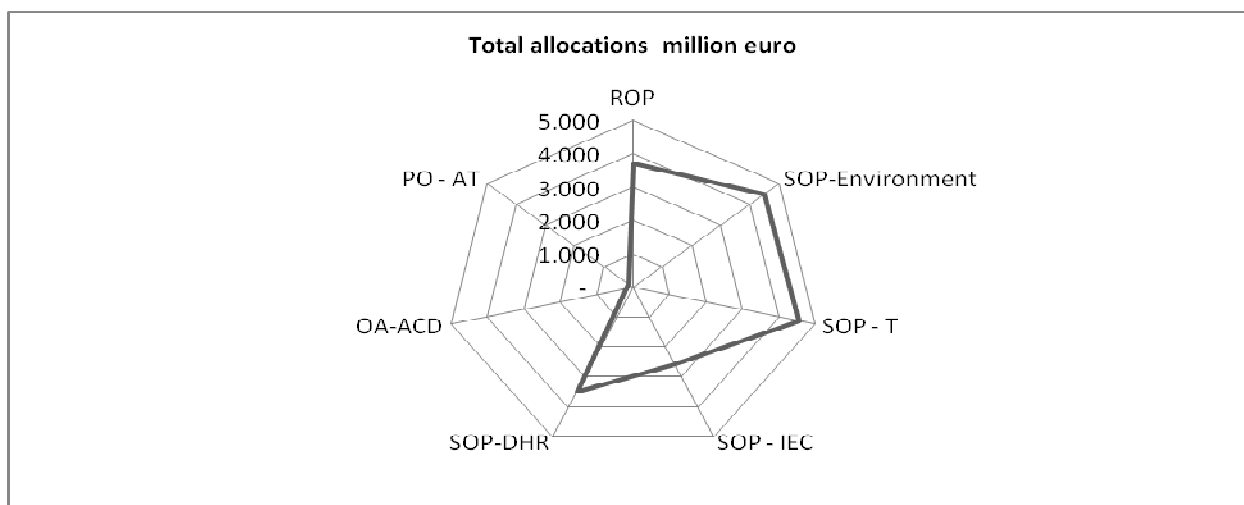
It is very important to reduce the disparities between the regions so that all members can contribute to and benefit from the opportunities offered by European Union through structural instruments, especially at this time of economic crisis.

Romania, having registered before 2007 a GDP of approximate 35% of the European average is considered eligible for receiving support within the objective „Convergence” as well as within the objective „European territorial Co-operation”.

Structural Instruments of European Union do not act on their own but they are co-financed, mostly from the public resources of the member state but also from private financial contributions. Within the objective „Convergence” the maximum rate of the communitarian contribution is 85% for one operational programme, not only for Structural Funds (ERDF, ESF), but also for Cohesion Funds. According to The National Strategic Reference Framework Romania prepared seven operational programmes under the

Objective „Convergence”. Operational programmes present major fields of intervention which are co-financed of the EU with 19,212 million euro by Structural and Cohesion Funds.

**Figure 1: Operational Programs allocation during the period 2007 – 2013**



Source: author's processing

## 2. Current state of the process of absorbtion of Structural Funds

A communicate of the Ministry of Economy and Finances (MEF), at December 31<sup>th</sup> 2010, announced that it was submitted 24,967 projects with a value of 200.43 billion lei, 6,451 of these ones being approved for a total aggregate value of over 61.81 billion lei.

With regard to the actual stage of the European funds absorptive process for the period January 2009 - December 2010 the status is as follows:

**Table 1: The value of the projects submitted and approved during the period January 2009 - December 2010**

Months	Allocations (lei)	Total projects submitted (lei)	Total projects approved (lei)	Total projects approved (lei)	Payments (lei)	Absorbtion capacity
January/09	2.012.300.119	5.713.458.156	46.694.911	25.465.298	67.951.258	3,38%
February/09	2.012.300.119	2.544.484.005	1.154.723.394	946.504.078	37.973.624	1,89%
March/09	2.012.300.119	1.417.681.350	617.224.910	2.335.523.092	151.675.013	7,54%
April/09	2.012.300.119	2.287.951.140	554.526.186	675.494.689	36.739.638	1,83%
May/09	2.012.300.119	2.696.028.517	1.097.438.909	1.130.448.894	132.686.707	6,59%
June/09	2.012.300.119	3.883.790.264	2.446.242.237	542.922.229	95.299.405	4,74%
July/09	2.012.300.119	5.222.396.319	4.740.945.184	4.490.731.471	105.988.611	5,27%
August/09	2.012.300.119	2.902.432.571	851.929.059	647.954.943	370.800.835	18,43%
September/09	2.012.300.119	19.489.146.310	1.060.114.863	1.270.484.351	186.211.810	9,25%
October/09	2.012.300.119	17.936.196.301	607.746.837	1.202.919.478	126.092.118	6,27%
November/09	2.012.300.119	3.872.669.447	818.871.006	1.182.827.099	345.427.568	17,17%
December/09	2.012.300.119	5.743.796.048	12.151.416.825	859.210.182	170.899.756	8,49%
January/10	3.057.964.563	2.896.499.947	298.326.612	1.907.954.645	154.974.323	5,07%
February/10	3.057.964.563	1.186.824.866	533.531.387	1.195.409.791	177.786.832	5,81%
March/10	3.057.964.563	3.062.459.365	1.994.042.532	2.629.374.153	152.594.203	4,99%
April/10	3.057.964.563	10.794.415.592	608.420.021	490.004.103	209.239.871	6,84%
May/10	3.057.964.563	14.218.057.049	1.774.564.646	1.860.058.423	296.965.526	9,71%
June/10	3.057.964.563	7.375.968.219	1.354.728.167	2.986.668.069	245.510.596	8,03%
July/10	3.057.964.563	6.769.536.447	2.151.977.697	2.155.353.680	288.790.786	9,44%
August/10	3.057.964.563	5.692.511.909	4.192.430.120	2.391.177.636	613.248.531	20,05%
September/10	3.057.964.563	11.579.512.773	3.127.611.821	4.076.282.836	476.871.384	15,59%
October/10	3.057.964.563	932.118.322	5.119.732.709	2.133.352.424	672.874.353	22,00%
November/10	3.057.964.563	4.900.622.798	4.343.502.784	6.377.906.274	624.392.688	20,42%
December/10	3.057.964.563	5.688.317.712	2.898.937.042	4.911.024.341	983.924.654	32,18%
TOTAL	60.843.176.184	148.806.875.427	54.545.679.859	48.425.052.179	6.724.920.090	11,05%

Source: author's processing based on data provided by Authority for Coordination of Structural Instruments



As one may notice, the absorption capacity of the structural funds during the period January 2009 – December 2010 has had a very small value, of 11,05%, this fact being triggered by the lack of experience, excessive bureaucracy and insufficient staff employed by the Management Authorities, with a special emphasis upon the *lack of self contribution*, shortage fueled by bank's reluctance in providing necessary financial support, because there is no guarantee of payment of grant planned in case will be found defects are discovered in the implementation that the settlement project.

The beneficiaries need bank support for:

- part of its contribution – general rule 15% national co-financing: for beneficiaries of public institutions and non-governmental organizations, up to 13% provided by the state budget and minimum 2% local financing, private beneficiaries with co-financing requirement, according to the rate established for reference axis;
- start work and paying contractors - by Structural Funds not given advance, but shall be reimbursed expenses incurred so that beneficiaries must have cash to pay suppliers until reimbursement by the management authority, where they are considered eligible expenses;
- prioritize coverage ineligible – tax of value added, interest expense, other borrowing fees, collateral costs that arise from a leasing contract, purchase of furniture, equipment, vehicles, infrastructure, land and other property, for the projects who receiving funding from the European Social Fund, purchase of second hand equipment, fines, penalties and costs for judgment decision;
- cover exchange differences – the crisis period there upon the exchange rate fluctuations overlap with the implementation period, as for the majority of beneficiaries resizes its need for investment.

### 3. The Principal Components Analysis

The current technologies provide people with a series of operations of processing and interpreting basic information concerning phenomena and processes from the socio-economic reality, based on a wide range of specific methods and techniques, in view of deepening the knowledge and awareness related to these phenomena and processes, as well as of formulating pertinent conclusions with regard to their manifestation.

*The analysis of the main components* represents a method of multidimensional analysis, meant to find a particular possibility of changing the initial features of certain objects or shapes, so as, to ensure their best representation, based upon this alteration, while using a reduced number of features.

It is considered that the new particularities can provide an optimal representation of the objects *if and only if* the passage from the previous representation to the new, enhanced one has been attained under the constraint of diminishing the loss of information.

The analysis of the main components can be used to by solving two broad categories of problems:

- simplifying the structure of causal dependency, which involves reducing its dimensionality, so as to obtain a causal space smaller (low space) and allowing a simpler and more suggestive representation of objects;
- reduction of causal space dimensionality that there should be a more relevant representation of the initial system of coordinates, considering that not always the representation of the initial system of coordinates, considering that not always the representation of the original coordinate system is most effective in terms of information.

This way of representation, more advantageous in terms of information, can be obtained taking into consideration a new space of representation, space which defines implicitly, through its axes, new features of the objects contained. The coordinates of the objects found in this novel space are given by the values registered by the objects, for these new features. In the context of symbolizing with the aid of variables, the new particularities are called *main components* and the values registered by the objects for these new features are called *scores*.

In order to determine the main components within the process of accessing structural funds, through the Princom procedure, I have rearranged the five original variables, presented in the previous chapter, according to the monthly characteristic, thus obtaining the following structure:

After analyzing the results, we can state that January 2009 is the month when the payments have overcome the value of the approved projects, up to a degree of 145.54%. However, we cannot risk drawing a conclusion in this matter, because the value of the approved projects during this month is very small, actually, it is the smallest registered over the entire period analyzed. On the whole, though, the degree of achievement for the approved projects is of merely 9.37%.



**Table 2: Situation on the degree of implementation of projects approved during the period January 2009 – December 2010**

Obs	Luna	Alocari	Proiecte_ depuse	Proiecte_ aprobate	Proiecte_ contractate	Plati	Grad_ realizare
1	April	2012300119	2287951140	554526186	675494689	36739638	0.06625
2	April10	3057964563	10794415592	608420021	490004103	209239871	0.34391
3	August	2012300119	2902432571	851929059	647954943	370800835	0.43525
4	August10	3057964563	5692511909	4192430120	2391177636	613248531	0.14628
5	Dec	2012300119	5743796048	12151416825	859210182	170899756	0.01406
6	Dec10	3057964563	5688317712	2898937042	4911024341	983924654	0.33941
7	Feb	2012300119	2544484005	1154723394	946504078	37973624	0.03289
8	Feb10	3057964563	1186824866	533531387	1195409791	177786832	0.33323
9	Iulie10	3057964563	6769536447	2151977697	2155353680	288790786	0.13420
10	Jan	2012300119	5713458156	46694911	25465298	67951258	1.45522
11	Jan10	3057964563	2896499947	298326612	1907954645	154974323	0.51948
12	July	2012300119	5222396319	4740945184	4490731471	105988611	0.02236
13	June	2012300119	3883790264	2446242237	542922229	95299405	0.03896
14	June10	3057964563	7375968219	1354728167	2986668069	245510596	0.18122
15	March	2012300119	1417681350	617224910	2335523092	151675013	0.24574
16	March10	3057964563	3062459365	1994042532	2629374153	152594203	0.07653
17	May	2012300119	2696028517	1097438909	1130448894	132686707	0.12091
18	May10	3057964563	14218057049	1774564646	1860058423	296965526	0.16735
19	Nov	2012300119	3872669447	818871006	1182827099	345427568	0.42183
20	Nov10	3057964563	4900622798	4343502784	6377906274	624392688	0.14375
21	Oct	2012300119	17936196301	607746837	1202919478	126092118	0.20747
22	Oct10	3057964563	932118322	5119732709	2133352424	672874353	0.13143
23	Sept	2012300119	19489146310	1060114863	1270484351	186211810	0.17565
24	Sept10	3057964563	11579512773	3127611821	4076282836	476871384	0.15247

Source: author's processing

This is quite a worrisome situation, especially if we keep in mind that, starting with January 2010, Romania has been confronted with an increasing amount of experts who prove to be incapable of implementing their projects, even if these have previously been approved by the Management Authorities.

A statistical survey carried out in November 2010 showed that approximately 15% of those who have approved projects do not wish to continue and sign the convention with the Management Authorities, invoking various reasons, amongst which some of the ones mentioned above are often cited.

Further on, I have obtained the covariance matrix, in view of determining the liaison between the five variables. The latent root of this matrix and the data regarding the balance each value has are presented in table 3:

**Table 3: Eigen values of the Covariance Matrix**

The PRINCOMP Procedure					
Observations		24			
Variables		5			
Simple Statistics					
	Alocari	Proiecte_ depuse	Proiecte_ aprobate	Proiecte_ contractate	Plati
Mean	2535132341	6200286476	2272736661	2017710507	280205003.8
Std	534077212	5078097328	2582911372	1579581936	236766563.6
Covariance Matrix					
	Alocari	Proiecte_ depuse	Proiecte_ aprobate	Proiecte_ contractate	Plati
Alocari	2.8523847E17	3.1524841E16	5.1145067E16	4.0471944E17	6.977372E16
Proiecte_ depuse	3.1524841E16	2.5787072E19	-9.581971E17	-5.003345E16	-2.930576E16
Proiecte_ aprobate	5.1145067E16	-9.581971E17	6.6714312E18	1.0921611E18	1.6666344E17
Proiecte_ contractate	4.0471944E17	-5.003345E16	1.0921611E18	2.4950791E18	2.2998259E17
Plati	6.977372E16	-2.930576E16	1.6666344E17	2.2998259E17	5.6058406E16
Total Variance		3.529488E19			
Eigenvalues of the Covariance Matrix					
	Eigenvalue	Difference	Proportion	Cumulative	
1	2.58355E19	1.89325E19	0.7320	0.7320	
2	6.90305E18	4.58974E18	0.1956	0.9276	
3	2.31331E18	2.09832E18	0.0655	0.9931	
4	2.14988E17	1.8699E17	0.0061	0.9992	
5	2.79978E16		0.0008	1.0000	

Source: author's processing

The first two main components integrate 92.76% of the information gathered and their combination is given by the information provided by eigenvectors detailed in table 4:

Table 4: Eigenvectors

	Eigenvectors				
	Prin1	Prin2	Prin3	Prin4	Prin5
Alocari	0.001057	0.022915	0.185757	0.966706	-0.174493
Proiecte_depuse	0.998727	0.049770	-0.008113	-0.000585	0.000706
Proiecte_aprobate	-0.050202	0.967951	-0.244725	0.021632	-0.013867
Proiecte_contractate	-0.004486	0.243024	0.947852	-0.198151	-0.056850
Plati	-0.001497	0.031744	0.084351	0.160460	0.982918

Source: author's processing

$$\text{Prin1} = 0,001 * \text{Allocations} + 0,998 * \text{Projects\_submitted} - 0,050 * \text{Projects\_approved} - 0,004 * \text{Projects\_contracted} - 0,001 * \text{Payments}$$

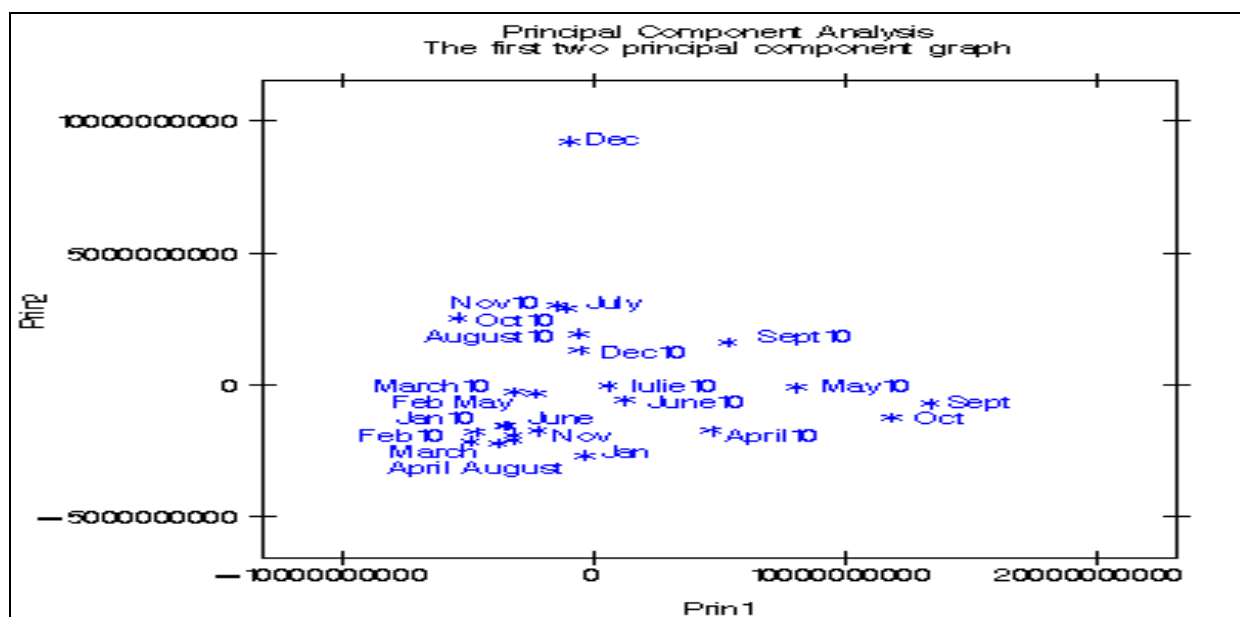
Equation (1)

$$\text{Prin2} = 0,022 * \text{Allocations} + 0,497 * \text{Projects\_submitted} + 0,967 * \text{Projects\_approved} + 0,243 * \text{Projects\_contracted} + 0,0317 * \text{Payments}$$

Equation (2)

Once the combination between these two main components has been determined, we can pass to the last step of the analysis that is, drafting the chart, so as to identify the dominant group, its tendency and the objects diverted from this tendency:

Figure 2: Principal Components Analysis during the period January 2009 – December 2010



Source: author's processing

Glancing at the chart, we can notice that by December 2009 divert from this tendency, deflection that could be caused by the moments of opening and closing of the financing lines for each axis, but also to other reasons, which need to be identified and eliminated within the next period of time.

#### 4. Conclusions

Based on the analysis of the main components, two significant pieces of information, as are needed to speed the process of accessing structural funds, have resulted. On one hand, it has been demonstrated that it is sufficient to restrict the analysis at only two characteristics, namely, the value of the projects submitted and of those approved, these having a capacity of description of 92.76% total variability of the phenomenon; on the other hand, the analysis has highlighted the non-integration of December 2009 in the general tendency, fact which should sound the alarm to the responsible people in the field, an analysis of this period being absolutely necessary in this case.

Restricting the analysis concerning the process of absorption of the structural funds to only two features has allowed for the drafting of a pertinent analysis, without requiring the study of each variable, and the corroboration of the information in order to draw a conclusion, fact which can trigger the attaining of indubitable results in a shorter period of time and can also bring about an important economy of human and financial resources.

To sum up, we must keep in mind that the non-refundable structural funds provide a chance of enhancing the speed of reclaiming the gaps existent between different regions, and this is much more valuable, as it takes over a considerable part of the economic efforts which should have been made on one's own account.

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## PRIVATE PROPERTY INSTITUTION AND ENTREPRENEURSHIP – PILLARS FOR ECONOMIC RECOVERY

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**Abstract:** *The purpose of this paper is to outline the role of private property institution in economic development process, which are the implications of entrepreneurship in the growth of an economy and which is the importance of economic calculation, especially in the context of current financial crisis. We hope to highlight in a clear manner the influence of private sector on the recovery of the development gaps between countries. Through our research, we hope to demonstrate the fact that in any state that wants freedom, private property institution and entrepreneurial activity should have a central place in the mechanisms of development.*

**Key words:** private property institution, entrepreneurship, crisis, economic recovery

**JEL classification:** D23, L26, O10, P14, P48

### 1. Introduction

Nowadays, new factors such as globalization, urbanization and knowledge-based economy have changed the context of the meaning afforded to property. The explosive development of technology, the expansion of local markets and exchange networks on the world market have led to the transformation of the idea of property into a kind of contractual agreement through which individuals cooperate.

In the modern world, property is a relatively consistent socio-legal institution, whereas in many developing countries the meaning of property is being reassessed to support the transition towards development (Boudreaux, 2005, p. 17). To assess the significance of the institution of private property, it suffices to take into account the mere fact that it is the outcome of a productive effort or voluntary exchange, the spontaneous order which occurs as a result of will expression which aims mutual benefits and gains to society. This spontaneous order, that no government bureaucracy can manage successfully, makes it possible to obtain our desired products and determines the purpose of their use. Human prosperity depends on the power of the individuals to decide how to best achieve the possibilities they have. In some words, it is about private initiative, which contributes in generating added value in economy. If this initiative is large and enough supported, then we can discuss about recovery, after the effects of current financial crisis.

### 2. The role of private property institution in the economic development process

There are at least four essential reasons that support the claim that a private property system contributes to the emergence of economic prosperity (Sunstein, 1993, p. 345). *First of all*, the institution of private property makes the individual provide goods and services for himself and his loved ones. *Second of all*, a system of private property satisfies a vital coordinating function as it ensures the fact that the multiple requirements and desires of hundreds, thousands or millions of consumers shall be reflected in the results on the market. Thus, people will be inclined to devote their productive activity to areas where it is most valued. *Third of all*, when individuals have private property rights, they are more motivated to not exploit them excessively. In addition, they must ensure that externalities are internalized by those who produce either social harm or social benefits. One can gain a better perspective on this fact by simply looking at the degradation of the environment. In recent years, this problem has been increasingly recognized to be particularly severe in Eastern Europe, but of particular importance in the West, too, and it is largely a product of collective action. Since those responsible do not directly assume the costs of pollution, they have no reason to limit their activity. *Fourth of all*, a private property system creates stability, protection, and investment-friendly conditions.

One of the first economists who emphasized the importance of property rights was the Austrian economist Carl Menger. In *Principles of Economics* (1871), the author noted that for most goods, the quantities available were insufficient to cover the needs of everyone. Each consumer's interest was in contradiction to that of other consumers in the effort to get some rare goods. Given this conflict of interests, it becomes necessary for society to protect the possession of goods of various individuals

against acts of force. Thus, Menger argues, property is not an arbitrary invention, but rather the only possible solution to the problem which, by the nature of things, is imposed on us by the discrepancy between the demands and the available quantities of economic goods (Menger, 1981, p. 97).

D. North has examined the role played by property rights in the rise of capitalism. In the early 16<sup>th</sup> century, the institutional arrangements in England and Spain were similar and so were the levels of economic development. Wool trade was a major source of income in both countries. But what made the difference later was the extent to which the two countries focused on the protection of property rights. Security was not similar and, therefore, the economic development went on separate ways in the two countries.

While many positive comments about property were made, for a long time the central role it plays in economic growth and development was neglected. This happened because property was seen as an autonomous thing and not as a process defined by social relations between people. Until the 1960s the known literature in the field contained no theoretical works to capture, specifically, the essential role of private property. Before the works of H. Demsetz, A. Alchian and R. Coase, most economists assumed that the rules and regulations regarding the use and allocation of property already existed (Coase, 1960; Demsetz, 1967; Alchian, 1977). However, gradually aware of the importance of property rights, scientists (economists, lawyers, sociologists), as well as policy-making authorities in the field began to recognize that property is an essential element for building a prosperous society and it must be a part of a sustainable development program. However, nowadays, it is painful to note that at the level of many, especially underdeveloped countries, the official policies often constrain or even block the institution of property rights. By limiting the opportunities of individuals to use their property in creative ways and to engage in voluntary exchanges, the economic growth and the chance to prosper decrease and the scope of individual powers is reduced.

In countries that reach a considerable level of indicators that define the degree of economic development (GDP, investment, trade balance, income level, productivity, etc.), the institution of private property is respected and outlined as the main determinant of a prosperous society. Therefore, developing nations must realize that clearly defined and effectively applied property rights will facilitate their transformation into a market economy and contribute to welfare.

However, any attempt to establish both individual and joint property rights requires time and effort. Usually, the greater the rights are, the more effective will be the exclusion of others (Witt, 2001, p. 381). Taking into account *the case of private property*, suppose that for an individual  $h$ , an effort and a basic time period  $T_b$  are necessary to restrict the access to the resource  $V$ . The level at which the other individuals have access to the resource and intersect with the demands of  $h$  can be expressed through a variable  $\Pi$ , where  $\Pi$  is between 0 and 1. When  $\Pi = 1$ , it means that the access to  $V$  is used in its entirety by others and when  $\Pi = 0$  the access is completely restricted to others, only  $h$  is allowed access. We consider the expected value  $E(\Pi) = \pi$ , as a function of the time allocated for the implementation of property rights. Using the normalized variable  $T_e = T_e/T$ , where  $T$  denotes the total time available, we have:

$$\pi = f(T_e) \quad (1)$$

Thus, assuming the preservation of the resource, the expected utilization of  $v$  is:

$$v = (1 - \pi) V \quad (2),$$

which depends on the additional effort of  $h$ . This holds true in the current period.

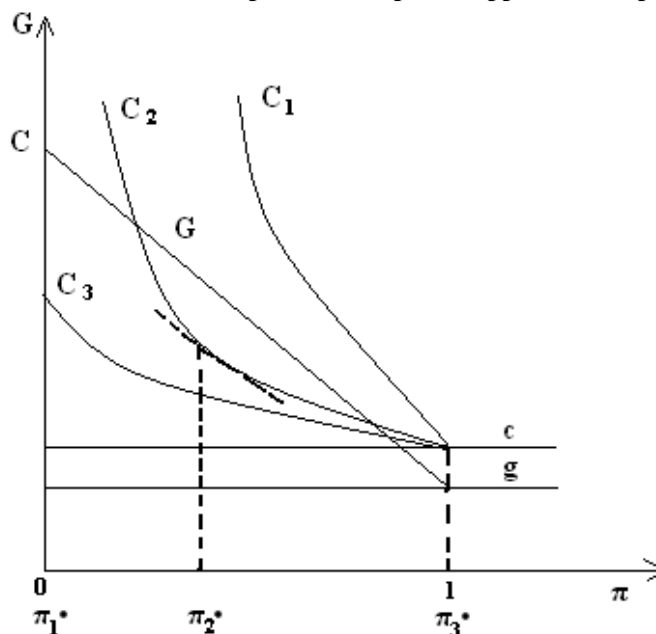
It will be assumed, in what follows, that other activities, either productive or unproductive (e.g. breaks), cannot be performed simultaneously with property rights enforcement activities. A decrease of  $\pi$  can lead to a utility increase of  $h$  by enhancing the degree to which he can use the resource during the current period. Such an increase can be assessed by the  $v/V$  coefficient which we consider to represent the profits  $g(\pi)$ , resulting from the performance at a given level of  $\pi$ . The profit from a continued basic effort will be assessed using a normalized variable  $g$ . Thus, *the total profit  $G$  under a regime of private property rights* is:  $G = g + g(\pi)$ .

Similarly, the costs from a continued basic effort will be expressed by the variable of the fixed cost  $c$ , measured by  $T_b/T$ , a ratio used to assess the costs  $c(\pi)$ , resulting from the performance at a given level of  $\pi$ . Therefore, *the total costs  $C$  under the regime of private property* are:  $C = c + c(\pi)$ —figure 1.

The figure 1 shows the gains and costs of applying property rights to a certain level of  $\pi$ . We see three alternative positions of the total cost curves, noted  $C_1$ ,  $C_2$  and  $C_3$ . These reflect the various effects of rights enforcement activities:  $C_1$  and  $C_2$  are in contrast with  $C_3$  and a completely restricted access to resources will not be possible, not even if the total time  $T$  is entirely devoted to rights enforcement

activities. The optimal application is best done by maximizing the net gain  $G - C$ . Thus, we get optimal  $\pi^*$ . For  $C_2$ , the solution would be for  $0 < \pi_2^* < 1$ , in which case it is beneficial for everyone weigh in with the use of their own resource. For the other two cases, the solutions are: for  $C_1$ ,  $\pi_1^* = 1$  and since  $C > G$ , for all,  $\pi < 1$ . For  $C_3$ ,  $\pi_3^* = 0$ , and the application is optimal.

**Figure 1: Possible solutions to the problem of optimal application of property rights**



Source: after Witt Ulrich, p. 382

A prerequisite for the development of individual incentives to establish and enforce rights under a *regime of private property* is that:

$$N(\pi^*) = G(\pi^*) - C(\pi^*) > 0 \text{ for } 0 \leq \pi^* < 1 \quad (3)$$

where  $N(\pi^*)$  is the maximum net profit that can be internalized individually. As shown in the figure, this condition underlies the cost curve position. Cost curve position needs to be taken for analysis when comparing costs in regimes of alternative property rights. For example, when considering a *regime of joint property rights*, the necessary condition for the manifestation of such a regime is this:

$$N(\pi^*) > 0 \text{ for } 0 \leq \pi^* < 1 \quad (4)$$

Differences in net gains, which can be obtained in alternative regimes of property rights, are better shaped when the activities are carried out in the long term.

Taking into account the rise of a *regime of private property rights*, the necessary condition is that:

$$N(\pi) > N(\pi^*) \quad (5)$$

Therefore, the distinction between joint and private property is made in terms of costs. *On the one hand*, when, for example, one shares a property or is not the majority shareholder in a company, there is the cost involved in overexploitation. More specifically, one of at least two people works harder. *On the other hand*, if the property belongs only to a person, sharing the resources is done by their own volition, without being accountable to anyone for their actions.

One of the strongest arguments we bring in favour of private alternatives refers to the fact that they internalize costs. On this line, H. Demsetz argues: "the emergence of the new property rights replaces the individuals' desire to interact with others to set new benefit-cost options. Property rights develop externalities internalization when the gains of internalisation become higher than the costs of internalization" (Demsetz, 1967, p. 350). This applies only if an additional condition is met: the net gains within the regime of private property exceed those that can be made individually in other types of regimes (for example, joint property regime). Therefore, increasing the value of the resources leads to the rise of private property rights only when their benefits exceed the costs. Always apply cost-benefit analyses and take into account the fact that property is a legal institution evolving towards efficiency under the influence of competitive conditions (Merrill, 2002; Ruttan and Hayami, 1984).

Based on this, we highlight, briefly, the functions performed by the institution of private property within the market economy:

- ✓ secure, well defined property rights, coupled with well-functioning markets contribute to building the social capital, decreasing transaction costs, boosting investments, enhancing competitiveness, which encourages people to develop the property they own and use it productively in order get a profit;
- ✓ protected rights help entrepreneurs to develop more accurate economic calculations;
- ✓ where institutions are weak, the probability of disputes and conflicts between various property rights holders is high;
- ✓ property offers individuals the needed space to pursue their freedom, without getting approval from others;
- ✓ the private property rights affect human behaviour. If a person makes a mistake regarding something they own, then that person bears the consequences of their mistakes;
- ✓ because it underlies trade and markets, the institution of property is a defining element in the fight to alleviate poverty. Without the combination of property rights, the rule of law, contract rules and regulations, it is unlikely that a society will enjoy economic growth;
- ✓ secure private property rights imply there is a limited and civilized government. Economic development will be eclipsed if the efficient use, transfer or extension of secure property rights are blocked by government policies or by institutional problems;
- ✓ through power and decision-making decentralisation, property rights protect individuals against abuses and create a space where people can thrive;
- ✓ property owners have a strong incentive to use their resources in ways that are beneficial to others. Although, theoretically and legally, the owners may use their property as they wish, property is a strong incentive to be attentive to the wishes of others. If the property will be used in the interests of others and in ways that others find attractive, its market value will increase;
- ✓ on the labour market, private sector employees are more motivated than those in the public sector, in terms of income (Buelens and Van den Broeck, 2007, p. 65);
- ✓ the power of individuals depends on the institution of private property, which means that people are free to pursue their individual goals and to develop their talents, to make rational choices for their welfare, and if they have the power to make such choices, they will respond creatively to the challenges and opportunities to reach their potential. Due to private property, individuals are encouraged to perfect their work technique, to make full use of their intelligence and work force;
- ✓ private property promotes the preservation and wise use of resources for the future.

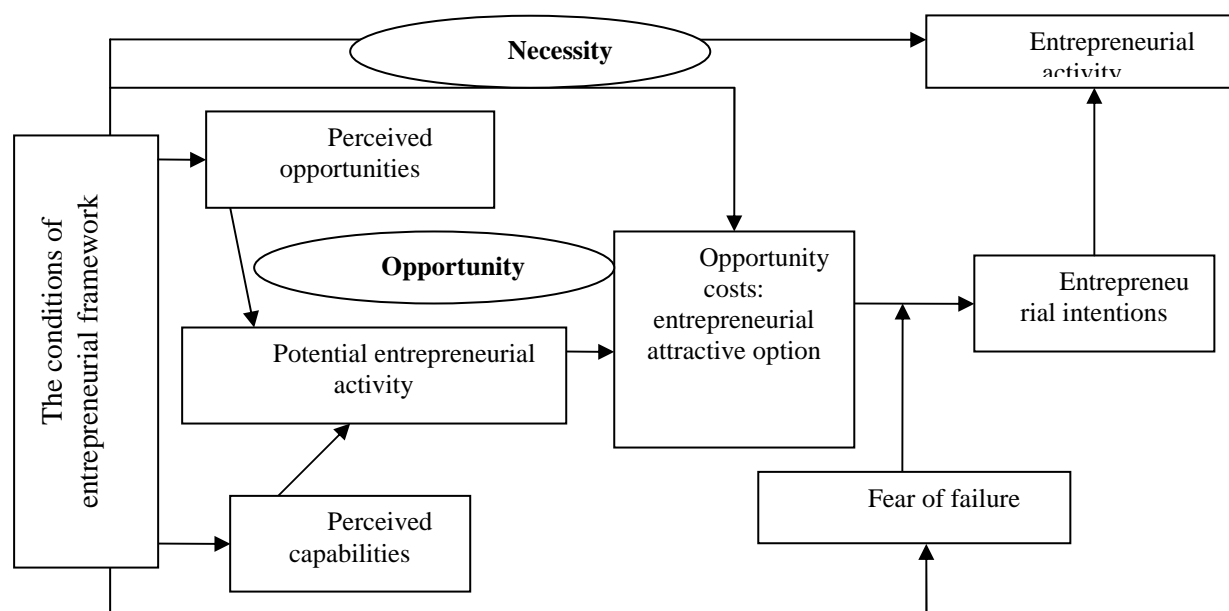
### 3. Entrepreneurship – pillar of economic growth

Although the neoclassical theory regarded companies as “black boxes” whose internal organization did not matter, gradually this vision changed, arguing that companies represent a system of relations that are formed when the allocation of resources depends on the decision of an entrepreneur and the existence of which is justified by the fact that they reduce the transaction costs (Coase, 1937, p. 32).

Any private company would have to take into account, in its activity, its own organization and marketing costs, as well as those of other entrepreneurs, aiming to increase production by incorporating low costs. Equally, this has to be continuously specialized within and outside the company, and at the same time it should be unrestricted in reaching various purposes (Duduian and Huru, 2003; Dietrich, 1994; Păunescu, 2002). As a result, the entrepreneur must have clear objectives, aimed to seize all opportunities of the free market.

W. Baumol distinguishes two types of entrepreneurship: productive and unproductive (Baumol, 1990, p. 895). Productive activities – mediation and innovation – are the essence of economic growth and progress. When he engages in productive activities, the entrepreneur has a double role. *The first* involves the, previously untapped, discovery of profit opportunities. This “pushes” the economy from an inefficient technological and economic point to an efficient one. *The second* should appear on the path of innovation. Innovation leads to the use of resources in a cost-effective way and represents the essence of economic change (Kirzner, 1985, p. 47). To sum up, productive activity is beneficial for both the entrepreneur and society in large measure. However, due to unproductive activities, the entrepreneur may harm society in general. Examples of the latter case include crime and other behaviours that destroy current resources.

**Figure 2: Perceptions about entrepreneurship**



Source: Global Entrepreneurship Monitor, 2009

To W. Baumol's categories of productive and unproductive entrepreneurship, C. Coyne and P. Leeson in *The Plight of Underdeveloped Countries*, add a third dimension they call *evasive entrepreneurship* (Coyne and Leeson, 2004, p. 242). This involves resources that the market participants must assign to the development of cost procedures for business management (for example, the bribe offered to corrupt inspectors, the resources that private actors have to spend to avoid inspections, etc.).

**Table 1: The number of business reforms, 2008**

Country	Starting a business	Obtaining licenses	Employment on labor market	Registering property	Getting credit	Protecting investors	Paying taxes	International trade activities	Enforcing contracts	Closing a business	Total number of reforms
Georgia	PR	PR		PR	PR	PR				PR	6
Croatia	PR			PR	PR					PR	4
Macedonia	PR	PR					PR				3
Bulgaria		PR					PR		PR		3
Czech Republic	PR	PR	PR								3
Hungary	PR			PR			NR			PR	2
Republic of Moldova	PR		NR				PR		PR		2
Poland				PR					PR		2
<b>Romania</b>	<b>NR</b>				<b>PR</b>		<b>PR</b>				<b>1</b>
Slovakia											0
Slovenia			NR		NR	PR	PR				0

Note: PR – positive reforms; NR – negative reforms.

Source: adaptations after *Doing Business Report*, World Bank, 2009

As in the case of unproductive entrepreneurial activities, created by a poorly institutionalized environment, evasive activities also represent significant losses to society (wasted resources that agents could have efficiently allocate elsewhere to contribute to progress). Therefore, in a society characterized by an institutional regime that promotes evasive entrepreneurial activities, the economic decline is unavoidable because goods are allocated to targets that do not contribute to social prosperity (De Soto (2000)). Moreover, some government interventions – such as wage and price control, which is actively



pursued in many developing countries – destroy, without exaggeration, the price system and, with it, the efficient allocation of resources.

There is a series of perceptions related to entrepreneurship, depending on the conditions at the starting point, the opportunities arising in the process, the current business climate, the laws in force, etc.

Suppose that one starts from a favourable business climate, then analyze the opportunities that may arise, weighing up the costs and the benefits. For example, companies in the European area have a vital role in ensuring the production of goods and services, providing jobs, innovative activities etc.

According to studies conducted by the World Bank, the number and impact of reforms regarding businesses is very low in Romania, ranking low at European level (table 1):

Thus, it appears that, after more than twenty years of transition, we still have not learned the right way to progress. We do not know how to attract investors, we do not support entrepreneurs in terms of encouraging those who want to start businesses, the taxes levied by the state are high and the only way most of us manage to do something is by resorting to credits.

#### **4. Incentives and economic calculation in entrepreneurship**

The institution of property, supported by other fundamental institutions such as contractual rules and regulations and an impartial judiciary system, gives people the incentive to create, innovate, preserve, protect, and enforce property (Gerhson and Feeny, 1991, p. 142). It contributes to forming a connection between individual effort and reward. Thus, it promotes entrepreneurial behaviour at all levels of society. People who are free to change their properties and keep the profits, to maintain and improve their properties are more likely to be rewarded for their efforts. In the absence of incentives, economic activity will be eclipsed and economic development and growth will stagnate. As D. Acemoglu, J. Robinson and S. Johnson argue, “without property rights, people have no incentive to invest in physical or human capital or to adopt more efficient technologies” (Acemoglu, Robinson and Johnson, 2004, p. 19). Private property rights operate as a continuous adjustment from physical to intellectual. Offering individuals the opportunity to profit from personal productive efforts, induces a sense of property, protecting their property and stimulating innovation. People who have ensured property rights may better exercise their powers and decide themselves how to achieve their goals. This is why the countries must have the capacity to support the laws and provide legal authorities, without corruption, for the injustices its citizens may be subjected to. Furthermore, people who, based on economic calculation, think that it is profitable to invest in the economy should be supported.

In *Economic Calculation in the Socialist Commonwealth*, Mises argues that in the absence of private property, economic calculation is impossible (Mises, 1920). Private property implies exchange, which in turn leads to the formation of market prices, without which the rational economic calculation would not be possible (Marinescu, 2007, p. 112). Without economic calculation, there is no way to ensure that resources tend to move to where actors need them most. Fr. Hayek believes that prices show to the producers and the consumers the factual situation on the market.

As regards the assertion that *without private property, economic calculation is impossible*, Hernando de Soto comes with a few additions. In *The Mystery of Capital* he argues that, first of all, a distinction should be made between formal and informal systems (De Soto, 2000, p. 5). In the West, property means formal, legal, integrated titles, while in most third world countries this means the unlawful non-integrated possession. These discrepancies regarding private property matter, in particular, in regard to the ability of individuals to produce capital (Baetjer and Lineberry, 2003, p. 4). But if, as Mises argued, the economic calculation depends on private property, which through the possibility to accumulate production determines that the actions will be taken rationally, and if the institutional features of property vary from country to country and from region to region, should not the nature and quality of economic calculation vary too? We think so, especially since, the efficiency of markets also differs in relation to them. When there are formal institutions, the economic calculation is more realistic, better guiding the entrepreneur in his activity, there is the expansion and integration of markets, trust in business partners grows, exchanges are facilitated, there are found new uses for various products in order to obtain profits, prices are formed in a correct manner, being regulated by the competitive mechanism, risks and transaction costs are reduced. All these translate into production and welfare. We note here that extended and integrated markets for goods mean prices that reflect “knowledge about the particular circumstances related to time and place. The price of each type of rare resource is a quantitative index in which it is concentrated all the relevant information”. (Hayek, 1945, p. 519).

The existence of a private property order makes economic calculation possible, which contributes to making the rational allocation of resources. The owners' desire to succeed in terms of production of goods, through savings and investment, can lead to development. The logical outline would be: private property determines economic calculation, which leads to development. Therefore, based on economic calculations, the private owners analyze how a future development of things would go, they consider the profit and the loss, then decide if such an activity pays to be exploited or not. We mention that property does not guarantee making a profit, the purpose of its allocation is, first of all, to avoid the conflict inherent to the scarcity of resources, and making a profit and consumer satisfaction are only "ingredients" that can ensure welfare.

## 5. Conclusions

The current crisis creates difficulties to entrepreneurs and many SMEs are facing bankruptcy. However, if they do not reach this situation, entrepreneurs can benefit from subsidies. We believe that this exercises a distorting effect on competition, creates an uneven economic field and reduces the access of formal entrepreneurs to capital injections and markets, discouraging them from making investments to increase production. Informal enterprises can reduce their prices because they avoid paying taxes and enforcing legal rules. In contrast, formal enterprises, more productive, have difficulties in capturing certain market segments from their informal competitors because they pay taxes and contributions that increase costs significantly. Thus, the informal sector persists in underdeveloped countries because it serves certain market segments and its main advantage lies in the price level.

Since the composition of the private sector can reflect the development level of a country (a high level of informality is associated with low income), the objective should be set to alter this composition in a specific and measurable manner with the purpose of increasing the share of formal companies, including small and medium enterprises engaged in legal activities. It is good for tasks and their performance indicators to be monitored for long periods of time.

It is necessary that the public and private sectors to cooperate in order to develop a set of rules with binding value for all. Business associations, such as chambers of commerce and industry, should seek to encourage members to develop rules of governance to protect shareholders and of social responsibility for external stakeholders.

Property gives entrepreneurs the freedom to try new things and to gain profits, based on prior economic calculation, which outweigh the risks and the investments they make. If they have secure rights and there is equality of opportunity, there will be incentives to create and improve the markets. As far back as several hundred years ago, Adam Smith explained in *The Wealth of Nations* how prosperity is created and how the pursuit of private interests leads to greater benefits for society. Most individuals find it impossible, but this happens because the accumulation of private wealth depends on the production of goods and services that are useful for others. Aiming for individual welfare is effectively converted into producing "public good" only when there is a social order that helps human cooperation. The fundamental condition for this order and economic progress is given by property; when the societies of 18<sup>th</sup> and 19<sup>th</sup>-century Europe began to ignore property, the social order collapsed and society became less able to maintain peace and to produce wealth, making a step back towards poverty. However, people gradually realize on one hand the negative effects produced by the neglect of property and on the other hand the benefits of an extended entrepreneurship.

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# MODELLING THE DIGITAL ECONOMY DEVELOPMENT IN INDONESIA

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**Abstract:** *The concept of digital economy means digitalization of information using information and communication technology infrastructure profitable for accelerating local and international business activity of Indonesia in the globalization era. It encompasses trading of goods and services with sales and supply using digital economy. Electronic money transaction as in e-banking transaction, auto teller machine, debit card and the internet credit card transaction constitute of a part of digital economy that nowadays is significantly big in number and lucrative. Although digital economy activities in Indonesia has significantly big in accounting number and values totally, nevertheless there is no one local nor foreign scientific empirical research to form a model of digital economy development in Indonesia. It can be concluded that such digital economy modelling topic in Indonesia is necessary to be researched.*

**Keywords:** digital economy, e-banking, auto teller machine

**JEL classification:** O3

## 1. Background of Information

The Information and Communication Technology (ICT) expansion and advancement in the last decade has been clearly exist ia all society's living aspect. Internet today is important and has already penetrating various society's aspect of living, this has happened because communication is merely a basic need of the society. The IT has developed and embodied in a "world" or "space" often called as cyberspace, which is a world or a place where society's can communicate, "meeting" and executing such economical activity or business.

The impact of such evolution has created a new society named information society or knowledge or knowledge based society. In the first stage, the ol fundamental economic theori is based on maximizing the production factors as in: physical, human resource, capital as land, capital money and human resource. In its further development, nowadays economic science has realizing the important of intellect factors in a form of technology and science, creativity and other form of innovative capital which can be categorized as science and technology or knowledge.

Variety innovation development regarding ICT of economic and business digital technology within the last decade have been called as post industrial society, knowledge economy, online economy, new economy, e-economy, digital economy (Cohen *et al.*, 2000). Digital economy is a complex new thing and new occurence fenomena related to micro economy, macro economy and organizational theory and administration aspects (Orlikowski & Iacono, 2000). The digital economy would explain the development and economic growth in the future (Margherio, 1998; Kling & Lamb, 1999). It has explained further the internet development and ICT in companies and business activities as well as the impact on small and medium business entities, impat on mechanism and market coordination and organization, e-organization and e-banking, the internet existence, impact on organizational structure, internet based marketing, business model and digital economy.

In the process of business and economy digitalization, it is important to include a discussion regarding e-marketing, the existence of internet in business, e-banking, e-commerce or e-business. The digital economy concept has been introduced for the first time by Tapscott (1998), explain about socio-political effect and economic system which have specific characteristic as an intelligent space comprise of information, various information instrument access and information processing and communication capacity. The digital economy component could be identified at the first time namely are ICT industry, inter company and individual e-commerce activity, goods and services digital distribution, support on goods sales mainly system and internet used service.

Meanwhile the concept of digital economy according to Zimmerman (2000) is digitalization of information and ICT infrastructure. This concept often use to explain the effect of ICT global in the field of internet and economy. As an opinion of interaction between innovation development and technological advancement and its impact to macro and micro economy, Kling & Lamb (2005) have a certain opinion that the digital economy is a field of economy encompasses goods and services where its development, sales and supply depend on digital economy. The digital economy development is closely

related to characteristics as value creation, the form of product as distribution channel, and structure form as customized offer and private or individual service (Zimmermann, 2000).

In Indonesia, Bank of Indonesia *Real Time Gross Settlement* system (RTGS) an electronic transfer system among the member in a form of Rupiah money using the real time completion, per individual transaction is significantly in number ranging from 3 to 4 trillion per month (table 1), such banking activity can be categorized as an e-banking transaction a part of digital economy. As well as e-banking buying activity in auto teller machine (ATM) and debit card per month in the year 2007/ 2008 encompasses 247 billion up to 293 billion per moth approximately (table 2). The internet credit card transaction has also significant in number ranging from 38 trillion up to 44 trillion monthly (table 3).

Although digital economy activities in Indonesia has significantly big in accounting number and values totally, nevertheless as far as inaccordance with internet exploration, e-journal exploration, accredited journals, international journals, there is no one scientific empirical research to form of a model of digital economy development in Indonesia and as well as no one foreign researcher studies has been done in Indonesia and written by foreign writer in Indonesia in International Journal up to now. The certain existing publication regarding such matter has only limited to discussion and popular writing. Hence, it can be concluded that the digital economy development in Indonesia merely reaching a field of frontier due to no one researcher had already researching on specifical digital economy in Indonesia matter. It can be concluded that such digital economy modelling topic in Indonesia is necessary to be researched.

Table 1. Real Time Gross Settlement Aggregate Transaction in Indonesia (in billion Rp.)

Period	Value (Rp)	Volume
May 2007	3.501.536,09	683.916
April 2007	3.361.906,46	603.232
March 2007	4.082.811,07	645.103
Febr 2007	3.541.287,15	555.490
Jan 2007	3.824.599,12	640.374

Source: Bank of Indonesia, 2007

Table 2. Debet Card, ATM and ATM + Debet Transactions in Indonesia (in billion Rp)

Period	Cash		Expenditure	
	Nominal	Volume	Nominal	Volume
April 2007	272.958,42	414.409	5.067.888,26	9.540.421
March 2007	281.907,79	423.291	5.142.922,07	9.626.404
Febr 2007	247.122,88	380.528	4.522.213,89	8.849.052
Jan 2007	293.236,95	448.995	5.308.543,96	10.169.130

Source: Bank of Indonesia, 2007

Table 3. Debet Card Total Transaction in Indonesia (nominal in billion Rp)

Periods	Cash		Expenditure		Interbank Transfer		Interbank Credit Card, ATM	
	Nominal	Volume	Nominal	Volume	Nominal	Volume	Nominal	Volume
April 2007	41.932.403,46	65.056.450	2.098.897,97	4.306.525	75.756.169,06	14.186.067	952.647,43	903.637
Mar-07	44.282.397,60	66.609.912	2.364.541,29	4.526.232	72.605.832,12	14.361.905	946.754,75	822.323
Feb-07	38.487.265,81	90.135.909	1.796.109,87	3.784.201	60.647.835,19	12.309.782	822.347,21	815.333
Jan-07	41.715.204,26	64.307.720	2.207.957,06	4.522.706	68.091.336,75	13.372.189	856.206,05	468.676

Source: Bank of Indonesia, 2007

## 2. Concept, Digital Economy Charracteristic and Its Impact to Company

According to Zimmermann, (2000); or Zysman & Weber, (2000); or Shaw, (2000), the variety of changing has experienced and relationship development between company due to use of IT and communication for example the occurence of disintegration fenomena in the form of disappearance or lessening middlemen, broker role in business as in business to business or business to consumer shortening the channel of distribution. The existence of other reintermediation fenomena as in changing model of distribution in form of changing distribution model from traditional to new model of distribution (Gambar 1. Struktur A).

In B structure (Figure 1. Structure B) draws a comprehension digital economy in company is in the process of creation of value shape as specific customer need and wants fulfillment. Such value

creation redefinition has been facilitated by ICT. Such activities have been executed by collecting, organizing, synthesizing and distributing the informations, hence, the company can be operating more efficient and flexible (Amit & Zott, 2001).

In the digital economy, companies offer their services in accordance with their certain services match with certain specific demand or customized offers, the offers have characterized as personal and individual or personalized offers (Bloch *et al.*, 2006). The same mechanism has happened known as the internet auctions and buying groups as in individual or company acting as broker, for example Ibazar company, e-bay or gado-gado.com in Indonesia etc (Drawing C Product).

Companies have also developed infrastructure (Drawing D Infrastructure), with the support of ICT and communications to perceive digital economy structural advancement occurrence for example as in variety internet business to business (B2B) virtual vertical market transaction. Transaction activity company to company that long time ago usually have done by big business. Nevertheless such B2B activities has done today by various level of company. The application in development of e-business are among others as in Enterprise Resource Planning (ERP), Consumer Relationship Management (CRM), Supply Chain Management (SCM) (Zysman & Weber, 2000; Keney & Curry, 2000).

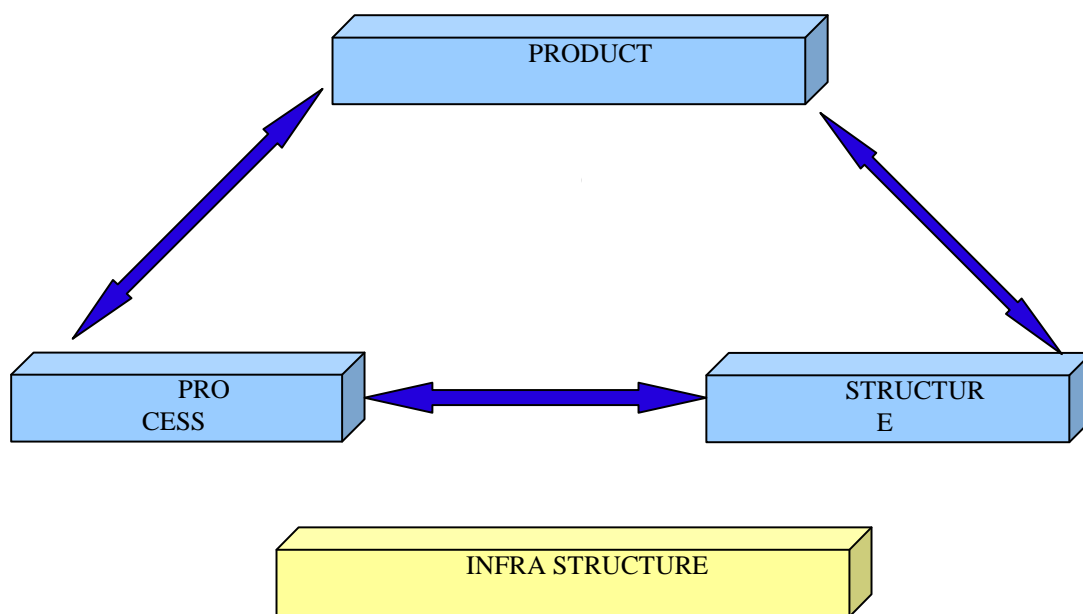


Figure 1. Digital Economy Characteristics

### 3. Subsector of Digital Economy

Haltiwanger & Jarmin (2000) have a certain opinion that digital economy subsector as in hardware or software consist of digital goods & services in the form of electronic money transfer, online information services, digital news, distance learning, software selling. Mixed digital goods and services in the form of internet book selling, selling of CD, music DVD, film, flower, food and beverages, brokerage services, in some form such sub sector merely the same as in transaction via catalog, telephone, mail order or other goods order through the internet etc. Intensive production of goods and services as in a form of market investigation, computer aided design, and various production controlled by ICT. Industry of ICT in the form of hardware, software, communication devices and other ICT industrial services.

Barua *et al.*, (2001), has recommended the digital economy is the company which has revenue acquired from the internet or mainly obtaining revenue from the internet transaction. Such researcher has identified four subsectors layer in digital economy among others are *firstly*, fourth layer Business to Consumer (B2C), business to Business (B2B) online transaction, *secondly*, the third layer that is variety of online brokerage business as in expedia, travelweb etc, *thirdly*, the second layer that is internet consultant application, multy media application, online education etc, *fourthly*, first layer is infrastructure in online business transaction including telecommunication, variety fiber optic company, variety hardware company supporting the digital economy.



**4. Various Previous Research**

Although indirectly discussing the digital economy in Indonesia, an article as a research result entitled "An Information Technology and National Communication Planning Roadmap" written by Arie Wahyudi (2007), explain about the important of Indonesia to plan a road map of informational technology and national communication. This is very important to be vigilanted because Indonesia is really could not avoid the globalization influence triggered by ICT advancement in alla aspect of life of People in Indonesia. Some problem faced by people of Indonesia among others: the government delay to regulate ICT implementations, the ICT provider is limited and only exist in big cities, the society has reaction to follow ICT development, the ICT infrastructure development is spread uneven lead to limited software and hardware market, the ICT product quality and price is uncompetitive compare to foreign product, the product software and content piracy is glowing in Indonesia, the supply of ICT expert is limited, the society's ICT buying power is low and limited.

This article is focusing to analyze the ICT infrasructure weakness and ICT policy in Indonesia rather than analyzing the ICT role or ICT effect to national economy of Indonesia. Ana R. del Aguila, Antonio Padilla, Christian Serarols and Jose M. Veciana (2003) have done their digital economic exploration research in Spain entitled Digital Economy and Management in Spain. Such research. The research is still in the level of frontier research analyzing some subsectors in digital economy namely ICT infrastructure and its impact to digital economy in Spain and economy and digital business economy activity.

The research method they have used is using Delphy method, with usind primary data in the form of interview with the ICT performer regarding digital economy situation in Spain, whereas secondary data used is from Spain Bureau of Statistic, OECD, Ministry of Sains and Technology of Spain etc. The research result depicting the digital economy situation in Spain. Such concept used in this research is applying four subsector proposed by Barua *et al.*, (2001). The main weaknesses of such research is only identifying digital economy business and its infrastructure, meanwhile the digital economy as in Figure 1 is not explained in such research. The digital economy charracteristic as in Figure 1 has not explained in such research.

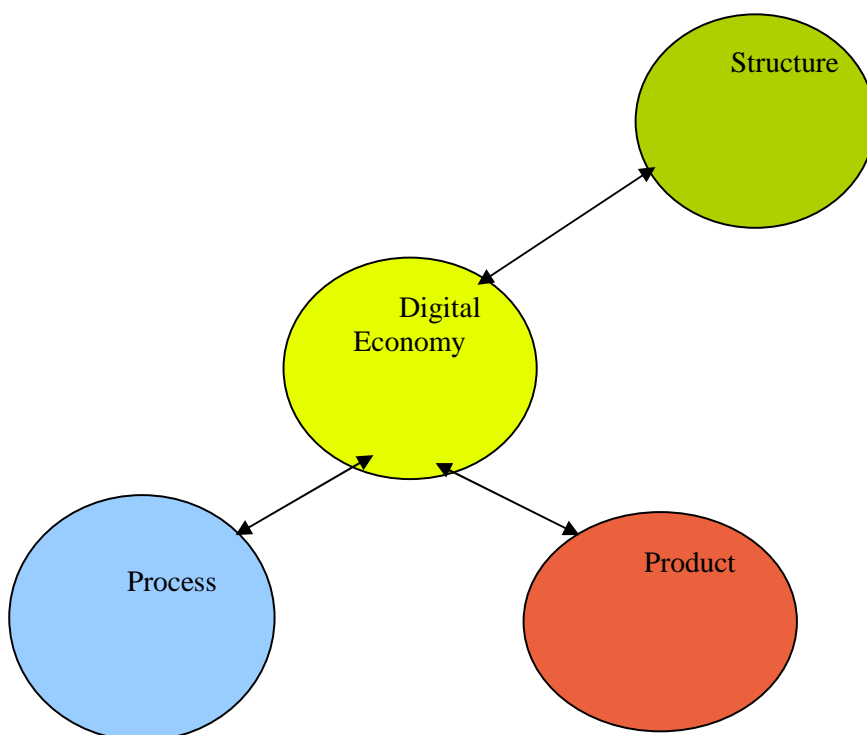


Figure 2. Framework Model

Sam Ock Park (2002) was researching on Asia Pacific region such research entitled Economic Spaces in the Pacific Rim: A Paradigm Shift and New Dynamics. This research using secondary data was analyzing the dynamic economic space due to ICT and communication advancement. According to Park the ICT advancement in Pacific region has experience significant advancement. The B2B

advancement using e-commerce has significantly efficient in business transactions. This can possibly happened because more efficient in goods and services distribution and logistics. The weakness of such research is because the geographical scope comprises of Asia Pacific Region nevertheless the researcher only using secondary data as in statistical data. Another weakness is that the cultural dimension and social relation were not clarified and such matter accepted by the researcher as a limitation of the research and as a recommendation for future research. Another weakness is that the ICT role of ICT contributing to space economy has also not clearly been analyzed.

In this following Figure 2 is drawing a conceptual framework of digital economy advancement in Indonesia with some of its characteristic that is firstly from the structure which is company distribution pattern has changing, secondly how a value creation has happened within digital economy process, thirdly how customized offer has been done in the digital economy.

## 5. Closing

How the conceptual model which can be able explaining development empirically is in the research phase, eventhough in the practical daily life related to business we have been formed as an information society who has lived in a knowledge based economy.

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## SYSTEM OF INDICATORS FOR SUSTAINABLE DEVELOPMENT - ANALYSIS AND INTERPRETATION

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**Abstract:** *Establishing a system for tracking different indicators of sustainable development, reflecting specific changes in environmental conditions and monitoring progress in achieving environmental policy is a priority concern of the Statistical Office of the European Communities (Eurostat), UN Economic Commission for Europe (UNECE) and the Organisation for Economic Cooperation and Development (OECD). As a member of the European Union, Romania, through its National Statistics Institute is actively engaged in this process. This article shows the current system of indicators of sustainable development and a comparison between the most representative values for the European Union environmental indicators and their values in Romania.*

**Key words:** sustainable development, indicators system, environmental policy, environmental indicators

**JEL classification:** E01, F53, H77, O13, O44, O52

### 1. Introduction

Complex and multidimensional (technological, economic, political, environmental) in nature, character and its implications, the environmental-economic problem turns out to be a global problem. Environment requires increasingly more consistent management and flexible capacitive, a variety of intervention tools, and on-going communication with socio-economic actors, in order to integrated manage natural resources.

Given the evolution of human society, public opinion brought to light environmental degradation and its regression components, giving them due weight, whilst also forcing the actors and the socio-economic policies to participate effectively in the conservation and development in a sustainable way of everything that surrounds us.

Moreover, opinion polls in Europe show that, in recent years, environmental issues were ranked in second position in terms of importance, after social problems (unemployment, economic stability, availability of housing, personal security, etc.).

The fact that the intensity of human activity upon the environment increases, either by uncontrolled consumption of resources and space, or by producing waste which nature cannot absorb without suffering, has led the international community to move to initiate and support concrete actions to prevent, counteract and eliminate disturbances of ecological balance repercussions. (Brown, L., 2001)

Human response to these crises is given to the concept of “sustainable development” is proposed to model the development of human society in the next millennium.

In the EU, sustainable development was highlighted since 1972’s Summit in Paris, when the need to allow a greater focus on environmental protection in the context of economic growth and improve living standards was questioned.

In a very general understanding of the concept, sustainable development includes the idea of development without the depletion of resources by moving beyond the limits of affordability and regeneration of ecosystems. The basis for this concept is the need to integrate environmental and economic goals with environmental protection.

The 2001 Conference of Gothenburg represented the start adoption of the Sustainable Development Strategy of the European Union, which concentrates in the areas of sustainable development policies: economic, social and environmental. (Cotigaru, B., Roșca, I., 2004)

In 2003, the European Environment and Health Strategy (SCALE) was adopted. This is a new element, centred on environmental policies and the health of children - most vulnerable social group most affected by the effects of pollution environment.

The European Commission launched a review of the Strategy in 2005 and, on 9 June 2006, adopted a renewed Sustainable Development Strategy for an enlarged Europe, which generally aims to continuously improve the quality of life for present and future generations by creating communities sustainable and able to manage and use resources effectively and capitalize on environmental and social innovation potential of the economy to ensure prosperity, environmental protection and social cohesion.

## 2. Sustainable Development and Economic Development

A long time ago, until about 20 years ago, priority was given to economic growth, excluding environmental problems. Severe forms of manifestation of the deterioration of the environment components are required to change this view. Of course, the prospect of economic growth before environmental protection is possible. Therefore, such a strategy for a stable economy that generates funds and allows an intense social work in environmental protection, can find grounds to be further developed. However, such an approach does not allow these countries to develop sustainably on the long term, which applies especially for developing countries. It promotes environmental damage and health implications for present and future generations. (Popescu, I., Bondrea, A., Constantinescu, M., 2005, p. 17-45, 105-283)

Nor is the question of addressing global environmental issues asked to all countries (problems related to climate change, the depreciation of the ozone layer, desertification, etc.). Developing countries are facing serious environmental problems at local or national availability, especially material means to help solve the crisis.

On the other hand, the very first principle to address the damage and then removing the cause is discussed as of main importance, while this is not the only way. In ecology, as in medicine, prevention is always better and more economical than cure. (Pârlog, C., Ionescu, R., Tuşa, E., 2004)

In general, the minimum requirements for achieving sustainable development include:

- resizing growth, given a more equitable distribution of resources and increased quality of output sides;
- eliminating poverty under the conditions meet the essential needs for jobs, food, energy, water, housing and health;
- ensuring an acceptable level of population growth (population growth control);
- conservation and enhancement of natural resources, maintenance of ecosystem diversity, monitoring environmental impacts of economic activity;
- diversion technologies and implementation of risk control;
- forms of government decentralization, increased participation in decision making;
- linking environment and development decisions with those of the national internationally. (Stiglitz, J., Walsh, C., 2005, p. 740-750)

An important condition for achieving sustainable development is simultaneous progress in several dimensions. For this, economic policy, environmental policy, investment, employment policy, education, health etc. are designed to correlate the complaints and actions according to certain priorities.

Another condition, in fact linked to the previous one, refers to sustainable development adapting to the specific conditions of each country. Each country has its own needs for growth, and national demographic characteristics and features of the natural environment, a certain space built. (Ministry of Environment and Sustainable Development, 2007)

The meaning of sustainable development is given precisely by the endogenous model of reconciliation between man and nature. This does not, of course, include the need for international collaboration and cooperation (*e.g.* environmental management capacity and implementation of national policies will increase demand for clean technologies, which will accelerate technology transfer and cooperation).

## 3. Indicators of Sustainable Development in Romania

Currently, the system of indicators of sustainable development for the European Union includes: (European Commission, 2011)

- Socio-economic indicators;
- Indicators of sustainable consumption and production;
- Social inclusion indicators;
- Demographic indicators;

- Public health indicators;
- Indicators of climate change and energy;
- Indicators of sustainable transport;
- Indicators of natural resources;
- Indicators of global partnership;
- Indicators of good governance.

The system integrates economic indicators, social and environmental assessment of three-dimensional usable for sustainable development.

These indicators are structured into three hierarchical levels, as follows:

- Level 1: Main indicators (basic)
- Level 2: Indicators used for monitoring and reviewing sustainable development programs;
- Level 3: analytical indicators.

**Table 1. Sustainable development indicators with reference to the environment**

Domain	Specific objectives	Indicators	Targets
<b>Climate change and energy</b>	Improve energy efficiency thermo-electric equipment	1. Emissions of greenhouse gases in absolute terms; 2. CO <sub>2</sub> /capita emissions; 3. Gross domestic energy consumption.	Reducing emissions of greenhouse gases by 8% during 2008-2012.
<b>Nature Protection and Biodiversity</b>	Bio-diversity; Preventing and reducing desertification process.	1. The proportion of land covered with forests: - Forest dynamics; - A forestation dynamics. 2. Protected areas to ensure biodiversity conservation.	- Increase forest cover from 27% to 35% of the country by the year 2040 - Increased share of protected areas from 2.56 breast area of the country in 1990 to 10% in 2015.
<b>The quality of urban life and the environment in general</b>	Ensure a high standard of living in terms of water; Reduction of air pollution and pollutants maintained below a certain threshold in order to avoid damage to human health, ecosystems and cultural heritage	1. Percentage of population with access to safe drinking water; 2. Number of people who have access to a centralized water supply system; 3. Population Connection centralized water and sewer services; 4. The degree of network equipment with water on the streets; 5. Loss of water distribution networks; 6. The age of water distribution network; 7. Number of treatment plants. 8. Urban population exposure to air pollution.	- Doubling by 2015 the proportion of people who have access to safe drinking water;  - Improving and developing the infrastructure of the centralized water supply and sanitation in urban and rural human agglomerations.
<b>Use of natural resources and waste generation</b>	More responsible management of natural resources; Improving the quality of water resources.	1. Collection of municipal waste landfills and incineration in kg / inhabitant; 2. Changing land use (agriculture, natural-building); 3. Surface water and groundwater extraction / resources available.	
<b>Transport</b>	On the medium and long term, Romania must keep a balanced transport system, where railways cover 30-35% of the transport market.	1. Goods volumes relative to GDP; 2. The volume of passengers transported, relative to GDP; 3. Freight transport by type; 4. Passenger transport by type	- The external costs of transport - Support equivalent to road and rail infrastructure development - Supporting green transportation.

Source of data: after [http://www.insse.ro/cms/files/evenimente/Tulcea/romana/abstract\\_Toma\\_RO.pdf](http://www.insse.ro/cms/files/evenimente/Tulcea/romana/abstract_Toma_RO.pdf), accessed on 01.03.2011; National Statistical Institute linked to a partial system of indicators Eurostat, the European system of integrated sustainable development.

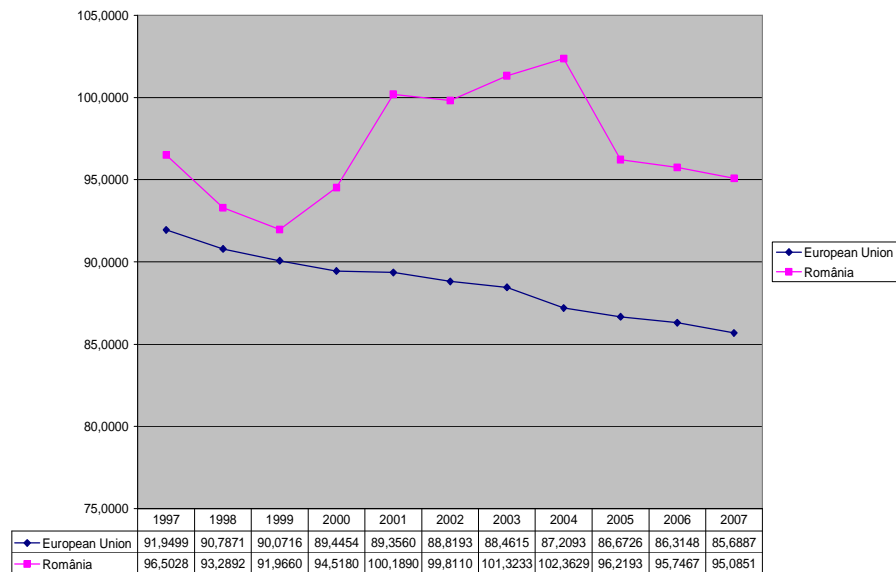
#### 4. Indicators for Progress in Environmental Analysis - European Union and Romania

Next we will present an analysis between the most representative environmental indicators for the European Union and their values in Romania.

### 4.1 Climate Change - Emissions of Greenhouse Gases

Under the Kyoto Protocol, the European Union has pledged to reduce by 8% greenhouse gases by 2008-2012 compared with 1990. (Figure 1) (Ministry of Public Finance, 2005)

**Figure 1. The emission of greenhouse gases - to 1990 reporting**

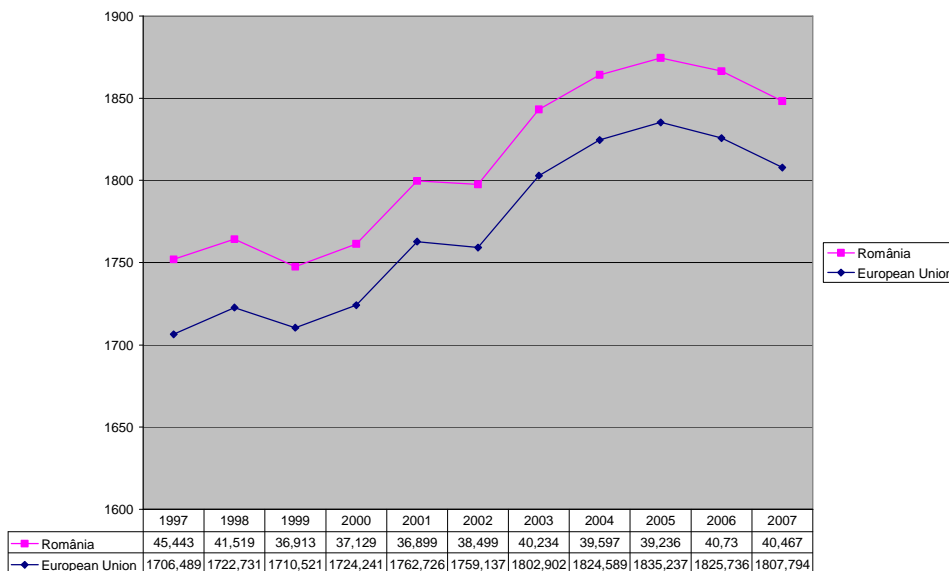


Source of data: based on data published by the European Commission “Indicators of sustainable development”, also available online at: <http://epp.eurostat.ec.europa.eu>

### 4.2. Energy consumption

Energy consumption in Romania in 2007 was 40.497 million tonnes of oil equivalent (down 0.65% against 2006), while EU energy consumption declined in the same year, equivalent to 1.807 billion tonnes Oil (tonnes), stable compared to 2006 (Figure 2).

**Figure 2. Energy consumption**

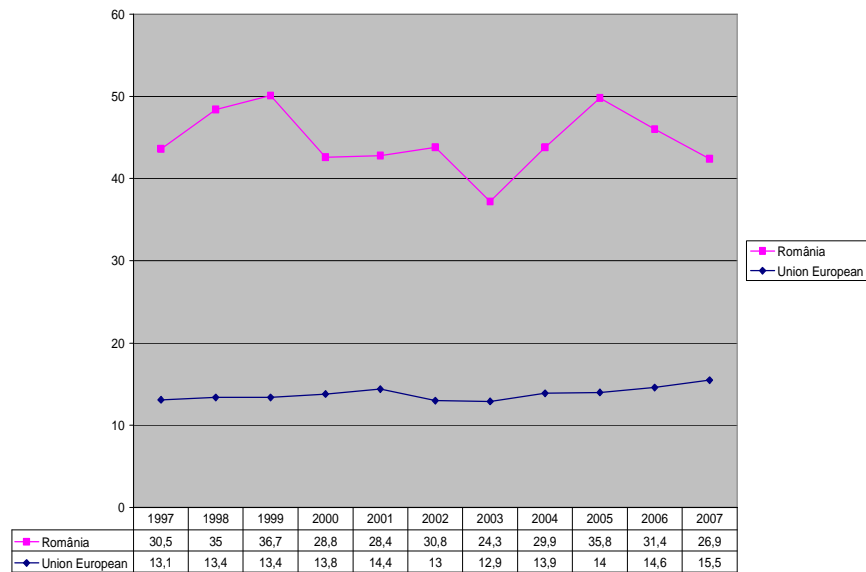


Source of data: based on data published by the European Commission “Indicators of sustainable development”, also available online at: <http://epp.eurostat.ec.europa.eu>

### 4.3. Electricity from waste recycling

By 2010, the European Union recommended target is to produce 21% of total electricity production from renewable sources, while Romania has to produce 33%. In 2007, the percentage of energy from recycled materials in the EU was 15.5%, up 0.90 percentage points from that of 2006. In Romania, there is a

reduction of the energy generated by renewable sources in total energy in 2007 compared to 2006 by 4.5 percentage points (Figure 3)



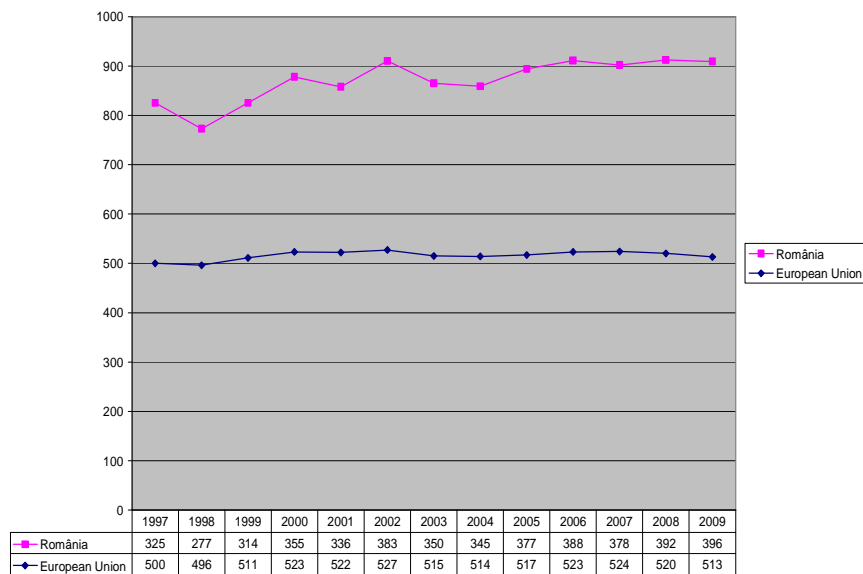
**Figure 3. The energy generated from renewable sources**

Source of data: based on data published by the European Commission “Indicators of sustainable development”, also available online at: <http://epp.eurostat.ec.europa.eu>

#### 4.4 Municipal Waste

In 2009, the European Union 513 kg of municipal waste generated per capita, with 10.26% more than in 1997, while Romania have occurred in the same year, 396 kg of waste per capita , representing an increase of 12.18% compared to 1997 (Figure 4).

**Figure 4. Municipal Waste (kg / capita)**



Source of data: base on data published by the European Commission “Indicators of sustainable development”, also available online at: <http://epp.eurostat.ec.europa.eu>

### 5. Conclusions

Successive sustainable development strategies of European Union tend to focus increasingly on prudent conservation and utilization of natural capital. One of the factors determining this development is represented by the awareness of real dangers of climate change caused by human activities.

As a member of the European Union, Romania has undertaken specific obligations regarding the implementation of the *acquis communautaire*, including moving towards a sustainable development model, endorsing the principles, objectives and working arrangements agreed in the EU. Thus, Romania must annually report to the European Commission a partial system of indicators, included in the European system of integrated sustainable development, based on available data.

The information provided through sustainability indicators allow us to identify constraints, failures and helps fundament measures for updating and resizing action programs nationwide, thus smoothing the transition and harmonization to the macro regional and global scale.

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## THE DORNBUSCH-CALVO EFFECT IN AN EMERGENT POST-TRANSITION MARKET ECONOMY AND ITS IMPACT ON THE FUNCTIONING OF THE LABOUR MARKET. ANALYSIS ON THE CASE OF ROMANIA USING THE NATIONAL DEFINITION UNEMPLOYMENT RATE

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**Abstract:** *Using the case of Romania the paper aims at exploring the so-called Dornbusch-Calvo effect on an emergent, post transition market economy. It starts the argumentation during the period of economic boom of the early 2000s and it ends in the duress of the second great contraction which actually triggered the Dornbusch-Calvo effect on the Romanian economy and labour market. It is the same effect that subsequently makes unemployment rate fall even before the cycle turns back to the positive as the Dornbusch-Calvo effect also hampers the ability of the state to provide adequate financial support for a longer period of time to the unemployed, by significantly eroding its fiscal base and by virtually shutting it from the international financial markets.*

**Key words:** unemployment rate, labour market, effects of a sudden stop, international financial markets

**JEL classification:** J, J6, J8

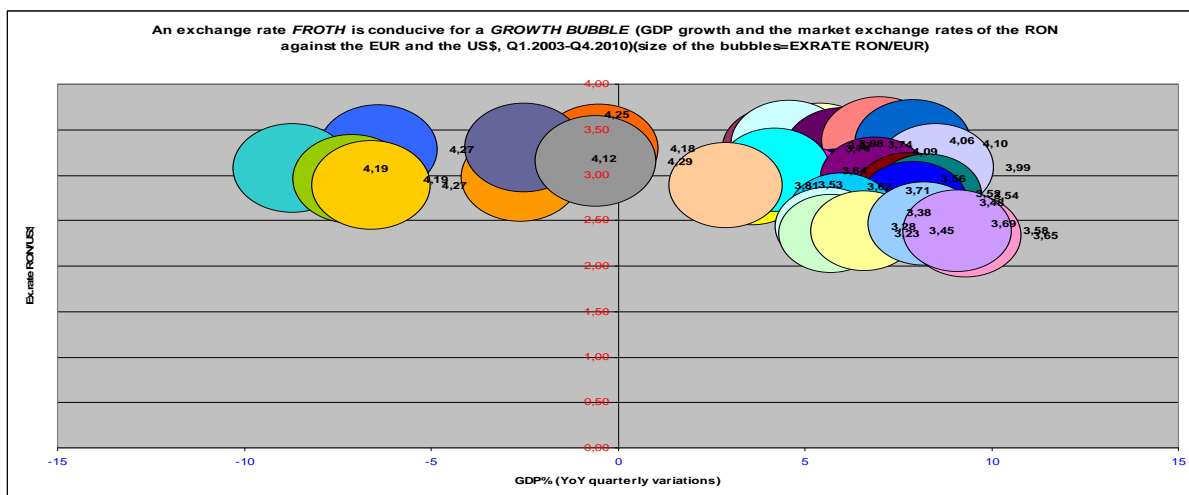
Unemployment or generally its most standard of gauges, the unemployment rate are credited as lagging indicators (Kaminsky and Reinhardt). In other words both the phenomenon itself as well as its standard or better conventional measure, are trailing the economic cycle. In other and more plain words, employers will not necessarily shed labour immediately as the negative shock hits or at the moment “t0” as we would like to call it (Rogoff and Reinhardt). They would be reluctant to do so and this in spite maybe of a fall in the shares of their enterprises as they have invested in labour and maybe in some cases, given the general irrationality of human behaviour (Shiller, Roubini), which goes both positive and negative ways, they might have developed a certain bond with their employees or at least with part of them. In most cases it will take until a certain moment “t0+n”, after the shock has hit the economy and more generally the financial markets and precisely it will go on at that moment when orders might start to fall dramatically, though with how much it is difficult to say as it varies from one economy to another and mostly it differs in between the advanced and emergent markets (Reinhard and Rogoff, Maddison). Nevertheless when this happens labour will be shed and sometimes massively as we already know from several well document cases of recession and depression throughout the 20<sup>th</sup> century (Rogoff, Reinhardt, Maddison, Bernanke). The same but in reverse will happen when the economy strats to receive and when we wil encounter not something new as some might think, but something rather old, or in other terms the “jobless growth” or “jobless recovery”. This in other words means that as employers have been reluctant at the beginning of the crisis to acknowledge fully the magnitude of the negative shock and thus shed labour in immediate response they will also choose (again maybe irrationally-see Shiller) in the wake of the first signs of recovery not to trust fully the advent of the positive shock and thus refrain from hiring until a certain moment, again labeled “t0R+n” (with the R from recovery) when things will look in their or from their perspective as more certain and re-assuring (a sort of “home and dry” feeling). Again therefore, unemployment and its conventional measure or measures, but we will discuss this particular matter later on in this paper, will be lagging the cycle as in the first case its rise will be delayed from the moment “t0” when the negative shock hits, while, in the second case, almost symmetric, its slide will be again delayed from the moment, although always less clear than the first one, and dubbed by us “t0R”, when recovery actually starts (the conventional measure of recovery used generally by US economists of two successive quarters of growth does not always stand and this particularly for emergent markets).



Evidence from emergent markets show however that, things might sometimes or actually at most times look different than in developed economies. Dornbusch and Calvo have evidenced the fact that such markets especially when highly dependent on external financial flows might experience a sort of “sudden stop” effect which might mean that capital flows almost instantaneously come to a halt which is the equivalent of a cardiac arrest of the whole of the economy. In this case there is no lag any longer between the moment  $t_0$  when the negative shock hits the financial markets and the supposed moment “ $t_0+n$ ” when the real economy receives the actual hit. Companies shut from financing might be forced to close abruptly and as the currency might also fall precipitously (part of the so-called “Dornbusch-Calvo” effect) they will be forced to close or to shed as much labor as possible simply to avoid a too large mass of liabilities that would simply crush their remaining assets. Debt deflation as termed by Fisher or “balance sheet recession” as defined better and more appropriate for the first phase of such a phenomenon as termed by Koo takes hold and unemployment simply skyrockets. Of this there is some evidence from various emergent markets though as their statistics are sometimes less reliable or as sometimes wage elasticity might be higher (in the sense that workers might prefer to take large wage cuts than to lose jobs which might never appear again given the “shallowness” of their labor market) it is not very conclusive.

What if however, the Romanian case will be a case in point for this theory, showing clearly that the Dornbusch-Calvo effect does truly affect labor markets and thus that in emergent markets, especially when under the impact of the negative shock there is not lag between the “ $t_0$ ” and the “ $t_0+n$ ” moment and employers, shut down from finances (“the sudden stop”) chose to lay off labour in hordes rather than face outright bankruptcy? We will look for this on our series of data which spans from 2000 to 2010 covering thus the most statistically reliable period of 40 consecutive quarters of a total of eighty accumulated by the Romanian economy since the fall of communism in Dec.1989. These quarters cover both the end of the Plan to Market Transition, the booming growth recorded by the economy between 2000 and 2008 under the impact of both the upcoming EU Accession as well as of the global financial abundance (“the liquidity glut”- see Bernanke and Greenspan) and, finally, the sudden and unwelcome advent of the “great global contraction” (Reinhard and Rogoff) between 2008 and 2010. Therefore a rather short but rich in events period for the Romanian economy which, might permit a test of our emerging theory.

Chart 1



Source: National Institute of Statistics of Romania and National Bank of Romania data, processed by the authors;

If we would look at the quarters between 2000 and 2008 we will obviously see, and we will work here only for the beginning with the national definition unemployment rate as the one measure of unemployment which is presumed to reflect national realities and the one that proved itself as the most responsive to the moves of the cycle, that unemployment or rather its administratively calculated rate trails truly the economic cycle. In other words while the economy starts growing and grows strongly between 2001 and 2004, unemployment rate does not budge that much. It loses no more than a couple of percentage points and this in spite of the fact that the economy will add in 2004 only 8% to its GDP on the year early thus making for a peak of the two peaks registered by the growth cycle in between 2000 and 2008. Unemployment rate nevertheless trails the cycle and never actually drops for the whole period between 2000 and 2004, therefore

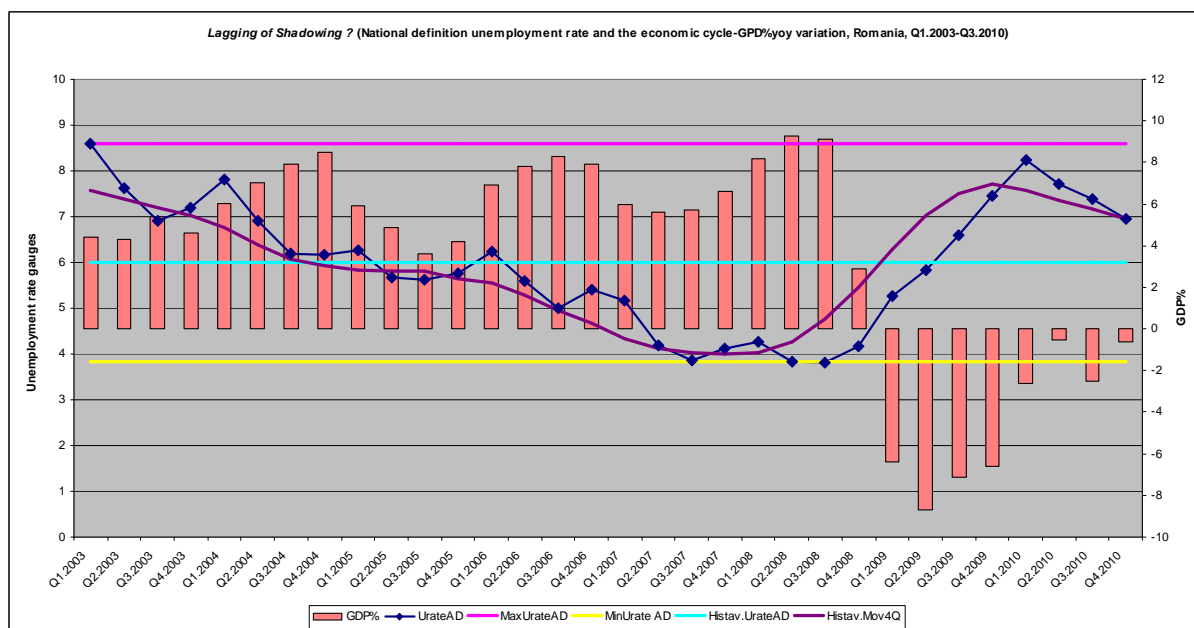
for 20 of the 40 quarters in a row that we are examining below what we will dub as a “historical simple average for the decade 2000-2010”. This is fully convergent with the classical theory we have already enounced above that employers, having still in mind the memories of the hard nineties are reluctant to believe in a full recovery of the Romanian economy and therefore refrain from creating jobs. Also, in a phenomenon that now only pertains to post-transition emergent economies and which is not fully documented till now, foreign investors not fully confident in the quality of the labor they find on the market prefer to substitute labor with capital so as to both boost and speed-up returns on investment as they also show poor confidence in the prospects of a market they might like to flee at the first sign of wider market unrest (Shiller, Roubini, Rogoff, Reinhardt&Reinhardt). This also explains why in spite of the surge in growth and the a visible strengthening of the national currency, which serves as to testify for the force of the capital inflow, employment growth remains sluggish while in the meantime unemployment rate fails to go below its long-time average for the decade. It is only as the capital inflows grow in strength a fact attested by the massive appreciation of the currency (“the exchange rate FROTH” as we would like to label it-see Ghinararu 2007, 2008,2009) and growth gets buoyant that employers start getting confident and they start therefore hiring. Bad memories are cast aside and feeling of “this time is different” (see Rogoff and Reinhard) starts taking hold. Thus unemployment rate falls to levels unprecedented, going far below the log-time average for the decade and practically shadowing the cycle and merely following it, although and this has to be said, it never actually falls below what we would term a “four-quarter moving average”. This tells us that in spite of the feel-good sentiment on the market actually unemployment rate was still trailing the cycle. We would not imply by this necessarily that it could have fallen below the absolute minimum it reached in the third quarter of 2008 (little above 3%) thus faking a state of full employment, but we will imply by this that indeed that the fall could have been more abrupt or that the trough of the rate could have been reached earlier than mid-2008 and stayed there for longer, were there no such long-lasting bad memories and engrained lack of confidence to delay the decision of hiring from the side of the employers.

Nevertheless, as much as it goes for the good times. The shock hits. The Romanian economy exhibits the symptoms of a sudden stop in the capital flow, especially due to transmission effect from the Hungarian economy as banks operating in Romania are the same as the ones present in Hungary. They have to cover their losses on the neighboring market and therefore resort to a massive liquidation of Romanian assets to make up for their losses on the neighboring market which is already in a state of “cardiac arrest” (Roubini, Reinhard and Rogoff).The Dornbusch-Calvo effect is in full swing. The unemployment rate which has required around 31 quarters to slide from its maximum of more than 8% to the minimum of 3.83%, skyrockets as several companies either dump workers altogether as their finances dry or their markets rind to a halt or try alternatives like unpaid leave. However for the most there is only one option: namely mass lay off. In the space of 5-6 quarters unemployment regains all terrain lost in 31 quarters. Thus practically compressing “t0” and “t0+n” into one single moment. Firms do not wait to see if really the recession will hit them hard or not on their order-books, they are simply too afraid, they have too many bad memories of an unstable market so they shed labour. It does not take unemployment more than two quarters of recessionary move, true very deep by all standards (combined GDP fall of almost 10%) to cross the line of the simple long-term average. However one has to mention again, that while the simple long-term average line is crossed rapidly, the moving-average four quarters line always remains now above the actual climb. This also means that some measures taken like the “so-called technical” unemployment arrangement under which companies were allowed to keep staff on their roll with partial payment and with contributions to social protection (security) schemes taken over by the state as well as the extension of the unemployment benefit duration period by a full three months thus taking up the maximum duration to a full 15 months (more than one calendar year) have been doing their job and reasonably well. Nevertheless, while the practical compression of the “t0” and “t0+n” moments fully shows that there is a variant of the “Dornbusch-Calvo” effect on the labour market which actually translates into a full and almost immediate transmission of the negative shock to what are highly leveraged enterprises in an emergent market haunted by a far too large baggage of bad memories, thus skyrocketing unemployment, it also shows that there might be still means to prevent unemployment from getting out of control and ad-hoc legislation can be a part of such an arrangement. That this might delay recovery as it eats into depleting resources (alternatively it might mortgage future growth perspective as it pushes the Government to take up debt in onerous conditions which would mean in this case that we are actually falling into an “adverse leadership” trap, all too common to emergent markets and which generally only accentuates the pro-cycle character of their policies-see also Roubini) or that it might engender perverse phenomenon like the resort of the same leveraged enterprises to undeclared or under-declared work is still something insufficiently documented though, the experience of the

Romanian labour market shows that at least the latter happened and quite on a significant if not necessarily large/mass scale.

While all the above might mean that actually while not be losing its character as a lagging variable in the context of an emergent market (as shown by the fact that the actual trajectory of the rate remains even in a steep Dornbusch-Calvo type climb below the fourth quarter moving average long term line) unemployment, at least as measured by its conventional national definition rate, has a tendency of getting actually coincidental with the move of the cycle or at least to shadow it rather than lag behind it as in developed economies, a new question arises. What and how does it happen that it starts falling with the economy still mired in recession? Such a move would be fully controversial as it will not merely alter the surface of the theory as in the previous case but it will completely turn it upside down as it will turn unemployment rate into a leading indicator, thus signaling the advent of the recovery. We are here fully in uncharted waters, actually endemic to emergent markets which never cease to surprise.

Chart no.2



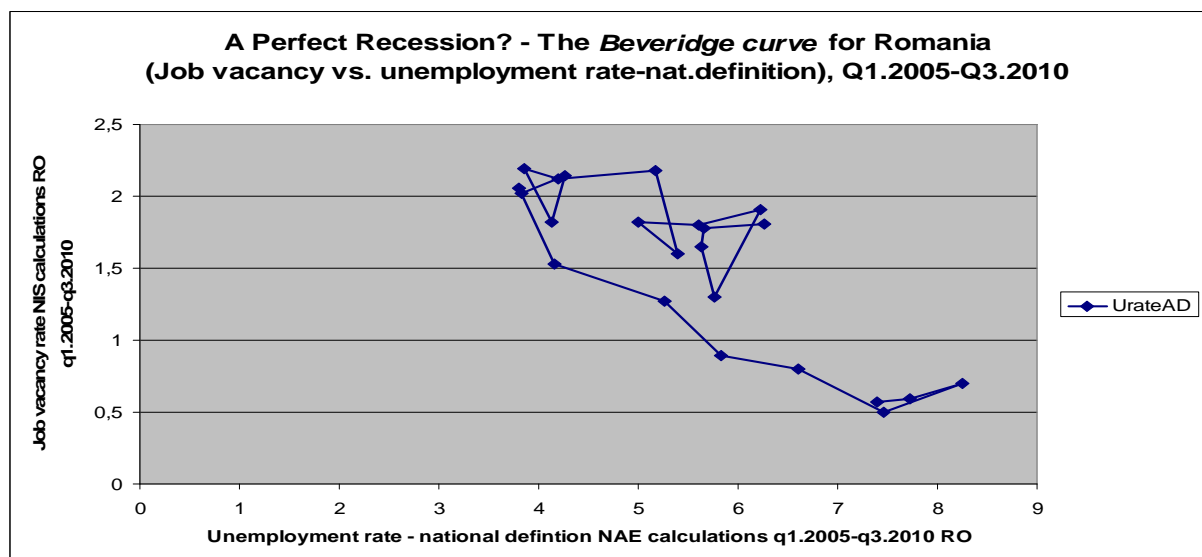
Source: National Institute of Statistics of Romania data, processed by the authors;

The facts, or at least as much as we have up until now, shows that after peaking at the beginning of 2010, the registered unemployment rate started fall. While not dramatic this fall is constant already for a number of four consecutive quarters in a row. With the economy still in recession and this although the fall in GDP looks milder than in 2009 this only testifying to our advice however to a strong base effect which actually shows how deep and drastic the recessionary move has been, the fall in the unemployment rate is thoroughly unexplainable. Or is it truly, given the fact that the Dornbusch-Calvo effect has shown itself as being more than a financial markets reality? Our “kind of speculative” opinion which we will try to underpin as much as possible as we obvious enough lack sufficient empiric evidence (we will therefore use conjectural one to the highest of extent) is that it is here that the explanation mostly lies. Firms shut from finances have seen their liabilities exceeding assets at a breakneck pace therefore experiencing fast the so-called “balance sheet recession” syndrome. As such they had no other way of shielding than by shedding labour massively thus compressing due to the “sudden stop” “t0” and “t0+n” and practically making coincide the moment of the negative shock with the rise in unemployment (data substantiate this sufficient enough). From thereon, while they have been battling to settle their balances they had also nothing to shed except if they would choose outright bankruptcy. Accordingly, what had to be shed had been shed quickly by companies which very soon have remained just with a core staff of which they could dispense if they wanted to ensure minimum of operational level. Therefore, while unemployment took on steeply in the first quarters of the recession, or in other words when the negative shock has hit, it subsequently did not have much more to take in. Moreover, legislation again played its role. While the state acted rather swiftly enacting the technical unemployment scheme and going for a three months across-the-board increase in the duration of unemployment benefit, it stopped here. It did not increase the amount of unemployment benefit (on the contrary it has reduced by 15%

in mid-2010 as part of a massive internal devaluation package-also a side effect of the Dornbush-Calvo “main effect”) nor did it relaxed conditions on eligibility for unemployment benefit and mostly it did no do anything to alleviate the plight of the young unemployed, which the current system makes the most disadvantaged of all.

As such, simply “the beast of unemployment” had nothing to feast on left. However, the feast is not quite over as even in its downward trend the actual slide is still above the four-quarters moving long-term average. This squarely means that the slide is not fast enough and that still cohorts of unemployed are swelling in the ranks. This serves to explain why a fall in unemployment coincides with a fall in the number of employees. Simply as some of the unemployed laid off early in the recession are simply leaving its ranks, possibly go into inactive (the so-called “discouraged”), as their benefit period terminates, some others swell into the ranks. They are not as many as in the first days of the recession, which explains the fall, but they are not so few either, which explains why the fall is not fast enough by long-term standards.

Chart no.3



Source: National Institute of Statistics of Romania, and NAE data processed by the authors;

Now a final thing arrives so as to partially solve the conundrum we have opened for discussion in the opening lines of this paper. What happens with those leaving unemployment due to termination of their benefit period when no jobs are actually on the market (a Beveridge curve chart drawn at this moment shows actually a labour market in “perfect recession equilibrium”-Pissarides on conference on “The future of the European Labour Markets; actually prof. Pissarides encouraged all of the participants to draw such curves at the current moment for their economies to test precisely the emergence of this type of equilibrium). Are they entering inactivity or seek simply refuge into the time-tested buffer of agricultural household for its own final consumption type of employment or are they going underground- i.e.: in the undeclared work? Our opinion based on the current evolutions is that with the economy in a perfect recessionary equilibrium there is not such option of the UDW or at least not on a significant scale. The UDW simply has far too little to feast on so to put it. The fact is also pointed out by the actual evolution of the unemployment rate (national definition once again) which, while falling constantly, though not at a very fast rate as we have seen earlier, still remains a considerable way above the simple long-term average line. Therefore, there is little reason to believe that many of the exiting unemployed are able to find something underground. Rather they are discouraged workers which for the moment are simply shunning a market having nothing on offer for them. In some lucky cases they might be going back to their ancestral countryside and try to make ends-need as best as they can, a fact which actually most of them did even while receiving unemployment benefits (which in this case simply serves as a monetary revenue to supplement in-kind income derived from their subsistence or semi-subsistence farms). Of course household production for its own final consumption falls under the general guise of the non-observed/non-registered economy but it does not in any way qualify as “undeclared or under-declared work/UDW” (see Ghinararu-2004, 2005, 2007, 2010 and Alexandru, Dobre and Ghinararu-2010). So, for this and as far as can conjecture there is no reason to believe, at least for now,

that the fall in the unemployment rate makes automatically for a swell in the ranks of the UDW, at least not for this moment of “perfect recessionary equilibrium”. This however might change in time and maybe even very soon but we would not like to speculate for the moment.

What we have actually seen and we are witnessing for the moment is an aftermath of the havoc wreaked by manifestation of the “Dornbusch-Calvo” effect in a post-transition, emergent market economy which might have been, and we emphasize here the “might have” by a certain amount of “adverse leadership”.

A final word on the other measure of unemployment, the so-called harmonized or ILO unemployment rate of which a wide use is made currently including into the main labour market survey, the LFS (RO-AMIGO), as conducted regularly by the Romanian National Institute of Statistics. Its moves are so to say less impressive and this not say that they fail to reflect the response of the organized polite (i.e.: the state, in this case the Romanian state) to the shock of the markets, a fact that is absolutely essential when trying to assess the effects of the shock as well as the environment in which it took place (this is also as there are no purely market shocks, politics play a great role in shaping and re-shaping them as well as in nurturing and bursting them, sometimes exactly at the wrong time and in the wrong places). Its moves only show that at least by the harmonized measure, a certain degree of lagging is never actually lost by the phenomenon, although the same conundrum of falling rates before the actual resumption of growth befalls this measure too. This only serves as to re-enforce our view that while in the face of the positive shock, emergent markets maintain the lagging character of unemployment when gauged by both of its conventional gauges while in the face of negative shock, the Dornbusch-Calvo effect takes precedence over the more generally accepted theory and unemployment rates simply skyrocket, with the effect of then coming down and sending into inactivity scores of discouraged workers as on the one hand, a market in perfect recessionary equilibrium cannot hire them and, on the other hand, a polite with its finances devastated, including by the deflationary logic of internal devaluation, has exhausted prematurely its means to help them. As for the UDW, in this case it has far too little flesh to feast upon and therefore does not need much of helping hands to do it.

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## THE IMPACT OF CHANGEING ABOUT THE ORGANZATIONAL BEHAVIOR

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**Abstract:** *Organizations do not change for change sake but for that part, from a comprehensive development process and are required to respond to new environmental changes, the requirements, restrictions and opportunities that arise. Competitive organizations regarding change as an ongoing process essential for survival, their development and improvement. The most important aspect of the success of organizational change is the acceptance and understanding them. The source of the changes can exist in inerorganization or outside it (environment) Strategies for change / development have to consider many variables: size of organization, relations of competition, changes in the environment. Beyond dependence environmental organization, changing it can be seen as a way to create change, thus emphasizing the proactive side (not just reactive).*

**Key words:** change, organizational development, values

**JEL classification:** (L16)

### 1. Introduction

Change is a feature of existence and human history. Without change there is no life and people's efforts to obtain better living conditions involve adapting to change. In the current economic environment there is a new phenomenon: depth, complexity and pace of growth on technological, social and cultural level. Human dimension of organizational change is fundamental, because people in organizations are those whose behavior ultimately determine what organizational changes can be made and what real profits will result from them . Organizations are above all human systems.

In the process of adaptation to organizational change people must change too , to acquire new knowledge and information to tackle new tasks, to develop their level of competence, and in some cases to change work habits, values and attitudes in the way organizations work. Changing values and attitudes generate behavioral changes. In an organization this requirement refers to all its members including its leader.

### 2. Models of organizational change

Analyzing the organizational phenomenon through the theories implemented by praticiens and theorists we start questionning ourselves if organizations can be changed?

Each organization has an institutional support that develops some rules, procedures and specific behaviour. These patterns force us to think that change is a difficult process that involves a long period of time, which leaves trace on the workers mentalities and organizational behaviour. On the organizational level the change impact affects both indiviual and collective behaviour. On the other hand in all organizations the change phenomenon is the most productive solution for development and progress.

Nowadays the socio-economic influence puts pressure on the organizational environment and requires organizations to restructure their activities so that they can meet their goals and achieve maximum productivity.

Kurt Zadek Lewin (1997) known as one of the modern pioneers of social, organizational, and applied psychology, suggests an organizational change model built in five stages (initial state, unfreeze, change, freeze and final state). This is a logical model that contains steps that should be detailied and defined in action plans. One drawback of this theory is the fact that it is relatively static and based on a large environmental and organizational stability while today's society is very dynamic.

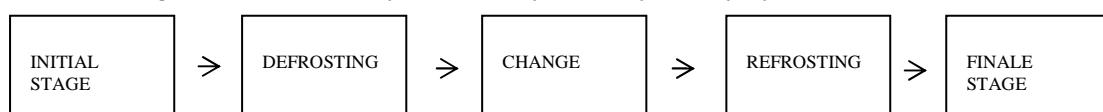


Figure 1. Lewin model

Moorhead & Griffin (1998) implement a more dynamic model of continuous change that is easy to adjust for business. In the current economic market conditions it is impossible for an organization to keep unmodified systems previously built for a long period. So in order to face the competition and to ensure the success and performance we should resort to permanent changes. The pattern suggested by Moorhead & Griffin appreciates the important role of "changing agents" which are represented by individuals or groups that have the vision, creativity, and strength to push and support the organizational change processes.

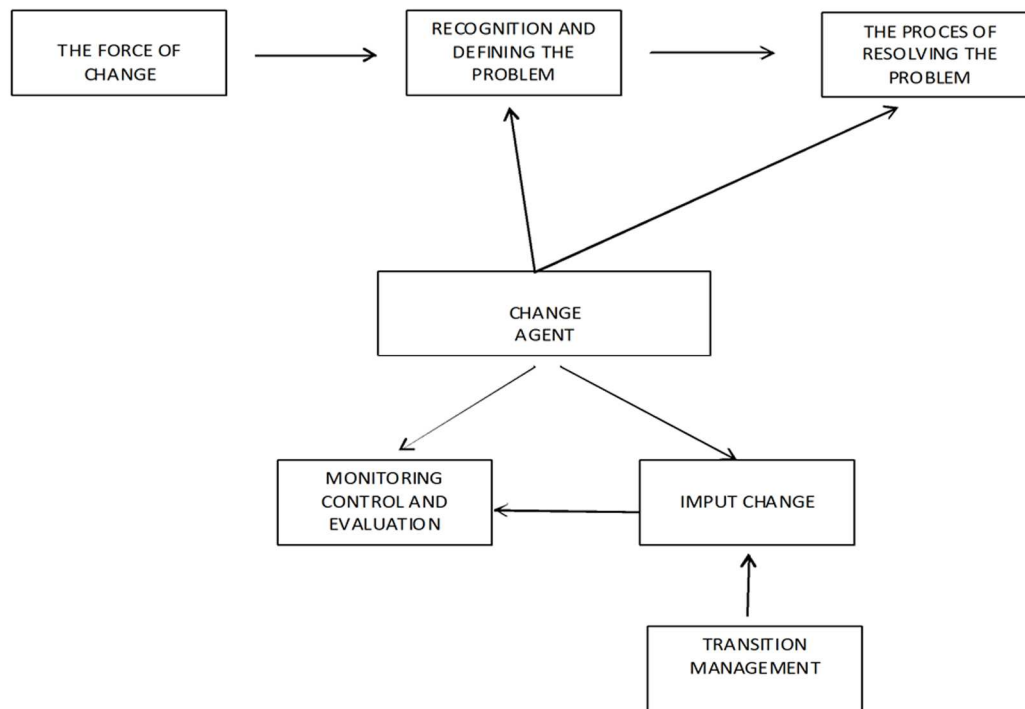


Figure 2. M-G model of the process of continuous change

Edgar Schein (1992) designed a model that reflects ways to change according to the organization stage of life. The stages described by Schein are:

- The stage of establishment and growth - gradual change through general and specific evolution; change through organizational therapy; change through the promotion of hybrids in the culture
- The stage of development - change by promoting subcultures; change planned projects; change by creating organizational learning structures; change through Technology
- The stage of maturity and decline - change by bringing staff from outside; oefrost by conflict and challenge of myths; change by fundamental reshaping; change by coercion

A significant element of Schein's theory is represented by the concept of achieving change through organizational development projects and creating organizational learning structures. Through this concept of achieving change the theory outlines mentalities and ways of action that represent an alternative to the traditional pattern. Organizational learning structures and organizational development projects are processes that develop values, symbols, encouraging behavior and transmit a feeling of safety, motivation and psychological comfort for the employees. Schein's model is a realistic model, created on a pragmatic approach that takes into consideration natural evolution of the organization. Organization adaptative living system that is supported by a managerial coherent vision. For Schein organizational culture change was not a target in itself but it integrated the whole organizational change.

Kuczarski (1995) implements a methodology that can be used in shaping organizational values. In the remodeling process employees are involved so that organizational values will be much easier acceptate. There are combined the individual creativity with the group s creativity and the individual behavior with the collective pattern and rules. When employees participate to the development of organisational values the new elements are easier to assimilate. This participation leads to a considerable reduction of resistance to change for eevrybody in the organization. Kuczarski did not specify the extent of the changes in organizational values. So could this process be successfully applied for the depth values as well as for the core values of the



organization and for superficial cultural values of the organization? The model presented by Kuczarski is an important work for labor or partial interest in shaping the organizational culture.

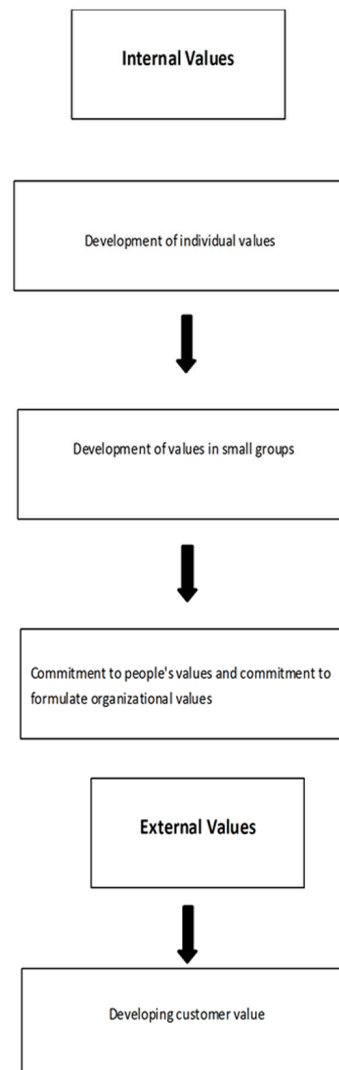


Figure 3. The Kuczarski model of change in organizational values

The model is a methodology that can be used successfully in reshaping organizational values, in the stages completed are involved in a high level employees at all stages, they are inducing the premises that the new values should reflect better expectations of employees so that change can be more easily accepted.

A common concept in the context of organizational change is resistance to change.

Resistance occurs when people do not support efforts to change in organization. Resistance to change initiatives are attributed to lack of confidence in those who propose change, misunderstanding of the reason to change, and political self-interest, low tolerance to individual change, the stress of uncertainty, situation assessment, organizational culture. To establish the status quo and the desire to make a change for the organization as a whole, the initiators of change must communicate the need for change. Members of the organization must understand why certain behaviors and routines must change. In this context, leaders with good interaction skills are able to monitor and discriminate their own emotions of others and to use information in order to guide the thinking and actions. (Goleman, 2005).

Yohgmei Liu (2005) examines a cognitive model of organizational change emotionally. It argues that employees go through four stages emotions sequential but distinct organizational change process. In the first stage of primary evaluation - this stage induce emotions that have a high degree of activation, mixed in hedonic tone and anticipated in the second stage of positive and negative emotions occur as a result of



secondary assessment. Emotional experience affects behavior in stage three, stage four emotions are associated with action tendencies.

### 3. Conclusion

Speaking of organization is important to say that there are those that will accept continuous change, which will develop and integrate easily into current economic-social dynamics, and others who will oppose the change concept. In an organization the role of those that observe and lead the change concept is to ensure that each individual involved is addressed in accordance with the profile or the behavior and expectations concerning the process of change.

All organizations must change under the action of forces of the internal and external environment. Changes in the economic environment require many changes in organizations. Organizations can modify the objectives, strategy and organizational structure, processes and people. The process of change involves exchanging attitudes and behaviors and then use the skills gained for developing the organization

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## STATE AID IN ROMANIA

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**Abstract:** *This paper presents aspects regarding state aid in Romania in accordance with the regulations of the European Union. Among these aspects are included: the legal framework for state aid, general forms of state aid and the main forms of aid existent in Romania. In terms of its objective, the paper aims to analyse how a business is set-up with the help of public money received as a state aid. The paper is useful because it reviews the general forms of state aid, the legal regulations, as well as various type of state aid in Romania.*

**Key word:** *state aid, subsidies, de minimis, law.*

**JEL classification:** *H81, O13, F36*

### 1. Introduction

The purpose of this paper is to present state aid in Romania and the European Union.

State aid in Romania was regulated by Law no. 143/27.07.1999, which stipulates at art. 2(1) that "In the meaning of the present Law, "State Aid" represents any measure of support from the State or from the local administrative authorities, or from the resources of the State or of the local administrative authorities, regardless of its form, that distorts or threatens to distort competition, through favouring certain undertakings, the production of certain goods or the provision of certain services or affects the trade between Romania and the Member States of the European Union is considered incompatible with a normal competition environment."

State aid takes the forms regulated by Law no. 143/1999, as follows:

"(4) The State Aid is materialized either in a public funds transfer to a certain undertaking, or in revenues foregone – whether actual or contingent – which ensure to a certain undertaking an economic or financial benefit, that it would not have been obtained in the absence of these measures. The resulting benefits shall be considered a State Aid if they confer an advantage to certain regions, certain undertakings or to the production of certain goods or the providing of certain services.

(5) The State Aid may take the form of an aid scheme or individual aid.

(6) The State Aid scheme is a system on the basis of which, specific individual allocation may be granted to undertakings defined in a general and abstract manner or any system on the basis of which the aid that is not linked to a specific project may be granted to one or several undertakings for an indefinite period of time or for an indefinite amount.

(7) An individual aid is any form of State Aid that is not granted on the basis of an aid scheme."

The same law, no. 143/1999, regulates the possibilities of granting the state aid, as follows:

"(8) The modalities of granting state aid can be, without limiting to these: subsidies; debts write-offs or losses taking over; exemptions, reductions or deferrals of fee and tax payments; foregoing of normal returns on public funds, including granting of loans with preferential interest rates; guarantees given by the State or public central or local authorities on preferential terms; equity injections by the State, county, town, commune or other public bodies if the rate of return on such investments is less than the return normally expected by a prudent private investor; reductions in the price of goods supplied and services provided by public central and local authorities or other bodies administering State or local resources, including sales, below market price, of lands owned by the private property of State, county, town, commune."

This law was applicable until the accession of Romania to the European Union (January 1<sup>st</sup>, 2007). After this date, Romania has started to comply with the European legislation in this area.

The state aid in the European Union is regulated by the Treaty on the Functioning of the European Union, which states in article 107 (para.1) that "Save as otherwise provided in the Treaties, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market" (Ciprian Pilan, State Aid – Public Money Business, Universul Juridic Publishing House, Bucharest, 2010, pag.18).

Paragraphs 2 and 3 of the same article stipulate the exceptions to the general interdiction, “therefore, there are three categories in terms of aid compatibility: aids compatible automatically (by law), aids compatible only if authorized by the European Commission and aids that are never compatible, some of them being expressly forbidden by law” (Ciprian Pilan, State Aid – Public Money Business, Universul Juridic Publishing House, Bucharest, 2010, pag.18).

## 2. Forms of state aid in Romania and the EU

### 2.1. Categories of state aid

The categories of aid that may be compatible are grouped as follows:

“a) For “healthy” enterprises, with a good economic and financial situation

- a) aid for regional development and employment;
- b) aid for professional training;
- c) aid for research-development and innovation;
- d) aid for consultancy for small and medium-sized enterprises;
- e) aid for the participation of SMEs at fairs and exhibitions;
- f) aid for environmental protection;
- g) aid for newly created small enterprises;
- h) aid for female entrepreneurs in small enterprises;
- i) aid for disadvantaged and disabled workers;
- j) aid for sectors: tourism, sports, culture, mass-media, shipbuilding, etc.;
- k) operating aid, etc.

The aids included between points a) and j) and aid for tourism may be exempted from the notification obligation by complying with the provisions of Regulation EC no. 800/2008 declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty (General block exemption Regulation). If the provisions of this regulation are not met, these types of aid must be notified to the European Commission and granted only after being approved by the community forum.

b) Aid for enterprises with a difficult economic and financial situation:

- rescue aid;
- aid for restructuring”(Ciprian Pilan, State Aid – Public Money Business, Universul Juridic Publishing House, Bucharest, 2010, pag.158-159)

### 2.2. Categories of state aid exempted from the obligation of notification in 2009

**Table 1. State aid exempted from the obligation of notification - 2009**

2.2.1. State aid exempted from the obligation of notification - 2009	
1.	State aid scheme granted to maximize the recovery of debts taken over by AVAS by economic agents that provide public utilities services which ensure the satisfaction of the needs of general public interest
2.	Funds for professional training
3.	Funds for completing your team
4.	State aid scheme to ensure sustainable economic development

Source: <http://www.renascc.eu/?pag=86>

Aids from 2007-2008 are available at <http://www.renascc.eu/?pag=86>

“The aids that don’t exceed a ceiling of 200.000 euro over a period of three consecutive years don’t impact the commerce between member state and/or don’t distort or threaten to distort competition and, therefore, are not subject to article 107, paragraph 1 of the Treaty. In terms of the enterprises that conduct activities in the road transport sector, this ceiling should be set at 100.000 euro. The *de minimis* aid is not required to be notified, being exempted from the notification obligation stipulated by article 108 paragraph 3 of the Treaty”. (Ciprian Pilan, State Aid – Public Money Business, Universul Juridic Publishing House, Bucharest, 2010)

**Table 2. de minimis aid - 2010**

2.2.2. de minimis aid – 2010	
1.	<i>De minimis</i> aid scheme to stimulate investments and create jobs in Medgidia

2.	Implementation procedure of the Multi-annual National Programme to develop entrepreneurial culture among women managers in the SMEs sector for the 2005-2012 period
3.	Implementation procedure of the Multi-annual National Programme to support artifice and crafts for the 2005-2012 period
4.	Implementation procedure of the Programme for development and modernization of the commercialisation activities of the market products and services
5.	Implementation procedure of the Programme for development of entrepreneurial abilities among youth and the facilitation of their access to START financing
6.	Rule no. 1/2010 regarding the counter guarantee of guarantees contracted by small and medium-sized enterprises from banks and non-banking financial institutions
7.	Rule no. 2/2010 on ensuring guarantees granted to support the setting-up and development of by small and medium-sized enterprises (start-up)
8.	<i>De minimis</i> aid scheme regarding the granting of taxation facilities for legal persons that conduct activities on the administrative-territorial radius of Gheorgheni
9.	<i>De minimis</i> aid scheme for exemption from tax obligations stipulated in article 250, paragraph 1, line 9 and article 257, line 1 of Law 571/2003 regarding the Fiscal Code, for companies that conduct activities in the industrial park located in the administrative radius of Ungheni
10.	Changing the <i>de minimis</i> aid scheme "Temporary employment of unemployed labour force for the development of local communities"
11.	<i>De minimis</i> aid scheme for exemption from tax obligations stipulated in article 250, paragraph 1, line 9 and article 257, line 1 of Law 571/2003 regarding the Fiscal Code, for companies that conduct activities in the industrial park located in the administrative radius of Sibiu-Sura Mica
12.	<i>De minimis</i> aid scheme "Providing tax incentives to legal persons for taxes on buildings and land to attract investments and support economic development in Sacalaz, Timis County"

Source: <http://www.renascc.eu/?pag=166>

For 2009,2008 and 2007, information is available at <http://www.renascc.eu/?pag=166>

### 2.3. State aid approved by the European Commission in 2010

**Table 3. State aid approved by the European Commission**

<b>State aid approved by the European Commission – 2010</b>	
<input type="checkbox"/>	State bonus aid scheme for the promotion of high efficiency cogeneration
<b>State aid approved by the European Commission – 2009</b>	
<input type="checkbox"/>	Processing agricultural and forestry products to obtain non-agricultural products
<input type="checkbox"/>	State aid scheme to support investments in extending and modernizing distribution networks for electric energy and natural gases
<input type="checkbox"/>	State aid scheme designed to facilitate access to finance in current period of economic and financial crisis, consisting of guarantees granted to SMEs and large enterprises
<b>State aid approved by the European Commission – 2008</b>	
<input type="checkbox"/>	Individual state aid targeting regional development in the favour of Ford Craiova
<input type="checkbox"/>	State aid scheme for regional development by directly stimulating large investment projects
<b>State aid approved by the European Commission – 2007</b>	
<input type="checkbox"/>	State aid scheme regarding the financing of research-development and innovation projects, according to the National Research, Development and Innovation Plan II
<input type="checkbox"/>	Aid for the restructuring of the coal industry

Source: <http://www.renascc.eu>

Legislation on state aid:

1. Treaty on the Functioning of the European Union (consolidated version);
2. Part III: Policies and internal actions of the Union;
3. Title VI: Common rule on competition, taxation and approximation of laws;
4. Chapter 1: Rules on competition;
5. Section 2: Aids granted by States;
6. Law no, 143/1999 on state aid, republished

## 2.4. Subsidies and state aid schemes in Romania

Table 4. The subsidies level between 2006 and 2011 correlated with total expenditure of the budget are:

Categories of incomes and expenses (SB)	Years					
	2006	2007	2008	2009	2010 <sup>11</sup>	2011 <sup>12</sup>
	MU: Millions lei RON					
	Millions lei RON	Millions lei RON	Millions lei RON	Millions lei RON	Millions lei RON	Millions lei RON
<b>EXPENSES - total</b>	51235,6	64373,5	80886,4	89851,7	101678,4	108481,9
<b>Subsidies</b>	5670,9	4997,8	5809,1	4966,3	4244,9	4110,171

The analysis of the data for the period between 2006 and 2011 shows a downward trend, except in 2008 when an increase was recorded.

The State budget law for 2011 – Law no. 286/28.12.2010 – stipulates an amount of 4.110.171 thousand lei for subsidies granted in 2011, as follows:

Legea Bugetului de stat pe anul 2011-Legea 286 din 28 decembrie 2010 prevede o sumă de 4.110.171 mii lei, subvenții pentru anul 2011 în următoarea structură:

SUBSIDIES	4.110.171
1. Subsidies on products	30.459
2. Subsidies on activities	22.000
3. Stipends to cover the difference between the market price and the subsidized price	765
4. Subsidies to support public passenger rail transport	1.146.000
5. Subsidies for passenger rail transport	349.000
6. Ecological actions	23.516
7. Subsidies to support exports, the business environment and international transactions	219.402
8. Subsidies for transport infrastructure	51.915
9. Subsidies for farmers	2.078.184
10. Conservation programs or closing of mines	165.945
11. Social protection for the mining sector	2.900
12. Other subsidies	21.085

Here are the main state aid schemes on the main ministries.

### Ministry of Development and Tourism

1) State aid scheme for development by supporting tourism investments in respect to ROP 2007-2013 approved by Order 1587/01.06.2010 amending Order 261/2008 given by the Ministry of Development and Tourism, which targets local and regional sustainable development

2) “State aid scheme for regional development through the creation and development of business support structures in respect to the Regional Operational Programme 2007-2013” approved by Order no. 287/06.03.2008 amended by Order 1878/2010.

### Ministry of Agriculture

- The state aid for farmers is regulated in Romania by Government Ordinance no. 14/29.01.2010 on financial measures that regulate state aid for farmers starting with 2010 and approved by Law no. 74/26.04.2010.

The ordinance establishes the legal framework regarding the general conditions for granting state aid in agriculture, in accordance with the EU guidelines on state aid for the agricultural and forestry sector 2007-2010, published in EU’s Official Journal no. 319/27.12.2006.

Chapter II established the regulations in accordance with Commissions Regulation (EC) no. 1857/2006 on the application of Articles 87 and 88 of the Treaty to State aid to small and medium-sized enterprises active in the production of agricultural products and amending Regulation (EC) no. 70/2001. the granted state aids are the ones stipulated in article 10 of Ordinance no. 14/2010.

- State aid for farmers in the livestock sector is reflected by Government Decision no. 920/2010

- State aid in agriculture for the payment of insurance premiums has been established by Government Decision no. 756/21.07.2010
- The complementary direct national payments scheme in the livestock sector for bovines, in accordance with EU's regulations, is established by the Order of the Ministry of Agriculture and Rural Development no. 215/28.09.2010, which stipulates the implementation manner, the eligibility criteria and the terms of reference.

This Order provides that bonuses are granted to farmers defined by article 9, paragraph 3 of Government Emergency Order no. 125/2006 approving direct payments and direct national payments schemes starting with 2007.

- The state aid scheme presented by Government Decision no. 1165/26.09.2007, updated – stimulates economic growth by supporting investments

Subsidies for businesses or individuals

- State aid for farmers in the livestock sector to collect animal carcasses
- Temporary support scheme for subsidizing the interest rate for loans contracted by farmers for production
- Specific aid granted to cow milk producers in disadvantaged areas
- State aid for insurance premiums
- State aid for complying with commitments undertaken for poultry welfare
- State aid for complying with commitments undertaken for swine welfare
- Specific aids for improving the quality of farm products in organic farming
- Financial aid for tomato processing
- Subsidies for fruits and vegetables
- Subsidies for the thermal rehabilitation of multi-stores buildings
- Subsidies for the thermal rehabilitation of residential buildings in disadvantaged areas
- Subsidies for agricultural fund holders
- Housing subsidies for Roma communities
- Subsidies for losses by frost in orchards
- Subsidies for families raising children
- Subsidies for students through the “Money for High-school” Programme
- Subsidies for childcare
- Subsidies for the fishery sector
- Subsidies for vineyards
- Subsidies for purchases of through bred animals
- Subsidies for house heating
- Incentive National Car Park Renewal Programme
- Subsidizing land reclamation activities
- Subsidies for farmers
- Subsidized employment

*The form of the main specific aid schemes is presented below for each scheme:*

- Specific aid scheme for cow milk producers in disadvantaged areas (Government Decision no. 775/21.07.2010)
- Financial support of fruit and vegetables farming and organic farming (Government Decision no. 1995/27.09.2008)
- Temporary aid scheme for ensuring access to financing in agriculture (Government Ordinance no. 25/25.08.2010)
- State aid for diesel used in agriculture (Order no. 126/26.05.2010 of the Ministry of Agriculture and Rural Development)
- Specific aids for improving the quality of farm products in organic farming
- Financial aid for tomato processing

Natural persons and/or legal persons benefit from transitory payments for tomato processing – Government Emergency Ordinance no. 125/2006 approving direct payments and direct national payments schemes starting with 2007 and amending Article 2 of Law no. 36/1991 regarding farms and other types of agricultural associations.

- Subsidies for fruits and vegetables

To obtain financial support, producers' organizations submit at APIA agencies until the December 1<sup>st</sup> of the year for which payment is claimed a financing application accompanied by a description of the organization level of the producers in that region, the value of the financial support, the percentage of their financial contributions and the eligible expenses covered by those contributions.

Other types of state aid schemes:

- Financial aid of the programme to encourage fruit consumption in schools (apia.org.ro)
- Aid for house heating and thermal energy payment facilities for the population (Government Emergency Ordinance no. 86/2010) – they are granted according to the monthly average income per family member (article 1, paragraph 1), taking into account all the incomes earned by its members in the month preceding the application.
- Law no. 76/16.01.2002 regarding the unemployment insurance system and employment stimulation - article 80
- Financing the Programme for the installation of heating systems that use renewable energy, including the replacement and completion of classic heating systems (Order no. 950/17.06.2010 of the Ministry of Environment and Forests)
- The subsidies for social protection products granted to companies in the mining sector and industrial sector granted since the beginning of 2010 are stipulated by Government Decisions no. 622/209. We note that on November 10, 2010 the European Commission announced that mining subsidies would be granted until the end of 2018.
- Subsidies for Romanian associations and foundations with legal personality that start and manage social assistance units (Law no. 34/20.01.1998)
- State aid scheme with regard to the endowment of public high-schools and professional schools with computers – regulated by Government Emergency Ordinance no. 87/24.06.2008
- State aid for first-time home buyers regulated by Government Emergency Ordinance no. 60/2009
- Home bank: save and receive a loan from the bank and, in addition, the state aid
- State aid for complying with commitments undertaken for poultry welfare
- State aid for complying with commitments undertaken for swine welfare

## 2.5. National Credit Guarantee Fund for SMEs – non-bank financial institutions

**Table 5. National Credit Guarantee Fund for SMEs**

Definition	- is a non-bank financial institution, with venture capital, a private Romanian legal entity organized as a joint-stock company, with a sole shareholder – the Romanian state
Governing law	National Credit Guarantee Fund for SMEs - NCFI (FNGCMM SA - IFN) was founded in December 2001 by Government Decision no. 1211/2001 to support the activities of entrepreneurs (SMEs, co-operative societies and authorized individuals to conduct economic activities according to law)
Main feature	FNGCMM SA - IFN facilitates access to financing by providing guarantees for financing instruments contracted from commercial banks or from other sources. As a joint-stock company, with the Romanian state as a sole shareholder, FNGCMM SA - IFN is a tool of the Romanian Government to implement its policies to support the development of this sector, which is a priority of the economic and social policy of the Romanian Government.
Main activity	The fund's main activity is to issue guarantees and to undertake obligations to guarantee loans and other financing instruments that may be obtained by small and medium-sized enterprises, defined according to law, from banks and other sources.
Secondary activities	a) Financing commercial transactions signed with small and medium-sized enterprises to carry out their activities. b) Information and consultancy services for small and medium-sized enterprises, related to conducting the guaranteeing and financing activities. c) Activities auxiliary to financial intermediations that have not been classified into other classes – managing development programs for small and medium-sized enterprises.
Mission	- to improve access to financing for small and medium-sized enterprises.
Ownership	- the Romanian state is the sole shareholder of F.N.G.C.I.M.M. S.A. - IFN.
Management	1. The Board of Directors includes 9 members, with a 4-year mandate, which may be renewed. The central public authorities that have attributions in the area of public financing appoint one of the members. The majority of the members are independent (non-executive).

### 3. Conclusions

In this article we detailed the legislation regarding the forms of state aid before the accession of Romania to the European Union. Starting with January 1<sup>st</sup>, 2007, Romania has complied with the EU legislation in terms of the state aid.

We also presented the legal framework and the various type of state aids granted in Romania as a form of financing businesses with public money.

At the level of the European Union, the financing trend through state aids is on a downward spiral, especially in terms of subsidies, which can also be seen in Romania.

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## FINANCIAL MANAGEMENT AND CONTROL IN NATO

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**Abstract:** *NATO funds are intended primarily for those expenditures that reflect the interests of all member countries. The common funding structure is diverse and decentralized. Some multinational cooperation activities related to research, development, production and logistics support do not involve all members and, in some cases they may involve only a small number of member countries. These activities mostly carried out by the logistics and production organizations of NATO, are subject to a general financing and to audit regulations of NATO, but otherwise they are conducted in accordance with the virtual autonomy granted by the North Atlantic Council. The Alliance uses a variety of mechanisms and arrangements for financing their activities. The key to success lies in establishing the principle to identify the best ways of financing them.*

**Keywords:** NATO funds, financial management, financial control, financial resources, financial management

**JEL classification:** F5

The financial management is designed by NATO so that the ultimate control of expenditure is to be exercised by the countries that are responsible for the costs of such activities and is to be subject to consensus. This control can be exercised at all levels of decision making, either by general limitations, or by special restrictions. It may, for example, be imposed an overall limit when resources or ceilings are set for operating expenses, those of equipment (according to the decisions of the Main Bureau for Resources) or civilian and military manpower, within the limits so established, those responsible for finance (the General Secretary, the NATO high commanders, the subordinate commanders and other appointed leaders of the NATO bodies) have some discretion in terms of proposals and budgetary measures.

The special restrictions may take many forms ranging from imposing special measures on economy to temporarily immobilize a specific purpose loans or the restrictions on credit transfers.

These restrictions or measures may be stipulated in the conditions of approval for the budget or imposed by the contributor states by specific interventions on budget implementation basis. Approval of the various budgets can be regarded as giving expression to the directions - political, organizational or financial - that the contributing states intend to put into practice. These trends change over time in response to the evolution of the international environment and the need to adapt accordingly, the Organization's structures and missions. This dynamic process of adaptation followed by the Alliance during its existence explains to a large extent the diversity and decentralized nature of the financial management structure of NATO.

No institution exercises by itself direct management power on one of the four main elements of the financial structure of the Organization, namely the International Secretariat (financed from civil budget), the international military structure (financed from the military budget), the program concerning the investment in security and the specialized production and logistics organizations. The latter are divided into two categories, those that are funded under the provisions applicable to the international military structure and those resulting from the charter established by the North Atlantic Council and which have their own Management Committees, financial committees and different funding sources within the national budgets. The financial management of actual budgets (civil and military budgets) differs from that of the NATO Program concerning the investment in the field of security. The diversity and decentralized nature of the financial management structure are established by a financial Regulation approved the North Atlantic Council. This regulation, together with rules and procedures to adapt it to the demands of the various NATO bodies and programs, sets out the basic unifying principles around which the global financial structure can be found.

The regulation provides that each NATO institution should have its own budget, in the host country currency and the conversions in other currencies are based on a common unit of calculation. The budget is set for a year and coincides with the calendar year. It is prepared under the authority of the Head of NATO institution, examined by a committee composed of representatives of countries contributing financially, which recommends approval based on consensus and it is approved for implementation by the North Atlantic Council. If there is no consensus at the beginning of the year and the budget was not approved, the activities are funded under the supervision of the finance committee, with the help of provisory donations that should not exceed the provisional figure for the previously approved exercise.

This scheme is valid for six years, after which the Council is asked to decide either to approve the budget or continue the authorization of provisory financing. This circumstantial measure, although rarely used, reinforces the principle of the collective control of the expenditures by the governments, inherent to the requirement of unanimous approval of the budget by all contributing countries (The NATO Manual - Office of Information and Press-1110 Brussels-Belgium, 2001). Once the budget is approved, the head of the NATO institution is free to apply it incurring the expenses and making payments for authorized purposes. This freedom is limited, at different levels by the financial regulation provisions concerning, for example, recourse to international requests for proposals, to the restricted or not participation to insurance contracts for goods and services or to credit transfers to rectify the under-/ overestimation of the requested credits.

The power to freely apply a budget may also, in some cases, be limited by the obligation to ensure strict implementation of new policies or to pursue complex projects such as organizational restructuring. When loans should be employed to meet the actual requirements, during the exercise for which they were granted, the costs may be incurred in two consecutive financial annual exercises. Implementation of the NATO Security Investment has as a starting point the capability packages. After they are approved, various projects may be authorized under the responsibility of the Infrastructure Committee.

The host country (usually the country on whose territory the project must be conducted) submits an application for approval indicating the technical solution, the project cost, the reasons of a joint financing and the tender procedure to be followed.

If a state wishes to use an auction procedure, other than that of international calls for tenders, it must request an exemption from the Infrastructure Committee. When this committee approved the project, the host country can start its implementation. The financial management system applicable to the Security Investment Program is based on a method of international financial compensation (Nicolae Dolghin, *Responding to crises, the new responsibility of NATO*). The states submit reports detailing expenditures for the approved projects, which makes it possible to determine the contribution that each country will pay. After the project is completed, it is subject to a joint inspection of final acceptance which should ensure that the actions performed are in accordance with the authorizations.

Only after the inspection report was approved by the NATO Infrastructure Committee it becomes officially responsible for such activities and the available means.

In this context, in terms of securing financial resources, the allied countries are moving their attention towards the following areas of interest:

- The Allied Ground Surveillance (AGS: central strategic capability owned and controlled by NATO, supplemented by interoperable national capabilities as part of a system of systems):
  - National funding of national capabilities;
  - joint financing for the NATO system;
  - financing from the joint resources on O&M expenditures;
  - financing from the joint resources adapted to NATO command and control system for the airspace (NATO Air C2) and NATO Air C3;
- The missile defense of the territory, population and forces (MD) and the missile defense of the troops in theater of operations (TBMD):
  - feasibility studies financed from the joint resources;
  - adjustments on the financing from the joint resources at the level of the NATO command and control system of the airspace (NATO Air C2) and NATO Air C3;
  - interception systems financed at a national level.
- Strategic transport and refueling in flight:
  - joint financing
  - analysis of alternative funding resources.

Concerning the applicability of the NATO financial resources, AEW & CC is a model for combining financing resources. The purchase by NATO of the AWACS aircrafts was made possible by a form of multinational financing, to which had “contributed 13 nations”. France and Britain are engaged in this program by providing NATO with their own AWACS capabilities (contributions in kind). Providing the salaries of the military operational personnel of the fleet is a national responsibility and payments are made by countries providing personnel resources. The operation and support budget (O & SB) is provided by the joint funding - “budget 14” (with the participation of Hungary in 2006).

The Airborne Forces Headquarters (which includes the headquarters, the E-3A component and E-3D component) receives funding from the joint resources, “the budget to 15” (with the participation of Great

Britain). For national aerodromes there are granted specific investments regarding NAEW by applying the NSIP program to facilitate financing from the joint resources of by the contribution of 25 countries.

The NATO joint financial resources are a form of complementing the national activities designed to strengthen the Alliance's cohesion. They are connected to respond directly to the Alliance priorities and requirements. They are also used to provide essential capabilities for the Alliance. Providing these capabilities is conditioned by meeting certain requirements, such as: to meet the eligibility criteria; to be subject to arrangements for the distribution of costs and to respond to the funding and purchase mechanisms.

The multinational cooperation is undergoing development (General Staff/PF-4, Doctrine for Logistic Support of Joint Operations, Bucharest, 2009). The advantage of such cooperation offers the possibility of providing additional capabilities to the required ones. Thus, each nation will be able to participate with the most suitable structure of power available without the need to cover alone each and every "niche" of the operation/mission, this being achieved by collective efforts. The network-based capabilities, the interoperability and deployment capability of the forces, the multinational forces as well as the integrated logistics support are examples in this respect.

Although a large part of the cooperation will continue at a multinational level - with NATO providing the majority of infrastructure – the principles and methods for financing from the joint NATO resources will, however, have to be developed. The deployable C3 system (command, control, and communications) and the financial arrangements for crisis response operations, recently approved, are two examples of this trend.

NATO, by means of the Allied Headquarters for Transformation-ACT, coordinates and harmonizes the provocative actions of the military transformation between the Alliance and the member nations. The efforts involved in the military transformation process are significant guarantees both for now and for the future. They aim to increase interoperability (situated at the basis of joint military actions), the network facilities, the distribution of forces, the rapid decision-making capacity, and domination of the combat space.

Romania participates in the mission organized under the aegis of the EU and NATO aimed at achieving peace and stability in the Balkans and the Black Sea region. In this respect, Romania will make all reasonable efforts (The Romanian Government Program for 2010, Chapter 27, National Security Policy, National Defense) to:

- provide expertise to the Western Balkan states that are acceding to the EU or NATO or are member of the Partnership for Peace to reform their military system;
- take part to the permanent training of South-East European Brigade (SEEBRIG) to engage in conflict prevention operations and other peace support operations and humanitarian operations under UN, OSCE, NATO or the EU mandate;
- take part to the development activities for the Group for Naval Cooperation in the Black Sea, BLACKSEAFOR to achieve interoperability of forces participating in specific missions, including fighting smuggling and terrorism in the naval field.

Regarding financial control, even if ultimately, the head of that NATO institution is responsible for the preparation and execution of the budget, the administrative support is largely entrusted to NATO's finance administrator. Designation of this administrator is the prerogative of the North Atlantic Council, which may however delegate this power to the appropriate finance committee. Each finance administrator is addressing, ultimately, to the Finance Committee in case of persistent disagreement with the head of NATO institution involved in a transaction to be completed. The finance administrator is responsible to ensure that the budget execution is consistent in all respects with the authorizations of expenditures, with the specific control measures that may be required by the Financial Committee, as well as with the financial regulation, with the related application rules and procedures. It is also possible that, for the purpose of internal audit, to establish control measures and other procedures the administrator deems necessary in order to maintain a perfect accounting.

One of the main tasks of the finance administrator is to ensure that requests for funds are submitted regularly to the contributing Member States for budget execution; these contributions must meet the quota set by the states and be calculated to avoid the accumulation of cash surplus in international treasury. The results of all these activities are reflected in the annual financial reports prepared and presented to the International College of Commissioners for Accounts, to be checked.

The International College of Commissioners for Accounts shall consist of representatives of the national audit bodies. Its operation is governed by a charter that guarantees its independence, established by

the North Atlantic Council, to which it is directly subordinated. This Council is empowered to check the accounts of all NATO bodies, including those of production and logistics organizations and those of the NATO Security Investment Program (David Abshire, and others, *The Atlantic Alliance Transformed*, Washington, Center for Strategic and International Studies, 1992).

This should carry out not only financial credit activities, but also performance audit. Its role is thus not limited to maintaining perfect records, but it extends to the study/examination of the management practices in general.

Therefore, it results that NATO is an intergovernmental organization to which the Member States shall allocate the necessary resources for the daily operation and provides the required facilities for consultation, decision making and implementation of agreed policies and activities. It is a political alliance backed by the key military structure that provides the joint defense of the member countries, cooperation with partner countries and the implementation of the NATO policy in the peacekeeping field and also in other fields.

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## THE ROMANIAN LABOUR MARKET IN THE LAST TWO DECADES - IN OR OUT OF CRISIS?

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**Abstract:** *The aim of our paper is to draw the attention on the situation of the Romanian labour market, highlighting, at the same time, the real problems it has been facing for the last two decades. The results of our study show that the labour market in Romania is characterized by processes and tendencies that reflect a lot of anxiety and states of conflict, and which require a new strategy capable of relaunching and supporting employment under the circumstances of sustainable development.*

**Key words:** demographic changes, labour market, employment structure, unemployment

**JEL classification:** J11, J21

### 1. Introduction

Currently, all over the world, there is a major interest in knowing and if possibly mastering the issue of the labour market, respectively in increasing the degree of employment in order to increase national wealth. Creating the conditions necessary for the labour factor to manifest actively and creatively is one of the main socio-economic issues that all countries of the contemporary world are facing. This issue is broadly debated in the specialist literature and is differently reflected in the government programmes.

The issue of employment is, currently, among the priorities of the European Commission, which considers that we have to fight by every possible means against unemployment, because its high level poses a threat to social cohesion. In the Europe 2020 Strategy (EC, 2010) it is highlighted that the European Union needs a strategy that would allow it to get out of the crisis stronger and transform the EU economy into an intelligent, sustainable and favourable to inclusion one, characterized by high levels of employment, productivity and social cohesion. The objective set for 2020 is reaching an employment rate of 75% for the population aged 20-64. We mention that, in the Lisbon Strategy 2000, a total employment rate for persons aged 15-64 years of 70% was set for 2010, an unreach objective if we take into consideration that the level reached by the EU in 2009 was of 64.6%, and by Romania of 58.6%.

In order for the Romanian economy to obtain a sustainable economic growth and to reach the objectives set by the European strategy, being aware of, acknowledging and as far as possible solving the real problems of the labour force in Romania are needed. On the other hand, employment must be regarded as a functioning problem of all markets and not as a problem specific to the labour market (Stiglitz and Walsh, 2005, p.457-458), because through the system of connexions and communication with the other markets, the labour market receives and takes unbalanced impulses that, through specific mechanisms and ways, are retransmitted to these amplifying the already existing disequilibrium.

### 2. General characteristics of the Romanian labour market between 1990 and 2009

The change of the politic regime in December 1989 and the beginning of the transition process of Romania to a competitive market economy generated major transformations, among which also the one of the labour market. Since before this period, there was not a real labour market in Romania, its formation process on new criteria, specific to the market economy, was difficult and it generated unfavourable effects on employment and the efficient use of work resources.

The development of the Romanian economy is strongly influenced by the inerrant transformations in the volume and structure of the work resources (the unemployment's emergence, the emergence of new professions, the need for long-life professional training), these implying, first of all, the achievement of a sustainable development of the system of work resources. Thus, the need for an effective development strategy in the field of work resources appeared fact that imposed the need for carrying out a *diagnosis*, in

order to know also the evolution of the labour market in terms of the quantitative, qualitative and structural aspect.

The estimation of the general characteristics of the labour market implies the analysis of the main statistical indicators that delimit the labour force: *primary* indicators of the labour force (active population, employed population, the number of unemployed people, the number of employees etc.) and *derived* indicators of the labour force (the activity, employment and economic dependence rate etc.).

In Romania, the supply on the labour market, statistically speaking, *the civil active population* after almost two decades from the beginning of the transition process to the market economy, in 2009 respectively, registered a decrease by -1719.9 thousand persons as compared to 1990, from 10840 as it was in 1990 to 9120.1 thousand persons. The changes in the level and evolution of the civil active population, between 1990 and 2009, are determined on the one hand, by the phenomena recorded in the evolution of both the total population and working age population, and on the other hand, by the tendencies recorded in the two components of the active population, the employed population and unemployment one respectively.

As far as the *total population* is concerned, as basis of work resources, between 1990 and 2009, a dramatic fall of population is noticed, by 1736.8 thousands persons, which represents a decrease of 7.48% (annexe no1). This phenomenon is explained by the alarming fall in the birth rate and the increase in the negative balance of external migration, with severe consequences on the work resources in the long term. At the same time, an intensification of the *ageing process* was recorded demographically, process underlined by the increase in the share of old population (aged 65 and above), simultaneously with the decrease in the share of young population in total population (aged 0-14), having numerous implications in all segments of society. Analysing the data in the (NIS, 2009b) one can notice that, from 1990 until 2008, there was an absolute and relative decrease in the young population (aged 0-14) from 23.57% to 15.2% (-2203.7 thousand persons), simultaneously with the increase in the share and number of the old population (aged 65 and above), from 10.4% to 14.9% (+784.37% thousand persons). The results of the study (NIS, 2009a), show that the process of demographic ageing will continue in Romania with different intensities, a share of the old population of 35.5% and a share of the young population of only 10% being estimated for 2050.

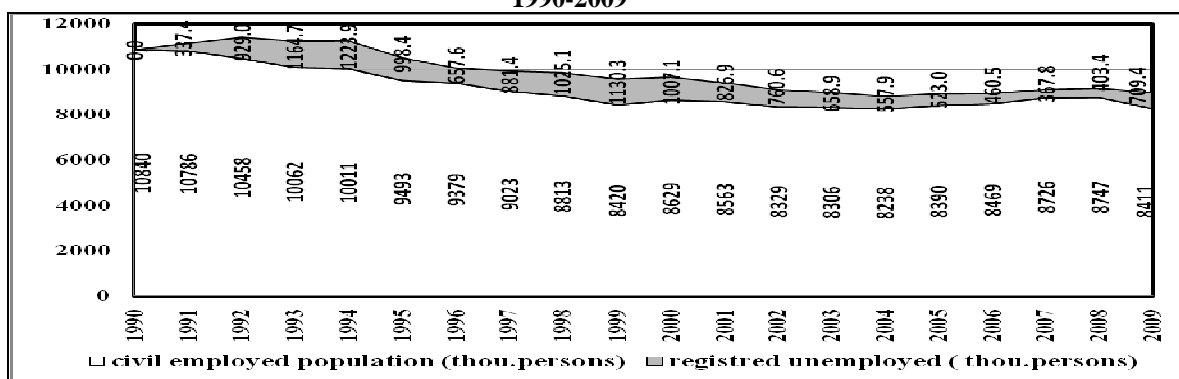
As far as the *working age population* (aged 15-64) is concerned, regarded as a factor that influences the size and dynamics of the labour force supply, between 1990 and 2009, an absolute decrease by 302 thousand persons was recorded, which in relative size represents a slight decrease by 1.97% (Annexe no.1). It is worth mentioning that the process of demographic ageing in Romania is, at the time, less advanced than in other European countries, where higher shares of people above 65 years are recorded, to the detriment of the share of young population. For example, according to Eurostat in 2009, the share of people above 65 years in total population was of 17.2% in the EU-27, in Belgium of 17.1%, in Denmark -17.8%, in Germany – 20.4% and in Romania -14.8%. The more favourable current demographic structure of Romania does not mean that we do not have to underline the fact that the developed countries became rich before getting old, whereas Romania demographically ages before being developed. Thus, Romania's problem is not the level of demographic ageing it has reached, but the increasing ageing of population very fast, accompanied by a low level of development (Georgescu and Herman, 2010).

The massive demographic decline and the increasing ageing of population lead to negative effects on the socio-economic situation, in general, and on the labour market in particular. The following are ones of the most important repercussions: the creation of a labour force deficit, increasing the "pressure" on the active population, changes in the structure of demand of the labour force. We have to underline the fact that the influence is also spread inversely, meaning that the state of the labour market will have effects on the birth rate and life expectancy, by means of the socio-economic factors, the number and quality of jobs, medical assistance etc.

*The level and dynamics of the civil employed population*, as share of the active population, has been profoundly marked by the changes that Romania suffered in the last twenty years. Data in figure 1 show that the visible decline in the employed population started in 1992, once with the more decisive actions of restructuring the Romanian economy, going on until 2004, the year 2000 being the exception, when an increase was recorded compared to the previous year. The economic recession in 2009 reduced the number of jobs by 336 thousands, fact which determined a significant loss of the 508.7 thousand jobs created in the period of economic growth between 2005 and 2008. During the 20 years, the annual average rhythm of evolution of the civil employed population, calculated based on the data in figure no.1, was negative (-1.3%), and the civil employed population recorded a decrease from 10840 to 8410.7 thousand persons (of -2429.3 thousand persons).

The explanation for the reduction in the level of employed population must be looked for in many directions. As part of human resources, the employed population does nothing else than to follow the trend of the total population and working age population. However, demographic factors cannot explain, entirely, the decline of the employed population. Knowing the fact that the employed population represents the statistical indicator that expresses the labour demand, it means that the level, dynamics, structure and quality of the employed population in Romania reflect the relationships that are formed between a series of economic variables, such as: rhythm of economic growth and development, labour productivity, the cost of labour force, level of investments, demand of goods and services, etc.

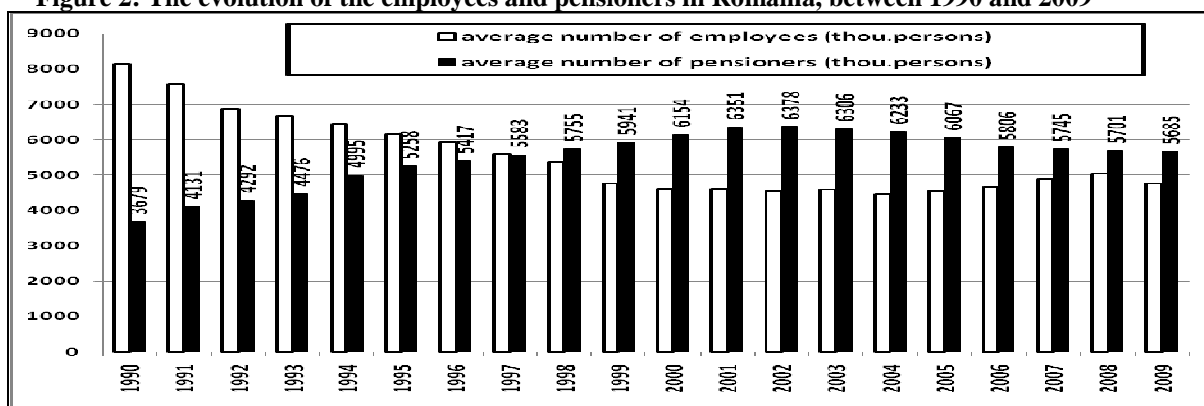
**Figure 1: The evolution of the civil active population (civil employed population and registered unemployed), 1990-2009**



Source: Annexe no.1

It is worth noticing the fact that the disastrous decline in the employed population in Romania after December 1989 was caused by *the decrease in the number of employees*, the most important socio-occupational category, decline that happened in the majority of the national economy's activities. Thus, statistical data in figure 2 and annexe no.1 show that, in the analysed period, the average number of employees fell, in absolute size, by -3491.0 thousand persons (the absolute annual average -174.55 thousand persons), and in relative size, by -42.8%. Moreover, the share of employees in the civil employed population decreased from 75.2% (in 1990) to 56.5% in 2009.

**Figure 2: The evolution of the employees and pensioners in Romania, between 1990 and 2009**



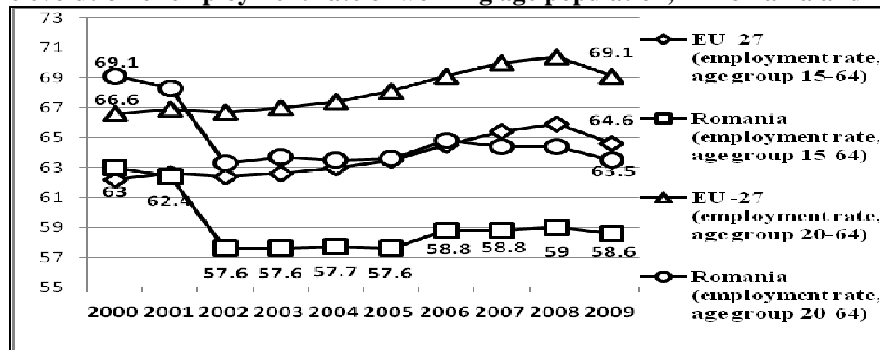
Source: NIS (2009b); NIS (2010a); NIS (2010b).

Once with the decrease in the level of employed population, important changes in the employment structure by sectors, professional status, types of employment etc. happened, part of these changes will be analysed in the forthcoming section of the paper.

The changes in the quantitative-numerical dimension of labour force can be highlighted also by the employment rate of the working age population (aged 15-64). Thus, *the civil employment rate of the working age population* (calculated as percentage relationship between civil employed population and working age population), in Romania, was of 56% in 2009 decreasing by 14.7 percentage points (from 70.7% to 56%) as compared to 1990, fact which shows that the number of the employed persons of 100 working age persons decreased from approx. 71 to 56 persons in the analysed period. The minimum value of the 1990-2009 period was recorded in 1999 (55%).

The comparative analysis, at the level of the EU, of the statistical data regarding the employment rate of the working age population (aged 15-64) in the last 10 years shows the inverse evolution in Romania as compared to the one in the EU, according to figure 3. If in EU-27 the employment rate increased by 2.5 percentage points (p.p.), in Romania, in the same period, it fell by 4.4p.p. Thus, we notice that the low level of employment remains a problem for Romania, which in 2009 recorded an employment rate with 6 p.p. below the European average (of 64.6%), being among the last 5 countries in the EU-27 (on the fourth place).

**Figure 3: The evolution of employment rate of working age population, in Romania and EU, 2000-2009**



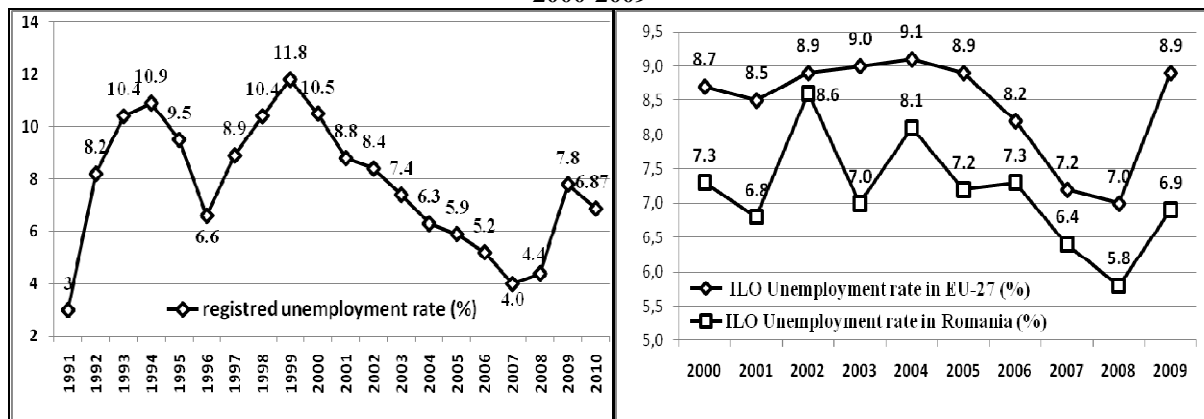
Source: Eurostat <http://epp.eurostat.ec.europa.eu/tgm/>

We underline the fact that the level of employment reached in 2009 was with 11.4 p.p. below the target set in the Lisbon Strategy in 2000 and with 11.5 pp below the target set in the Europe 2020 Strategy (employment rate, age group 20-64, was of 69.1% in EU and of 63.5% in Romania, as compared to the target of 75%). Taking into consideration that, in the last decade, Romania had gone through a process of economic growth we ask ourselves whether more jobs should have been assured, year by year, so that also Romania would have recorded significant increases in employment.

Together with the employed population, the **unemployed people** represent an important component of the quantitative-numerical dimension of the labour market. Unemployment and employment are generally considered polar categories, meaning that unemployment has an exclusively negative connotation and employment is an apparently positive category, beneficial to the operating state and of relative wealth of one country's economy.

The dimensions, dynamics, types and characteristics of unemployment, in our country, have evolved differently from one year to another, in the two decades of transition. According to data in figure 4 the evolution of unemployment, is often marked by leaps, both in the increase and decrease of the phenomenon. Thus, unemployed people, as number as well as rate, faced a sinuous evolution, between 1990 and 2010, reaching minimal values in 2007 (367.8 thousand people, 4.4% respectively) and maximum values in 1994 (of 1223.9 thousand persons), respectively in 1999 (11.8%) according to data in annexe no. 1 and figure 4a. We consider that the 6.6% level reached in 1996 does not really reflect the state of the Romanian economy, because this percentage can also index a *masked unemployment*, due to the supra-dimensioned staff in many state-owned enterprises that did not go through the privatization and restructuring process.

**Figure 4: The evolution of the unemployment rate: a). in Romania, 1990-2010; b). in Romania and UE-27, 2000-2009**



Source: <http://www.anofm.ro/>; Eurostat



Compared to the average unemployment rate in EU (figure 4b), in Romania, in 2009, a lower ILO unemployment rate by 2.2 pp (6.9% as compared to 8.9%) was recorded, but as we are going to see in the next part of the paper, Romania's problems in terms of the labour market are far from being solved. The EU specialists estimated in 2000, that the level of the problems that Romania is facing in terms of labour market is much higher than the aggregated data show regarding labour employment and unemployment (EC, 2000), problems that, we consider, continue to persist even today, after 20 years of transition.

The statistical data show that Romania, like other EU countries, faces a major problem of the labour market, i.e. **young people unemployment**. The unemployment rate among young people is three times higher than the average rate (20.8% as compared to 6.9% in 2009). The high level of unemployment among young people should be an important reason in applying some active policies that should aim at this vulnerable category. Within this group of unemployed people we usually find people who are not involved in training activities, graduates from high school, occupational schools, as well as graduates from university immediately after graduation.

Another problem specific to the labour market in Romania is the lack of employment in the form of **long time unemployment** (12 months and above), under the circumstances in which long term unemployed people accounted for 30.9% of the total number of unemployed people existing in 2009. Long term unemployment is considered a way of exclusion from the sphere of the working relationships, associated with poverty and social exclusion.

In Romania, a low unemployment even under the circumstances when employed population decreases, both as relative and absolute size, reflects a deeper worsening of the disequilibrium in the labour market and not only, having an invisible, latent and sometimes not taken into consideration character. When the economic situation worsens the ones who do not manage to keep up with the new conditions are forced to draw back. It is the case of the early retirements from activity, giving up the idea of looking for a job after a long unemployment period, informal employment, temporary activities or living from day to day. Moreover, the lower rate of unemployment, as compared to other countries in the area, can also be explained by the massive emigration of one part of the labour force and the high employment of labour force in the underground economy or informal activities.

Regarding **informal employment** in (Parlevliet, Xenogiani, 2008), it is shown that under the circumstances in which in Romania, approximately 50% of the employed population of the country works informally, the informal employment of the labour force has turned into an essential problem. The socio-economic evolutions after transition, the institutional factors (as well as the regulations of the labour market, the structure of the fiscal and social security systems, bureaucracy, the slow public administration and subsequent corruption) and the socio-behavioural factors are considered examples of causes of informal employment in Romania. According to (EC, 2007) the share of Romanians that receive their salaries "in envelope" (the employer pays the salary or remuneration for the extra work, without declaring the income to the authorities) is almost five times higher than the European average which reaches 5%. Romania is on the first place in EU when it comes to paying salaries "in envelope", with 23%.

Another criterion of a high importance of labour force effectiveness and measuring the extent to which it contributes or not to reaching the macroeconomic equilibrium and sustainable development is represented by the **economically dependent population**, the economic dependence index respectively. Between 1990 and 2009 the economically dependent population, calculated as the sum of the inactive population (total population – civil active population) and recorded unemployed people, rose by 847.2 thousand persons. Moreover, the **index of economic dependence**, calculated as relationship between economically dependent population and civil employed population, rose from 1.140 to 1.552 fact which demonstrates that 1000 employed persons depended on 1552 people, economically speaking in 2009, with 412 persons more than in 1990 (own calculations based on NIS, 2009b si NIS, 2010a), thus increasing the conditions of rising fiscal pressure on the incomes of those working.

We can approach the issue of economic dependence also from the point of view of the **relationship between pensioners and employees**, which recorded a substantial increase from 0.451 to 1.191, determined, on the one hand, by the rise in the number of pensioners, and on the other hand by the rise in the number of employees. According to data in figure 2, the number of pensioners has been continually growing, year by year, between 1990 and 2002 by 73.36%, i.e. the number of pensioners increased by 1.7 times, representing a worrying percentage. Based on the significant decrease in the category of farmer-pensioners, beginning with 2003 until 2009, the number of pensioners decreased, but by a very low average rhythm (approx. -2% annually). On the whole, in 2009, 2006 thousand pensioners were recorded more than the number registered in 1990, 54.52%

respectively, an unsustainable situation, as a result of a pensions' regime that highly surpasses not only the Romanian economy's potential.

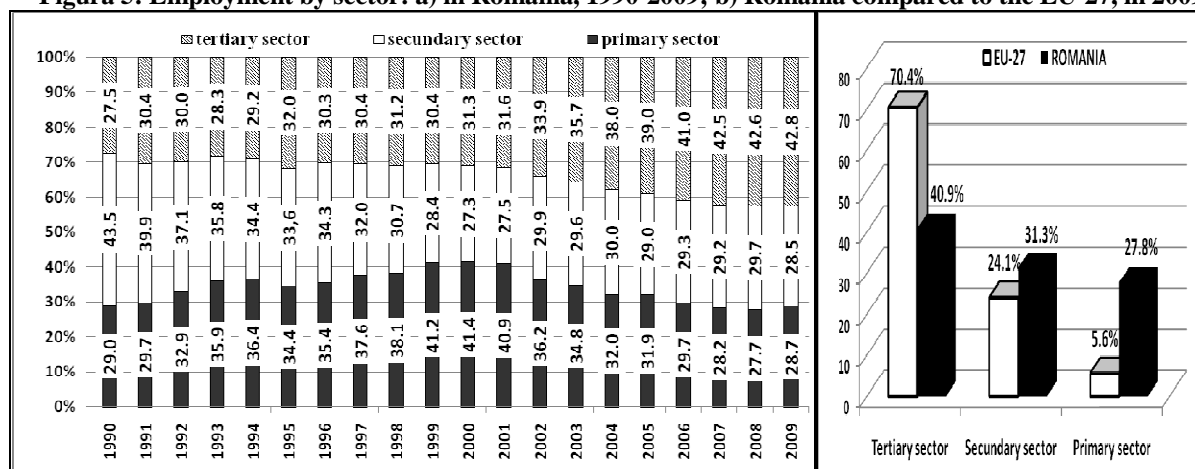
The increase in the number of pensioners represented one of the consequences of the massive redundancies made at the level of the large enterprises (here we take into consideration the fact that many of the people made redundant opted for anticipated retirement) which led to the increase in the economic dependence rate. The evolution of the number of pensioners is nothing else than a suggestive image of the social cost of the absence of the mix of policies in the transition period to the market economy. We consider that the decrease in the number of employees and the increase in the number of pensioners, between 1990 and 2009, affected the income level and security, having an unfavourable impact on the demand of consumer goods, on the living standard and finally on human development.

### 3. Structural disequilibrium of employment in Romania

Among the structural changes of the Romanian economy with an impact on the quality and efficiency of the labour market, we have the transfer of labour force between sectors: primary (agriculture etc.), secondary (industry and construction) and tertiary (services). Theoretical and empirical studies show that on the long run, the transfer of labour force from the primary to the secondary and tertiary sector assures the increase in the level of development and a quality employment.

In terms of the structure of the employed population by activity sectors, Romania records a particular situation among the member countries of the EU, with an extremely strong negative social and economic impact, characterized by numerous asymmetries, due to, first of all, the extremely high share of the employed population in **agriculture** and its keeping for a relatively long period (1990-2009) in the value interval 27.7%-41.4% (figure 5), with unfavourable consequences on the economic profile of the country. The increase in the share of the employed population in agriculture in the ninth decade of the last century represents an anachronistic tendency for the end of the 20<sup>th</sup> century, tendency generated by the redundancy of the labour force in the secondary sector, labour force that found "the saving solution" from unemployment in agriculture.

Figura 5: Employment by sector: a) in Romania, 1990-2009; b) Romania compared to the EU-27, in 2009



Source: a). ASR, BFM; b). Eurostat

The atypical evolutions are also recorded in the **secondary sector**, where the biggest job loss took place (of 2311.3 thousands, between 1990 and 2009), and the labour force made redundant increased the share of population employed in agriculture, mainly in the first decade of transition. Moreover, there was also a decrease in the share of employed population in industry in total civil employed population from 43.5%, in 1990 to 28.5% in 2009. The decrease in the share of the employed population in industry in the total civil employed population happened mainly based on the manufacturing industry, which became the major job loser between 1990 and 2009. The reduction in the number of jobs in the manufacturing industry by 52.47%, from 3631 thousands in 1990 to 1490.8 thousands in 2009 was determined by the negative trend of the industrial population. We mention that the industrial production was reduced in the first years of transition by a very high annual rhythm, as follows: it was reduced by 23.7% in 1990 compared to 1989, by 22.8% in 1991 compared to 1990, and by 21.9% in 1992 compared to the previous year.

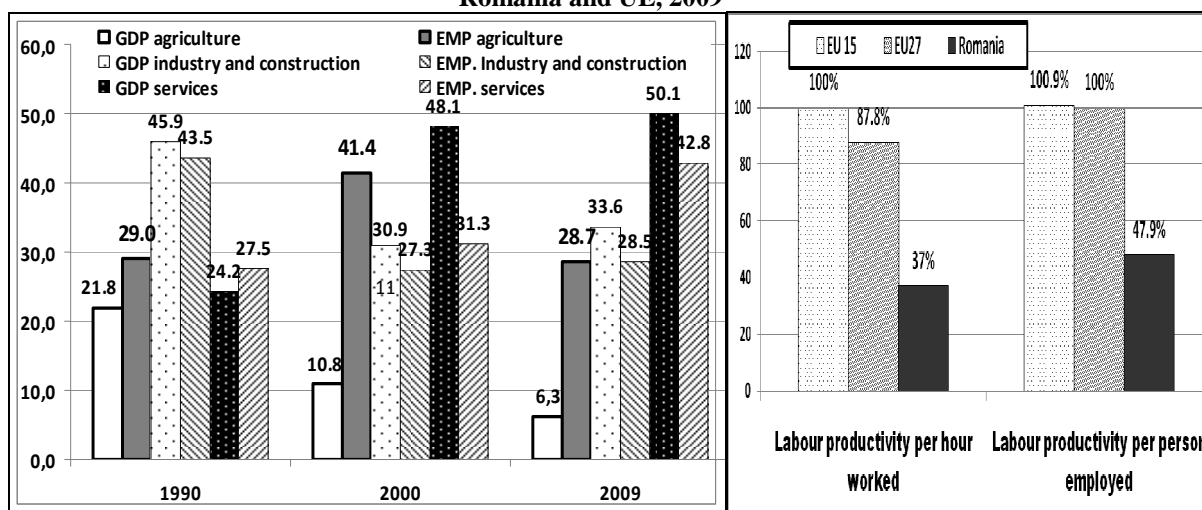
In the **tertiary sector**, even if an increase in employment was recorded from 27.5% to 42.8% between 1990 and 2009, by approx. 15.3 pp, the Romanian economy manages to create only a small number

of jobs, approx. 615 thousands (jobs in this sector increased from 2985 thousands in 1990 to 3600 thousands in 2009). Therefore, the major falls in the employed population in the secondary sector were compensated, only to a certain extent, by the increase in the employed population in activities in the tertiary sector.

All these changes in the employment sectoral structure determined Romania, in 2009, to hold the last place within the EU in terms of employment in services (only 40.9%, as compared to 53% in Bulgaria, 55.9 in Poland, 58.5% in Slovenia, 70.4% the EU-27 average etc.). On the contrary, Romania hold the first place in EU in terms of the share of employment in the primary sector (27.8%, compared to 19.9% in Bulgaria, 13.4% in Poland, 5.6% the EU-27 average etc.) and the fourth in terms of the share of employment in the secondary sector (31.3% compared to 32.8% in Slovenia, 33% in Slovakia, 37.1% in Czech Republic, 24.1% the EU-27 average). We notice that our country is far from the European Union’s values and even of some countries in Central and Eastern Europe.

Analysing the data in figure 6, for the period between 1990 and 2009, regarding the relationship between the employed population by sectors and the sectors’ contribution to the GDP, an extremely low contribution is noticed also in the decrease of agriculture to GDP, as compared to the high share of employed population in this activity sector, fact which indicates a low and decreasing level in labour productivity. Unlike agriculture, the other sectors are characterized by a higher labour productivity, because the share of these activity sectors to GDP is superior to the share of the employed population, the relationship being higher than one (the services sector being an exception in 1990). In terms of services, it is worth noticing that in the last decade (2000-2009) the increase in employment by 11.5 pp determined an increase of the services sector’s contribution by only 2 pp, evolution which corroborated with the dynamics of the other sectors created the conditions for a lower productivity at the level of the national economy. Thus, in 2009, Romania holds the next to last place in the EU (in terms of labour productivity per person employed (accounting for 47.9% of EU-27=100%), as well as labour productivity per hour worked (accounting for only 37% of EU-15=100%).

**Figure 6: a). GDP and employment by sector in Romania, 1990-2009; b). Labour productivity in Romania and UE, 2009**



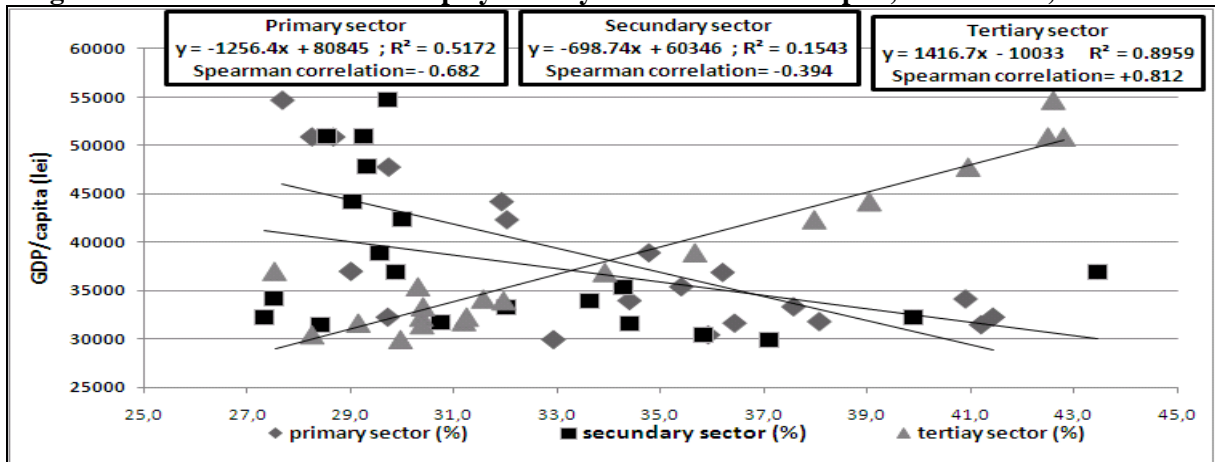
Source: Own calculations based on data provided by (NIS, 2009b) and [www.insse.ro](http://www.insse.ro)

In the economic literature it is highlighted that the long term tendency of national economies is characterized by the increase in share of the services sector, both to the GDP and total employment, thus assuring the conditions for economic development. Moreover, the gaps in the counties’ level of development can be explained based on the gaps in the employment sectoral structure, or the contribution of services to GDP creation. Some specialists (Răboacă, 2000) state that most of the countries with a small share of agriculture (the primary sector) in the employment structure generally have the highest GDP/capita and inversely, and the countries with high shares of the employed population in services have high and very high GDP/capita levels. In other words, between the share of employed population in agriculture and the level of GDP/capita there is a negative correlation, and between the share of employed population in the secondary sector and the tertiary sector and the level of GDP/capita there is a positive correlation.

From the statistical-economic analysis, based on the **Spearman correlation** coefficient, carried out in order to establish the intensity of the correlation between GDP/capita and the share of employed population in the three sectors, between 1990 and 2009, it is noticed that at Romania’s level there is a strong positive correlation between employment in services and GDP/capita (Spearman correlation=+ 0.812, figure 7), fact

which reflects that in Romania, the increase in the employed population in the tertiary sector has influenced the growth of GDP/capita positively. On the contrary, between employment in the secondary sector and GDP/capita, respectively between the share of employment in agriculture and GDP/capita, correlations are negative (Spearman correlation is of only - 0.394, of -0.682 respectively). Although the level of economic development (GDP/capita) has increased from 36,968 to 50,889 lei (expressed in constant prices-1990), in 2009, Romania is, from this point of view, among the last countries in Europe (holding the next to last place with a GDP/capita of 46% of the one reached by EU-27=100%), even though it geographically belongs to Central Europe.

**Figura 7: Correlation between employment by sectors and GDP/capita, in Romania, 1990-2009**

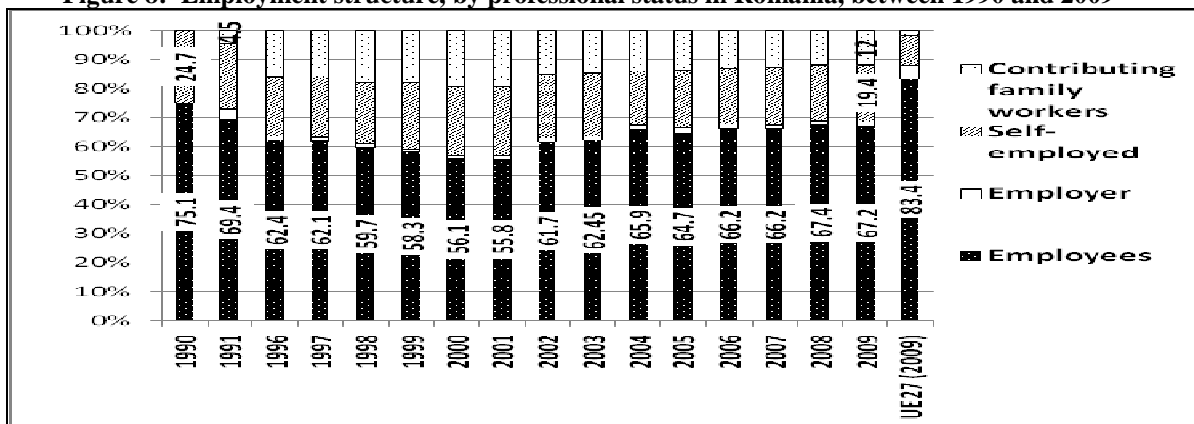


Source: Source: Own calculations based on data provided by (NIS, 2009b); (NIS, 2010) and annexe no.1

Once with the change of sectoral structure employment, important changes took place in the professional status of employed population, the types of employment, the level of education etc

The changes emerged in the structure of the employed population according to **professional status** (employee, employer, self-employed, contributing family worker, member of an agricultural holding or of a non-agricultural co-operative) are significant for the period when, in Romania, profound politic, social and economic transformations happened. The dimensions of these categories can characterize the dynamics of the labour market as well as the dynamics of the socio-economic development at a regional and national level. Based on the analysis of the data presented in figure 8 regarding the structure of the employed population by professional status, a tendency of decrease in the share of employees (of wage-earning work) by 7.9 pp (from 75.1% to 67.2%) can be noticed as well as the one of increase in the share of contributing family workers by 7.5 p.p.

**Figure 8: Employment structure, by professional status in Romania, between 1990 and 2009**



Source: Own calculations based on data from ILO [http://laborsta.ilo.org/sti/sti\\_E.html](http://laborsta.ilo.org/sti/sti_E.html) and Eurostat

The comparative evaluation of the wage-earning work in Romania with that in the member states highlights a strong difference, from the developed countries as well as from the countries which stepped at the same time with Romania on the long path of transition from the centralized economy to the market economy, according to the data from Eurostat. Thus, in Romania the share of employees of the total employed population, in 2009, is by 16.4 (pp) lower than the average registered in the European Union (83.4%) and by 24.4% pp lower than the maximum value

registered in a EU country (Luxemburg – 91.3%), being thus the before last. The only country in the EU which records a lower value than the one recorded by Romania is Greece (64.3) but here the lower share of employees is explained by the existence of a high share of employers (8.4%), unlike Romania where employers account for only 1.4% of the employed population.

Whereas, when we refer to the share of contributing family workers (of 12%) Romania is the first country in EU being followed at a considerable distance by Greece (5.8%) and Poland (4%). Compared to the average value recorded at the EU level (1.6%), the contributing family worker in 2009 Romania has a share of 7.5 times higher.

The high share of unpaid workers and of those who are self-employed, to the detriment of wage-earning work, determines in Romania the existence of the highest work poverty rate in EU, 17% respectively (compared to the 8% EU average), followed by Greece (14%), Poland and Portugal (both having 12%), according to the data offered by Eurostat.

From the security and social protection point of view, considering that the share of employees out of the total employment number was diminished and that the share of unpaid workers increased, we can state that the labour market in Romania recorded a regress regarding the level and security of incomes earned by working.

An indispensable feature to knowing and characterizing employment is represented by the types of employment, because the changes in the sectoral and occupational structure imply transformation also in the duration of work and the types of employment. In Romania, **part-time employment** accounts for only 52% of the EU average (of 18.8%), a tendency contrary to the one recorded in the EU being noticed: if in the EU, in the last decade, part time employment has increased by 2.6 pp (from 16.2% to 18.8%), in Romania it has decreased by 6.7 pp (from 16.5% to 9.8%). We mention that the process of real convergence has to take into consideration the similarity of the economic structure as well as the similarity of the types of employment. As far as the share of **employees with a contract of limited duration** in total employment is concerned, Romania holds the last position in the EU, only 1% of total employees being registered, falling compared to 2000, by 1.8 p.p., if compared to 13.5% in EU-27 2.2% in Lithuania, 2.5% in Estonia, 4.3% in Latvia, etc.

We consider that using flexible work practices determines the increase in efficiency of using labour force by reducing the wage costs and balancing the demand with the labour supply, but we do not have to omit the fact that using flexible work can affect the income security of those employed, with direct consequences on the increase in poverty and social polarity. The increase in part-time jobs and temporary employment could be viable alternatives to traditional employment, mainly currently, when the conditions of the national and international market require more flexibility.

#### 4. Conclusions

The results of our study highlight the atypical character of the demo-economic changes in Romania manifested by the level and structure of employment, but mostly by its meanings.

We notice that, in the last two decades, the labour market in Romania has registered processes and tendencies that reflect a lot of anxiety and states of conflict: the fall in labour supply based on the decrease in total population and demographic ageing; the decrease in the civil employed population and the number of employees; the increase in economic dependence; high level of unemployment among young people; high informal employment, high share of population employed in agriculture; low labour productivity; high share of contributing family workers and self-employed, to the detriment of employees; a reduced level of work flexibility; the existence of some large gaps in employment as compared to the EU average, placing Romania, most of the times, on the last places in the EU (the last or next to last place in the EU).

In terms of the state and evolution of employment, many of the specialists in employment, consider that the first 10 years of transition can be appreciated only as years of a sustainable and extended employment crisis, a crisis partly inherited from the second half of the '80, but mainly an adaptation crisis, induced by the transition to an instable economic environment, marked by recession and structural maladjustment of real economy, as well as by the incoherence of economic and social policies. It is a systemic crisis, as it generally affects employment (Pert et al., 2002). We consider that this employment crisis continues to manifest, in different ways, also today, after 20 years since the beginning of the transition process.

It is obvious that, currently, Romania has a considerable distance to cover in order to approach the objectives set by the Europe 2020 Strategy in terms of employment. Overcoming dysfunctions existent on the labour market in Romania depends on a new vision and new administration of the labour force, capable

of relaunching and supporting employment of work resources under the conditions of a sustainable development.

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## ANNEXE NO.1

### Labour market indicators and GDP/capita, in Romania, 1990-2009

Anii	Total population <sup>1</sup>	Working age population <sup>1</sup> (15-64 years)	Civil active population <sup>1</sup>	Civil employed population <sup>1</sup>	Average no. of employees <sup>1</sup>	Registered unemployment <sup>1</sup>	GDP/capita (lei) <sup>2</sup>
1990	23206.7	15324.4	10840.0	10840	8156	0.0	36967.77
1991	23185.1	15377.3	11123.4	10786	7574	337.4	32228.93
1992	22789.0	15153.6	11387.0	10458	6888	929.0	29903.66
1993	22755.3	15212.8	11226.7	10062	6672	1164.7	30397.17
1994	22730.6	15271.5	11234.9	10011	6438	1223.9	31616.98
1995	22681.0	15315.9	10491.4	9493	6160	998.4	33935.83
1996	22607.6	15339.4	10036.6	9379	5939	657.6	35373.81
1997	22545.9	15338.6	9904.4	9023	5597	881.4	33306.91
1998	22502.8	15318.5	9838.1	8813	5369	1025.1	31768.91
1999	22458.0	15315.3	9550.3	8420	4761	1130.3	31450.29
2000	22435.2	15351.6	9636.1	8629	4623	1007.1	32237.83
2001	22408.4	15368.7	9389.9	8563	4619	826.9	34116.14
2002	21794.8	14954.5	9089.6	8329	4568	760.6	36865.53
2003	21733.5	14993.1	8964.9	8306	4591	658.9	38891.93
2004	21673.0	15024.3	8795.9	8238	4469	557.9	42315.54
2005	21623.8	15059.7	8913.0	8390	4559	523.0	44193.11
2006	21584.4	15062.3	8929.5	8469	4667	460.5	47771.41
2007	21537.6	15049.4	9093.8	8726	4885	367.8	50891.35
2008	21504.4	15040.7	9150.4	8747	5046	403.4	54690.73
2009	21469.9	15026.1	9120.1	8410.7	4774.2	709.4	50889.33

<sup>1</sup> indicators expressed in thousands persons from NIS (2009b); NIS (2010a); NIS (2010b).

<sup>2</sup> expressed in constant prices (reference basis- the year 1990) calculated based on data from NIS (2009b) and The projection of the main macroeconomic indicators for the period 2010-2014, September 2010, [www.cnp.ro](http://www.cnp.ro)



## ECONOMIC CRISIS AND ENVIRONMENTAL VOLUNTARY AGREEMENTS. CASE STUDY: ROMANIA

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**Abstract.** *The numerous studies relieve that traditional instrument, based on regulation an economical and financial mechanism doesn't lead to the expected results. Voluntary environmental agreements (VEAs) are a form of contract among the corporate, government and/or non-profit sectors not required by legislation that aim to improve environmental quality. This paper analyses their roll in the context of economic crisis, present the main debates on effectiveness and efficiency of VEAs and identifies the main incentives on development of environmental voluntary agreements in Romania, in order to propose measures for their development.*

**Key words:** environmental policy, policy tools, environmental voluntary agreements, UE

**JEL classification:** Q01, Q56, Q58

### 1. Introduction

The numerous studies relieve that traditional instrument, based on regulation an economical and financial mechanism doesn't lead to the expected results. Additional, there are numerous arguments of inefficiency of this type of instruments, because request large efforts in report with the result. (Ioan, 2008).

VEAs represent a new environmental policy approach. In the context of economical crisis, is underline than ever the idea of corporate responsibility, a new commitment to responsibility being demanded of companies in order to create economic and social value.

“In a world of changing expectations, companies must account for the way they impact the communities and environments where they operate.” (Wim Bartels The Global Head of KPMG Sustainability Services)

According to the European study on sustainable and responsible investment the average annual growth of investments is close to 50%. Almost 20% of all capital in Europe is now invested explicitly in the areas of environmental sustainability and social responsibility.

The UN and OECD have launched codes of conduct which more and more companies are signing up to, these are UN Global Compact and the OECD guidelines for Multinational Enterprises. The Global Compact embraces a set of core values in the areas of human rights, labour standards, environmental protection and the fight against corruption. The OECD guidelines for multinational enterprises sets out voluntary principles and standards for responsible business conduct consistent with applicable laws.

Voluntary and cooperative modes of environmental governance there are on the political agenda of the European Union. In the 5th Environmental Action Programme, the Commission reinforcement of the dialogue with industry and the encouragement, in appropriate circumstances, of voluntary agreements. Also 6th Environmental Action Programme also endorses the use of voluntary agreements.

### 2. The main characteristics of Voluntary Environmental Agreements

The voluntary environmental agreements have increansigly in many countries, such as the USA and the European Union, only in European Union the total number of has been calculated to exceed more than 300.

Usually, the agreements are voluntary agreements between government authorities and industry associations. But many of the goals indicated in the agreements with government can be satisfied in the same with non-governmental organizations. Losing legislative pressures may be even Efficiency if agreements are concluded with a non-governmentally organization

VEAs are diversified and incorporate various kinds of objectives, incentives and procedures. In general, voluntary agreements have to observe the following three requirements: they are enforceable, entails the establishment of clear targets and deadlines and commitment from business. EC clarified environmental baseline requirements:

-The VEA objectives and targets must be based on a realistic and externally verified “business as usual” scenario to determine a baseline.

-They must result in significant improvements compared to this basic scenario and lead to the elimination of a significant proportion of products with poor performance (e.g. 20%). The coverage of products on the market should be at least 80% to 90%.

-Targets should be quantified and staged in a binding form to achieve effective and measurable environmental improvements. Regular short-term targets must be met, rather than having only long-term goals, to allow to take alternative actions when it becomes clear long before the agreed time-frame that the targets cannot be fulfilled (as in case of CO<sub>2</sub> emissions of cars). Furthermore, the environmental targets need to be reviewed regularly, e.g. every 3 years.

Traditional approach of pollution control implies law that requires firms to reduce the pollution level instead voluntary agreements require initiatives for pollution control but no obligation. In developing countries, authorities used voluntary agreements to encourage firms to comply with mandatory regulation or to cut emissions of pollutants for which mandatory regulations do not exist. Instead in developed countries, in general, voluntary agreements are used to increase environmental performance, by including voluntary agreements negotiated between environmental authorities and industrial association, in specific polluted areas and / or geographical areas. The broad reason for widespread noncompliance with mandatory regulation in developing countries is well known: the infrastructure needed to enforce regulations is weak. (Blackman, 2006)

### **3. Debates on Efficiency and effectiveness of VAs**

Efficiency and effectiveness of VAs depend on specific features, which can be evaluated only by a case by case analysis (Crocchi, 2005). The review of literature reveals a series of competitive advantages registered by voluntary agreements.

Those that are suitable to gain a competitive advantage, companies are generally those that are already compliant with environmental legislation. The use of voluntary agreement it helps them to avoid legislation pressures. Information and publicity on voluntary agreements pay attention of consumers that company try to improve environmental performance, providing a competitive advantage for companies. Furthermore, VEAs can provide a series of short-term economic benefits, such as improvement of environmental performance through government grants. They may serve to increase safety for long term business, which may serve to mobilize business community space itself in the environmental compliance or serve. Also can generate more private investments in pollution control and more public investment in regulatory capacity. Moreover, negotiated agreements between polluters and public authorities may accelerate the process of rulemaking as they "evade the lengthy, unwieldy, and cumbersome process of legislative decision-making" (De Clercq and Suck, 2002).

Besides the benefits there also some constraints in using VEAs, a number of systematic and comparative empirical evaluations have demonstrated that in real life cooperative forms of governance also suffer from numerous flaws (OECD, 2003; De Clercq, 2002). In general questions, have been raised about their environmental effectiveness: critics argue that voluntary agreements are not likely to move beyond what industry would have done in the absence of such commitments. (Hatch, 2002). An OECD study confirmed that voluntary environmental agreements make hardly any difference in practice. After having analyzed a number of different VEAs, the study discovered that in most cases such approaches were not found to contribute to environmental improvements significantly different from what would have happened anyway. The study also concluded that “the environmental effectiveness of voluntary approaches is still questionable”. In other studies industry associations argue that participation on voluntary agreements facing with rules more stringent (Alberini and Segerson 2002, Maxwell et al. 2000).

### **4. Key example of environmental voluntary agreements in Europe**

The most used are the voluntary agreements for energy in the agreements cover targets for energy savings or efficiency CO<sub>2</sub>-reduction and other environmental areas (Krarup, 2000). Targets can be both quantitative, e.g. relative energy saving or CO<sub>2</sub>-reductions, or qualitative, e.g. concerning procedures for implementation of energy management or investments.



**Table 1 Example of Type of targets in the agreements**

<b>Country</b>	<b>Scope</b>
<b>Denmark</b> Agreements on Energy Saving Measures signed by the government by a number of individual energy-intensive companies to reduce the energy tax burden	Pursuit of special investigations, realization of specific investment projects and introduction of energy-management systems.
<b>Sweden</b>	Implementation of energy-management systems (the targets correspond exactly to the organizational development required for EMAS and ISO 14001 certification, but certification is not a formal requirement in the agreement).
<b>Germany</b> Climate Change Agreement agreed by the federal government and industry associations as an alternative to carbon-energy tax and heat ordinance	Announcement by industry to undertake an extraordinary effort to achieve 20% reduction of the total industry's specific energy consumption and/or specific CO <sub>2</sub> -emissions from 1990 to 2005.
<b>France</b>	<i>Packaging glass industry:</i> 10% (27%) reduction in absolute (specific) CO <sub>2</sub> - emissions from 1990 to 2005. <i>Aluminium industry:</i> 2% increase in absolute and 19% reduction in specific CO <sub>2</sub> - emissions from 1990 to 2000. 63% (73%) reduction in overall (specific) CF <sub>4</sub> -emission.
<b>The Netherlands</b> Energy Efficiency Benchmarking Agreements aimed to achieve Best-Practice targets between 2000 and 2010	Energy-efficiency improvement of 20% (with some exceptions).

Source: Signe Krarup (2000) Voluntary Agreements in Energy Policy Implementation and Efficiency Final Report from the project Voluntary Agreements – Implementation and Efficiency (VAIE)

The Dutch voluntary agreement scheme, called Long Term Agreements (LTAs), has proven to be successful in SME sectors resulting in substantial energy efficiency improvement, e.g. more than 30% energy savings in a number of industrial SME sectors over the past decade (Beeck, 2007). In the last years, the Dutch LTAs have evolved considerably, involving more ministries and other sectors. In 2005, the Bulgarian Ministry of Economy and Trade requested the Dutch Ministry of Economic Affairs for support on LTA. This request was followed by a similar request from the Romanian Ministry of Economy and Commerce. (ESDB, 2006).

WWF has set up Climate Savers to strike deals with leading corporations prepared to make innovative new commitments to reduce their carbon dioxide emissions. The target agreed with WWF must be demonstrably more ambitious than previously planned or communicated by the company. It should place the company in the role of leader in emissions reductions in its particular sector. The Climate Savers agreement is tailored to the circumstances and operating sector of the company but places the company ahead of its competitors in terms of reducing global warming gases. Outside experts monitor and verify compliance with the agreement.

Climate Savers agreements could involve targets in one or more of the following categories: energy efficiency of products; energy efficiency in processes or facilities, energy-saving products; transport efficiency; fuel switching to natural gas or increased use of co generation; conversion to renewable energy (supply, use, marketing); financing schemes for above. (WWF, 2008) The first corporations joining Climate Savers was IBM and Johnson & Johnson. Johnson & Johnson pledged to reduce its global warming emissions world-wide 7 per cent below 1990 levels by the year 2010 while IBM has pledged to increase energy efficiency and use clean energy in reducing its CO<sub>2</sub> emissions by an average of 4 per cent per year by 2004.

Other examples include voluntary agreement signed in 1998 by the European Commission and representatives of automotive industry (ACEA) to reduce CO<sub>2</sub> emissions under the terms of which the industry is committed to reduce average CO<sub>2</sub> emission figures from all new cars to 140 g/km by 2008. Agreements also signed with the Japan Automobile Manufacturers Association (JAMA) and Japan Automobile Manufacturers Association (KAMA). The studies so far, the result of voluntary agreement between the EC and the automotive industry, CO<sub>2</sub> emissions from new cars sold in the European Union fell by 12.4% between 1995 and 2004. Feeling that this objective would not be achieved, with the average

ACEA, JAMA and KAMA for 2006 being respectively 160, 161 and 164g/km, the Commission proposed legislating. After intense lobbying by the automobile industry, the European Parliament and the Council adopted a regulation whose objectives were revised downwards (120g/km for 2015 and 95g/km for 2020). This regulation put in place a fine system in case of non compliance.

Other example include Voluntary agreement with European Association of Industries IT & C reduced standby consumption of TVs and video player by half during 1996-2001, up from about 3.5W.

## 5. Case study Romania

Legislative framework provides a number of references used of the possibility of voluntary agreements to achieve environmental compliance, so operators can meet their obligations on storage and recycling of vehicles put in service by signing voluntary agreements with public authorities.(Ildiko, 2008) As defined in the Romanian legislation by "voluntary agreement" means "agreement between public authorities and associative structures in the area, open to all partners who wish to comply with conditions of the agreement."

In accordance with the provisions of Romanian legislation, voluntary agreements meet the following requirements:

- the agreements are enforceable;
- agreements shall specify objectives with deadlines;
- agreements shall be published on the website of the competent public authority.

Also, the results obtained on the basis of the agreements are monitored regularly, reported to the competent authorities and the European Commission and are available to the public in accordance with the terms set out therein. The competent authorities shall examine the progress necessary decisions based on the agreements. If non-compliance with voluntary agreements, economic operators will apply sanctions for failure obligation.

In practice there are only few examples of implementation of VEAs, furthermore Romania was criticized for a lack of voluntary agreements to improve energy efficiency (WWF, 2010)

At one moment Romania have been interest by implementation of LTAs but only steps made was that Romania include in the first national Action plan for energy efficiency as measures for the improvement of energy efficiency implementation of Long- Term Agreements. The conclusion of an studies (Beek, 2007) reveal that public authorities of Central European countries are interested in Voluntary Agreements or LTAs but do not have a complete overview on consequences when considering entering an LTA pilot. It is important to define very small steps which are considered feasible for these authorities.

In 2008 the resort ministry in the field of environment propose an VEAs with Association of Major Commercial Networks (AMRCR) in order to promote and replace all conventional plastic packaging with ecological ones more environmentally friendly. The proposal was an voluntary agreement between the central authority for environment and major retailers to promote the market of reusable or biodegradable plastic products. The agreement was not signed.

There are a few initiative only to the corporate level, eg. Enel company, in 2009, the Group entered into a voluntary agreement with the Italian Environment Ministry, with a view to: increasing generating capacity from renewables; replacing oil-fired power plants with new, high-efficiency, low-emission, coal-fired ones; making greater reliance on biomass and refuse-derived fuel; and implementing end-use energy efficiency projects. (ENEL, 2008).

Lafarge Romania have also an partnership agreements with WWF on Danube-Carpathian Programme. The global cooperation focuses on climate change and reducing greenhouse gas emissions; promotion of biodiversity and nature conservation, including in and around Lafarge plants and quarries; freshwater conservation; sustainable construction and building materials; and reduction of toxic pollutants. The company's long-term involvement in the sustainable development of communities including sustainability indicators for evaluating business performance and structural changes, its internal communication and education of employees Among activities that Lafarge and WWF are currently considering is development of a nature area and environmental education centre at the site of a former quarry as well as cooperation around demonstration and promotion of "green" buildings and construction.

## 6. Conclusion

The economical crisis, underline than ever the idea of corporate responsibility, a new commitment to responsibility being demanded of companies in order to create economic and social value. VEAs represent a new environmental policy approach. There are numerous studies that analyze the effectiveness of VAS the main conclusion is the fact that their success depends on a number of crucial preconditions. In Romania there are only few examples of implementation of VEAs, furthermore Romania was criticized for a lack of voluntary agreement. Even is manifested an interest of public authorities in VEAs there has not been implemented. Generally only at the level of international company that act in Romania was implements VEAs, but these are also a few. Development of legislation in order to support the development of VEs can be an advantages, lessons learned in the Czech Republic with the detergent industry demonstrated the difficulties in maintaining a successful voluntary agreement without legislative back-up. Moreover, is need to be set clearly the expected advantages and also to be defined the steps for their implementation, a guide with best practices and experiences of others countries it can be considered useful for a future development of VEAs in Romania.

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- Project information sheet detergent phosphates products and activities [http://www.undp-drp.org/pdf/Publications/iiib\\_Detergents.pdf](http://www.undp-drp.org/pdf/Publications/iiib_Detergents.pdf)

## TRUST IN TIMES OF CRISIS. ROMANIA IN EUROPEAN CONTEXT

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**Abstract:** *The existing literature argues that trust is essential in a market economy, especially in times of crisis. This paper aims at providing an overview of the dynamics of trust in Romanian society, with a special focus on the crisis period. Secondary data from World Values Survey Databank and several Standard Eurobarometers are used in order to analyze the level of both interpersonal and institutional trust in Romania and to compare it to other EU countries or EU average. The results of the analysis show that Romanian society suffers from a lack of trust and, moreover, the already low level of trust is on a descending trend.*

**Key words:** interpersonal trust, institutional trust, institutions, development, crisis.

**JEL classification:** A13, D02, O43.

### 1. Introduction

Numerous researchers have devoted their time and efforts to investigating the issue of trust and its role in society (Fukuyama, 1995; Knacks& Keefer, 1997; James, 2002; Hardin, 2003; Farrel& Knight, 2003). Also, a significant body of literature deals with the issue of trust in transition societies (Raiser, 1999; Rose-Ackerman, 2001; Kornai, Rothstein& Rose-Ackerman, 2004; Sapsford&Abbott, 2006; Vasilache, 2010). Theoretical or empirical all studies have one common denominator: they all prove the positive role trust plays for economic growth and development.

This paper provides an overview of the dynamics of trust in Romanian society. Following the introduction, a short literature review (Section 2) on the role of trust in society prepares the background for analyzing trust in Romanian society before the economic crisis (Section 3). This section is divided into two parts, one referring to interpersonal trust and the other approaching the subject of institutional trust in Romania in European context. Section 4 focuses on the dynamics of trust in Romania during the economic crisis and, from a comparative perspective, points out several differences between institutional trust in Romania and EU average. The last part of the paper briefly outlines several conclusions.

Secondary data from World Values Survey Databank and several Standard Eurobarometers are used in order to analyze the level of both interpersonal and institutional trust in Romania and to compare it to other EU countries or EU average.

### 2. The role of trust in society. Evidences from literature

Fukuyama argues that "...although property rights and other modern economic institutions were necessary for the creation of modern businesses, we are often unaware that the latter rest on a bedrock of social and cultural habits that are too often taken for granted. Modern institutions are a necessary but not sufficient condition for modern prosperity and the social well being that it undergirds; they have to be combined with certain traditional social and ethical habits if they are to work properly" (Fukuyama, 1995, p. 150).

Trust is an example of Fukuyama's social and ethical habits which supports formal institutions and brings a large contribution to human cooperation, market exchange and, furthermore, to economic prosperity. "Trust and similar values, loyalty or truth-telling, are examples of what the economist would call "externalities." They are goods, they are commodities; they have real, practical, economic value; they increase the efficiency of the system, enable you to produce more goods or more of whatever values you hold in high esteem" (Arrow, 1974, p. 23).

The categories of trust that can be identified in the existing literature are *interpersonal (social)* trust and *institutional* trust. In other terminologies the term *trust* is used when referring to human interaction (trust in people) while for the institutional aspects the term *confidence* seems more appropriate (Sapsford &Abbott, 2006).

At both levels, trust plays a key role in the institutional framework of a market economy. "Trust between economic actors allows efficient trade to take place in the face of uncertainty and constrains opportunistic behaviour. Trust in state institutions reduces the cost of rule enforcement and supports collective action" (Raiser, 1999, p.1).

The relationship between institutions and trust has been subject to numerous studies. One way of analysing this relationship is the causality institutions and trust. That is, *institutions have an important effect on trust*. Farrel and Knight, for example, show that “institutions give actors an incentive to behave in a trustworthy (or, in some circumstances, untrustworthy) manner and/or affect social beliefs about the trustworthiness or untrustworthiness of actors thorough their dissemination of information about the expected behavior of others” (Farrel & Knight, 2003, p. 542). This point of view is also shared by James who argues that trust can only be achieved with the contribution of institutional mechanisms (James, 2002). Another perspective is the causality trust-institutions (Hardin, 2003). In other words, trust is a sort of prerequisite for the well-functioning of institutions.

No matter which way the causality works, trust should be seen as essential for the development of a market economy since it brings a large contribution to the diminish of transaction costs, to the enforcement of formal rules and to economic prosperity.

Numerous empirical studies stand as an argument for the positive role of trust for economic development, correlating the level of trust with a country’s welfare (GDP growth, investment climate etc.). At the same time, trust is directly influenced by several factors: it increases with the consolidation of the institutional framework, the increase of revenues and the diminishing of poverty. For example, Knack and Keefer proved that “trust... is stronger in nations with higher and more equal incomes, with institutions that restrain predatory actions of chief executives...” (Knack & Keefer, 1997, p.1251).

Trust is particularly important in times of crisis. As stated by Sapienza and Zingales, when analysing the trust in US economy, “something important was destroyed in the last few months. It is an asset crucial to production, even if it is not made of bricks and mortar. This asset is **Trust**” (Sapienza&Zingales, 2009a, p.22). Arguing on the importance of trust, the two authors provide examples in history “...one can bomb a country back to the Stone Age, destroy much of its human capital, and eliminate its political institution. But, if trust persists, the country may be able to right itself in just a few years, as in Germany and Japan after World War II. Conversely, you can endow a country with all the greatest natural resources but, if there is no trust, there is no progress” (*Idem*). The two researchers reached the conclusion that “a trust deficit is driving our economy (i.e. the US economy) down...The drop in trust, we believe, is a major factor behind the deteriorating economic conditions” (Sapienza&Zingales, 2009b).

To conclude, without trust, a society, in general and in time of crisis, in particular, finds it difficult and costly to cope with uncertainty and opportunistic behaviours (inherent to human nature), to enforce the formal rules and to enhance economic prosperity. Trust is a value that can enhance efficiency in times of uncertainty.

### 3. The level of trust in Romanian society

#### 3.1. Interpersonal trust

Social (interpersonal) trust is built, having the past as a point of departure. As Fukuyama argues “trust... is the product of pre-existing communities of shared moral norms or values” (Fukuyama, 1995, p. 336).

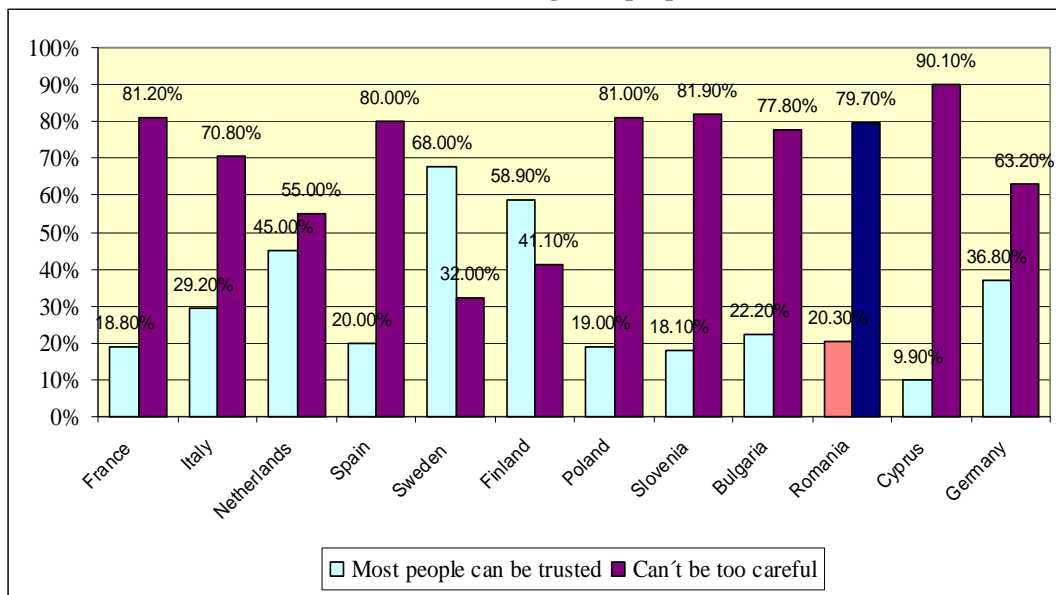
In most transition economies the level of social trust was very low. A wide range of explanations has been provided to support this fact. For example, lack of trust is interpreted in literature as a symptom of the general issues related to the change of system or as a product of previous oppression (Sapsford& Abbott, 2006). It can also be seen as a return to the traditional cultural values since the passage from a relatively stable society to an instable one created a sort of cultural shock by exposing the individual to something new (Dăianu, 1996).

In Romania, all these aspects overlapped, resulting in a low-trust society, characterized by lack of enthusiasm, a sort of nostalgia for the past, often considered to be better than the present, lack of involvement in civic life and interpersonal distrust.

Consequently, when asked whether “most people can be trusted or that you need to be very careful in dealing with people” about 20% of the Romanian respondents agreed that “most people can be trusted” while 80% expressed their reluctance when interacting with people (Figure 1).

Figure 1 also shows that there are substantial differences between European countries. The Nordic countries (Sweden, Finland), for example, are high-trust societies (more than 50% of the respondents stated that most people can be trusted) where there is low social polarisation and GDP growth rate and GDP growth are above the EU average. At the opposite side, we find the developing countries like Romania, Poland, Slovenia, etc. which display low levels of trust and, also, low values of the welfare indicators.

**Figure 1: Interpersonal trust in Romania compared to other European countries**  
**Question: Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?**



Notes: Selected samples: Bulgaria [2006], Cyprus [2006], Finland [2005], France [2006], Germany [2006], Italy [2005], Netherlands [2006], Poland [2005], Romania [2005], Slovenia [2005], Spain [2007], Sweden [2006]

Source: Values Surveys Databank, [WVS 2005-2008](http://www.wvsevsdb.com/wvs/WVSanalyze.jsp), <http://www.wvsevsdb.com/wvs/WVSanalyze.jsp>

### 3.2. Institutional trust

As already shown, extended trust is necessary for the well-functioning of a society. It can be enforced and supported by “a strong committed state” (Borner et al., 2003). That is, trust in national institutions depends on state capacity to provide the institutional framework able to create incentives for economic performance.

When analysing the evolution of trust in Romanian society we must take into account the former system and the transition times.

Regarding the former system, socialism had left behind a legacy of distrust. “The socialists’ governments’ lack of legitimacy... led citizens to assume that official state actors were self-serving and that rules were irrational” (Rose-Ackerman, 2001, p. 415).

On the other hand, the change of system means that the old institutions are taken away because they are incompatible with the new realities but, at the same time, the new institutions do not develop immediately. In this time of confusion and adaptability the presence of a strong state is necessary, “an active assistant for capitalism to consolidate and operate efficiently” that is, a state which must provide “a legal infrastructure that protects private property and enforces private contracts and financial discipline” (Kornai, 2000, p.32).

Or, in David Treisman’s terms, “some post communist states developed relatively honest, effective governments... other states degenerated quickly into oriental-style, authoritarian kleptocracies... stumbling from one crisis to the next” (Treisman, 2003, p. 201).

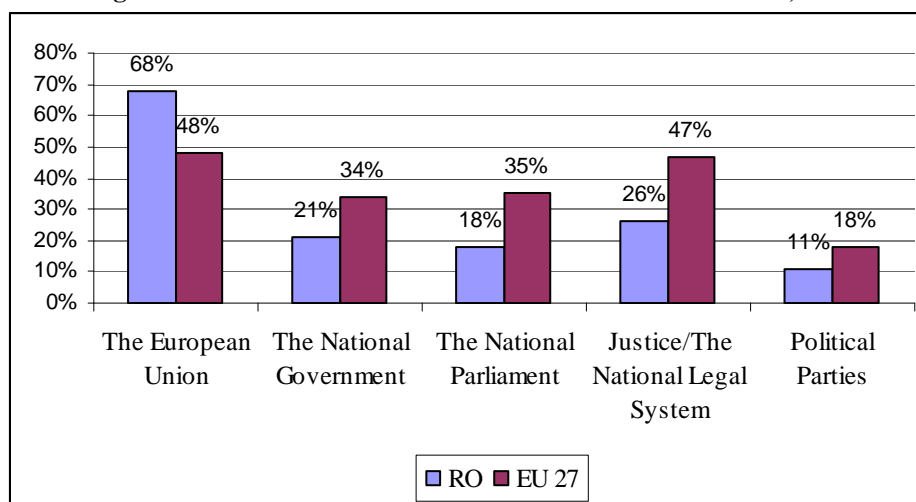
In those countries where the state failed to fulfil its structural (legislative) role and, moreover, played a significant part in hindering institutional change, corruption “elites” were created, legislative change is often dictated by interest groups, regulations are excessive and unstable and people have lost their trust in national institutions.

This is the situation of Romania, where the decision makers played with laws and reforms, failed to provide incentives to meet people’ expectations and, furthermore, this lead to distrust in institutions and opportunism.

On the other hand, the fall of communism and the change of system opened new horizons and diversified perspectives towards international institutions. Consequently, institutional trust diversified, a sort of competition for trust appeared between national and international institutions and, juxtaposed on the domestic failures mentioned above, “institutional trust was reinforced in post-communist Romania, but not in respect to national, but to international institutions” (Vasilache, 2010, p.4).

For example, shortly after its integration, Romania was among the countries with the highest confidence in EU, significantly above the average, according to the spring 2007 Eurobarometer (Figure 2), due to the perceived advantages resulting from this process. The same poll points out that Romanians' opinion about the national institutions was rather negative, below the EU average. About 21% of the total sample expressed trust in the National Government, 18% in National Parliament, 26% in the National Legal System and only 11% in the Political Parties. Differences with EU averages are significant and consistent.

**Figure 2: Trust in EU and in national institutions in Romania, 2007**



Source: European Commission, *Standard Eurobarometer 68. Public opinion in the European Union*, Autumn 2007, [http://ec.europa.eu/public\\_opinion/archives/eb/eb68/eb\\_68\\_en.pdf](http://ec.europa.eu/public_opinion/archives/eb/eb68/eb_68_en.pdf)

The low level of trust in national institutions is mostly a result of widespread bribery and high level of corruption. The Corruption Perception Index (CPI), elaborated by Transparency International, an index which measures the perceived levels of public sector corruption, Romania's score was of 3.8 in 2008, ranking much lower than EU average (of 6.5) and among the countries with the highest perceived corruption in the EU. Moreover, according to the CPI methodology, a score of 5.0 distinguishes between countries that do and countries that do not have a serious corruption problem. In a climate where corruption is perceived as huge, Romanians high scepticism and distrust in state institutions is understandable. As pointed out in literature, "it is difficult to argue that fighting bureaucratic corruption is a worthy cause – or even a feasible one – in an environment of growing cynism" (Pippidi and Ioniță, 2003, p. 59).

On the other hand, Romanians register the highest level of trust in religious institutions within the EU. 59% of them declared their confidence in churches, to a great extent (Table 1).

**Table 1: Confidence in Churches in several EU countries**

Confidence in Churches	Country											
	FR	UK	IT	ES	SE	FI	PL	SI	BG	RO	CY	DE
<b>A great deal</b>	10.9%	14.4%	24.4%	9.5%	8.7%	13.4%	33.4%	10.0%	20.1%	<b>59.0%</b>	30.3%	8.0%
<b>Quite a lot</b>	36.2%	31.3%	50.4%	22.9%	47.3%	50.8%	39.3%	24.3%	40.7%	<b>29.0%</b>	35.5%	29.6%
<b>Not very much</b>	26.6%	39.7%	20.3%	41.6%	34.1%	29.3%	22.4%	42.2%	24.6%	<b>9.5%</b>	22.7%	38.4%
<b>None at all</b>	26.3%	14.5%	4.9%	26.0%	10.0%	6.5%	4.9%	23.4%	14.6%	<b>2.5%</b>	11.5%	24.0%

Notes: Selected samples: Bulgaria [2006], Cyprus [2006], Finland [2005], France [2006], Germany [2006], Great Britain [2006], Italy [2005], Poland [2005], Romania [2005], Slovenia [2005], Spain [2007], Sweden [2006]

Source: Values Surveys Databank, [WVS 2005-2008](http://www.wvsevsdb.com/wvs/WVSAnalyze.jsp), <http://www.wvsevsdb.com/wvs/WVSAnalyze.jsp>

To provide a better explanation of the results, we can calculate the percentage of the respondents' affirmation and statements (*a great deal + quite a lot* for confidence and *not very much + none at all* for lack of confidence in churches). When doing the calculus, we notice that 88% of the Romanian respondents



expressed their confidence in Churches and only 12% declared their lack of trust in religious institutions. The data are comparable with the ones in Italy and Poland, countries with a long and significant catholic tradition.

The same situation is displayed when analysing the confidence in Armed forces (Table 2). If we calculate the percentage of the respondents' affirmation and statements (*a great deal + quite a lot* for confidence and *not very much + none at all* for lack of confidence in armed forces), we notice that a high percentage of Romanians (82.1%) expressed their confidence in armed forces.

**Table 2: Confidence in Armed Forces in several EU countries**

Confidence in Armed Forces	Country											
	FR	UK	IT	ES	SE	FI	PL	SI	BG	RO	CY	DE
<b>A great deal</b>	15.0 %	28.5 %	14.4 %	9.4 %	4.3 %	29.0 %	16.8 %	6.0 %	27.3 %	32.5 %	30.5 %	6.8 %
<b>Quite a lot</b>	53.3 %	50.1 %	53.8 %	43.8 %	42.5 %	58.9 %	50.6 %	31.4 %	45.1 %	49.6 %	37.4 %	43.3 %
<b>Not very much</b>	19.4 %	16.6 %	25.3 %	35.0 %	45.2 %	10.0 %	28.3 %	46.5 %	19.6 %	14.5 %	22.9 %	38.7 %
<b>None at all</b>	12.3 %	4.8 %	6.5 %	11.8 %	7.9 %	2.2 %	4.3 %	16.1 %	8.0 %	3.4 %	9.2 %	11.1 %

Notes: Selected samples: Bulgaria [2006], Cyprus [2006], Finland [2005], France [2006], Germany [2006], Great Britain [2006], Italy [2005], Poland [2005], Romania [2005], Slovenia [2005], Spain [2007], Sweden [2006]

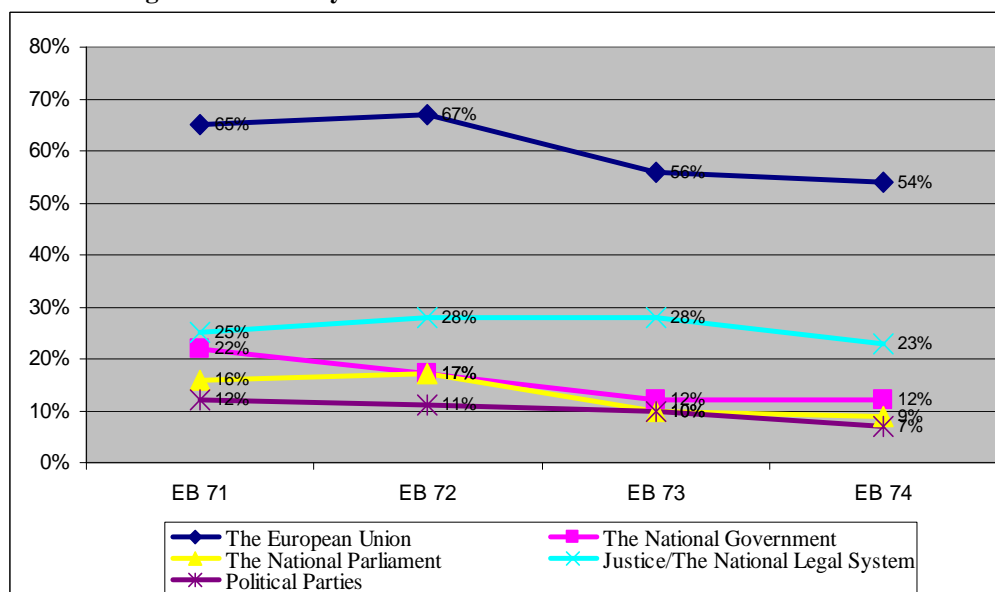
Source: Values Surveys Databank, [WVS 2005- 2008](http://www.wvsevsdb.com/wvs/WVSanalyzeQuestion.jsp), <http://www.wvsevsdb.com/wvs/WVSanalyzeQuestion.jsp>

The high confidence in the two traditional institutions speaks about the characteristics of the Romanian society. Of all the European countries, Romania is among the closest to traditionalism (Voicu&Voicu, 2007, p.307).

#### 4. Economic crisis and institutional trust in Romania

The already significant deficit of trust in Romanian society had deepened in times of the financial and economic crisis. Figure 3 shows the dynamics of Romanians' predisposition to trust EU and national institutions, as reported by the Standard Eurobarometers, from spring 2009 to autumn 2010.

**Figure 3: Tendency to trust EU and national institutions in Romania**



Notes: EB71- Standard Eurobarometer 71, EB72 - Standard Eurobarometer 72, EB73 - Standard Eurobarometer 73, EB74 - Standard Eurobarometer 74

Source: European Commission, *Standard Eurobarometer 71. Public opinion in the European Union*, Spring 2009, [http://ec.europa.eu/public\\_opinion/archives/eb/eb71/eb71\\_en.htm](http://ec.europa.eu/public_opinion/archives/eb/eb71/eb71_en.htm) ;



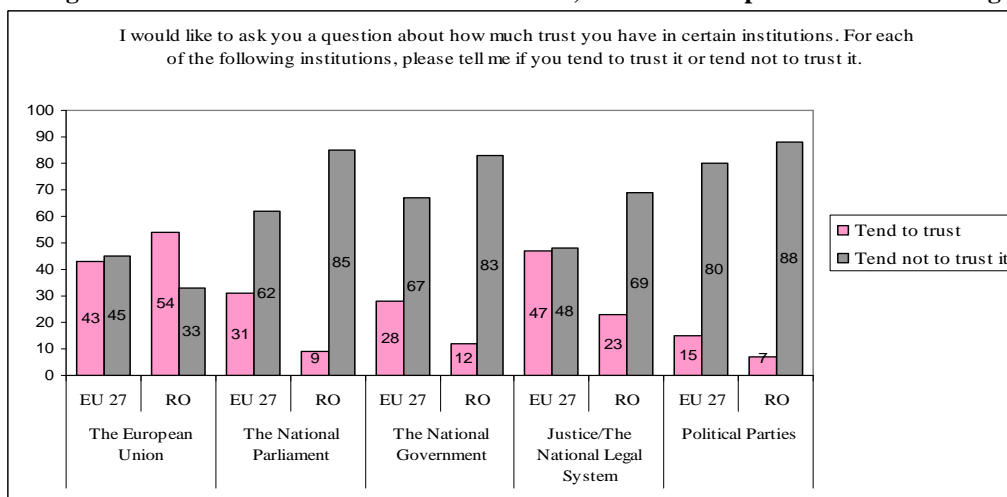
European Commission, *Standard Eurobarometer 72. Public opinion in the European Union*, Autumn 2009, [http://ec.europa.eu/public\\_opinion/archives/eb/eb72/eb72\\_en.htm](http://ec.europa.eu/public_opinion/archives/eb/eb72/eb72_en.htm) ;  
 European Commission, *Standard Eurobarometer 73. Public opinion in the European Union*, Spring 2010, [http://ec.europa.eu/public\\_opinion/archives/eb/eb73/eb73\\_en.htm](http://ec.europa.eu/public_opinion/archives/eb/eb73/eb73_en.htm) ;  
 European Commission, *Standard Eurobarometer 74. Public opinion in the European Union*, Autumn 2010, [http://ec.europa.eu/public\\_opinion/archives/eb/eb74/eb74\\_en.htm](http://ec.europa.eu/public_opinion/archives/eb/eb74/eb74_en.htm) .

Trust in national institutions had decreased over the last two years. The most significant variation can be noticed in the case of National Government, trust declining strongly, from 22% (spring 2009) to 12% (autumn 2010). Also, trust in Political Parties is on a descending trend and far lower than trust in other national institutions.

The negative trend in terms of evaluating the national institutions does not match with the trust Romanians have in the EU. Still, Romania has remained among the countries with the highest degree of confidence in the EU. However, after a slight increase from spring 2009 to autumn 2009, trust in EU also decreased in 2010. This speaks about the general attitude of pessimism dominating Romanian society, resulting from unfilled expectations.

Differences with EU averages are, once again, significant and consistent. Only when it comes to trust in EU, Romania is above the average. While three out of ten Europeans (31%) trust their national parliaments, almost three out of ten Europeans (28%) trust their national government and almost five out of ten Europeans (47%) trust their national legal system, in Romania the percentages are far lower: 9% trust in national parliament, 12% trust in national government and a higher percentage (23%) trust in the national legal system.

**Figure 4: Trust in EU and national institutions, Romania compared to EU 27 averages**



Source: European Commission, *Standard Eurobarometer 74. Public opinion in the European Union*, Autumn 2010, [http://ec.europa.eu/public\\_opinion/archives/eb/eb74/eb74\\_en.htm](http://ec.europa.eu/public_opinion/archives/eb/eb74/eb74_en.htm) .

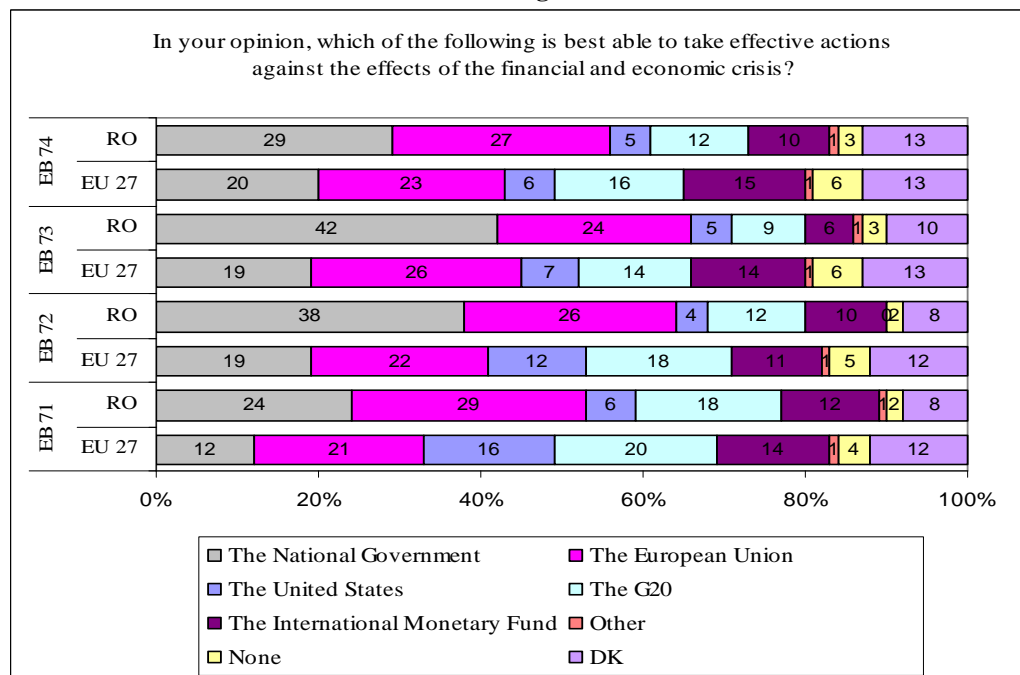
At the same time Romania is the country with the highest level of trust in *Religious institutions* in the EU, 67% of the respondents in the autumn 2010 Eurobarometer declaring their tendency to trust these institutions compared to only 40%, which is the EU average. Also, according to the same survey, the Romanians have high confidence in the *Army*, 59% of the respondents declaring their tendency to trust this institution.

On the other hand, trust in *Religious institutions* in Romania is also on a descending trend considering that its level fell with 10% from autumn 2007 to autumn 2010. The same situation is recorded for the level of trust in the *Army*, this one decreasing with 8% from autumn 2009 to autumn 2010. The decrease of trust in the two institutions can be explained by taking into consideration the general climate of distrust and the absence of a strong civil society in Romania.

When it comes to choosing the actors able to deal efficiently with the financial and economic crisis, according to the Standard Eurobarometer from autumn 2010, most of the Romanians place the Government in the first position but at a very small distance from EU (29% compared to 27%). Figure 5 also shows that, from 2009 to 2010, there had been significant changes in people’s belief on this question, the Romanian

Government being credited with the ability to efficiently “fight” the crisis by 24% of the respondents in spring 2009, 38% in autumn 2009, 42% in spring 2010 and 29% in autumn 2010. In the analysed period the Romanians’ trust in the abilities of their Government is above the EU average.

**Figure 5: Actors best placed to deal with the financial and economic crisis, Romania compared to EU averages**



Notes: EB71- Standard Eurobarometer 71, EB72 - Standard Eurobarometer 72, EB73 - Standard Eurobarometer 73, EB74 - Standard Eurobarometer 74

Source: European Commission, *Standard Eurobarometer 71. Public opinion in the European Union*, Spring 2009, [http://ec.europa.eu/public\\_opinion/archives/eb/eb71/eb71\\_en.htm](http://ec.europa.eu/public_opinion/archives/eb/eb71/eb71_en.htm) ;

European Commission, *Standard Eurobarometer 72. Public opinion in the European Union*, Autumn 2009, [http://ec.europa.eu/public\\_opinion/archives/eb/eb72/eb72\\_en.htm](http://ec.europa.eu/public_opinion/archives/eb/eb72/eb72_en.htm) ;

European Commission, *Standard Eurobarometer 73. Public opinion in the European Union*, Spring 2010, [http://ec.europa.eu/public\\_opinion/archives/eb/eb73/eb73\\_en.htm](http://ec.europa.eu/public_opinion/archives/eb/eb73/eb73_en.htm) ;

European Commission, *Standard Eurobarometer 74. Public opinion in the European Union*, Autumn 2010, [http://ec.europa.eu/public\\_opinion/archives/eb/eb74/eb74\\_en.htm](http://ec.europa.eu/public_opinion/archives/eb/eb74/eb74_en.htm) .

However, if we sum up the percentages for other international actors considered by the Romanians best able to deal with the crisis, for autumn 2010 we notice that 54% of the respondents give credit to international institutions rather than their own Government. This analysis is valid for the whole analysed period and, once again, stands for the fact that Romanians have more trust in international institutions than in national ones. The negative vote is a result of the unpopular anti-crisis decisions made by the Romanian Government which resulted in a deterioration of the standards of living.

## 5. Conclusions

This paper’s aim was to provide an overview of the dynamics of trust in Romanian society. The main conclusion which can be withdrawn is that Romania was and remains an example of a low-trust society. The trust crisis, both the interpersonal and the institutional one, a consequence of several factors related to the past and to the specificity of Romania’s institutional framework. According to the opinion polls analysed in this paper, Romanians are among the Europeans least likely to trust people and national institutions but also among the most likely to trust EU. The negative vote received by the national institutional is a consequence of state’s failure in providing an efficient institutional matrix to enhance economic prosperity.

The already significant deficit of trust in Romanian society had deepened in times of the economic crisis mostly as a result of the unpopular anti-crisis decisions made by the Romanian Government which resulted in a deterioration of the already low standards of living. We can conclude that, in terms of trust and civic engagement, Romania is far behind the capacity of Germany and Japan after World War II.

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## BUSINESS CYCLE. AN AUSTRIAN VIEW

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**Abstract:** *Approaching the economic cycle phenomenon is not an easy undertaking, because its explanations is fundamentally linked to how each school of economic thought perceive the functioning of the market, the nature of equilibrium and the role of the state. Moreover, even the theoretical approach to the business cycle is a cyclical one, recessions being always periods in which these concerns abound. Various theories of business cycle often emphasize the importance of one factor in triggering the crisis. Thus, the crisis is explained by climate fluctuations, innovation, underconsumption, over-capitalization, excessive credits or consumer psichological changes. The aim of our work is to distinguish the economic fluctuation from business cycle and to analyze the cyclical recurrence from the Austrian economists perspective.*

**Key words:** business cycle, credit expansion, interest rate, misinvestment, Austrian School of Economics

**JEL classification:** E22, E32, E43

### 1. Cyclicity – feature of economic life

It is important, first, to distinguish between business cycles and business fluctuations. Business fluctuations are changes taking place continually in all spheres of the economy. Consumer tastes shift; time preferences change; the labor force changes in quantity, quality; natural resources are discovered and others are used up; technological changes alter production possibilities; vagaries of climate alter crops, etc. All these changes are typical features of any economic system. We experience daily, weekly, seasonal and annual economic fluctuations. If we often seem to neglect the daily and weekly fluctuations, when we talk about business cycles, with its ups and downs and especially its inherent crisis, the perception is changing and the concerns are certainly more intense

Economic activity have a certain daily cadence - factories have manufacturing activity in a certain time frame and are closed in the afternoon when workers return to their homes, shops are open during certain hours, service providers have an announced business hours. All these give a fast pace to economic activity throughout the day, followed by a relative contraction during the night.

The same thing happens in the case of weekly fluctuations. We know that economic activity restrains in the weekend and will resume their pace once the workers return to their activities. This type of fluctuation is also typical for longer periods, for example the annual ones. Sales are higher every year around Christmas and the largest number of registered unemployed is usually in February. This annual cyclicity is even more evident when it comes to seasonal activities. Workers in agriculture know a peak of activity during the summer months, followed by a tightening of activity with the coming of autumn and its termination during the winter. Despite this obvious cyclicity, the daily, weekly and even annual economic fluctuations seem not to generate major concerns for analysts or business men. The explanation lies in the fact that this economic activity cyclicity is characterized primarily by regularity and predictability, by a natural succession of periods of expansion and contraction. But things are different when we refer to business cycles.

Unlike weekly or annual cycles, business cycles are not regular. Its phases, while repetitive, have very different duration, intensity and scope. Business cycles usually extend over several years and cover all production, commercial and financial activities of a society. If in the case of daily, weekly or annual cycles habit is one of the defining elements, not the same thing happens with business cycles, which, even if assume in their turn repetition, can not be caught in some safe pattern. This time, uncertainty is the feature that always accompanies the business cycles phases.

While recognizing that the existence of some imbalances sometimes can anticipate crisis and recession, it is very difficult to determine their magnitude, their phase synchronization and the necessary adjustments. In other words, unlike the common fluctuations in daily, monthly or annual economic activity, business cycles lack the "brevity, simplicity, regularity and reliability or predictability" (Burns, 1969, p.8). Thus, although the business cycle is often a path to progress, it creates instability in society, being almost impossible to estimate how long will it last, how many companies will close their doors and what will be the number of people left without jobs.

## 2. The business cycle causes and occurrence

Recessions are the most prosperous periods in terms of the economists' concerns for the business cycle. They are seeking for culprits, make comparisons with older or newer crises and are discussing possible remedies for the recovery of the economy. But even these concerns are cyclical, once the crisis passed, the causes that determined it are forgotten and the measures to avoid a future contraction are abandoned in the economists' drawers.

The history of theories that have attempted to explain cyclical phenomenon already extend over two hundred years, J.B. Say and David Ricardo being among the first who observe its causes and implications. Although we had expected that this long period of searching for a better understanding of the business cycle, its determinants and its propagation mechanism will provide solutions to prevent or tame it, the current reality is far to confirm this supposition. Moreover, the impossibility of finding a solution for cyclical recurrence of crisis puts in some places into question the very legitimacy of the market economy.

From the multitude of approaches to the business cycle, we stopped on its relationship with the market economy. This is because there is a dual vision of this relationship, some economists believing that economic cycles are phenomena closely related to the market economy functionality, an inherent part of the market process, while others characterize them as rather disruptions of the free market process. We accept the second approach, considering the business cycle is not an inherent phenomenon in the exchange economy, but a result of some external factors intervention, namely the government.

The modern vision of the business cycle is linked to the name of Karl Marx, who observed the recurrence of upwarding and downwarding phases in the same time with the industrial revolution and the emergence of market economy. There were economic crises, for sure, even before the eighteenth century, but the lack of a regular succession of expansions and recessions made Marx to consider the business cycle as an inherent, profound feature, of the market economy. This doctrinal origin should put thoughts, given that more and more schools of economic thought blame the market for the existence of business cycles, for its inability to be self-regulating. If, according to Marx, recurrent recessions and their tightening will revolt masses against the free market economy system, contemporary economists, representatives of the economic mainstream, see in government the solution to respond to crisis. Unlike mainstream economics, the Austrian economists advocate for limiting the role of the state, its intervention on the loan process being actually considered responsible for triggering crisis.

Austrian business cycle theory is based on the connection between price theory, capital theory and monetary theory. Its own elements are classified, according to Garrison (1986) in seven categories, with a high degree of complementarity:

1. Prices are signals. Prices are a real communications network, providing signals about consumer preferences, about the abundance or the scarcity of resources available, being in fact a basis for economic coordination. When prices are subject to an inflationary process of credit expansion, they determine discoordination in the economy.

2. The interest rate facilitates intertemporal coordination. The interest rate determines the equality of savings - investment. The changing interest rates affect not only the overall investment, but also their orientation, a low rate favoring investments with a longer time horizon. The interest rate coordinates intertemporally the preference to consumption with the preference to saving.

3. Money can masquerade as saving. Additional money in the economy through credit supply eliminates the relationship between savings and investment. An artificially low interest rate stimulates investors to borrow, while owners of income actually save less. Thus, it is lost the connection between investment, savings and consumption preferences of the individuals. Lack of intertemporal coordination translates into more investment in long-term projects, which practically are needless.

4. Capital is characterized by intertemporal complementarity. Capital goods are linked one with another by different degrees of substitutability and complementarity. Investments involve a diversion of resources from early stages of production to the late stages. Intertemporal discoordination determined by an artificially low interest rate manifests itself initially as an overinvestment in higher - order capital goods.

5. *The Ricardo Effect*. This effect refers to the substitution of higher-order capital goods and lower-order capital goods. This is necessary the following statement: Carl Menger (2007) is the one who developed the concept of temporal structure of capital goods, according to which capital goods are different depending on the time horizon during which they can be obtained. Lower order capital goods, such as inventory, are those moving quickly into the economy. Higher ordered capital goods, such as real estate construction, have a long period of production. Higher-ordered capital goods are the most sensitive to interest rates, as the asset is held for a long time. In the initial phase of the business cycle, reduced interest rates encourage investments

in higher-order capital goods. Simultaneously, increases the demand for complementary capital goods - equipment, machines, etc., which are increasing their prices. The additional need for funding translates into pressure on credit markets and so interest rate rises. A higher interest rate would discourage further investment in higher-order capital goods and will even contribute to the release of ongoing projects.

6. Mill's Fourth Fundamental Proposition. According to Mill, a reduction in consumption does not necessarily mean a reduction in demand for inputs. Increase savings justify a future increase in consumption and an increase of the current demand of resources for future production. This observation is assimilated by the Austrians to the fact that in some periods the consumer spending and investment have different directions. There are, specifically, a shift of resources between consumption activities and investment due to changes in intertemporal preferences for consumption.

7. Two kinds of knowledge. Entrepreneurs are oriented by the wrong signals from monetary manipulation. This is possible due to the fact that economic agents do not know enough about consumer preferences, resource availability or the plans of other market participants. Entrepreneurs know actually some particular circumstances of time and place, lacking the knowledge about how the economic system works. Consequently, they act according to price signals and when prices are distorted because of monetary authorities' intervention, they act wrong.

In the Austrian School view, the monetary authorities distort economic reality through the policy of bank lending encouragement and send wrong signals to the market operators which are oriented in wrong directions. Although commercial banks are often indicated as being responsible for the uncontrolled monetary expansion, they would never be able to do this without governmental, monetary authorities help. So, banking sector, itself a product of capitalism, is far from causing alone economic fluctuations. Governmental interference in the activity of banks, especially through the maintenance of fractional reserve and expanded lending, is the one which creates turbulence in the economy (de Soto, 2010).

The responsibility of commercial banks in triggering economic boom is emphasized in the early nineteenth century by David Ricardo, which examined the effect of inflationary credit expansion prices on the balance of payments. Thus, massive outflows of currency due to increased demand for imported goods and the declining competitiveness of domestic products causes an opposite reaction from banks, the credit contraction placing the economy on a downward trend. The contraction of the economy leads to lower prices, increase national competitiveness and reverse the balance of payments.

According to Rothbard (2000), business cycle theory should provide explanations for at least three phenomena: why exists in the same time such a large number of entrepreneurial error, why capital goods industries fluctuate more than consumer goods industries and why the money supply increases during the boom. The response for the money supply growth is already offered by David Ricardo because of bank credit expansion, expansion achieved with the direct involvement of the monetary authorities. In connection with this expansion must be put the wrong orientation of the entrepreneurs toward unfortunate investment, which economy actually do not needs. The large number of misinvestments revealed with the outbreak of the crisis (as the entrepreneurial function of prediction has a very important role in natural selection of the entrepreneurs) can be explained only because of wrong signals received by the economic agents. Injecting money in economy at a low interest rate, without this situation to be determined by an increase of savings, stimulate entrepreneurs to invest in longer production processes, in capital goods from a greater distance from consumer. Investments are oriented from "lower" (near the consumer) goods to the "higher" orders of production (furthest from the consumer), from consumer goods to capital goods industries. But this shift in investment is not based on changing consumer preferences. Relationship between propensity to consume and to invest has not changed, time preference is the same. Basically, consumers still prefer the consumption of consumer goods. But this shift in investment is not based on changed consumer preferences. Demand will shift back from the higher to the lower orders goods. Investments in capital goods industries prove to be wrong because of the low demand for such goods. Wrong oriented investments must be liquidated. In this case not underconsumption generates crisis, because not consumer goods, but the capital goods enter in a contraction process. The lack of demand for capital goods, when their offer is not based on the consumer preferences reality, is the one that determines crisis. And here it was because of business forecasting function failure, following the wrong signals offered by the artificial, interventionist interest rate

The inflationary boom has generated distortion in the production and prices systems. Prices of labor and raw materials in the capital goods industries have grown too much to be profitable. The fact that the downward phase of the economic cycle is not installed immediately, and expansionary boom sometimes takes years, is because lending is not a one shot process type, but a continuous one, retarding the growth of costs in capital goods industries and relocate the naturally report between saving and consumption.



Continued expansion of credit can be likened to the doping of an athlete who overcome itself on the short run, but when the excitant is stopped, his performances are clearly lower. When banks begin to experience problems, or when inflation is a phenomenon too worrying for the authorities, credit is limited and the economy is undergoing a process of adjustment to eliminate the unfortunate oriented investments and to ground on sound fundamentals. Depression is thus regarded as a "necessary and healthy" phase (Rothbard, 2009), which correct the wrong oriented investments, restoring the real proportion between consumption and investment.

The question that arises naturally is why the cyclical phenomenon is a recurrent one? The answer seems to be linked to the constantly appetite of banks for profit, to their natural inclination to expand credit. But this would not be possible without a monetary authority, a central bank to encourage this expansion. Encouraging lending determines, in addition to a general rise in prices in the economy, an artificially reducing of the interest rate below its natural, free market level. The distorting effect of the interest rate through credit expansion is one of the key elements of the Austrian business cycle theory. Its supporters consider that the interest rate is an expression of time preference of individuals. A loan is a present good which is changed for other future good, a document certifying the existence of a debt. But individuals always prefer present money over those in the future, which makes current assets have a higher opportunity cost than the future ones. This opportunity cost is actually the interest rate, its size varying according to the individuals' time preference. This time preference also affects the propensity for consumption to savings. A low time preference decreases the demand for current goods, individuals preferring to save and invest more, which contributes to lower interest rates. Decreased time preference and interest rate, is thus consonant with economic growth. Things are not so when interest rates do not reflect the time preference of individuals, but is the result of interference of the monetary authorities.

### 3. Laissez-faire as „measure” against business cycle?

The outbreak of crisis, as part of the business cycle, is closely linked to government intervention, through measures of credit stimulating. If the state does not encourage such practices, the economy would work in its natural rhythm. Investments will always rely on savings and the entrepreneurs' decision to invest will be based on a natural interest rate, which correctly express the consumers' time preferences. Credit contraction during recessions appears therefore as a corrective measure of relocation the correct ratio between consumption and saving. Prolonged monetary authorities intervention on interest rate in order to maintain a high level of lending and continue basically to inject money into the economy, it will only delay the inevitable. The market is one that imposes lastly its rules. Basically, the depression is a necessary response to the previous expansion, a correction of the excesses and distortions generated by the previous expansionary measures (Rothbard, 2009).

The Austrian view on the prevention of cyclical movements in the economy suggests avoiding inflationary measures, even if they hasten the end of the boom and precipitate depression. This is however seen as the only way to eliminate distortions in the economy and return to healthy growth. Government should also refrain to save businesses affected by the crisis; his support will only prolong the agony of them. To combat the depression by a forced credit expansion is to attempt to cure the evil by the very means which brought it about; because we are suffering from a misdirection of production, we want to create further misdirection—a procedure that can only lead to a much more severe crisis as soon as the credit expansion comes to an end (Hayek, 2008).

To stimulate consumption by increasing government spending is also a measure which should be avoided because it will only increase the consumption-investment ratio. The economy does not need more consumption, but more savings, in order to validate some of the excessive investment during the boom. According to Mises, the government should adopt a "laissez-faire" policy, meaning, in fact, to do nothing, leaving the market to be self-regulated. Any action coming from the state will only hinder the process of self-regulation of the market, delaying economic recovery. Austrian prescription is opposite of the Keynesian one: the state should limit its spending, stop inflation and raise its hands from the economy.

### 4. Conclusions

The Austrian business cycle theory is, in fact, the economic analysis of the necessary consequences of intervention in the free market by bank credit expansion. Intervention is the one that changes interest rate, it loosing its role as a measure for individual time preference, as a ratio between consumption and saving. Wrong signals transmitted by the low interest rate determine businessmen to invest in capital goods that previously did not seem profitable. Additional money in the economy created through credit expansion

contribute to the rise of wages in the capital goods industries, but how these money will be spent will be based on actual ratio between the propensity to consume and to save. Individuals' time preference has not changed, they still preferring consumer goods, so investments in capital goods prove to be misdirected.

Summing up, the boom is the period of misdirected investment as a result of free market manipulation by monetary authorities, through bank loans. Crisis occurs when consumers restore their desired proportion between consumption and saving. And depression is nothing but the market process of adjusting the errors caused by the artificially boom and reestablishing the optimum ratio of consumer preferences.

The essence of the Austrian business cycle theory can be found in Fritz Machlup's statement that "*monetary factors cause the cycle, but real phenomena constitute it*" (1976, p. 23). The focus is rather on "relative prices matter" rather than famous claims "money matters". The changes induced by monetary policy mainly affect relative prices, causing changes in the allocation of resources pattern. This is basically the core of Austrian theory. Money injection into the economy, as a result of government intervention, affects the allocation of resources over time, the intertemporal structure of capital, based on the interest rate. Cyclicity is therefore based on a temporal disruption of the intertemporal market mechanisms (Garrison, 1989).

From this point of view, the Austrian business cycle theory is an exogenous one, considering that perturbations are caused and not features of market economies. The endogenous element refers to prices movement during recessions and to return to a normal state of the economy. In other words, a force outside market, the central bank, can initiate an artificial growth, but inflationary boom contains the seeds of its own decay, market forces brought into operation generating correction through recession.

Business cycles are not an inherent feature of the market economy, its reasoning being not the same to common economic fluctuations. Crisis and depressions are both consequences of the authorities' intervention in the market mechanism and are basically the natural adjusting reaction of the economy. In order to avoid crisis, economy should be let to follow its own path, without the state intervention. The prescription is a simple "laissez – faire".

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## INTERNATIONAL MONETARY FUND – BETWEEN HOPE AND DISILLUSION

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**Abstract:** *International Monetary Fund (IMF) was created in order to sustain the member states having temporary balance of payments problems and to accelerate the monetary convertibility process. During a more than sixty years existence, IMF had to reinvent itself, along with the changes in the international monetary system. Its new functions have attracted both hope in a new era of financial stability and criticism because of the moral hazard created. Some economists even sustain that IMF became an outdated institution requiring the rethinking of its theoretical fundamentals an policies, or even its closing. The aim of our paper is to analyse the main expectation, hopes regarding the activity of IMF and to also count the disappointments about it.*

**Key words:** international institutions, world economy, balance of payments, monetary convertibility

**JEL classification:** F33, F34

### 1. Introduction

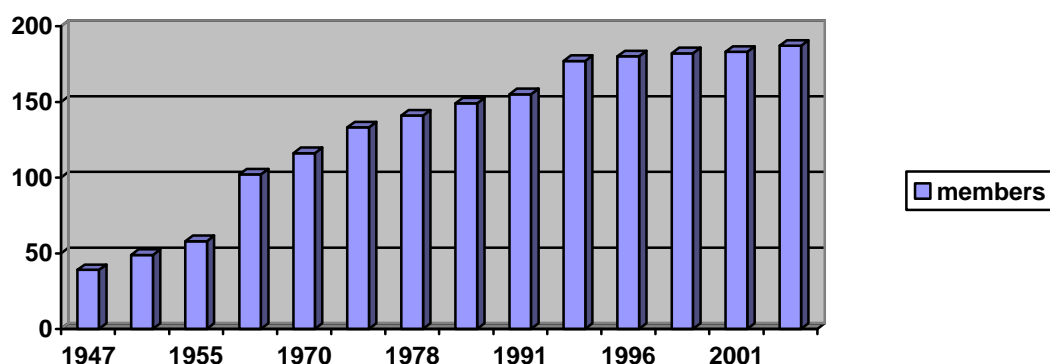
After the First World War, a global economic crisis had rocked the world between 1929 and 1933. The crisis has quickly propagated all over the world, causing massive unemployment, high inflation, political and economic isolation, competitive monetary depreciation etc. It appeared monetary and economic autarky policies and different financial – monetary groups in order to promote some concerted action. Within these, national currencies were link to a central foreign currency (Sterling, French Franc, Dollar etc.) and fluctuated depending it. Thus, it had been felt increasingly the need to create a legal and institutional general framework to regulate internationally the currency policy of nations. It increasingly appeared a pressing need to create, through negotiation and common regulations, an international monetary system in order to create more order and discipline in the interstatal financial relations.

Thus, can be explain why representatives of 45 states from the antifascis coalition met in July 1944 at Bretton Woods and decided to create the first international monetary sistem, passing from bilateral relations to a multilateral structure of relations that involved consensus between different participants. Then were established the International Monetary Fund and the International Bank for Reconstruction and Development. The participating states were aware of the necessity of an institution with global action power to provide financial assistance to the countries confronting high deficits in the balance of payments. There were proposed more projects, but only two drew attention – the American plan elaborated by H. White, who gave a greater role to gold (understandable position, considering that the United States owned two thirds of world gold reserves and wanted to maintain a key role in this system); and the British plan elaborated by J.M. Keynes, who was more concerned about the need to expand trade between countries and to restore the balances of payments equilibrium through a solidarity between debtors and creditors. The final adopted accord reflects, mostly, the American plan, because of the position of this country in the world economy at that moment. Margaret de Vries, historian, captures very well this, in 1986, pointing out that “TheUnited States, at President Roosevelt initiative, assumes a leader role in organizing the new international organizations and, apparently, a leader role in organizing a new world economic order, a reverse attitude at its isolationism after First World War” (Lenain, 1996, p.32). Thus were created IMF, an autonomous interstatal specialised organism from the United Nation sistem, who start its activity at 1<sup>st</sup> of March 1947. Through its activity was aimed the elimination of foreign currencies associations such as Sterling Area Association, in order to strengthen the U.S. dollar position, the financing of the member states with deficits of the balance of payments and the acceleration of the process of currency convertibility. Its main objectiv was to offer loans to the countries facing balance of payments deficits. Besides this, IMF should promote the international monetary cooperation through a permanent institution that will offer the

framework for member states to consult each other in this respect; facilitate the balanced development of international exchanges in order to promote and maintain high level of using human, material and financial resources of the member states; promote the foreign currencies stability; maintain some arranged exchange commitments and avoid the foreign exchange manipulation as means of unfair competition; optimize the establishment of a multilateral payment system linked to the transaction between members; eliminate the foreign exchange restrictions which inhibit the development of the international trade; propagate trust between members by offering them temporary the Fund's resources. These objectives were both internal and external. Internally, IMF received the mission to "contribute at establishing and maintaining of the high levels of labour resources and real incomes and develop the productive resources of the all member states". Internationally, IMF should "promote the expansion and the harmonious growth of the international trade". Only then, the Fund should be able to bring "national and international prosperity" and to avoid these two fundamental objectives become contradictory.

Member of IMF became automatically the Bretton Woods participant states, with the exception of former USSR and New Zealand who have not ratified the agreement. The number of member increased, especially between 1950 and 1960, when many countries became independent. At 1<sup>st</sup> of January 1953 Japan and Germany became members of IMF. The countries from the soviet influence sphaera refused aderation, moreover, Poland, a founding member, leaved the organization in 1950, arguing that IMF has become a tool of the United States government (Vreeland, 2005, p. 12). Czechoslovakia withdraw in 1954 and Cuba in 1964. Romania is member from 1972. Meanwhile, the majority of the coutries became IMF members, thus, today the institution has reached 187 members. The evolution of the number of member states reveales that most important increases were between 1960 and 1970 and after 1990, when some countries passed from a centralized economic system to a market economy.

**Figure 1: Evolution of IMF number of members**



So

urce: autors' prelucluration of the IMF data: <http://www.imf.org/external/np/sec/memdir/memdate.htm>

## 2. Hopes

The International Monetary Fund was created from the common desire to install a spirit of cooperation among the member countries, to combat a return to protectionism and competitive devaluation or national autharchy. It had to assure monetary stability and free currency convertibility. Removing the system of fixed parities required a review of its objectives. Many wanted then its cancellation, finding it useless for the new realities and international monetary needs, but International Monetary Fund resisted the pressure and managed to redefine its position in the conditions of foreign currency exchange flexibility. Crises that followed in the next period, such as external debts crisis, oil crisis, South-East Asia and Latin America crisis etc., imposed the necessity to redefine IMF mision. New conditions need a new IMF. The new mision was oriented to help developing countries define their economic strategies and provide them financial help during crisis and recessions (Lenain, 1996, p. 11).

In the first stage, IMF tried to avoid triggering another economic crisis like the one from 1929; in this respect, it pressed the member states to maintain a corresponding level of agregate demand. The ones that did not succeed doing this would benefit from IMF help through loans. If at its beginning the Fund had adopted the Keynesian view of expansionary economic policies based on high public costs and low interest rates, this approach changed, being preferred the more restrictive policies, lower public deficits, higher taxes and higher interest rates. Since 1980, IMF replaced the Keynesian orientation with emphasis on the failures

of market mechanisms and the role of government to regulate it, with the liberal view of free market. We find this orientation especially after the “Washington Consensus” from 1980 set by IMF, World Bank and United States Treasury. The new approach is based mainly on fiscal austerity, privatization and market liberalization. It is recommended, among others, deregulation of the economy, introducing severe fiscal discipline, price liberalization, interest rates, exchange rates, reforming taxing and public expenditure system, liberalization of external trade, foreign capital investment and financial policies, reforming property rights and privatization etc. About the economic policies to be promoted by member states, it was recommended maintaining the budget deficit under control, giving up a detailed planning of the objectives, controlling inflationary pressures, the introduction of a simple and neutral tax system, removing the administered prices, elimination of discrimination between the state and the private sector and establishing uniform criteria for their efficiency, foreign opening the economies etc (Dumitrescu, 2002, p. 217).

As related the vision that will guide the actions of IMF under the current economic and financial crisis, Dominic Strauss-Kahn, its President, advocates for its effectiveness in order to respond to the new challenges – “It’s a new IMF, but still IMF”. Even if it retains the same purpose as in 1944, to promote economic stability and cooperation in order to maintain peace and prosperity, the new role insists on three priorities: more rigorous monitoring in order to prevent crisis, especially in the financial sector, and a better estimation of systemic risk, loans to respond more quickly to the needs and stronger actions to increase long-term stability of the international monetary system, especially through sustaining the reserves stability.

IMF needs a governance reform. “Looking forward, we need more collaboration, not less; more multilateralism, not less; more IMF, not less”, said Strauss-Kahn (IMF, 2008). It will have to face the new global challenges, to act more effectively in favor of the member countries and to meet the requirements of the 21st century.

### **3. IMF efficiency**

Although the IMF policies have seen over the years also success, it was meanwhile the target of criticism. To have a balanced picture of what it meant during time, we will stop first on the positive effects of its actions. IMF has sustained many states to develop quickly, especially by promoting the removing of barriers from foreign trade. This has meant increasing exports and contributed to overall economic growth. In this sense, even a serious critic of the IMF, Joseph Stiglitz (2005), said that “because globalization, many people all over the world live today longer than before and enjoy a higher standard of living”. Market liberalization, one of IMF objectives, besides its potential weaknesses, brought many benefits. It diminished the sense of isolation felt by many developing countries. Through its help, along with the World Bank, in financing development projects were created jobs in these countries, and such additional incomes. The external debt crisis from 1982, triggered in the condition of a four-fold oil price increase, has led to recession and strong inflation in the world economy, the most affected being developing countries. For these countries, at the existing imbalance problem was added the impossibility to pay their external debts, which reached in 1986 about 1000 billion dollars. IMF played an active role in solving that crisis, both by imposing these countries economic adjusting programs in order to reestablish the balance of payments equilibrium and by convincing commercial banks it is in their own interest to continue finance debtor countries.

IMF was actively involved in the implementation of the 1988 Brady Plan, aiming the reduction of external debt of the most indebted countries, by conditioning its application of economic adjustment programs and loans without some assurance from the commercial banks. The implementation of that plan reduced a part of those debts, increasing the capital flows to these countries and increasing their confidence in the future.

The current economic crisis represents a new challenge for IMF. In order to support the affected countries, the Fund raised its lending capacity by increasing the standby facilities and simplifying the lending terms. In this respect, Dominic Strauss-Khan affirmed: “these reforms represent a major change in how the Fund can help its members and a major need in this global crisis period. A pronounced flexibility in granting loans and rationalizing conditionality will help to respond better at different needs of member countries – especially emergent markets and developing countries. That instead will help them to cope with the crisis and to launch themselves back to sustained growth”(IMF, 2008). The main aspects of this revised lending system are: the modernization of compliance with emphasis on pre-qualification criteria (ex-ante conditionality) more than the traditional ones; introduction of a new credit line in order to offer a wider access to financing; strengthening stand-by commitment by providing flexibility in lending to countries not qualifying for loans; simplifying lending opportunities and redefining the lending facilities for low-income countries.

#### 4. Disillusions

The IMF existence was put for the first time in question in 1971, when the United States announced quitting dollar convertibility into gold, established in 1944 at Bretton Woods. Another moment was in 1973, when the exchange rates became flexible. Meanwhile, the IMF mission was rethought, more emphasis being put on economic adjustment, which required a little more importance given to the economic policy of countries. Nevertheless, in recent years, the criticism has been multiplied, some economists saying the Fund had become an outdated of events institution, being necessary its abolition. Others, instead, consider that not cancellation, but its effectiveness is the solution. The Fund is accused that it failed to contribute to the restoration of countries in troubles' ability to pay their debts and to maintain exchange rate stability. It is often said that from its loans have benefited more the creditors, not the borrowers. Moreover, inconsistent policies and imposed conditions have affected the debtor states (Vreeland, p.113). Joseph Stiglitz, analyzing the policies sustained by IMF found them more ideological than realistic. While it was created to press the member countries in order to adopt more expansionary economic policies such as expenditures raising, interest rates decreasing etc., nowadays the Fund proposes other ways for economic stimulation – reducing deficits, raising taxes, higher interest rates, which does not lead to growth but to restrained economic activity (Stiglitz, 2005, p.50).

Other critics accuse IMF that has exceeded its field of competence in macroeconomy. It had to deal more with problems like budget deficit, monetary policy, inflation, trade deficit and less with structural problems whose jurisdiction belonged to the World Bank. "Widening its field of action, the IMF has interfered somewhat with some of the competencies of the World Bank, making these two institutions appear to be competing rather than complementary" (Boaja, 2007, p.283). Many economists condemn the IMF because they believe that privatization should be carried out quickly, leaving competition issues for later. Privatization is criticized because, instead creating new jobs, it has led to their disappearance. Privatization without ensuring competition leads to price increases and fiscal austerity in conditions of economic crisis, rising unemployment. In addition, it is often criticized the conditionality principle. The conditions imposed by IMF go beyond macroeconomic sphere (inflation, unemployment, economic growth etc.), covering intermediate variables (money supply, for example). Often, these conditions go beyond the economic doctrine, entering the political doctrine field (Stiglitz, 2005, p.87).

Through markets liberalization policies, developing countries should eliminate commercial barriers, while the developed ones maintain theirs (for example, they insisted that developing countries should eliminate subventions for industrial goods, while developed countries continue to subsidize agriculture). Keynesian approach on which was based the establishment of IMF, that emphasise the role of the state in economy, has been replaced with the neo-liberal view, that relies on the market adjustment. This was a solution to the problems facing Latin America countries, where inconsistent policies led to hyperinflation, but for many developing countries, opening markets for foreign goods influenced negative their economic development. IMF has made from liberalization a purpose in itself, being no longer interested in what happens in reality. "Too often, liberalization was followed not by the promised economic growth, but by increasing poverty" (Stiglitz, 2005, p.48). Also, liberalization of financial markets without safety regulations has led to economic volatility. "Today, emerging markets are not gunpoint forced to open their markets, but by using economic power by threats or sanctions such as withdrawing the necessary assistance in times of crisis," appreciates Joseph Stiglitz (p.109).

Many critics of the IMF conclude that it has not accomplished its mission to prevent any crisis, which in the past quarter century have been more frequent and more pronounced, the last of them becoming a global one, with an intensity bigger than the Great Depression from '29-'33 of the last century. "The IMF and World Bank have wasted considerable resources, have caused a lot of other organizations and countries to do the same and helped them to sustain harmful and corrupted regimes (Salin, 2002).

#### 5. Conclusions

The IMF is again in front of a challenge. During its existence it always found reasons for being, adapting itself everytime to the global needs. Even if IMF actions provided some positive results in certain situations like assuring balance of payments equilibrium or eliminating budget deficits, the problems remained without solutions are even more. Many of its objectives proved to be unrealistic. Dealing with current economic crisis is only an example. Moreover, apparently solving some of a countries problems during recession, proved in fact to create others, to pass into the future more troubles. Nevertheless, IMF role in the world financial architecture must be rethought, needing a true and deep reform of its fundamentals and

policies. It remains to be seen how the IMF will look into the future and how will it manage the world economic problems that will arise.

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## ROMANIA AND THE INTERNATIONAL MIGRATION OF LABOR DURING THE GLOBAL CRISIS

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**Abstract:** *The current economic crisis drastically reduced immigrant inflows due to high unemployment rates and fewer available work permits for migrant destination countries. Despite expectations, the return migration remained low because, in most of the cases, the origin country economic downturn was worse; the fall in remittances was also smaller than expected.*

*Concerning Romania, emigrants represent a considerable loss because they are still reflecting the reduced capacity of the Romanian economy to generate jobs and appropriate remuneration. During the crisis, the migration outflows continued to grow although the remittances significantly reduced, reflecting their downward evolution.*

**Keywords:** *migration, remittances, economic crisis, unemployment, Romania*

**JEL classification:** *E 24, R11, R23, R51*

### 1. Introduction

Beginning with the second half of 2008, the effects of the biggest economic crisis since the Great Depression have been felt worldwide. Some of them had an impact on the labor market, causing increased unemployment and generating international migration flows (OECD, 2009, p. 6). Firstly, during an economic crisis, the attractiveness of the destination country decreases (due to restructuring that reduces the number of available jobs), increases unemployment and determines wage cuts. Thus, the probability of finding a job diminishes to a very low level, discouraging emigration. Therefore, one of the first effects of the current economic crisis is the decline of emigrant flows, as a consequence of the increasing unemployment and the cutback in job availability in destination countries. A second effect, due to increasingly high unemployment and wage reductions, is the augmenting return migration flow (Skeldon, 2010, pp.5-6). The third effect, determined by the reduced number of immigrants, following their return to their countries of origin, is the lower value of remittance flows directed to countries of origin which may have a stronger effect on the economies of source countries (Skeldon, 2010, pp. 5-6). Moreover, in more difficult economic conditions, the public opinion on immigrants deteriorates. To ameliorate the situation, reduce unemployment and social benefits received by immigrants, destination countries are trying to encourage immigrants to return to their origin countries (Castles and Vezzoli, 2009, p. 69). Thus, despite the reduced flow of immigrants towards developed countries, the increasing flows of migrants who return to their countries of origin and the diminishing flow of remittances received by the countries of origin, migration does not attenuate. In some sectors, despite the downward evolution of the economy, labor demand remains high (e.g. healthcare). Moreover, even if the destination countries are going through a difficult economic period, the similar or even the more disturbing situation in the countries of origin and the development gaps between the two groups of countries may represent sufficient reasons to stimulate international migration. Therefore, everything depends on the migrant's analysis on the push and pull factors. Unquestionably, migration brings certain benefits to emigrants and their families; otherwise it would have not been occurred (Portes, 2006, p. 20). The migration phenomenon has changed as a consequence of the economic crisis. However, migration continues to be an option to those who seek an immediate benefit, even if difficult economic conditions increase the costs and the risks of the migration process.

This paper tries to find out whether these effects are present at an international level and which of them have affected Romanian labor migration.

### 2. The economic crisis and international labor migration

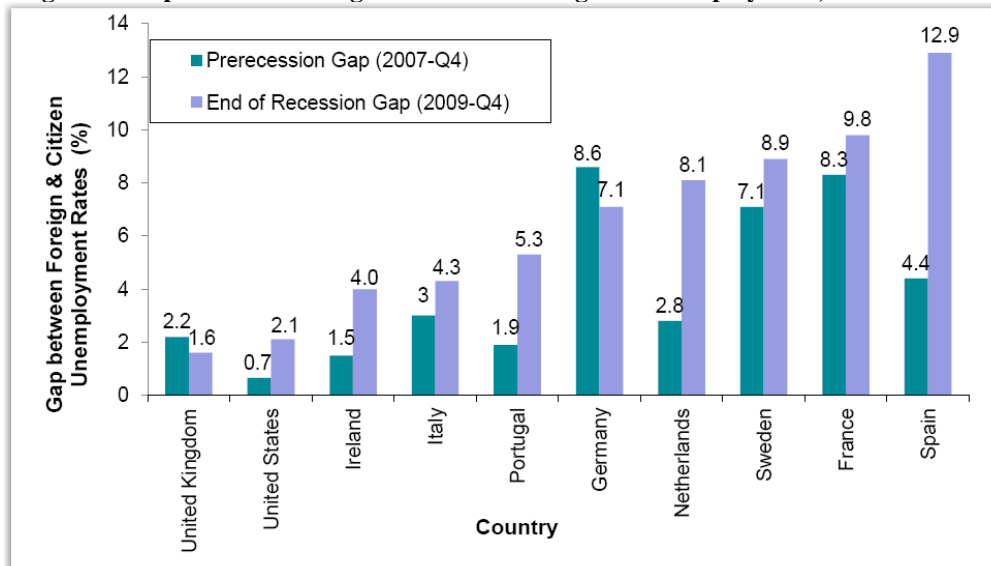
Immigrants are more prone to layoffs than the local population (Dumont and Garçon, 2010, p. 273) because they outnumber the local population in economic sectors vulnerable to economic fluctuations; their employment contracts are more cautious and for a limited period (as immigrants are a contingent workforce) and, when the economic situation deteriorates, employers tend to lay off temporary workers, because they are less productive and easier to replace (they are not offered an expensive training, have little experience



and, when they return, during a period of economic growth, are easily replaced - "last hired, first fired"); on average, an immigrant has a job for a shorter period than a domestic worker as they are the object of selective redundancy. In Spain and Ireland, in 2008, when unemployment grew, the immigrants had a probability twice as high to become redundant, compared to native citizens (OECD, 2010, p. 100).

Moreover, the crisis was strongly felt in cyclically sensitive industries such as construction, manufacturing and services where last-hired persons (often immigrants) are among the first to be laid off (Martin, 2009). The high vulnerability of immigrants and the strong crisis effects in cyclically sensitive industries generated an elevated unemployment rate among immigrants than among the native population.

**Figure 1: Gap Between Immigrant and Nonimmigrant Unemployment, 2007 and 2009**



Note: Chart shows percentage point gap between native and foreign nationals, Q4 2007 and Q4 2009.

Source: Eurostat, Current population Survey (US), and Quarterly National Household Survey (Ireland) in Papademetriou *et al.*, 2010, p.10.

As shown in Figure 1, in all countries observed during the 4th quarter of 2009 in comparison to the 4th quarter of 2007, except Germany and Great Britain, the difference between the unemployment rate among immigrants and native population increased. Of course, the situation may be different, depending on context and country-specific policies. If the contract was signed for a determined period or if the employer has incurred significant expenses for hiring and integrating the immigrants, the probability that they would be fired becomes smaller. Analyzing the relationship between the number of immigrants and unemployment in the UK, Hatton (2004, p. 13) concluded that a one percent increase in the unemployment rate causes a reduction in the flow of immigrants of 5000 people.

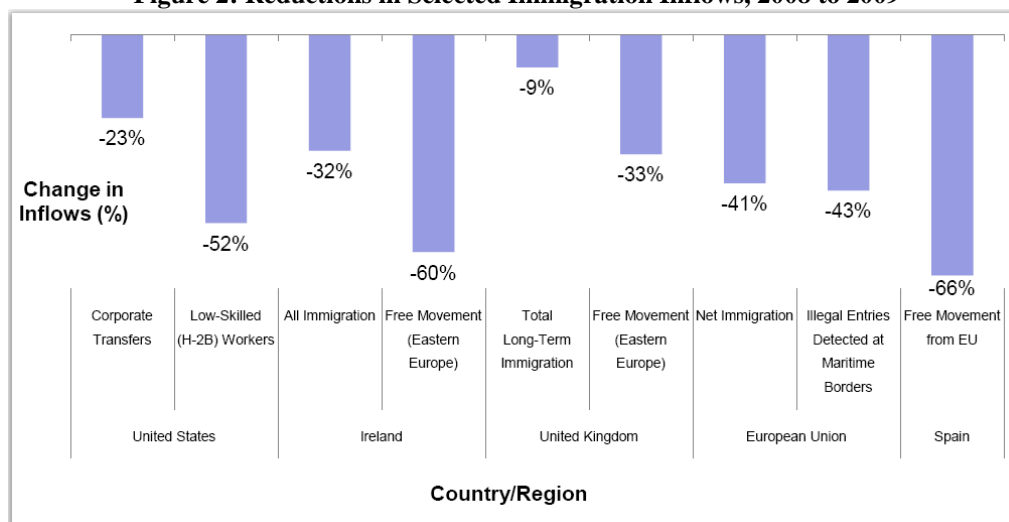
The higher unemployment rate among immigrants, compared to native population, decreased the attractiveness of the destination countries, decreasing the number of immigrants that they were heading towards these destinations. Moreover, unlike other crises since the Second World War, the current economic crisis experienced a greater scale and migrants didn't have other alternative destinations which hadn't been affected (eg, when guest-worker period in Europe had ended, migrants looked to the Gulf countries, which reported higher revenues as a result of high oil prices). This resulted in reducing the effective flow of immigrants to all countries of destination and not just a change in destination countries as during other economic crisis.

In 2009, there were 23% fewer intracompany transferees and there were provided 28% fewer work permits for highly skilled temporary workers (H-1B) in the U.S., compared with 2007. If in 2007 there were sold out within two days, in 2009 they were sold out in nine months (U.S. Citizenship and Immigration Services, 2011). Moreover, the number of work permits granted to low-skilled workers (H-2B) halved in 2009, compared with 2008 level.

In Europe the immigrant flows were also significantly reduced. EU immigration fell by two thirds in Spain and there has been a 60% reduction in the flow of immigrants from Eastern Europe to Ireland and a 30% reduction to Great Britain.

The economic crisis can even change the migration profile of a country. For example, in 2009, for the first time since 1995, Ireland has booked a net flow of emigrants. In 2009, the adult immigrant population declined by 20% and Ireland registered the highest flow of emigrants from the European Union (Papademetriou *et al.*, 2010, p.14). Although in mid 2000s the number of Irish emigrants was quite low, there are expectations that this number will increase during the future (especially to other English speaking countries like Australia) and that more and more immigrants from Ireland will return to their home country, transforming Ireland once more into a origin county which exports emigrants (Central Statistics Office, 2009). Greece is another interesting case. Although, in the last 20 years, it became an immigration country profile, due to the gloomy economic outlook and the extremely high budget deficit which led to stringent austerity measures, the number of immigrants is declining. Moreover, more and more young educated Greeks are turning to jobs abroad (Smith, 2010).

**Figure 2: Reductions in Selected Immigration Inflows, 2008 to 2009**



Note: US data represent visas ISSUED, not used. UK long-term immigration figures are estimates for the Years ending September 2008 and September 2009. Irish Immigration figures are estimates for the years ending April 2008 and April 2009.

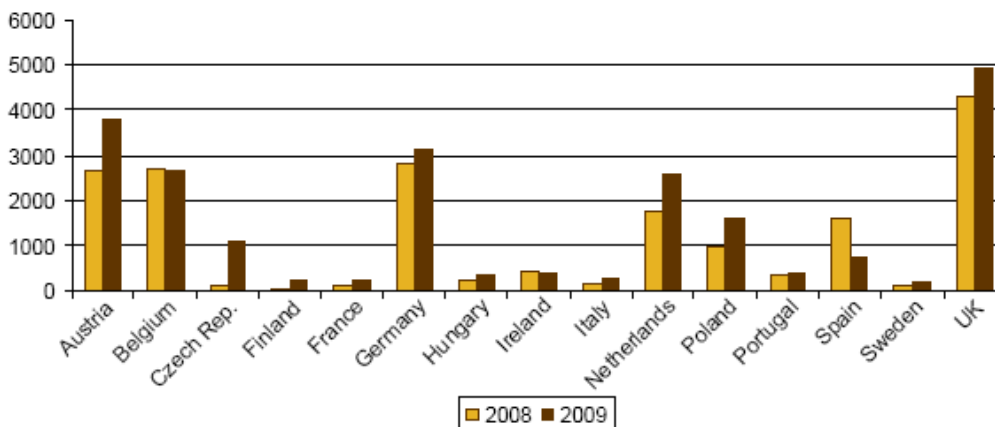
Source: US Department of State; Central Statistics Office (Ireland); Home Office (UK); Ministerio de Trabajo e Inmigración (Spain); Eurostat (EU) in Papademetriou *et al.*, 2010, p.14.

Anyway, worldwide, contrary to expectations, overall, globally, there has been no mass return of migrants to countries of origin (International Organization for Migration, 2009). This applies, in particular, to immigrants who receive a high level of social protection in the destination country or those who had emigrated a long time ago, holding family ties in the destination country. Moreover, if the economic situation in the country of origin is also unattractive, he may choose to work illegally or to wait for an economic recovery, especially if they are supported by relatives or friends in the country of origin. Second, they usually come from a poor country and the more developed economy of destination country recovers faster than origin country economy.

In times of economic recession, although production level decreases due to lower demand, social protection expenditures rise at a very high level, favoring budget deficit. While the unemployment rate among both immigrants and the native population is high, destination countries have tried to encourage the return of unemployed migrants in countries of origin. For example, Spain has tried to encourage unemployed immigrants from outside the European Union to return to origin countries, providing them in just two rates, the unemployment benefits that they would have received in Spain during the unemployment period (an amount before departure and the second after return). The condition was not to come back in Spain in less than three years. The program didn't have a real success since, by mid 2009 (the program was implemented in late 2008), only 4,000 of 80,000 eligible immigrants have made this commitment. On February 2009, the Czech Republic launched a similar program, through which it pays EUR 500 and the airfare home for unemployed migrant workers. Although the first round of this program drew up 1900 of 2000 eligible migrants, in the second round on July-December 2009, there were just 300 applicants from 2000 available (Koehler *et al.*, 2010, p. 24).



**Figure 3: Assisted voluntary returns from selected countries in Europe, 2008–2009**



Source: International Organization for Migration, 2010 in Koehler *et al*, 2010, p. 25.

As shown in Figure 3, the assistance programs for unemployed migrants return didn't have a real success, even if the number of applicants has increased. Moreover, in countries with high unemployment rates among immigrants such as Ireland or Spain, the number of applicants has decreased.

One of the main concerns of the current economic crisis was related to a drastic reduction of remittances flows worldwide starting with 2009. But the reduction wasn't that big as expected. Furthermore, estimates for 2010 are showing that remittances will reach 2008 level. Furthermore, it is possible that the decrease recorded in 2009 to be even smaller because of the financial instability characteristic of a period of economic crisis, when people are reluctant to use the services of financial institutions, preferring informal means of transfer.

**Table 1: World remittances**

Billions USD	2007	2008	2009	2010 (estimate)
<b>Inward remittance flows</b>	385,0	443,2	416,0	440,1
<i>All developing countries</i>	278,5	324,8	307,1	325,5

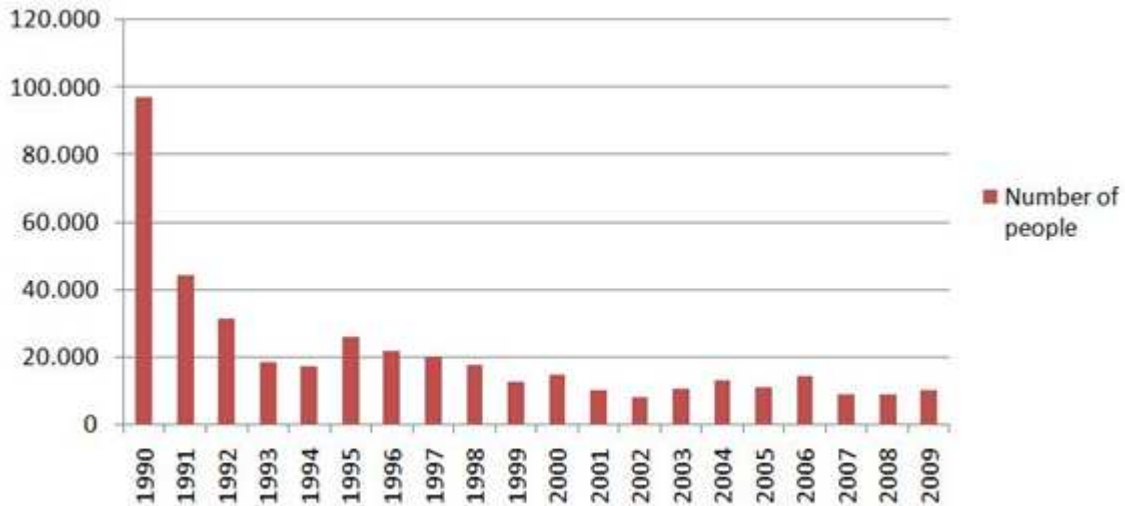
Source: World Bank, 2011, p. 19

### 3. The economic crisis and international labor migration from Romania

By 2008, Romania faced a labor shortage, so employers had to resort to foreign workforce from countries like Turkey, China and Ukraine (Tugui, 2010). At this point, the government seeks sources of income to cover unemployment payments in the form of aid granted to the citizens who had lost their jobs following the recession that hit Romania. Romania is not the only country facing the problem of unemployment. A country like Spain, where the Romanian community is app 1 million people, was affected by unemployment in almost all sectors of its economy. The immigrants were the most to suffer from this imbalance (de Haas, Vargas-Silva and Vezzoli, 2010) and they had to decide between unemployment in Spain or returning to Romania in an attempt to get a job. So we will try to do a rundown of the main aspects of the Romanian migration phenomenon during the economic crisis.

Starting with 2007 Romanians have already gained a free access to most of EU labor market. At the beginning of the economic crisis, around 8830 Romanian workers chose to emigrate from Romania as seen in Figure 4. During 2008 another 8700 workers chose to emigrate. Moreover, during 2009 the number of Romanian citizens working abroad significantly increased to more than 10000 people. Thus despite the fact that the economic crisis had a worldwide impact, we noticed an increase in the number of Romanians who left the country during 2008 and 2009, seeking for jobs abroad.

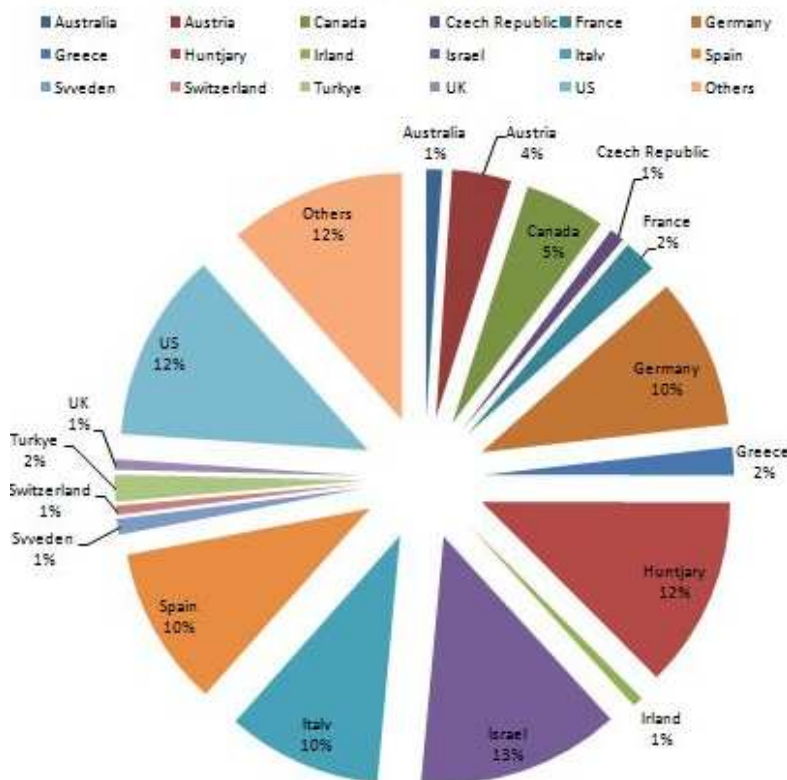
**Figure 4: Evolution of international migration from Romania in 1990-2009 (number of people)**



Source: Data published by the National Institute of Statistics

Romanian emigrants are heading to the same destination countries as before the crisis (Figure 6): Italy, Spain, Hungary, Israel, the United States, Canada, Germany, Austria, France, the United Kingdom (World Bank, 2011). There is only one important change: if during the last decade most of the Romanians preferred destinations like Italy and Spain, United Kingdom became a new top destination that attracts more and more Romanian immigrants who are looking for a better life (Roman and Voicu, 2010). Going to work abroad for a certain destination supports a range of influences from the regional-historical factors. For example, people from Wallachia go to Spain and those from Moldova go to Italy. Those who go to UK are young people aged between 23 and 30 years, coming from North-Eastern Romania. Unlike emigrants that are heading UK, Italy attracts a numerous number of people aged over 50 years.

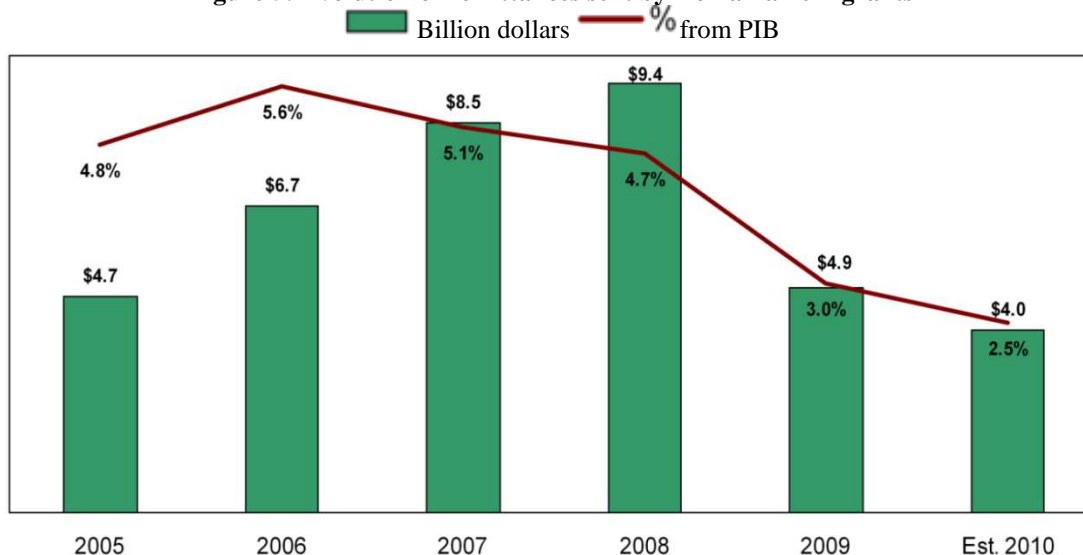
**Figure 6: Total emigrants by country of destination-percentages**



Source: World Bank, 2007

Even if the number of emigrants continued to grow during the economic crisis remittances drastically decreased. It is estimated that, in 2009, about 2,7 million Romanians are working abroad, representing about 13,1% of the total population. Starting with 2005 they sent home app. 38.819 billion dollars. The highest level was reached in 2008 (9,4 billion dollars) when the largest flows of remittances was accumulated, representing about 4,7 percent of Romania's GDP. Two thirds of the money sent in the country, came from Romanians working in Spain and Italy (Roman and Voicu, 2010).

**Figure 5: Evolution of remittances sent by Romanian emigrants**



Source: <http://data.worldbank.org/data-catalog/global-development-finance> Available at <http://businessday.ro/12/2010/cati-bani-trimit-in-tara-muncitorii-romani-din-strainatate/>

#### 4. Conclusions

The recent economic crisis has deeply affected most of the world economies so it undoubtedly had an effect on the international migration of labor. But there are some specific particularities which can also explain the influence on migration. Firstly, the crisis propagated in a large number due to globalization and increased economy interdependences. Thus, considering that there were few available alternative destination countries for international emigrants, the outflows have considerably reduced. Secondly, considering that the crisis was strongly felt in cyclically sensitive industries, with predominantly immigrant labor force, and that immigrant workers are more vulnerable to lay-off than native workers, the unemployment rate among immigrants got higher than among the native population.

In order to protect their population, many migrant destination countries tried to send home unemployed immigrants by according them different financial benefits. However, these policies had no real success among immigrant population and no consistent return migration flows toward origin countries were noticed.

In the case of Romania, the number of people who went to work abroad increased during the crisis. A first reason is the severe economic shocks felt by Romania during the current crisis. In addition, considering that a large proportion of Romanian emigrants are working illegally and that during economic crisis, in order to reduce costs, employers are keeping illegal workers (Noica and Stoiciu, 2006), justifying the growing number of emigrant.

Even the Romanians are still looking forward to work abroad, their situation definitely got worse. The striking decline of the remittances received by Romania during 2009 represents the central argument. The decrease in remittances may be also due to the growing reluctance in using the services of financial institutions and preferring informal means of transfer.

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## RECONSIDERING THE LIMITS OF GROWTH WITHIN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

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**Abstract:** *Sustainable development is the vision that directs the bulk of long term strategies at various levels. By this concept it was envisaged to overcome the worrying trends enlightened by the “Limits of Growth” report, assuming that population and economic growth could be shaped in such a way that the ecological support is not affected. Our paper reconsiders the limits of growth in a human dimension, as a measure of wellbeing and attempts to demonstrate that achieving sustainable development means a separation of wellbeing from material wealth. The efforts invested in sustainable consumption and production fostering is considered as an evidence that such separation is necessary and could be made within certain limits.*

**Key words:** sustainable development, wellbeing, consumption, growth

**JEL classification:** O47, Q01, Q56

### 1. Introduction

Four decades of environmentalism is a large enough timeframe to expect a number of results, or at least the progress against the wider goals. The main thesis of the “Limits of growth” report, presented in 1972 by the Club of Rome, is that the growth of mankind, as number of inhabitants and as their wellbeing, could not be endless, since the resources that are available on the Earth are limited and the pattern of their up taking in the economic process does not allow their restoration for further uses.

Our paper reconsiders this thesis, departing from the significance of growth. Thus, the bulk of the literature understands the growth as demographic growth and as economic growth. Since from these points of view the issue was explored by an impressive number of researchers and programs, we propose a change of direction. Thus, growth is considered as human growth, meaning that the perception of wellbeing is the main feature that defines the size of mankind. This approach was considered also in the literature, but received far less attention. These contributions will be presented and analyzed in detail. The main goal is to demonstrate that in order to fit in the framework of sustainable development there are necessary changes in the understanding of wellbeing. In doing so, we consider that the most important change should be the separation of wellbeing from its material support. Unusual as it seems, the topic of happiness in poor material condition is not new. Thus, we will explore some relevant positions in this area.

Considering these elements, the structure of the paper is the following: current and alternative visions of sustainable development; measuring wellbeing; perspectives on the separation between wellbeing and material wealth; conclusions. The results could be helpful in building a new decisional alternative or a new path of intervention that will help the progress toward the goals of sustainable development. Such alternative is considered necessary since the progress brought in by current environmental policies is still failing to reduce the distance between what we have and what we need.

### 2. Current and alternative visions of sustainable development

Sustainable development is now internalized in most long term strategies of global, regional and national bodies which are preoccupied and involved in decisions with impact on the future. Nevertheless, it is not the only vision about the future. A number of scholars and organizations shaped their own visions, although these did not have the same impact on policy making. From these, there were selected for our analysis the following: the philosophy of personalism; the new economy; human development; and global village.

#### 2.1 Sustainable development

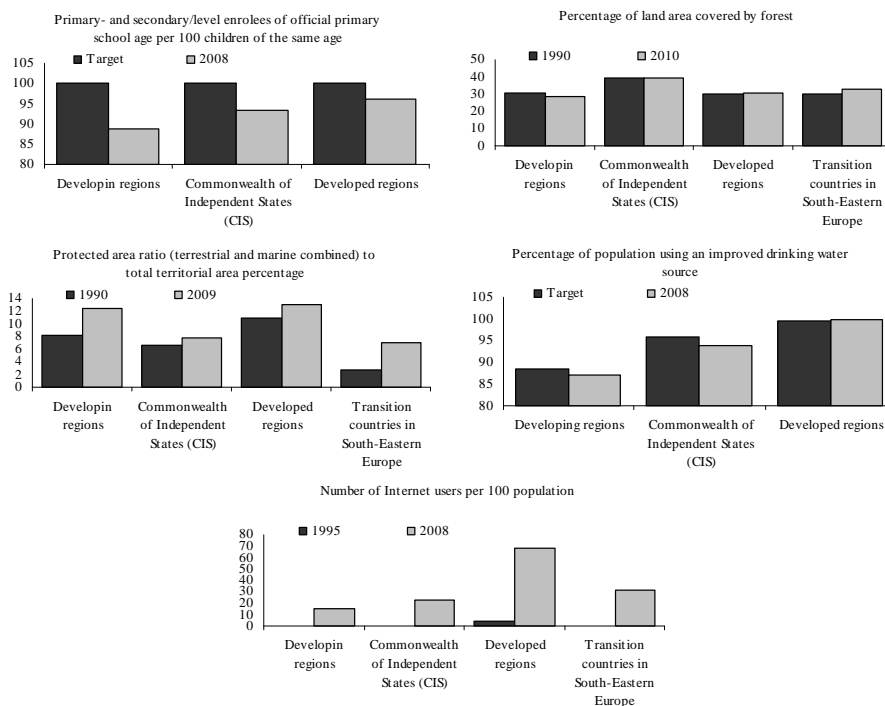
Sustainable development was defined after a wide scientific and political debate on the perspectives of mankind considering the trends of a variety of relevant processes, especially those signalled in the “Limits of growth” report, namely: population, food production, industrial development, resource use, and pollution. The results were synthesized and published in 1987 in another well known report – “Our common future”, coordinated by Gro Harlem Brundtland, chair of the World Commission on Environment and Development. According to this report, sustainable development is the “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*” Although there are various



understandings and tens of definitions for sustainable development, the most cited one is the original definition (Rojanschi and Bran, 2002).

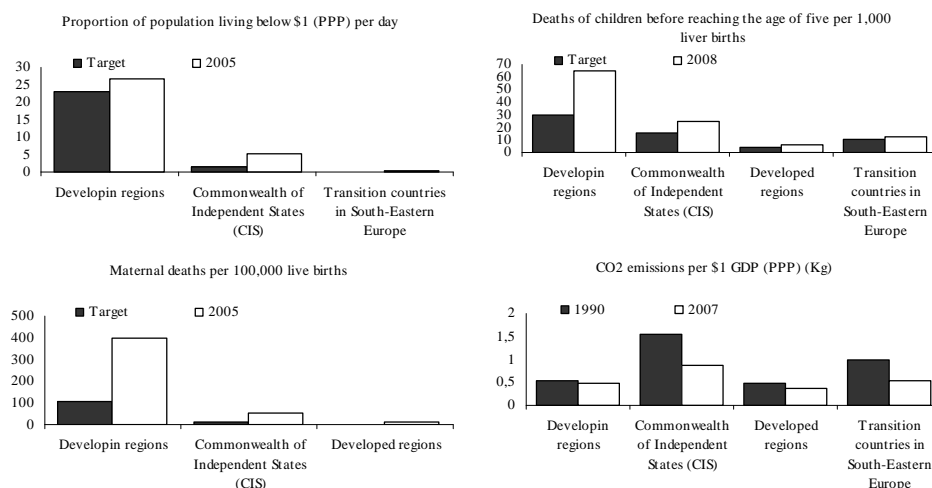
Achieving sustainable development raises many challenges even for the most developed countries. In case of developing regions, the meaning of sustainable development is rather a minimum development level that could be understood as interest in providing equity within the present generations. Some figures on the progress toward sustainable development are synthesised in the graphs presented in figure 1 (indicators with values to be enhanced) and figure 2 (indicators with values to be reduced).

**Figure 1: Progress toward millennium development indicators (1)**



Source: UN (2010) *The Millennium Development Goals Report 2010*. [www.mdgs.un.org](http://www.mdgs.un.org), 10.01.2011.

**Figure 2: Progress toward millennium development indicators (2)**



Source: UN (2010) *The Millennium Development Goals Report 2010*. [www.mdgs.un.org](http://www.mdgs.un.org), 10.01.2011.

These indicators were selected on a random basis, aiming to have insights on most of the development goals. They provide enough information to construct a very general opinion about the progress toward sustainable development. Thus, the following observations could be formulated:

- Many goals are missed in the developing world, and for some indicators the distance to the target is significant (under-five mortality, maternal death, school enrolment);

- Environmental progress is better than the social one, since environmental indicators (percentage of forest area, percentage of protected areas, carbon dioxide emissions) record the appropriate trend for almost all regions;
- Technological transfer takes the lead in terms of changes for all regions.

In other words, development takes its expected course, having a higher path in developed regions and with developing countries struggling to cover huge gaps by using more or less advanced technologies. Therefore, “satisfying the needs of present” is a condition that is not met yet.

**2.2 The philosophy of personalism**

This philosophy puts man in the centre of preoccupations about the present and the future of the world. Man is the carrier of cultural and spiritual aspirations of a national space and is an actor in a long term social project. The supreme value is personality and society should be organized as to allow the best possible opportunity for self-development (Flewelling, 1943). This philosophy is underpinning the European construction, and from this perspective development is understood as a series of stages from less human to more and more human state.

According to this view, ethical and moral considerations are first to be addressed. Thus, in case of environmental degradation, what we owe to others take precedence to questions of utility. For example, in case of ecosystem service providers, the poor status of ecosystems on somebody’s land is considered a negative externality for that the owner should pay according to the polluters-pay principle. This interpretation is opposing the underlying logic of “payments for ecosystem services”, tool in which a lot of hope is invested for preserving or restoring natural heritage. Fact is, the tool considers the land owner as a provider of positive externalities, who should receive payments for his effort from the ones who ecosystem services’ beneficiaries (TEEB, 2009).

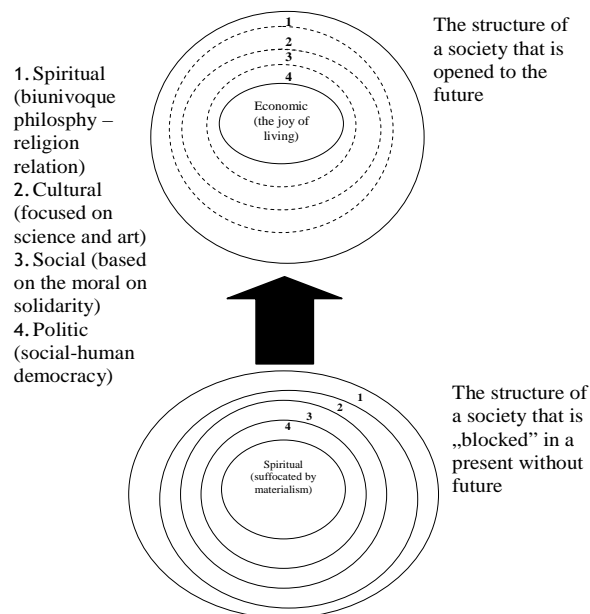
In a political framework, persons take precedence to systems or structures. In an era in that human resources are marketed on global level, with little understanding of their cultural and psychological background that built their system of values, personalism is an attempt to defend the reality of persons.

Rădulescu-Motru (1936) had an important contribution in the development of this philosophy by defining national vocation and national interest as decisive guidance for the success of strategic goals. Eventually, the philosophy of personalism targets human wellbeing and dignity by the organization and management of economic activities (Zuniga, 2001).

**2.3 The new economy**

The new economy results by a number of changes in its structure and goals as it is represented in figure 1. The joy of living replaces the obsessive goal of material status (money, goods), while political interest leaves room for spiritual criteria (Georgescu-Roegen, 1994) to integrate humans in space.

**Figure 3: Changes in the structure of the society in the new economy**



Source: Bran, F., Manea, G., Rădulescu, C.V., Ioan, I. (2011) *Supraviețuirea – paradigma unui viitor durabil*. Bucharest: Economică Publishing.

. The new economy is expected to facilitate and incentivize the integration of economy in the social dimension, freeing it from the tutorial or dictate of politics. In this way it could make a balance between positive and normative in a social economy, leaving behind a materialism based world which is very resource demanding and constructing a future “consonant with the large hermeneutic truths” (Ionescu, 2009). Further, the new economy makes the transition from the present society in which spiritual aspects are considered of minor importance toward a society where economy serves the joy of living beautifully.

The examples of China and of the so called Islamic countries show that there are various formulas to achieve development. Thus, in China a combination of centralized and market economy create an accelerated growth, with two digit annual rates. In the Islamic countries, economies are underpinned by religious norms

#### **2.4 Human development**

This vision was developed by UNDP and it focuses on the role of governance as guarantee for the application of a development strategy that is sustainable over a long term. Another important premise of the concept is to be found in terms of human rights. Thus, development is inalienable human right, representing a fundamental freedom of humans. These rights are not inflicted on persons, but on nations that could exercise their full and complete sovereignty on natural resources with the goal of social and cultural development.

Four components are essential to make viable humane development:

- Productivity: it should be enhanced and all active population should be involved in the generation of incomes, since economic growth is a subsystem of human development;
- Equity or population’s access to decision making;
- Sustainability: the equity’s significance should be applied for future generations too. All forms of capital (natural, social, human, manufactured etc.) should be preserved;
- Participation: human should be involved in both decision making and application.

The premise to achieve human development is to reshape economy in order to eradicate poverty and satisfy basic human needs: employment, food, energy, water, housing, and health. National governance is the means to do this by integrating national interests, national identity, culture, vocation and the capacity to adapt to the “world trends” in production, knowledge, culture, arts. National governments should permanently seek to harness the interaction between domestic resources and international needs in the benefit of national interest.

#### **2.5 Global village**

The concept of “global village” was launched by Marshall McLuhan in 1966 as an attempt to cumulate the effects of globalization with the ones information technology revolution in the benefit of economic development. The positive effects which were envisaged are:

- Compression of distances among humans and nations;
- Harmonious integration of financial and economic markets and internationalization of production;
- Easing physical labour, reducing production time;
- Increased mobility of labour;
- Global governance and constitution.

Since these effects are far from being accomplished in the already globalized and highly information society, the global village seems more like a utopia. Fact is the real effects are:

- Power monopoly: among the 100 large powers from the economic space of the world, 51% are transnational corporation with strategies, philosophies, management shaped by private interests;
- World governance is facing more and more difficulties in addressing challenging and pressing issues like poverty, inequities, food shortage, water deficit, and climate change (Najam et al., 2006).

The *Homo globalis* should act as a global citizen, who cares about its “village”, giving attention to the interests of his successors. *Homo globalis* was thought as a replacement for *Homo oeconomicus*, a “species” that acted only in accordance with the economic rational.

### **3. Measuring wellbeing**

There are various visions on the future, dominated by sustainable development. Its achievement is monitored by a number of indicators established after a long and animated process coordinated by the UN Sustainable Development Commission. A worldwide monitoring is available for MDG indicators, while the others could be found in various databases. The indicator systems were developed using various conceptual



models for grouping indicators. Pressure-state-response (PSR); economic, social, environmental and institutional; and economy, environment, equity, institution (3EII) are the most well-known models.

The fact that wellbeing is determined not only by material status (incomes, housing, food etc.) is well-known. Nevertheless, none of the above mentioned systems considers this aspect. Thus, development is measured by quantifying its material support based on the assumption that between material support and wellbeing there is a positive correlation.

Preoccupations to find a measure for wellbeing are burgeoning since the early criticism on the use of GDP as proxy. Wesseling et al. (2007) identify three underlying philosophies, as it is represented in figure 4.

**Figure 4: Three philosophical views on wellbeing**

Resources as inputs or means for an individual's choice for wellbeing	Capabilities: the freedom to achieve valuable doings and meanings	Happiness as ultimate outcome (end) of quality of life
Associated indicator: Gross Domestic Product	Associated indicator: Human Development Index	Associated indicator: Happiness

Source: Wesselink, B., Bakkes, J., Best, A., Hinterberger, F., ten Brink, P. (2007) *Measurement Beyond GDP*. Background paper for the conference *Beyond GDP: Measuring progress, true wealth, and the well-being of nations*. [www.beyond-gdp.eu](http://www.beyond-gdp.eu). 15.01.2011.

Wesseling et al. (2007) based on a policy cycle framework identify a number of possible ways to improve the significance of indicators in policy making. These ways are:

- Development of indicators sets with a small number of high-level indicators with a strong signalling function;
- Application of existing aggregated single-number indicators in a forward-looking manner using present day and future modelling capacities;
- Improvement and implementation of the Integrated Environmental and Economic Accounting (SEEA) system;
- Including economic risks of ecological decline in economic outlooks, even if they cannot be quantified and monetised with certainty;
- Conduct quantitative and qualitative surveys of emerging concepts like quality of life, life satisfactions, well-being, and happiness.

Giovannini et al. (2007) also provides a range of options for measuring well-being and societal progress. They considers that beyond GDP, there are alternative measures for well-being that could be captured by using social indicators, monetary measures of economic resources adjusted considering a number of influences that could be expressed in monetary terms (net transfers from abroad, capital consumption, economic resources of households) or not (wellbeing in leisure, wellbeing and household size, inequality in the distribution of economic resources, wellbeing and environment), and considering the wellbeing-happiness relation. By analyzing data on subjective wellbeing and GDP per capita, the authors conclude that although there is a positive correlation between income and wellbeing, the difference in income is not proportionally mirrored by the differences in wellbeing. Furthermore, the influence of personal incomes on wellbeing is weaker than the influence of factors such as employment, family relationships, health and education and income inequality.

The Rome Conference on Measuring Happiness (2007) reached similar conclusions, as follows:

- Happiness measures cannot replace existing quantitative measures, but they should be used to integrate more traditional indicator sets;
- The use of subjective measures of happiness is more interesting and useful in the context of micro-econometric analysis or policy impact models than for country rankings;
- The research on happiness is a serious stream of work and its data needs should be an issue to be addressed by statistical offices;
- In the near future the subjective measures of happiness will be of more and more interest in policy making fostering research on taxonomies and good practices.

Saamah et al. (2007) from the New Economic Foundation (NEF) adopted a more straightforward approach by constructing and analyzing the status of a composite index: Happy Planet Index (HPI). The underlying philosophy of the index is that the raises in incomes do not produce automatically an increase in wellbeing. It also presumes that wellbeing is possible without excessive resource consumption.

It is calculated based on three components: life expectancy, life satisfaction and ecological footprint. The scores of these components outline three levels (good, medium, and weak). Finally results six categories: all good, two good and one medium; one good and two medium; three medium; at least one weak; and two weak.

The index measures the relative efficiency with which nations convert natural resources of the planet in long and happy lives for their citizens. The highest values indicate the nations that manage to provide long and happy lives without over-exploiting resources.

For now, HPI is the most available alternative measure of wellbeing, since NEF prepared a report based on the hierarchy of more than 150 countries. According to this, no country is in a first category; Central America's countries are in the second group, occupying the first positions. Romania has all three components in a medium interval, with a total score of 43.9. USA and Sub-Saharan Africa are situated in the "red" zone with two weak components.

#### 4. Perspectives on the separation between wellbeing and material wealth

The evidence that there is a difference in proportion for changes in incomes and wellbeing confirmed a number of expectations that could be tracked far in history. The perspective of the separation between material support and wellbeing is in fact a century old aspiration, although the interpretation given in religious contexts ignored equity. Thus, Christians launched the discourse of non-material accomplishments and denied the values of the material world in the name of love and other highly appreciated feelings. It supposed to inflict on all believers, but the interpretations were different from one social class to another. There are voices that consider this discourse as a tool to manage the masses by modelling their aspirations. Similar patterns could be noticed in some eastern religions too.

Najam et al. (2007) considers that the central challenge for environment, in the context of a globalized world, will be consumption, not growth. This idea is based on the observation that the growth of population was accompanied by a more intense growth of consumption. Thus, while between 1950 and 2004 the population doubled, global wood use more than doubled, global water use roughly tripled, and consumption of coal, oil, and natural gas increased nearly five times. In terms of separation of wellbeing from material wealth there is concluded that "ultimately (...) the trajectories of the future will be shaped by our aspiration of what a *good life* really is." The "Our common future" report on sustainable development and Agenda 21 are considered documents that give a vision of this aspiration.

The need to change consumption patterns is already accepted and it entered the sustainable development agenda of international and national bodies as sustainable consumption and production (SCP).

The latest report of UN Commission for Sustainable Development SCP reveals that: several governments are putting in place sustainable procurement policies in both developing and developed economies; the number of enterprises certified ISO 14001 has been rising steadily, from under 40,000 in 2011 to almost 160,000 in 2007; the estimated retail value of Fairtrade stands at around 2.9 billion euro and had continued to grow despite global recession; and environmentally friendly consumer behaviour has increased in almost all countries surveyed in 2008 and in 2009. Nevertheless, the issue is still challenging since resource extraction continues to track global economic activity, with steep growth over the past decades, developed countries ecological footprint continue to expand, and the number of countries running on ecological debt continues to increase.

The European Union also prepared and implements a SCP action plan. Part of these actions are a number of initiative such as Eco-label, Environmental Management and Audit Scheme (EMAS), Green Public Procurement (GPP), Environmental Technology Action Plan (ETAP), Eco-design and Energy related products, European Compliance Assistance Program, Dolceta (Online Consumer Education), Product Environmental Footprint, Corporate Environmental Footprint.

#### 5. Conclusions

The basics of the environmental discourse were reconsidered in this paper, which focused on the significance of growth. Thus, the growth was examined by considering its human dimension, meaning how wellbeing is represented and according to this what the implications for sustainable development are.

The progress toward sustainable development is difficult as it is illustrated by a number of MDG indicators. The main problems are in the fight with poverty, while environmental indicators are recording improvements. Developing countries remain for most of the indicators far behind the targets. Although less debated, there are other visions about the future, and some of them gained representation in regional and

global strategies. Thus, personalism was embraced by the European Union, while UN focuses on human development.

Measuring wellbeing is a more and more pressing requirement in policy making, since it is the ultimate social goal. This challenge was addressed by a number of initiatives, most of them based on the initial criticism of using GDP as proxy for wellbeing. Although many corrections are proposed, action was taken only by NEF, which constructed an index by combining ecological footprint and life expectancy and life satisfaction.

The overarching issue of wellbeing in poor material conditions is reconsidered in the current environmental policy. The need to limit consumption or to delink it from growth is the basic idea on which the current vision of sustainable development is constructed. Thus, achieving wellbeing does not mean to drop modern life, but to be more aware than consumption and production decisions are made. Since at international and European level there are a wide range of programs aiming to dematerialize consumption, the perspective of separating wellbeing from material wealth is realistic, but it should be regarded as part of the manifold solutions and changes required by sustainable development.

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## CONSUMER'S BEHAVIOR IN THE GLOBAL WORLD

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**Abstract:** *The economic reality is governed by differentiation and diversity principles. Defining the consumer's behavior in the present stage of globalization, but also in the context of the economic crisis at a planetary level is an exercise of perseverance in what concerns the quantification and qualitative evaluation efforts of the individual, collectivity and social dimensions. It would be an error to break the bonds between the consumer's and producer's theories, which is one of the most present interpretative connotations of the consumer-producer behavior. It is in fact the recognition of the way consumer's respond to the diverse stimuli the companies use to achieve the profit goal.*

*Without any doubt, the consumer's behavior is a constantly open field, in theory but also in practice, because it coincides with the complex mechanism of transforming the needs into demands, and then into consumption.*

*Due to the eco-social life complexity and to the occurrences that characterize the twentieth century, studying and analyzing the consumer's behavior, according to some models (theoretically established) proposes new interpretations. Ignoring them can have consequences at the human level, but most importantly in the global development of the society and individual.*

**Key words:** consumer's behavior, globalization, theoretical models

**JEL classification:** B0

### **1. Beyond the eco-social problem**

There are many complex writings, which approach different angles and appreciations on the theme of consumer's theory, but precisely because the theme is so complex and rather obliges us to new approaches than imposes any limitations, the present study offers an additional contribution to this problematic.

Never enough for a debate in what concerns the consumer's behavior, this distinctive domain of economic theory continues to emanate a special attraction (both theoretical and practical). This attraction is stimulated by new interpretative paradigms, due to the different proportions in which the subjective and objective perspectives blend.

The present study doesn't propose a presentation or a plead for the importance of the consumer's behavior theory. The intention is to present a brief revision and analysis of the *main consumer's behavior theoretical models*, through time, and to search for explanations to determine the model that suits the present global economic situation of crisis. In other words, which consumer's behavior model suits better the present eco-social condition.

In the first place, consumer's behavior has an economic component. That's why the analysis is based on the interpretative economic mechanism, interrelated with the social side of the individual, through the economic effects of consumption over the social.

Under the influence of objective and subjective factors, consumer's behavior expresses the choice and then the decision. The globalization of production and consumption leads to the disappearance of distances borders between feelings and ideals of individuals. The economic growth, competitiveness, the desired wealth, the openness of the markets with their advantages, will turn into positive effects at a global scale. Nevertheless, there are also disadvantages: the gradual penury of resources, the rise of poverty on some big regions, the erosion

of the state's functions, endangering tradition and culture, questioning economic sustainability, and so on.

A vast chapter of our day to day life is marked by inefficient utilization of resources. We appreciate that the present is characterized by an abusive behavior in what concerns the rational usage of the environment. We can now see that the ambition and vanity of having more, as quickly as possible, have dramatic consequences on future generations.

In the present economic context there are two distinct areas concerning the analysis of consumer's behavior. These are marked by the two economic processes with distinctive social and political implications: globalization and the economic crisis. Therefore, we can talk about a *globalized consumer behavior* and a *crisis restricted behavior*.

What marks this double approach is the proper observation that man has to choose between maximizing utility in consumption and budgetary restriction that obliges to a real rational estimate.

The choice will lead to a certain consumption attitude. The consumer's behavior during the economic crisis will adapt to the budgetary restriction. The choice will be towards products that resonate with the buying power rather than towards the goal of maximizing utility.

Although the theoretical core of consumer's behavior is *economic utility*, consumption is represented by an ensemble of decisions that modify according to the general manifestation of the offer on the market, and to the general conditions that favor a certain choice. The existence of **global products** labels and the difficulty of procuring products and services during the crisis, are in the end the factors that arbitrate consumption.

Without all peradventure, the economic changes determined by globalization, by the eco-social European integrity, by the effects of the economic crisis, have a decisive influence over the mentality of the individual, of the social groups and of society itself. The ways of manifesting mentality takes the form of attitude, and this materializes into behavior. Hence, to look for the essence of these behavioral changes is to unravel the secrets of the individual mentality, of the influence factors, of the mechanism that govern and activate its attitude.

## 2. *Consumer's Behavior's Models. Are analogies possible?*

Over time, the evolution and development of human society were marked by preoccupations for the most diverse domains with implications on the individual and its consumption capacity.

The problem of wealth in the postindustrial society was a constant preoccupation in the scientific and economic world (the nineteenth and twentieth centuries) generating a profound change of the living style; this became one of the major concerns of society and the individual. The tensions that arose as consequence to the modification of the social structure, to the gradual but persistent polarization, led to essential, unpredictable changes in people's lifestyles.

From a historical point of view, the consumer's behavior models were not *formulated*, but rather *contoured*, after studying a certain area of scientific interest. That is why they wear the mark of the scientific research area specific to the researcher's specialization. The approaches belong to an economist, a physiologist, a psychoanalyst, a politician, an economic-sociologist, a mathematician, and the results of these approaches and interpretations bare the specific of the research domain. This is how many points of view and leads took shape in what we now call *the consumer's behavior theory*.

Within the timeframe, **Thomas Hobbes (1588-1679)** an English philosopher and politician, revolutionary stood for materialism, in particular that of the human nature.

"Courageous" predecessor of the institutional economics current, in his vision individual behavior is influenced by groups and institutionalized collectives. These express interests that are sometimes at conflict with individual interests. Related to the present this consumer behavior denotes certain subjectivity, because the loyalty of the individual to a company has limits that are imposed by personal motivations.

**Alfred Marshall (1842-1924)** an English economist, analyzing the demand-offer and price formation mechanisms, arguments consumer behavior relying on the economic factors.

In his choice, the consumer will only keep in mind one factor: the price, the rest of them being considered „caeteris paribus”, impossible situations in reality. This approach, being the closest to the economic essence of consumption, is still pertinent to our times. The budgetary restraint forces the consumer to choose according the principle of maximizing utility.

The economic crisis as well as its other effects on the eco-social agenda, determines the consumer to rationalize his options, making the capacity of satisfying his needs according to his income primordial, as opposed to simply satisfying his needs. Although the diversity of offers, qualitatively perfectible is attractive to the diversification of consumption, the effects of unemployment and inflation limit the options and put the consumer at difficulty. The fact that Marshall considers the price the most influential factor is verifiable in the context of the economic crisis.

**Pavlov Ivan Petrovici (1849-1936)** a russion fiziologist, analyzes the reflex behavior of the consumer. The behavior model he proposes is exclusively subjective, and essentially relies on the response of the consumer to impulses, suggestions and the human factors.

This is the why nowadays products and services commercials are not based on sensitizing linearly but equally the consumers. In this conditions, the globalized product, material effect of the globalization has the power to reunite, through the attraction force, large masses of consumers that uniform through that consumption. We estimate that in the present, the impulse and suggestion of an option, oriented towards a certain type of product or service, is the benefic (Is it?) effect of globalization. Nevertheless, suggesting that

an online material offers the advantage of time is totally wrong. The impulse of intaking already selected products, not always rationally, has negative effects over the exercise of cognition and scientific evolution. Searching and discovering have their own price.

**Sigmund Freud (1856-1939)** psychoanalysis pioneer, studies the human behavior under the influence of motivations, wishes and conflictual feelings.

In this vision, the consumer behaves according to the dominance of the motivational subjectivity. He will choose to satisfy his needs influenced by the usefulness he will feel after consuming.

The utility prevails in the decision process. Likewise Pavlov, Freud analyzes behavior exclusively through subjective factors, without placing the individual in an economic context.

Consequently, the economic theory classifies needs after multiple criteria in which the subjective component has a larger proportion. Nevertheless, *attitude* is appreciated as a real psychological effect that manifests through the individual's opinion and takes a behavioral and/or verbal form.

*Asymmetric information* as a characteristic of the imperfect competition market structure will discriminatory influence the buyer's behavior. Seen as a market failure, the asymmetric information is an implied constant in the process of choosing and decision making, equally up to the producer-consumer standards.

That is why we consider that this approach should not be absent from the analysis of the globalized products consumer, in the global economy. Although full of subjectivism, it expresses in essence the *unity through diversity* of consumption.

**Thorstein Veblen (1857-1929)**, American sociologist and economist of Norwegian origins, contributes with a new theory of consumer's behavior that concerns the social effects of consumption.

Supporting the founding of the institutional economics current in social sciences, Veblen analyzed "*conspicuous consumption*" or the leisure class consumption. Furthermore, his book *The Theory of the Leisure Class* makes a critical presentation of a social class that leans towards luxury consumption and tries to gain and signal status through wealth. His criticism is aimed towards upstarts based on less economically correct means of enrichment, and points out the changes of social structure as a consequence of craving for prestige.

Comparative to the consumer behavior models based on internal subjective factors, the veblenian model is based on factors that are external to the individual. In our opinion this behavior can be found, frequently, in the countries that have passed to the market economy. Functioning under a centralized dictated, compulsory, uniform and equal consumption for a long time, the present consumer of this geo-socio-economic and political space finds a way to stand out through something else than the ordinary. The present polarization has destroyed the middle class, and has marked a social structure with very poor and very rich individuals. The ladder, after Veblen's model, manifests their wealth with any occasion, through a supra-dimensioned and evaluated consumption.

It is, in fact, one of the realities that our present society confronts with, in which at many times the non-human value reasons are primordial.

*The "Proconsumers" of Alvin Toffler* represent, in the American's sociologist vision a new aspect of the consumer's function (the term of prosumator was used for the first time in 1980, by Toffler in *„The Third Wave"*). In his opinion all individuals who create goods, services, experiences, not for selling or exchange, have the quality of producing and consuming at the same time. Toffler points out through this exact wording that production and consumption are inseparable: "The production of prosume is the founding stone of the monetary system".

Starting 1979 the consumer's theory received a new orientation according to **David Kahneman** (Nobel Prize for economy) and **Amos Tversky**.

The "*Prospect theory*" founded by the two researchers, opens a new area of interpretation of consumer behavior, according to the psychological motivations of the individual. The old theme of consumption factors described by Pavlov and Freud is brought back. It is certain that the mathematical psychology studies of Amos Tversky have fundamentally contributed at this new interpretative orientation.

Kahneman, wishing to point out the psychological side of the individual facing a decision, expressed the paradox of the individual that is happier when the stalk market loss is smaller then when the gain is higher.

The prospect theory continues to magnetically attract the attention of specialist in interdisciplinary areas. Maybe because the position of the consumer interests and motivates the actions of the producer. Maybe because the producer's decision (the offer) depends in any situation on the consumer (the demand).

### 3. *The global product's chances*

The natural question is: does the economic crisis modify the consumer's behavior?

The analysis of the consumer's behavior also implies the globalization effects towards the globalized products consumer. A interfering of the theoretical context of consumer's theory with the practical study of globalized goods production extension on a global market is imposed.

The approach is *an example and a way of adapting the theory to the social client behavior theory, in the globalized market space.*

The distinction between the theoretical and the practical approach has always been a delicate exercise. Maybe because the road from normative to positive implies risks, made into real disputes between theory and practice. Furthermore, in the context of the economic tempest caused by the present crisis, the economical phenomenons gain unexpected connotations, if we are to think about the probability of unforeseen situations.

The consumer's universe is in fact the universe of collective passions. To understand the mentality, tendencies, attitude, behavior and state of mind of the human collectivity, becomes a fundamental object of the economic science that proposes and formulates dynamic action and evolution directions.

The considerable diversity of offer opens the gate to temptation for the early adopter consumer. In this case, studying the consumption behavior in alternative situations, demonstrated the interest for *the new global approach.*

This time, the consumer's behavior is analyzed in correlation with the behavior of the producer and the trader.

For the present analysis I impose facing but also settling the conceptual borders between two fundamental categories. These are *citizen-consumers* and *consumer-citizens*. Let's take note in this case, that in a global world, the cultural global values are extending and will be borrowed from a collectivity to another without the concern for geographical frontiers, suppressed through globalization.

Exposing the advantages and disadvantages of globalization through the perspective of consumerism, we underline that introducing the BIOETHIC component in the process of relating the individual to the global space implies urgency concerning *"the morality of progress"*.

It is welcomed that we remember Plato's dictum: "Morality cannot feed with failure".

In our present world, marked by the influence of profitable decisions, we seldom forget that morality doesn't always bring the expected satisfaction. The opportunity cost of the decision will be the weigh between morality and profitability.

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## ANALYSIS OF ACCESSING EUROPEAN FUNDS FOR AGRICULTURE AND RURAL DEVELOPMENT IN EU MEMBER STATES

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**Abstract.** *The paper aims to analyze the accessing grade of the European funds for agriculture and rural development from all the 27 member states. It is very important to discover which are the countries with the lowest degree of access in order to discover the problems that they are facing and in order to find solutions for increasing the rate of accessing these funds. The expected results of the analysis demonstrate that there is a connection between the degree of absorption of EU funds and seniority of the states within the EU.*

**Key words:** funds, rural development, agriculture, EU.

**JEL classification:** Q10, Q18, Q14

### 1. Introduction

Rural development is a priority at European level given by the rural dimension, expressed through the area owned and by its inhabitants and the proportion of people employed in various activities. Rural areas, by its complex role and scope, area and rural population are a priority for the EU.

Based on population density, rural areas represented 91% of the territory and 55% of EU-27 population in 2007 (Rural Development in the European Union - Statistical and Economic Information - Report 2010). Although economic activities tend to concentrate in urban areas, rural areas in the EU have generated 48% of total GVA and 56% of the workforce employed in 2007 (Regional Accounts, 2007). With 12.2 million people employed in 2009 in EU-27, the primary sector (agriculture, hunting and forestry), representing 5.5% of total employment for the EU-27, ranging from 1% in the UK around 28% in Romania, Bulgaria 20% and 13% in Poland. In terms of added value, the EU-27 in the primary sector reached € 168 billion in 2009 and represented 1.6% of total GVA, ranging from less than 0.5% in Luxembourg to around 8% in Bulgaria and 7% in Romania.

In 2009, EU-27 food industry accounted 4, 8 million jobs (2.1% of total employment) and 1.9% of total gross value added. The EU is the world's largest producer of food and beverages, with an estimated turnover of € 965 billion in 2008.

In 2007, in EU-27 were 13.7 million registered farms. The number of farms is decreasing at an annual rate of 2.2% in the EU-15 and EU-12. The member states with the largest number of holdings are Romania (3.9 million holdings, representing 29% of total), Poland (2.4 million) and Italy (1.7 million). Similarly the number of holdings agricultural labor force decreased by approximately 2.0% per year between 1995 and 2007 in the EU-15. In contrast, the agricultural area used, which amounted to 172 million hectares for the EU-27 in 2007, fell only slightly in the last decade (-0.3% between 1995 and 2007) in the EU-15. Although most farms in the EU are placed in EU-12, more than 70% of utilized agricultural area located in the EU-15 (European Commission, December 2010).

The Romanian rural area and the countries of Central and Eastern Europe (Poland, Czech Republic, Hungary, Slovenia, Slovakia, Bulgaria, Romania, Estonia, Latvia and Lithuania) have a persistent underdevelopment rate thus rural development requires as an objective achieving actions to support the economy and population of these areas.

In Romania and EU countries there are large differences in development levels of rural versus urban areas and between regions. These differences are manifested at a global (overall economic development) and at branch (example agriculture). For example, rural areas in Romania are characterized by an underdeveloped infrastructure, poor social services and housing, as well as by serious socio-demographic pressures, such as aging and low level of schooling of the population. After Istudor (2006), mitigating disparities in rural and especially agricultural ones can be acting simultaneously in two directions:

- Adaptation, modernization and development of rural economy in an integrated and coherent vision, promoting the viable farms and nonagricultural businesses with a strong participation of investors in the country and abroad;

- Promotion of rural development programs to ensure the application of selection criteria in line with the national strategy for sustainable development of rural areas and compatible with those of EU countries.



## 2. European funds for agriculture and rural development in EU Member States

European Agricultural Fund for Rural Development (EAFRD) is a financing tool created by the European Union to assist member countries in implementing the Common Agricultural Policy. EAFRD rural development supports the second pillar of CAP, which was introduced progressively from 1970 and institutionalized in 1997 with the Agenda 2000. EAFRD activity and operations to which it contributes must be consistent and compatible with other Community policies and comply with all Community legislation. This instrument, which was established by Regulation (EC) 1290/2005, the EU aims to strengthen rural development policy and simplify its implementation. In particular, using his control improves system management and rural development policy for 2007-2013.

The EAFRD was allocated a budget of 96.3 billion Euros (current prices) for the period 2007-2013, or 20% of funds for CAP. At the initiative of Member States, the Fund may finance up to 4% of the total amount for each program, measures on the preparation, management, monitoring, evaluation, publicity and control assistance program (European Commission, 2006).

Similar to SAPARD and EAFRD co-financing will be based on the principle of private investment projects. The European funds will be available based on two key documents:

- National Rural Development Programme 2007-2013;

- National Strategic Plan for Rural Development.

The program priorities, resulting in four areas (axes) are:

Axis I "Increasing the competitiveness of agriculture and forestry;

Axis II Improving the environment and rural areas;

Axis III "Quality of life in rural areas and diversification of rural economy;

Axis IV "LEADER."

For accessing this funds, the beneficiaries should provide part of the money needed for the investment, private co-financing from own sources or where from a bank loan if they do not afford differently.

With Romania's accession to the European Union, the Romanian village development is supported by the European Community through the National Rural Development Programme 2007-2013. This is a program to develop the Romanian rural area and is complementary with the operational programs financed from structural funds.

## 3. Analysis of accessing European funds for agriculture and rural development in EU Member States

The access degree of EU funds for agriculture and rural development is the average EU level, over 22% of funds for 2007-2013. A number of countries, both the "old" states and "new" EU members, have higher access rates. According to sources from the European Commission, this is the case especially in countries with the most efficient structures. For example, nine out of 15 EU countries had rates higher than average access: Luxembourg (40.3%), Ireland (38.6%), Austria (38.5%), Finland (32.5%), Belgium (32.2%), France (30.3%), Germany (26.4%), Denmark (26.2%) and Sweden (26.1%).

Of the 12 EU countries were above average just two countries: Slovakia (27.1%) and Slovenia (28.3%). Romania is on the place ante penultimate for payments made to selected projects, up 7.7% to 23.6% which is the EU average. On the last place was Malta, with 6.8% and 7.4% on the penultimate place is Bulgaria.

Unfortunately, the degree of accessing European funds for agriculture and rural development in EU Member States is directly proportional to the needs of countries. As shown, all countries with a high level of development showed the highest percentage. This is due to experience gained by these countries and not least administrative capacity available. For example, Luxembourg ranks first, a country which is one of the six founding members (Belgium, France, Germany, Italy and the Netherlands in 1958). EU's founding members have visited most of the measures of axis 2, namely 211, 212, 221, 223 focus on improving environmental quality and rural areas in particular on support for upland farmers in disadvantaged areas (Germany 39.7%) and support to farmers in disadvantaged areas other than mountain (Belgium 47.5, Luxembourg 45.8%, Germany 37.1%). France has paid particular attention to the measure "first forestation of agricultural land" (100%) and first forestation of non-agricultural land (97.3%) due to forestation national strategic objective.

After the payments reimbursement follows axis 1 with the measures 111, 113, 115, 121, 125 focusing on improving professional skills and consultancy services to farmers and forest owners to increase capacity in dealing with environmental management again. Luxembourg has the highest rate for measure 125 (100%) with reimbursement for improving and developing infrastructure related to agriculture and forestry adaptation and Germany with measure 115 (82.2%) support and management consulting services.

Compared with the founders who have developed a rural area and a modern agriculture, the ex communist countries from the penultimate wave of accessing to EU(2004) and the last wave of accessing to EU (2007) have accessed the particular measures 112, 114, 131, 141. Thus, the accent was placed on the establishment of young farmers (particularly in Hungary 72.6%, Lithuania 71.1%, Estonia 60.4%, Slovenia 50.6%), the use of advisory services (Latvia 100%) compliance based on EU legislation (Slovenia 100%, Hungary 87.1%) and supporting semi-subsistence farms due to their large number (Latvia 60.8%, Estonia 55.9%, Poland 55.6%, Slovenia 50.6%).

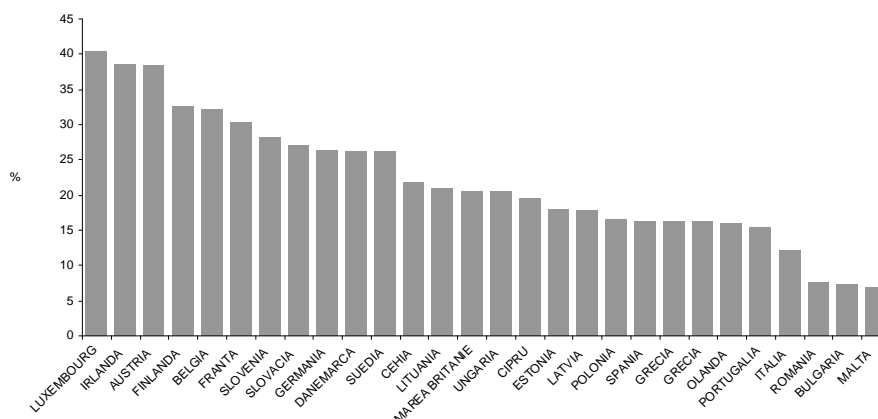
A negative impact for increasing the access to EU funds was the economic crisis which has created problems for applicants and has challenged the authority and capacity to adapt and find solutions in particular in finding sources of financing. At the same time, due to budgetary constraints generated by economic and financial crisis, European funds are a significant source of grant financing and highly convenient for all EU countries.

**Table no.1 The absorption of EAFRD in EU member states**

EU member states	TOTAL PROGRAMME					
	Accomplished		Scheduled		Accessing rate	
	EAFRD	Public	EAFRD	Public	EAFRD	Public
AUSTRIA	1.548.017.290,91	3.102.901.822,47	4.025.575.992	8.018.944.389,46	38,5	38,7
BELGIUM	156.731.660,41	431.462.639,15	487.484.306	1.268.820.162,67	32,2	34
BULGARIA	196.072.724,97	244.304.236,41	2.642.248.596	3.278.771.725,59	7,4	7,5
Czech Republic	623.916.675,70	782.689.198,92	2.857.506.354	3.670.068.291,71	21,8	21,3
CYPRUS	32.458.406,58	64.916.812,96	164.563.574	329.127.148	19,7	19,7
DENMARK	151.220.177,52	284.035.075,06	577.918.796	1.020.912.148,85	26,2	27,8
ESTONIA	129.984.315,45	170.028.294,17	723.736.855	934.950.512,92	18,0	18,2
FINLAND	700.139.908,50	2.418.142.016,82	2.155.018.907	6.825.700.940,11	32,5	35,4
FRANCE	2.297.879.105,38	4.289.981.502,78	7.584.497.109	13.704.267.609,15	30,3	31,3
GERMANY	2.398.066.095,70	4.094.070.584,11	9.079.695.055	14.581.350.800,86	26,4	28,1
GREECE	632.076.796,53	795.582.095,91	3.906.228.424	4.662.066.488,03	16,2	17,1
IRELAND	962.811.828,75	1.766.248.964,67	2.494.542.590	4.509.085.201,70	38,6	39,2
ITALY	1.082.799.323,25	2.202.649.052,07	8.985.781.883	17.642.643.248,56	12,1	12,5
LATVIA	189.084.814,69	229.316.948,68	1.054.373.504	1.211.270.616,27	17,9	18,9
LITHUANIA	369.198.876,77	479.480.653,24	1.765.794.093	2.285.301.176,75	20,9	21,0
LUXEMBOURG	38.293.862,38	164.719.513,37	94.957.826	393.057.902,50	40,3	42,2
MALTA	5.295.215,54	6.693.460,99	77.653.355	101.611.140	6,8	6,6
GREAT BRITAN	952.158.566,44	1.927.252.404,59	4.612.120.420	8.149.052.634,57	20,6	23,7
NETHERLANDS	95.125.785,98	190.235.381,94	593.197.167	1.121.343.667,33	16,0	17,0
POLOND	2.220.073.575,63	2.866.185.013,87	13.398.928.156	17.417.472.995,56	16,6	16,5
PORTUGAL	625.034.274,25	702.645.529,25	4.059.023.028	5.143.971.761,29	15,4	13,7
ROMANIA	626.178.585,91	775.965.913,22	8.124.198.745	10.097.083.732,71	7,7	7,7
SLOVAKIA	541.416.615,98	696.761.906,67	1.996.908.078	2.597.053.716,99	27,1	26,8
SLOVENIA	259.384.388,19	332.095.814,73	915.992.729	1.176.985.582	28,3	28,2
SPAIN	1.310.759.489,30	2.793.235.085,04	8.053.077.799	14.800.483.067,60	16,3	18,9
SWEEDEN	509.066.193,54	1.080.068.526,68	1.953.061.954	4.041.471.551,12	26,1	26,7
HUNGARY	794.244.403,07	1.037.922.366,16	3.860.091.392	4.597.280.691,44	20,6	22,6
European average					22,84	23,64

Source: European Commission, 2011- European Network for Rural Development

**Fig.nr.1 The accessing grade of EAFRD in UE – 27**



Source: on data from European Commission, 2011- European Network for Rural Development

In accessing the EU funds is extremely difficult because of both beneficiaries and the authorities blame. During the pre-accession it has started the administration reform but after accession, the urge to

modernize and streamline their new Member States has diminished. In a study made by the World Bank in 2006 shows that in the new conditions many changes started were abandoned or slowed. The next wave of administration reform, where should be implemented more advanced systems of human resource management, was achieved only partially and sporadically, visible only in some countries. Innovation in public management remains an isolated phenomenon, the function of general coordination of the administration is well below the required levels of advanced systems and does not keep pace with requirements. Also, coordination of European affairs had suffered.

To encourage the recovery of administrative reforms in the new Member States, as in the old Member States, but whose administration has not yet functioned properly at the European Commission's proposal was introduced feature called "**public service modernization**" in the structural programming period from 2007 to 2013.

In Romania, for example, the authorities which analyze the documents for the structural funds face different problems like lack of personal, difficulties both quantitatively and qualitatively, leading to delay the whole process. In addition to these problems beneficiaries encounter financial difficulties in the conduct of projects, requests for reimbursement submitted late, the authorities discover errors or deficiencies in the documents, so they face problems in approving them.

According to a "Study on identification of priority areas for reform of Cohesion Policy after 2013 in view of Romania" (Authority for Structural Instruments in the Ministry of Public Finance, November 2009), to reduce the difficulties arising from the authorities in particular, those coming from the new wave states in the EU but also in other Member States is necessary to create an administrative capacity.

#### 4. Conclusions

The analysis of this fund absorption of EU Member States has enabled us to identify the following problems that lead to a degree of access and reduced absorption:

- Insufficient human resources and, sometimes, poorly financially motivated to the managing authorities / intermediate bodies / authority for certification and payment, including in key functions such as evaluation of projects or verify claims for reimbursement;
- low skills in key areas such as project management, procurement and financial and budgetary management;
- procurement system involving long time due to cumbersome procedures;
- additional costs for project applications (certificates)
- budgetary constraints generated by economic and financial crisis;
- exchange rate fluctuations.

Considering these aspects, we considered some proposals to increase access and absorb the EAFRD. Thus, we believe that the following are required:

- Hiring and training qualified and competent staff at central and local administrative structures;
- Supporting effective cooperation with the private sector and other stakeholders to ensure good management of material and financial resources available to regions of countries surveyed;
- Reducing bureaucracy by simplifying the administrative procedures and the use of modern information technology;
- Increasing information and awareness of the potential beneficiaries of funding opportunities; effective stakeholder
- The use of efficient methods of direct consultation in meetings / debates, public hearings;
- Strengthen monitoring and evaluation procedures EAFRD through which spending the European funds will be better controlled. Transparency in EU funds absorption, the national management and control and auditing requirements are essential prerequisites for successful implementation of cohesion policy objectives;
- conferring further support from local and regional authorities in order to increase the efficiency of public administration and services for developing new forms of cooperation between regions and between partners in a region where the efficiency of alternative agricultural and rural development activities;
- Cost management and management time required for programming, management and monitoring should be based on programs and projects for following the principle of proportionality;
- Simplifying the financial management systems, control and audit is welcome, but they retain a high degree of complexity for further improvements. Current systems can still be reviewed to identify

opportunities that can be simplified while maintaining high standards of financial control while minimizing administrative tasks;

- Improving management system by reducing the number of targets and regulations, implementing the principle of "one fund, one program", reducing the number of rules for the allocation of funds, the introduction of greater flexibility in eligibility;
- Continue to promote and disseminate good practices in Member States should provide additional motivation for potential beneficiaries to access these funds for closer cooperation between EU partners;
- For the less developed rural areas, enhancing the absorption capacity through all available tools and guidance available resources to sectors with growth potential, are essential prerequisites for promoting their sustainable development;
- Reducing legal barriers to access and impact on the rate of absorption of EU funds, etc.

These interventions correspond to several categories of stakeholders that can influence the process of accessing European funds in general and especially this fund. However, it is important to note that the involvement of local authorities and rural development program management can bring significant changes which contribute to a positive perception of EU support and motivate potential users to form and develop the skills necessary to obtain this support.

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## RESPONDING TO ECONOMIC CRISIS WITH SOCIAL SECURITY

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**Abstract:** *The current crisis has highlighted the importance of having a minimum set of social security benefits for all in place. Social security plays an important role in times of crisis, including the current one, as an “irreplaceable economic, social and political stabilizer” that provides income replacement and helps stabilize aggregate demand, without negatively effecting economic growth. The international community should not just repair the problems identified by the crisis in global financial, monetary and economic systems, but should be advocating and supporting the development of social protection floor to protect people during the crisis, and thereafter. Unfortunately, romanian government is trying seriously to dismantle the welfare state under the pretext of economic imperatives of the crisis, ignoring the conclusions of international organizations.*

**Key words:** social security, crisis, benefits, social policies, sustainability

JEL classification: **H12**

### 1. Social security in economic crises

**Social security is a basic human right** (International Labour Conference, 2001)

In 2009 the International Labour Conference (ILC) dealt prominently with the economic crisis and its impacts. As one of its results, it developed the Global Jobs Pact, a frame for appropriate reactions to the crisis. The pact calls for the extension of social protection to all, for a social protection floor and even more concretely for the introduction of cash transfers in order to meet the urgent needs of the poor. The tripartite conference of governments, employers and workers representatives jointly reiterated the importance of reinforced efforts to extend social security in times of crisis.

The UN Economic and Social Council (ECOSOC) has expressed its support of the Global Jobs Pact, and encouraged the UN Member States to make use of it as a framework for crisis response. It also calls on the UN agencies to take the pact into account in their policy decisions (ECOSOC E/2009/L.24). Also, the G20 at their Pittsburg meeting in September 2009 have reiterated their collective responsibility to mitigate the social impact of the crisis and assured that all parts of the world shall participate in the recovery. Furthermore they have confirmed their will to continue assisting in the construction of safety nets.

Other initiatives come from the UN system, in which a coalition of different international organizations has been set up. Under the slogan “responding as one” it has formulated nine responses of the UN system to the current crisis, among which Initiative VI: “A Social Protection Floor” stands out that advocates the universal introduction of a social protection floor. It calls for the basic social security guarantees as listed above, which are to be complemented with access to social services such as education, water and shelter. The ILO in collaboration with the WHO remains one of the driving forces behind this coalition and behind the concept of the social floor itself. Each of the participating organizations has committed itself to push for the realization of the social protection floor in its own thematic field of work, in close cooperation with the other agencies causing synergy effects: The WHO for example works on the extension of health systems with the support of the World Bank and the ILO, to provide more of the vulnerable with financial protection in case of ill health. Another example is the World Food Program (WFP), which is engaged in school feeding programs.

**The “World Social Security Report 2010-2011: Providing coverage in times of crisis and beyond”** says that social security plays an important role in times of crisis, including the current one, as an “irreplaceable economic, social and political stabilizer” that provides income replacement and helps stabilize aggregate demand, without negatively effecting economic growth.

“The current crisis has highlighted the importance of having a minimum set of social security benefits for all in place,” says ILO Director-General Juan Somavia. “This is why we advocate for social security and a global social protection floor. This report shows that building adequate social protection for all, drawing on a basic social protection floor, as called for by the ILO Global Jobs Pact, is now more urgent than ever”.

The ILO study also warns that cutting social security due to fiscal consolidation aimed at coping with increased deficits and public debt “may not only directly affect social security beneficiaries and consequently the standards of living of a large portion of the population but also, through aggregate demand effects, slow down or significantly delay a full economic recovery”.

In addition to the World Social Security Report 2010-2011, the ILO has also issued a new publication: “Extending Social Security to All: A guide through challenges and options”. The 140 page-parallel study provides the policy framework for establishing adequate social security for all as well as an analytical synthesis of recent policies in this field around the world. It also concludes that – since effectively extending social security to the population in need brings positive social and economic impacts – some level of social security can be afforded anywhere assuming political will is in place.

„Social security serves many purposes for individuals, businesses, and the state. It helps individuals to smooth consumption over the life cycle and during macroeconomic downturns, it facilitates job mobility and job matching, it supports human capital formation for long-term growth and, by acting as an automatic stabiliser, it facilitates economic stability” (Townsend 2009). „If well-designed, social security spending does not only address immediate needs but can also translate into better crisis preparedness and better social policy in the future” (Islam and Chowdry, 2010).

With the implementation of adjustment programs in many countries, the debate has shifted somewhat, from an emphasis on short-term safety nets to one on appropriate macroeconomic policies coupled with longer term investments in health and education. Recent research exploring the long-contested relationship between inequality and growth has found that investment in longer term social welfare policies, education in particular, has positive effects on growth and therefore poverty reduction. (MacArthur Foundation Program in International Security, Working Paper Series. Paper presented at Harvard-MIT-MacArthur Seminar).

Data presented by Prasad and Gerecke in their paper „Social policy in Times of Crisis” (Prasad and Gerecke 2010) shows that social security spending generally increases during and after a crisis. During a crisis, average un-weighted global spending on social security increases, changing from 6.3% of national GDP for the three years before a crisis, to 6.7% during the crisis year and finally to 6.8% for the three years following a crisis. The relative share of spending on social security also increases, with the unweighted global average moving from 20.8% of total expenditure before a crisis to 21.6% during a crisis year, and finally to 22.3% for the three years following a crisis. (Source: Estimates based on IMF 2007 Global Finance Statistics and Global Development Network Growth Database, GDP from World Development Indicators 2008, OECDStat for OECD countries, ADB Key Indicators for Asian countries).

Social security is by no means a marginal need of people. Human beings are by nature risk-averse and place a high value on safety and security. “People desperately want security – at work, in the family and in their neighbourhoods. They hate unemployment, family break-up and crime in the streets. But the individual cannot, entirely on his own, determine whether he loses his job, his spouse or his wallet. It depends in part on external forces beyond his control” (Layard, 2005). Feeling secure is strongly related to the trust people have in other people, in their community, in their society and in its institutions.

The effects of the crisis may thus be irreversible and deteriorate individual and collective future perspectives. Additionally to the individual’s plight in coping with losses in income, deteriorating health conditions and lower enrolment in schools have long term negative impacts on the economic performance of the workforce. This circumstance creates a downward cycle: lower investment in education and health care leads to low performance that eventually leads to more poverty and marginal development gains in a given society.

One way to brake this vicious cycle are social security schemes that enable, often for limited periods of times, households and individuals to bridge the difficulties and maintain their standard of living. First of all, being a human right social security is one of the core obligations of states and thus enshrined in international law, as expressed in Art. 22 and 25 of the Universal Declaration of Human Rights (UDHR) and Art. 9 of the Covenant on Economic Social and Cultural Rights (CESCR).

Social security is more than financial support, it creates opportunities for economic activity grow with the accumulation of human capital. The realization of extended social protection for those parts of the population who are most probable to suffer from deficits in health and education services, are a crucial investment as it leads to a higher productivity of their work. In the long run, the cost of providing at least basic social security benefits may be overcompensated by positive economic effects enhanced by productivity gains.

## 2. Social security, key-concepts

ADB ( <http://www.adb.org/SocialProtection/default.asp>.) (Asian Development Bank) defines social protection as “the set of policies and programs designed to reduce poverty and vulnerability by promoting efficient labor markets, diminishing people’s exposure to risks, and enhancing their capacity to protect themselves against hazards and interruption/loss of income.” For ADB, the scope of social protection is given by the following five areas:

- **Labor markets:** Promoting employment, promoting labor market efficiency, protecting workers
- **Social insurance:** Coping with risks of ill-health, disability, old-age, unemployment, work-related injury
- **Social assistance:** Redistribution to most vulnerable groups such as single mothers, the homeless, the physically and mentally-challenged
- **Micro- and area-based schemes:** Programs with subnational geographic scope such as microinsurance, social insurance, social funds, programs to manage natural disasters
- **Child protection:** Programs to promote the healthy and productive development of children.

ADB gives explicit recognition of the role of social protection in promoting inclusive economic growth, one of its three primary agendas in Strategy 2020 and has chosen, among the higher-level outcome indicators that it will use to gauge its effectiveness, indicators like absolute poverty, population hunger, primary completion rate, gender ratios in enrollments at all three levels of education, and the child and maternal mortality rate. These are precisely among the class of indicators that social protection activities are—or ought to be—designed to improve. **As a consequence, we can say that social protection is relevant to growth, but that it is part of an effective response to the global crisis.**

Such social protection policies play a critical role in responding to economic crises and sustainable development in many ways:

- the income replacement effect for the newly vulnerable. Social protection provides financial resources to individuals and households whose financial resources are depleted by the crisis, mostly through lost work. These transfers dampen the impact of the crisis on their expenditures and therefore on the well-being that results from these expenditures.
- since social protection transfers are supposed to target the poor and vulnerable, it is likely that the recipients of social protection transfers have a high marginal propensity to spend these transfers relative to non-recipients. Their spending, through the traditional Keynesian multiplier, raises the incomes of other people in the economy.
- social protection transfers to financially constrained household minimize the pressure upon these households to halt investments in the human capital of their children, particularly in health and education. Thus social protection transfers contribute to long-run human capital accumulation in the economy as a whole and therefore improve the prospects for long-term economic growth.
- sociopolitical stability, by mitigating inequality in income distribution and by maintaining sociopolitical support from groups adversely affected by the crisis. "No sustainable economic performance is possible without social cohesion"(CES/11/33)
- the growing belief in the development community that a proper response to this crisis is to rebalance growth, that is less dependent on external demand and more dependent on domestic demand. social protection redistributes resources to segments of the population with relatively low consumption expenditures and can therefore contribute to stimulating long-term domestic demand.
- crisis may be an opportunity for increased priority for social protection, in particular due to increase fiscal space for social protection. Crises allow countries to reduce or remove ineffective policies in favour of equitable ones that promote long-term growth and better risk management. In the past, many countries have capitalised on this opportunity and successfully exited from their crises while also improving their policy frameworks in the long term.

Looking historically, crises have played defining roles in developing and strengthening social security policy. Social security regimes have often been born out of crisis. For instance the German social insurance model responded to a social crisis or social threat, the British Beveridge model responded to the emerging social crisis looming from World War II, and the American Social Security Act responded to the social crisis of the Great Depression.

Social protection policies play a major role in alleviating economic shocks, to prevent the impoverishment of families and social cohesion. Equally, they can contribute to maintaining aggregate demand and increasing consumption. In the long term, evidence shows that social protection helps to build



human capital and labor productivity, which contributes to sustainable economic growth. (Van Meerendonk, et. All 2010) (ILO, 2009, b).

Increased priority on social protection must involve not just commitment to higher expenditures but to fundamental structural reform. Government calculations recently determined that Social Security will be paying out more in benefits than it receives in taxes in 2017. Without changes being implemented soon the trust fund will be depleted and benefits will be cut for all recipients by 2041. (Social Security Survey, <http://www.socialsecuritysurvey.com/>)

### 3. Social policies during and after crises

Social security policies applied during and after the crisis must respond to multiple challenges and there is no universal recipe valid, reason why the G20 has asked the ILO (International Labour Organisation) to report on social protection policies, employment, labor protection, applied in different countries from the crisis, and quantify the results. Based on the findings of this report we try to assess how Romania responded to these problems, identifying possible solutions to a tolerable transition crisis and recovery of losses with minimum social costs.

The conclusions of the report presented in Washington DC 20-21.04.2010 are:

- By contrast with the crisis of 1990, when fiscal policies have led to a substantial reduction in social spending, most of the G20 countries have responded by restricting or increasing social protection programs, including pensions, family benefits, food security, education, health and investment property. While developed countries have opted for temporary and discretionary measures, those in developing countries have implemented structural measures;

- responses to the crisis have demonstrated the triple benefit to social protection: protects people not to become trapped in debilitating poverty, allowing them to take advantage of market opportunities and contribute to aggregate demand;

- the impact of the crisis is higher in vulnerable groups in case of poor social protection. Adopt a set of cash transfers and access to essential basic services as a safety net of social protection can bring national and social gains;

- in economies showing signs of recovery, many governments have expressed their intention to withdraw the stimulus package and to adopt measures of fiscal consolidation, which could affect social spending.

- substantial loss of jobs, along with pre-existing unemployment and higher food prices have increased risk of social unrest due to economic imbalances

Analyses of previous crises (Ravaillon, 2009) showed a negative impact on population and social damage, especially on children, emphasizing the increasing drop-out, worsening nutritional status and other indicators of social development.

The impact of the crisis on vulnerable groups is more severe in the absence of social coverage or in case of poor coverage.

We present some of these measures on social security worldwide.

#### 3.1. Strengthening pension system

In the G20 member countries in the pension reforms were aimed at extending and strengthening the social security system or social assistance. Measures have included raising the level of benefits, extending pension coverage by vulnerable groups such as rural workers and the poor, reduced rates of contributions and tax subsidies for pension beneficiaries. By maintaining or increasing purchasing power of pension beneficiaries and pension recipients, these measures have helped to support consumption and domestic demand and to protect people.

Among the measures taken in this respect, we mention:

- introduction of pension schemes in rural areas for over 700 million people in China
- extension of retirement schemes for widows and disabled people in India
- increase in value of pensions, with the restriction of eligibility criteria for social assistance and increase the retirement age of 65-67 years by 2023, in Australia (cost 1.4% of GDP)

- increase in value of pension benefits in Russian Federation, Brazil and France
- special payments for low income households in Australia, France, Italy and the United States temporary exemptions from social security contributions or to reduce costs and thus stimulate employment, or to raise the net incomes of low-income workers.

- Canada, China, Germany and Japan have low rates of contribution and provided relief from unemployment insurance contributions. Spain has offered exemption from social security contributions for



employers. Turkey has reduced social insurance contributions for workers and young women.

### **3.2. Addressing the financial reliability and adequacy of benefits**

A major concern is the impact of the countries financial crisis on pension funds and long-term security benefits, there are fears that unemployment and fewer taxpayers will force governments to make adjustments to the system in practice.

In 2008, pension funds in Canada, USA, UK, Australia and China have suffered the loss of 15%. Although these losses are not permanent, they show the vulnerability of the pension system, especially for those who are near retirement and who might not have enough time to recover benefits during their period of active life remaining. To alleviate the negative impact on pensions of individuals, some governments have introduced measures to protect and guarantee schemes funded, while others have opted for structural change.

- nationalization of private pension schemes and return to a publicly managed system with defined reserves in Argentina, some Central and Eastern European countries (Antolín and Stewart, 2009).

- reduction contributions, or sooner or temporary access to the private pension system for those with financial difficulties

### **3.3. Extension of child protection and family**

Poor families with children were the main objectives of social protection, by increasing the amount of of benefits or extra pay . Programs of this type takes place in Brazil, Argentina, Australia, Turkey, Mexico, South Africa, Germany, USA, etc..

For example, Germany has offered a payment of 100 euros in 2009 for each household, regardless of income level, as a means to support families. In addition, social assistance benefits for children 6-13 years increased from 60 to 70% of the adult benefits. Australia and the U.S. have paid family support, child Support and bonuses and provided tax cuts for families with children. Italy increased family allowances for families with children and provided also tax deductions.

### **3.4. Improving health protection**

If access to care and health insurance is tied to employment, workers who become unemployed (and their families) not only losing their incomes, but simultaneously lose access to health services, together with social services and benefits such as pensions, maternity and family benefits. Maintaining coverage of social protection for unemployed is essential to maintain working capacity and support for the search for new jobs.

In this regard, U.S. COBRA program covers the costs of health insurance premiums for workers with low incomes. It covers 65% of the cost of health insurance premiums, allowing expansion of health protection to the unemployed.

While in previous crises such countries as Argentina, Russian Federation, Indonesia, etc have low health expenditure per capita, in the current recession many countries of the G20 have announced major investments in infrastructure and expansion of health coverage protection. Behind these efforts is the perception that the lack of health care and lack of education leads many people and families in a vicious circle of disease and poverty.

Significant examples in this respect are offered by China, which introduced reforms to universal health coverage, which led to a coverage of 85% of the population in 2008, compared to 15% in 2003. India has introduced a system that covers 75% of health expenditure for families below the poverty line.

### **3.5. Lessons from previous crises**

Many theoretical and empirical studies have associated the extension of social protection coverage to increase productivity, stabilize consumption and social cohesion both in developed countries, as well as those in developing countries, reaffirming the important role of social protection in response to the crisis (Cichon and Scholz, 2009 ), (Van Meerendonk, et al. 2010).

Positive correlations between the level of social security spending per capita, productivity and reducing poverty are well known in developed countries. Recent studies have shown that the effects can be even higher in developing countries (ILO, 2010C), and studies conducted in Asia and Africa have shown that the application of basic social security package is affordable even for poor countries (Behrendt and Hamemejer , 2009).

### **3.6. The stabilization of consumption and poverty prevention**

Social transfers in the form of pensions, family benefits and other transfers may help protect against shocks or crises domestic consumption, preventing depletion of assets and adopt long-term negative consequences, such as dropping children at school.

### **3.7. Social protection and productive investments**

Most social transfers are designed to support domestic consumption, but they can also facilitate, productive investment. The effects may be greater if the regularity of transfers allow households to take the risk of economic activities more profitable and productive.

For constrained households through loans, investments require increased savings and reduced consumption. In low-income households, especially those with uncertain income or volatile sources of income, savings can be difficult. In addition, poor households have difficulties to provide guarantees for loans from financial institutions, especially in developing countries where there are informational asymmetries that lead to severe fragmentation of the credit market (Sajeda, Rai, and Topa, 2003). In this context, social transfers can play an important complementary role to facilitate access to credit by encouraging small-scale economies and, thus, access to investment by allowing access to credit. There are indications in the various programs of social transfer in small and medium-income countries, that the beneficiaries are able to save and invest part of their income after receiving remittances, and also that access to credit can be facilitated by transfers.

#### 4. Addressing social security policies in Romania

The government is seriously trying to dismantle the welfare state under the pretext of the imperatives of economic crisis. It's about the only European government that has explicitly proposed that. Romania allocates 12% of GDP to social spending while the European average is 31.9%, which ranks us in last place in the European Union (EU), said in December 2010 PSD deputy, Dan Mircea Popescu in the work and health committee of the Chamber of Deputies and Senate ([http://www.epochtimesromania.com/articles/2010/12/article\\_95264.html](http://www.epochtimesromania.com/articles/2010/12/article_95264.html) 15/12/2010)

Governors from Bucharest in 2010 claimed that 11 million people are assisted by state and that this situation is "classic case of underdevelopment". When other governments increased support for the vulnerable, the Romanian government criticized for having "assisting" "eating too much" of the budget and that nowhere state does not spend so much of their own citizens with social protection. And the Government strategy for the next period follows the same trend.

Countries that have had - after words of politicians - been in the "classic trap of underdevelopment" as a result of broad social protection provided to citizens, are those that grow and not those in which social protection is marginal. In Germany, 67.1% of families receive at least one type of social benefit, 44% of families receiving social benefits other than pensions. In Belgium, 83.3% of families receive at least one type of social benefit, in France 75% UK 79% Denmark 65%, 76% in Austria. On average, 67% of European households receive at least one social security benefit (Dan Voiculescu, 2010).

When the Romanians cumulative net wages fail 15% of GDP, social protection is vital. With low wages, low pensions, low allocations, the government believes it is competitive only on account of employees living modestly. In 2009, 17,9% of employees were below the poverty line (Eurostat). Today there are many more. Social aid is necessary for survival in Romania, not the middle class stability, as in other countries.

Romanians are accusing each other of "privileges", without seeing that they are asked to pay the full cost of the crisis. In this morass is omitted essential: the gross value added produced each year, distributed to the employees and the state (to finance public services and social protection) decreases. Only increased opulence, preferably hidden in tax havens. Government guillotine cut wages and social benefits, but it stops in front of large revenues.

We are presenting some Eurostat statistics to see from where we are starting.

#### Population at risk of poverty exclusion:

2009	Population at risk of poverty exclusion (%)	In work at risk of poverty rate (%)	Risk of poverty rate 65 years and over (%)	Risk of poverty rate less than 16 years (%)	Material deprivation rate by poverty status (%)
EU 27	23,1	8,4	16,9	23,4	17,1
EU 15	21,1	7,9	16,5	21,9	12,5
Bulgaria	46,2	7,5	22,5	33,5	55,5
Germany	20	6,8	16,5	20	12,5
Greece	27,6	13,8	14,7	26,4	23
France	18,4	6,7	14,7	17,6	13,5

Hungary	29,9	6,2	15,5	16,6	40,9
Portugal	24,9	10,3	12,7	26,8	21,5
Romania	43,1	17,9	23,3	37,7	49,3
Spain	23,4	11,4	18,8	32,3	11,3

*Total expenditure on social protection by type - (% of total expenditure): Social benefits, which consist of transfers, in cash or in kind, to households and individuals to relieve them of the burden of a defined set of risks or needs; Administration costs, which represent the costs charged to the scheme for its management and administration; Other expenditure, which consist of miscellaneous expenditure by social protection schemes (payment of property income and other).*

2008	Total expenditure on social protection (%)	Total expenditure on social protection per head of population (EURO)	Social protection benefits (% total expenditure on social protection)	Expenditure on pensions (% of GDP)	Expenditure on care for elderly (% of GDP)
EU 27	26	5762	95,96	11,66	0,41
EU 15	27	6998	98,85	11,85	0,42
Bulgaria	15	492	96,6	7,01	0,04
Germany	27	7463	96,06	12,28	0,15
Greece	25	4232	96,74	12,58	0,09
France	30	8030	95,22	13,56	0,35
Hungary	22	1646	98,11	10,92	0,32
Portugal	24	3131	95,16	13,19	0,25
Romania	14	339	98,68	7,45	0,04
Spain	22	4170	97,72	9,25	0,45

*Social benefits per head of population by function – (PPS) – 2008: consist of transfers, in cash or in kind, by social protection schemes to households and individuals to relieve them of the burden of a defined set of risks or needs.*

2008	Total	Sickness/healthcare	Unemployment	Old age	Disability	Housing
EU 27	6337,2	1881,31	328,23	2479,93	511,78	130,15
EU 15	7198,74	2146,75	383,65	2795,62	578,48	153,3
Bulgaria	1604,28	472,28	37,05	722,98	123,7	0,43
Germany	7683,71	2340,43	414,39	2721,28	599,37	165,65
Greece	5851,09	1698,88	295,65	2482,71	274,12	118,74
France	7913,5	2356,82	455,4	3117,1	472,24	215,71
Hungary	3623,74	906,4	133,66	1426,9	329,38	115,41
Portugal	4559,59	1275,19	206,37	2017,32	421,82	0,49
Romania	1693,3	426,27	24,3	782,93	166,53	2,73
Spain	5713,18	1760,98	774,54	1754,24	409,06	49,27

*Minimum wages - (EUR/month) published by Eurostat refer to monthly national minimum wages. The data shown here apply to the situation on 1st of January each year. In some countries the basic national minimum wage is not fixed at a monthly rate but at an hourly or weekly rate. For these countries the hourly or weekly rates are converted into monthly rates. The national minimum wage is enforced by law, often after consultation with the social partners, or directly by national intersectoral agreement (this is the case in Belgium and Greece). The national minimum wage usually applies to all employees, or at least to a large majority of employees in the country. Minimum wages are gross amounts, that is, before deduction of income tax and social security contributions. Such deductions vary from country to country.*

	2008	2009	2010	2011
Bulgaria	112,49	122,71	122,71	122,71
Polonia	313,34	307,21	320,87	348,68
Greece	794,02	817,83	862,82	862,82
France	1215,11	1286,09	1217,88	1254,28
Hungary	271,94	268,09	271,8	280,63
Portugal	497	525	554,17	565
Romania	138,59	149,16	141,63	157,2
Spain	537,25	598,5	631,05	665,7

According to Capital magazine (<http://www.capital.ro/detalii-articole/stiri/cheltuielile-cu-asistenta-sociala-si-pensiile-vor-fi-reduse-cu-078-din-pib-pana-in-2013-1449.html>, 11.03.2011), in Romania, spending on social assistance, pensions and other benefits administered by the Ministry of Labour, Family and Social Protection / MMFPS / will fall by 0.78% of GDP by year 2013, in order to be at 2.08% of GDP, from 2.86% of GDP in 2010, according to the Social Assistance Reform Strategy published on MMFPS site. Social costs, including allowance for children, guaranteed minimum income, heating aid, allowances for people with disabilities and additional budget for these people, are projected to fall from 1.77% of GDP to 1.41% of GDP.

Pension costs are also projected to fall from 1.08% of GDP in 2010 to 0.67% of GDP in 2013. The strategy, according to policymakers, is considering streamlining the benefits system managed by the Ministry of Labour, thus eliminating the problems identified in the current system, such as the high fiscal cost and the fair distribution deterioration.

Reasons for this action is that expenditure on social benefits MMFPS and local authorities have increased to 1.4% of GDP in 2005 to 2.86% in 2010 and this growth has not led to a visible improvement indicators that measure quality of life.

Also, the share amounts for low-income families has dropped from around 48% in 2005 to 43% in 2009. In addition, the high degree of fragmentation and complexity of the social benefits system artificially increases the costs of access for users, system the management costs and the level of error and fraud. The approximately 11 million adults who can work from the families receiving social benefits, 20%, meaning 2.2 million people are not working and are not in education or training. And for them the government does not propose any solution, moreover, reduce the budget given to education or retraining programs.

President Obama, in his budget message, in 2011, argue:

„That’s why my Budget lays out a path for how we can pay down these debts and free the American economy from their burden. But in an increasingly competitive world in which jobs and businesses are mobile, we also have a responsibility to invest in those things that are absolutely critical to preparing our people and our Nation for the economic competition of our time.

We do this by investing in and reforming education and job training so that all Americans have the skills necessary to compete in the global economy. We do this by encouraging American innovation and investing in research and development—especially in the job-creating industries of tomorrow such as clean energy. We do this by rebuilding America’s infrastructure so that U.S. companies can ship their products and ideas from every corner in America to anywhere in the world. And finally, we do this by coming together as Americans, not Democrats or Republicans, to make the tough choices that get America’s fiscal house in order, investing in what works, cutting what doesn’t, and changing the way business is done in Washington”.

The Romanian government proposes to justify the construction budget has nothing to do with the exit from the crisis and, much less with the durable and sustainable development of Romania.

## 5. Conclusions

Looking ahead, according to the Commission's autumn economic forecast, the EU economy, while still fragile, is recovering at a faster pace than previously envisaged, and it seems that the labour market may perform somewhat better this year than previously expected. Against this background, a majority of Member States are likely to move their focus from cyclical demand management to structural reforms. (European Comission, 2011)

Countries must provide leadership by ensuring that their crisis responses emphasize the need to invest in social protection, health, education, science, culture and other relevant social sectors. The objective should be to spend in ways that will both kick-start growth and support more inclusive and sustainable development in the longer term - in other words, to invest out of the crisis.

The risks of a short-term vision are real in these sectors. Once undone, progress cannot easily be recovered without considerable re-investment and political re-commitment. Social transfers and social services are a long-term investment. They carry lifetime benefits and high individual and social returns. The crisis offers an opportunity to review social policies and align them along the principles of inclusion, equity and social justice.

In crisis conditions, social security benefits, public health and nutrition programmes, and social services act as social, health and economic stabilizers thereby curtailing the potential social and economic depth of the recession, through avoiding poverty, ensuring continuity in services, and stabilizing aggregate demand. The international community should not just repair the problems identified by the crisis in global financial, monetary and economic systems, but should be advocating and supporting the development of a *social protection floor* to protect people during the crisis, and thereafter (ILO;WHO,2009).

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## THE EFFECTS OF ICT (INFORMATION COMMUNICATION TECHNOLOGY) ON MODERN SOCIETY

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**Abstract:** *The Internet and the World Wide Web have grown rapidly from a research project into something that involves millions of people worldwide. Much of the Internet's usefulness comes from the fact that it is shared by users, service providers, and others, in the sense that each depends on the other and needs to support the other. Hopefully, that sort of sharing and respect will continue. Our behavior, our expectations and our activities will make the difference. The use of ICT has led a dramatic impact on modern society, which we present in this paper.*

*Just a few years ago, all anyone could talk about how to make the Internet more free. Now all anyone can talk about how to control it. The calls for “cyber-realism” that replace “cyber-utopianism”, make clear that technology can indeed be used to promote democracy, if it is provided in the right way. But the right way is far away from a viable solution.*

**Key words:** internet, communication, technology, society, effects

JEL classification: **O33**

### Preamble

The Internet and the World Wide Web have grown rapidly from a research project into something that involves millions of people worldwide. This area has changed in an unprecedented rate:

- 1941: German Konrad Zuse finishes the Z3, a fully program-operational calculating machine. The computer is publically introduced in Berlin May 12, 1941. (<http://www.computerhope.com/history/194060.htm>)
- 1943: ENIAC (Electronic Numerical Integrator and Computer), the first general-purpose electronic digital calculator begins to be constructed. This computer by most is considered to be the first electronic computer. (<http://www.computerhope.com/history/194060.htm>)
- 1956: On September 13, 1956 the IBM 305 RAMAC is the first computer to be shipped with a hard disk drive that contained 50 24-inch platters and was capable of storing 5 million characters and weighed a ton. (<http://www.computerhope.com/history/194060.htm>)
- 1991: space shuttle had a one-megahertz computer (Sara Baase, A gift of fire, Pearson Prentice Hall, 2008)
- 2006: Pocket devices hold a terabyte (one trillion bytes) of data (<http://www.coursehero.com/keyword/rapid-pace/>)
- 2006: automobiles can have 100 – megahertz computers) (<http://www.coursehero.com/keyword/rapid-pace/>)
- 2010: Between 2006 and 2010, the number of Facebook users grew from below 10 million to more than 400 million; people on Facebook install 20 million applications every day; every month, more than 250 million people engage with Facebook on external websites; since social plugins launched in April 2010, an average of 10,000 new websites integrate with Facebook every day; more than 2.5 million websites have integrated with Facebook, including over 80 of comScore's U.S. Top 100 websites and over half of comScore's Global Top 100 websites; there are more than 200 million active users currently accessing Facebook through their mobile devices). (<http://www.facebook.com/press/info.php?statistics>)

According to [www.internetworldstats.com](http://www.internetworldstats.com) in ten years, from 2000 to December 2010, the number of Internet users has increased from 360,985,492 to 1,966,514,816 people, representing an increase of 444.8%. Internet penetration in the world population thus reached 28.7%.

More than a billion mobile phone connections have been added to the global tally in just 18 months, according to Wireless Intelligence. There are now more than five billion connections worldwide. In many regions, penetration exceeds 100%, where there is more than one connection per person in the country. The four billion connections mark was surpassed at the end of 2008, and analysts at Wireless Intelligence predict



six billion connections worldwide by the middle of 2012. „Five billion phones means there are more than three times as many phones as personal computers” said Ben Wood Analyst, CCS Insight. He added that more than 10 billion phones have been sold worldwide since 1994, with market giant Nokia selling 3.4 billion alone. (<http://www.bbc.co.uk/news/10569081>, 09.07.2010)

Much of the Internet's usefulness comes from the fact that it is shared by users, service providers, and others, in the sense that each depends on the other and needs to support the other. Hopefully, that sort of sharing and respect will continue. Our behavior, our expectations and our activities will make the difference.

"It is important to realize that the Web is what we make it. 'We' being the people who read, the people who teach children how to surf the Web, the people who put information up on the Web. Particularly the people who make links.... The Web doesn't force anything down your throat. If you are worried that your children are going to read low-quality information, teach them. Teach them what to read. Teach them how to judge information." Tim Berners-Lee (Scientific American Dec 97).

Legality, piracy, ethics, moral dilemmas, involving, encryption are the main problems of today's cybercrime, which is why ethics and ICT plays an important role in the new century. Concern for the ethical use of information technology and information itself are not new, citing only pioneers in this field, such as Norbert Wiener (1948), Donn Parker (1968) and Joseph Weizenbaum (1976).

For at least four decades, IT has influenced the nature of trade, the interaction between people, lifestyles and even life itself. Many of the early leaders in this field have provided ICT potential consequences, positive and negative. Because of its malleability, IT has been described by Moore (1985) as having virtually unlimited possibilities. While fair use can raise human beings in many ways, it can also become a tool for illegal activities.

While consumers determine, first of all, IT application providers are mostly responsible for the authenticity of the form and its usability. The responsibility rests with those who create, manage, produce and protect the integrity of IT. These professionals are among the most vulnerable to ethical and legal errors in the organization. Gotterbarn (2001) considers that they have the power to affect relationships and values, so that ethical considerations should accompany any activity, anchored by clear and concise policies based on ethical principles and legal requirements.

Ethical responsibility belongs also to consumers. Referring to the Internet, for example, whether a government should try to establish its legal regulation would not have control over what is posted in other countries and therefore could not, basically, to stop them.

The use of ICT has led a dramatic impact on modern society, which we present in this paper.

### 1. ICT and unemployment

Many jobs have been lost because ICT can make someone more efficient at the job or a company can therefore employ less people to complete that job (ex. computer-controlled robots which can work faster, for longer and more consistently; many dirty and dangerous monitoring jobs have been replaced; many routine or boring jobs have been replaced by automatic machines, etc).

Working with ICT requires new skills and many workers found it difficult to retrain because they found the new skills to hard to learn.

Converting a business to make use of ICT can be very **expensive** and many small companies could not afford to make the change and could not compete against those that had.

Many jobs have been **created** because computerisation has created many new jobs or radically changed existing jobs (ex. engineers, programmers, systems analysts, skilled workers to operate the new computerised machinery or to use new software, etc).

Many jobs have **changed** because people may work less hours, new skills are needed to use the computer software and hardware, highly skilled jobs can now be done unskilled staff using a computer, many professional jobs can now be done by amateurs, many people can now work from home using teleworking, students can educate themselves more easily, employees can be available and able to work even when on holiday or weekends, etc)

The growth of the Internet has provided a range of new employment opportunities like internet shopping or online financial services such as banking and insurance

Some may point to the rise in structural unemployment as a consequence of advances in technology already present today. Personally we believe that ICT will enable an explosive growth in cheap and effective technologies that lead to more workers pursuing creative and cooperative endeavors.



## 2. ICT, alienation and customer service

Customers evaluate organizational practices according to their ethical and moral concepts and form judgments as to whether a particular practice should be viewed as good for their well being or should be viewed as an expression of lack of professional care and ethical responsibility on the part of the organization. Ethical tensions in the domain of organizational information management systems develop from conflicts between the differing and, often, conflicting interests of an organization's owners, employees, customers, suppliers, partners, and governmental agencies.

Concern about fairness or about use of data for profiling may lead to customers' feeling of alienation. The implication is that to mitigate individuals' feeling of alienation, organizations should adopt transparently fair and balanced policies that govern the management of information about individuals stored in organizational databases. Likewise, computer matching should be minimized. Organizations can mitigate customers' feeling of alienation by adequately explaining conditions that warrant computer profiling to protect and promote the best interest of individuals from or about whom data are collected. Transparency and open communications can reduce the level of customers' concerns about unfairness, imbalance and asymmetry of information power and reduce customers' feeling of alienation (Joseph S. Mollick, 2008).

## 3. ICT crime

The fundamental issue in most computer crime is the criminals' lack of respect for the property or privacy of other people.

There are no precise, reliable statistics on the amount of computer crime and the economic loss to victims, partly because many of these crimes are apparently not detected by victims, many of these crimes are never reported to authorities, and partly because the losses are often difficult to calculate. Nevertheless, there is a consensus among both law enforcement personnel and computer scientists who specialize in security that *both* the number of computer crime incidents *and* the sophistication of computer criminals is increasing rapidly. Experts in computer security, who are *not* attorneys, speak of "information warfare". While such "information warfare" is just another name for computer crime, the word "warfare" does fairly denote the amount of damage inflicted on society (Laurice McDowell, 2008).

Some major classes of criminal activity with computers are:

1. *Unauthorized use of a computer* (stealing a username and password, or accessing the victim's computer via the Internet through a backdoor operated by a Trojan Horse program, etc).
  - a. the computer voyeur reads (or copies) confidential or proprietary information, but data is neither deleted nor changed, changing or deleting data
  - b. denying service to authorized users by sending large amounts of junk e-mail in one day, a so-called "mail bomb", by having the computer execute a malicious program that puts the processing unit into an infinite loop, *or* by flooding an Internet server with bogus requests for webpages, thereby denying legitimate users an opportunity to download a page and also possibly crashing the server. This is called a denial of service ([DoS](#)) attack.
    - Creating or releasing a *malicious computer program* (e.g., computer virus, worm, Trojan Horse, etc).
    - *Pirating*: digital technology makes it very easy to copy perfectly creative products such as music or films and the Internet provides a free and almost anonymous means of transmitting or exchanging this pirated material around the world.
    - *Illegal Trading* on the Internet uses chatrooms, bulletin boards, newsgroups and Web sites.
    - *Fraud*: One of the most common types of fraud on the Internet is designed to trick users of certain sites - notably banks and building societies - into disclosing their passwords or other confidential information needed to access their accounts. A common means of doing this is to e-mail customers advising that it is necessary to check or confirm their password by clicking onto a realistic but fake website and then inputting the confidential information. It is then possible for money to be fraudulently transferred from the individual's account. Another type of fraud is called 'packet reading'. This involves hackers locating patterns of data, such as credit card digits, intercepting and copying them. Another practice – known as 'cramming' – involves charging a customer for extra services on top of a service for which they have signed up. A much more common type of fraud relates to on-line auction trading. This involves a registered seller on an established Web site building up a reputation, then listing for auction items which he does not possess, and finally vanishing with the winning bidders' payments.
    - *Scams*: many Web sites do not actually provide what they seem to offer. A typical Internet scam is to put up a bogus Web site which is just a front for criminal activity. Only slightly more

sophisticated is the 'get rich quick' site. This offers grants or payments in return for credit card or bank account details. 'Phishing' - also called 'carding' - is a high-tech scam that uses spam to deceive consumers into disclosing their credit card numbers, bank account information, Social Security numbers, passwords, and other sensitive information

- *Money Laundering* by using of on-line trading and banking.
- *Prescription Drugs*: accessing over the Internet of unregulated medicines or remedies.
- *Defamatory Libel*
- *Cyber Stalking*: Worldwide there are laws that consider an offence to send letters with the intent to cause distress or anxiety or to engage in persistent harassment in either the physical or the cyber world.

- *Cyber Terrorism*: among the trends noted recently by computer security officials have been an illegal trade in ageing Cray super-computers which are ideal for cracking complex encrypted passwords used to guard major installations and companies. In the hands of a terrorist organisation, such computers could substantially assist a cyber attack on a country or company.

Some examples of *false origine* (messages sent in the name of someone who neither wrote the content nor authorized the sending of the message), according to according to Ronald B Standler (Standler, 2002) are:

- E-mails with bogus from: addresses were sent automatically by malicious programs
- Posting messages in an Internet newsgroup or online bulletin board with a false author's name that is intended to harm the reputation of the real person of that name

Some examples of *altering websites*:

In recent years, there have been a large number of attacks on websites by hackers who are angry with the owner of the website. Victims of such attacks include various U.S. Government agencies, including the White House and FBI (Standler, 2002). He describes that in a typical attack, the hacker will delete some pages or graphics, then upload new pages with the same name as the old file, so that the hacker controls the message conveyed by the site. Many hackers and computer users believe that all information should be free and available to the public. So they break into protected systems to release hoarded information. The Idle system argument claims that most computers sit idling by wasting cycles. Therefore it is acceptable for hackers to break in and use these wasted cycles because it benefits the overall society by providing more people with access to computing power. The student hacker argument addresses the issues around the learning process of breaking into systems. People claim that by breaking into systems, one can learn a great deal about computers and therefore these types of educational break-ins are not unethical. There is also a threat that people will break into computer systems to cause sabotage or aid in terrorism. There has been little evidence of such activities released to the public, but it is known that both the CIA and NSA are experimenting with computer viruses as strategic weapons

The *Internet* is a medium for freely sharing information and opinions. Communication on the Internet has a *global, interactive scope*: multidirectional and interactive. Internet is communication from many to many. The Internet puts this power in the hands of many, creating the possibility of interactive communication with speed and ease, on a global scale. Other characteristics are the *anonymity* (the person's physical appearance and the sound of their voice are not available) and the *reproducibility* (because of reproducibility, every action, transaction, or event that takes place in the Internet can be recorded and this leads to a wide range of privacy and surveillance issues).

In this space the criminals who trash other people's websites are acting as self-appointed censors who deny freedom of speech to those with whom they disagree. These criminals often make the self-serving excuse for their actions that they only attack sites sponsored by bad corporations or bad people. However, this excuse makes these criminals into vigilantes who serve as legislature, judge, jury, and executioner: arrogantly determining what is in the best interests of society. (Ronald B Standler, 2002)

So many of the activities of daily life are being moved to the Internet that it is only slightly far-fetched to say that human life is being recreated in a new medium. The new medium has special features and Deborah G Johnson (D.G. Johnson, 2003) had identified global, interactive scope, anonymity, and reproducibility as morally significant features. Among other things, these special features of the Internet lead to several types of problematic behavior. She distinguished three such types: hacking, new versions of familiar crimes, and violations of netiquette. The challenge of the Internet is to take advantage of the new possibilities it offers and to develop it in ways that serve humanity well. This requires shaping human behavior on the Internet, not the least of which is the design of the technology. All of these approaches should be used and coordinated. None of them alone will do the job.

#### 4. ICT and privacy

Privacy means many things to many people and different things in different contexts. The most important arguments on behalf of privacy as an instrumental good have focused either on its being necessary for special relationships or on its being necessary for democracy.

In a society in which individuals were always being observed, friendship, intimacy, and trust could not develop. If we want such relationships, we must create domains of privacy.

Privacy is necessary for democracy. Here the important idea is that if individuals are constantly being observed, they will not be able to exercise that kind of independent thinking that is essential for democracy to work.

If privacy is essential to autonomy, then the loss of privacy would be a threat to our most fundamental values. But the connection between privacy and autonomy is often presented not exactly as a means-ends relations. Rather the suggestion is that autonomy is inconceivable without privacy.

There are some core "privacy expectations" that individuals have long held, and which should carry over to their interactions on the Internet that are under siege.

##### A. The Expectation of Anonymity

When individuals surf the World Wide Web, they have a general expectation of anonymity, more so than in the physical world. But the Internet generates an elaborate trail of data detailing every stop a person makes on the Web. This data trail may be captured by the individual's employer if she logged on at work, and is captured by the Web sites the individual visits. (<http://snoop.cdt.org/>) Transactional data, click stream data, or "mouse-droppings," can provide a "profile" of an individual's online life.

Technologies such as "cookies," (Joan E. Rigdon, 1996) written directly onto your hard drive, enable Web sites to surreptitiously collect information about your online activities and store it for future use. The increased data collection enabled by the Internet and electronic commerce are part of a larger phenomena--the growing market in personal information. Internet based systems can be very precise, determining not only which magazines you subscribe to, but also which articles you read

A battle being waged today, over the "location" information available through many cellular networks, foreshadows the larger privacy considerations lurking in the vast data generated by individuals' use of the Internet. In the course of processing calls, many wireless communications systems collect information about the cell site and location of the person making or receiving a call. Location information may be captured when the phone is merely on, even if it is not handling a call. (Albert Gidari, 1996) Both government and the private sector have their eye on this location information. While the government seeks to build added surveillance features into the network and ensure their access to the increasingly detailed data it captures, the private sector is considering how to use this new form of information.

In the online environment, the digital equivalent of cash has not yet achieved widespread use. Most online purchases are made with credit cards, which identify the individual and facilitate the collection of purchasing data. The lack of a cash equivalent in the online world, and its reduced use in the physical world, will seriously alter the privacy of individuals' financial dealings. The translation of cash, the most privacy protective of payment mechanisms, into an online equivalent, is a pressing privacy issue (A. Michael Fromkin, 1996). Without it we will quickly move from a world of cash-based anonymity to one of full identification and increased tracking of individuals' purchases. (Declan McCullagh, 1999)

##### B. The Expectation of Fairness and Control Over Personal Information

When individuals provide information to a doctor, a merchant, or a bank, they expect that those professionals/companies will base the information collected on the service and use it for the sole purpose of providing the service requested. There are multiple examples of companies using and disclosing personal information for purposes well beyond what the individual intended.

The technologies' surveillance capacity to collect, aggregate, analyze and distribute personal information coupled with current business practices have left individual privacy unprotected. While recent surveys ( <http://www.cdt.org/privacy/surveys/findings/introbody.html>) and public pressure have raised the privacy consciousness of companies, particularly those operating online, (Online Privacy Alliance, supra note 5; BBB OnLine, supra note 4; TRUSTe supra note 3.) individuals' information is frequently used and disclosed for purposes well beyond what the individual provided it for.

##### C. The Expectation of Confidentiality

When individuals send an e-mail message, they expect that it will be read only by the intended recipient. Unfortunately, this expectation too is in danger. For starters, if an individual is using an office

computer, it is possible, and legal, for her boss to monitor her messages. If she is using her home computer, her privacy is still not fully assured.

An e-mail message travels in a relatively unpredictable and unregulated environment. As it travels through the network, e-mail is handled by many independent entities. To further complicate matters, the e-mail message may be routed, depending upon traffic patterns, overseas and back, even if it is a purely domestic communication. While the message may effortlessly flow from nation to nation, the statutory privacy protections stop at the border. The Internet does not have central points of control. While the decentralized nature of the Internet allows it to cope with problems and failures in any given computer network, by simply routing in another direction, it also provides ample opportunities for those seeking to capture confidential communications.

But e-mail is just one example, today our diaries, our medical records, our communications, and confidential documents are more likely to be out in the network than under our bed. This has drastic consequences for our privacy--as information moves further out onto the network our existing statutory framework provides less and less protection.

The confidentiality of our sensitive information is challenged by a legal framework that hinges protections on who maintains the information, how the network is structured, where data is stored, and how long it is kept. As our wallets become "e-wallets" housed somewhere out on the Internet rather than in our back-pockets, and as our public institutions, businesses, and even cultural institutions find homes online, the confidentiality of our communications, papers, and information is at risk of compromise. „Many fear that the widespread use of computers to collect information is creating a panopticon society in which too many details of individual lives are known by others, leaving people with dramatically reduced levels of privacy. Philosophical analyses of the nature of privacy, the policies to protect privacy, and the justifications for privacy are more important than ever”. (Moor, James., 2006 )

Globalization of the economy impact information gathering practices because information about individuals may flow across national borders. Because of this we need international policies about handling this information. Privacy is, perhaps, the most important of the ethical issues surrounding computers and information technology. Deborah Johnson tried to show this in her book „Computer Ethics” (D.G. Johnson, 2003) by making clear the importance of privacy to democratic society and the subtle ways in which our lives are changed when we are being watched. Individuals who walk through life knowing that each step creates a record and may or may not end up in a database somewhere are very different from individuals who walk through life feeling free and confident that they live in an open society in which the rules are known and fair.

„Protecting personal privacy is not easy and is not likely to get easier. The most effective approach to privacy protection is a many-pronged approach. One thing is for sure, the use of personal information is not going to diminish of its own accord. Information about individuals is extremely valuable both in the private and in the public sector. This issue is not going to go away until we do something about it”.

### **5. ICT and errors**

Information input into the databases is prone to human and device error. Computer programmes that process the information may contain thousands of errors. These errors can create wrong and misleading information about individuals and organizations. Information and programme errors might result in financial loss, or even the loss of lives.

### **6. Intellectual property**

Millions of dollars of software is illegally copied each year all over the world. This phenomenon has a great impact on the software industry in the region. Local and foreign software industries need consumers support all over the world to maintain the progress of technology. Most importantly, for the sake of growth in indigenous ICT innovation and invention, local software industries need local support in protecting their intellectual property rights and investment. Property deeply ingrained notions of rights, fairness, and economic justice. Law and public policy on the ownership of various aspects of computer software structure the environment for software development, so it is important to evaluate these laws to insure the future development of computer and information technology.

The issue of the permissibility of making personal copies of proprietary software is also important but for different reasons. Here we are forced to clarify what makes an action right or wrong. We are forced to come to grips with our moral intuitions and to extend these to entities with unique characteristics.

The discussion of property rights on computer software must be moved away from the idea that property rights are given in nature towards the idea that we can and should develop property rights that serve us well in the long run.

### 7. Freedom of speech and press

How do the constitutional rights of individuals in terms of the freedoms of speech and press apply to electronic media? How seriously do the problems of pornography, harassment, libel, and censorship on the net affect individuals and society? What government initiatives have been used in handling this crisis?

### 8. Digital Divide

How does ICT affect local community life? The increasing use of computers has increased the separation of rich and poor, creating a digital divide between the information “haves” and “have-nots.” The widening gap between have & have-nots arise from inequalities in access to computers & information technology in general, not just in the Internet. While inequalities in education, job opportunities, the capacity to send and receive information, and the capacity to form associations existed prior to the development of computer and information technology, differential access may broaden those inequities. On the other hand, computer and information technology and the Internet could be part of the solution. They could even be used to counteract prior inequalities.

### 9. Other issues

***Spying on Web users:*** Scotland Yard encourages Internet cafes and managers of other places providing public access to the Web to periodically look at what their customers are doing and watch for suspicious activity. (<http://www.squidoo.com/internet-cafes-trouble-governements>)

***DNA collection:*** The US government plans to begin collecting DNA samples from anyone arrested by a federal law enforcement agency — a move intended to prevent violent crime but which also is raising concerns about the privacy of innocent people. Using authority granted by Congress, the government also plans to collect DNA samples from foreigners who are detained, whether they have been charged or not. The DNA would be collected through a cheek swab, Justice Department spokesman Erik Ablin said Wednesday. That would be a departure from current practice, which limits DNA collection to convicted felons. Expanding the DNA database, known as CODIS, raises civil liberties questions about the potential for misuse of such personal information, such as family ties and genetic conditions. (<http://www.impactlab.net/2008/04/17/collecting-the-dna-of-everyone/>)

***911 Service:*** The lightning-quick evolution of communications technology has proven a boon for public safety, making it cheaper and faster to call for help in case of an emergency. Electronic communications have made far easier to get help today than only a few years ago. The US federal government is working on revamping America's 911 service, with a project called Next Generation 911. The goal is to create a framework that will allow consumers to contact critically important emergency services through multiple means — including text message, photos, and email — in order to improve responsiveness and accessibility. This is a wonderful opportunity that could help keep Americans safer. But as this system develops, it's important to engineer in privacy safeguards. In comments filed with the Federal Communication Commission today, EFF outlines the critical privacy concerns at play in Next Generation 911: medical privacy, locational privacy, and anonymity. (<https://www.eff.org/deeplinks/2011/03/privacy-emergency-consumer-rights-risk-next>)

"With so much of our digital private information being held by third parties — whether in the cloud or on social networking sites like Twitter — the government can track your every move and statement without you ever having a chance to protect yourself," said EFF Legal Director Cindy Cohn. "We're disappointed that the court did not recognize that people using digital tools deserve basic privacy and that the government should be required to meet a high standard before it demands private information about you from the online services you use, be they Twitter, Facebook, Gmail or Skype." (<https://www.eff.org/press/archives/>)

Early last April, 2010, WikiLeaks released a video of a 2007 US Army air attack in Baghdad that left 12 dead, including two employees of the news agency Reuters. This wasn't the first controversial information the site ever posted, but it swiftly put WikiLeaks in the center of a dialogue about what information the public has a right to access and whether releasing that information will put lives and national security at risk.

Since that time, WikiLeaks also published (on its own and through reporters at several national newspapers) several hundred thousand intelligence reports from the wars in Afghanistan and Iraq and is in the process of publishing over 250,000 state department cables. While some of the leaks have merely



provided us with a little gossip and a window into other cultures, some of the information has taught us about the abuses that have occurred during the wars, the lies our leaders and the leaders of other countries have told us, and the incredible loss of lives those wars have cost.

With all of the information WikiLeaks has brought to light, many have asked what WikiLeaks means for national security and the way we protect (or can't protect) information (<https://www.eff.org/deeplinks/2011/03/sunshine-week-do-open-government-laws-matter-era>)

There's a lot of *misinformation* out there *about legal rights and responsibilities in the digital era* and this is especially disconcerting when it comes to information being shared with youth. Kids and teens are bombarded with messages from a myriad of sources that using new technology is high-risk behavior. Downloading music is compared to stealing a bicycle — even though many downloads are lawful. Making videos using short clips from other sources is treated as probably illegal — even though many such videos are also lawful (<http://www.teachingcopyright.org/>)

This misinformation is harmful, because it discourages kids and teens from following their natural inclination to be innovative and inquisitive. The innovators, artists and voters of tomorrow need to know that copyright law restricts many activities but also permits many others. And they need to know the positive steps they can take to protect themselves in the digital sphere. In short, youth don't need more *intimidation* — what they need is solid, accurate *information*.

## 10. Conclusions

The advantage of internet is connectedness: email lets us respond on the go, and we are in touch with more people during more hours of the day than at any other time in history. But is it possible we're more lonely than ever, too? That's what MIT professor Sherry Turkle observes in her new book, *Alone Together* (Sherry Turkle, 2011) a fascinating portrait of our changing relationship with technology. The result of nearly 15 years of study (and interviews with hundreds of subjects), Turkle details the ways technology has redefined our perceptions of intimacy and solitude—and warns of the perils of embracing such pseudo-techno relationships in place of lasting emotional connections.

Just a few years ago, all anyone could talk about was how to make the Internet more free. Now all anyone can talk about is how to control it. Parents seek to shield their children from cyberbullying. Legislators explore mechanisms that will defend people's privacy. Governments try to find the means to keep classified materials from leaking onto the Web. Entrepreneurs and public figures struggle to keep rivals or enemies from slandering them or their businesses. And more and more of us are terrified of being watched, filmed and uploaded, about as terrified as other people are titillated by watching, filming and uploading. (Lee Siegel, 2011).

The miraculously convenient technology of the Internet has created an unprecedented simultaneity of moral functions. Julian Assange of WikiLeaks is like an incarnation of Shiva, the Hindu god of creation and destruction. It turns out that what was recently considered a brave new age of information was actually the first spasm in a long process of cultural realignment. We are all used to thinking of Google as though it were synonymous with the word "future." In 50 years, people will be talking about Google the way we talk about the East India Company. We are still wobbling in the baby steps of the Internet age.

As Evgeny Morozov (Evgeny Morozov, 2011) demonstrates in "The Net Delusion," his brilliant and courageous book, the Internet's contradictions and confusions are just becoming visible through the fading mist of Internet euphoria. Contrary to the "cyberutopians," as he calls them, who consider the Internet a powerful tool of political emancipation, Morozov convincingly argues that, in freedom's name, the Internet more often than not constricts or even abolishes freedom.

Hillary Clinton characterized the Internet as "the biggest technological challenge facing parents and children today," calling it "an instrument of enormous danger."

Evgeny Morozov said in his book „ The net desilusion" that in the iranian protest, what was broadcast on Twitter and elsewhere was repression of the revolution. The Iranian regime used the Web to identify photographs of protesters; to find out their personal information and whereabouts (through Facebook naturally); to distribute propagandistic videos; and to text the population into counterrevolutionary paranoia. In Morozov's eyes, mexican crime gangs use social networking sites to gather information about their victims. Russian neofascists employ the Internet to fix the positions of minorities in order to organize pogroms.

As Morozov points out, don't expect corporations like Google to liberate anyone anytime soon. Google did business in China for four years before economic conditions and censorship demands — not human rights concerns — forced it out. And it is telling that both Twitter and Facebook have refused to join

the Global Network Initiative, a pact that Morozov describes as “an industrywide pledge . . . to behave in accordance with the laws and standards covering the right to freedom of expression and privacy embedded in internationally recognized documents like the Universal Declaration of Human Rights.”

Morozov urges the cyberutopians to open their eyes to the fact that the asocial pursuit of profit is what drives social media. “Not surprisingly,” he writes, “the dangerous fascination with solving previously intractable social problems with the help of technology allows vested interests to disguise what essentially amounts to advertising for their commercial products in the language of freedom and liberation.” In 2007, when he was at the State Department, Jared Cohen wrote with tragic wrongheadedness that “the Internet is a place where Iranian youth can . . . say anything they want as they operate free from the grips of the police-state apparatus.” Thanks to the exciting new technology, many of those freely texting Iranian youths are in prison or dead. Cohen himself now works for Google as the director of “Google Ideas.”

Morozov has dared to argue that the Internet has exposed democracy’s Achilles’ heel. Too often the morally malleable Web has the effect of crushing community under the weight of bad pluralisms and atrocious diversities. In that regard, the Internet is creating an egalitarian antidemocracy in which the strongest inhumanity tramples on the most eloquent rationality and decency. Because of that Mr Morozov calls for “cyber-realism” to replace “cyber-utopianism”, making it clear that he believes that technology can indeed be used to promote democracy, provided it is done in the right way. But the right way is far away from a viable solution.

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# THE RESEARCH & DEVELOPMENT & INNOVATION SYSTEM IN ROMANIA – PRESENT SITUATION AND FUTURE PERSPECTIVES OF STRATEGIC DEVELOPMENT

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**Abstract.** *The paper aims to make an assessment of the Research&Development&Innovation (RDI) system in Romania, to identify its compatibility with global tendencies and its capacity to play a primordial role in stimulating economic development. Given the European context in which a new approach of the RDI system is a main objective, we suggest some strategic guidelines to be considered in reshaping the Romanian RDI system for generating knowledge and development. The paper focuses on integrating all aspects of RDI from different perspectives to have a complete, correct and global view, which is the start point in identifying and prioritizing the most suitable solutions for a rapid progress in the field. Without a fundamental reconsideration of the RDI system, there is little perspective for making Romanian economic structures compatible with world trends and for decreasing competitiveness gaps as compared to global competitors. This subject is of high interest, not only for policy makers, but also for those involved in research centers, universities and economic activity in general.*

**Key words:** *research&development&innovation system, knowledge creation, innovation strategy, sustainable development*

**JEL classification:** O32

## 1. Introduction

In contemporary society knowledge and innovation are seen as driving forces for growth and changing factors through new technologies, generating a higher and higher interest for research, development, information, technology and their roles in society. (World Bank Institute, *Building Knowledge Economies. Advanced strategies for development*, 2007) Knowledge based economy means new products and business strategies, new principles and financing schemes, changing behaviors of markets and economic sectors which need specific stimulating policies.

Generating and using knowledge is a vital source of sustainable development and welfare, determining competitiveness. Therefore countries pledged to systematically generate it, developing more sophisticated national systems and international interactions.

Following the prior work of Sandu S. (2005), Curaj A. (2006), Sandu S. and Paun C. (2009), Ogrean C. (2008), Asandului L and Baci L. (2010), stating that the type of knowledge society emerging in Romania has to catch up substantial delays on many aspects of the RDI system, the paper aims to make an integrated overview evaluation of the Romanian RDI system, allowing to reveal the extent to which it actually plays a dynamic role and it is compatible with international structures and trends. A complete and correct evaluation is mandatory for shaping a strategic approach aiming to offer policy makers, researchers, academic staff and managers some guidelines to consider in research, development and innovation.

In this approach, we have to take into account the European context, having as priority objectives to restructure and increase RDI performance, to reduce disparities in productivity and competitiveness compared to international competitors. (revised Lisbon strategy, 2004)

The paper uses as methodology the comparative analysis of different indexes, the synthesis and the logical deduction, as certified methods for obtaining a complete evaluation and for identifying the most suitable approaches of development for the Romanian RDI system, as a framework for a strategy aiming to provide the multiple aspects of the system as tools and valences for growth and development in other economic sectors, which together overpass the problems brought by the global crisis and enhance Romania's competitive position on European and world market.

## 2. An integrated overview assessment of the Romanian RDI system

Since 1990, the Romanian R&D system has been fundamentally influenced by the new coordinates of the whole economic, social and political environment. Due to the specific conditions of transition, the reform in science and technology has not been a major concern. In the absence of a viable strategy, the system of industrial research has been de-structured and valuable teams of researchers broke up. A research market has not been created even until now, which determined the priorities to be formulated especially by the offer and not necessarily based on world trends or on the development perspectives of the Romanian economy.

Moreover, the isolation from the international scientific community before 1989, the lack of cooperation between domestic research units and the administrative, institutional and legislative dysfunctions generated an inadequate infrastructure for performant research.

The low funding level had a negative impact on maintaining and developing the required infrastructure for advanced research, on obtaining valuable results at international level. The impact was negative and direct on international cooperation and participation in European research projects and networks, resulting in the isolation and separation from the major European research goals and in limiting access to performant products and technologies, needed for industry and services.

The level of innovation culture is reduced in both the enterprise sector and the academic environment. Innovation in firms has not been consistently supported by a functional system of technology transfer and venture capital can be considered absent. On the other hand, there are examples of large companies which have opened research centers in Romania, as well as high-tech services, but the considerable technological gaps rather stimulate import of technology, than innovation.

From a structural point of view, the Romanian research system includes about 600 specialized units, while over 30% of these are located in Bucharest, maintaining sharp regional disparities. Approximately 80% of Romanian research is conducted in the public system, trying to cover a too ambitious and wide area of specialization (about 250 research units are specialized in almost all industries), not achieving excellence.

As a functioning research and innovation market have not been created yet, the development of innovative processes is only a spontaneous phenomenon, dictated by the forces of a market with significant asymmetries. Regarding the RDI activities in the economic environment, only a very limited number of companies systematically develop R&D activities and the results are rather modest results. Although some projects of business incubators and technology transfer offices have been implemented, the results are irrelevant.

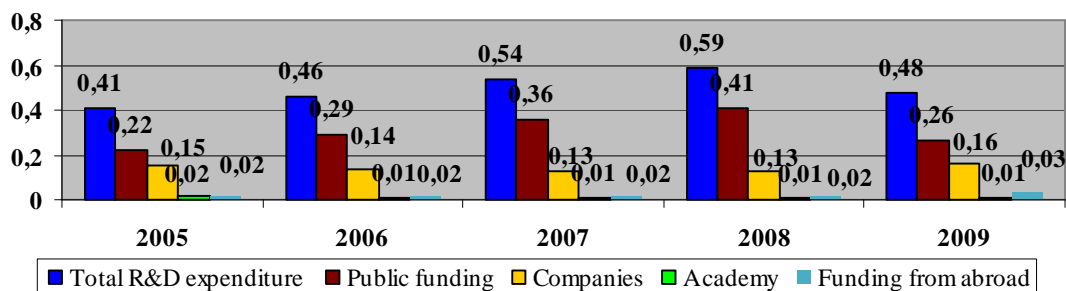
In comparison with the EU situation, the contribution of small firms to the innovative process is very low (one of three innovations belongs to SMEs in Romania, compared to two of three in EU). Small businesses, theoretically the main drivers of innovation, do not have the financial power to innovate, are not open to risk and most act in non-innovative sectors. Therefore, most companies produce goods and services created in other places, in more advanced countries and technology is assimilated through imports, FDI and imitation, most companies having a limited role in the value chain, focusing on assembly, labor intensive industries and resource extraction.

Regarding funding, the total expenditure for research and development, public and private, in relation to the GDP is an important index to make a comparative analysis of R&D sector in different countries. Expenditure for RDI had a modest dynamic, increasing from 0.2% of GDP in 2004 to 0.46% of GDP in 2006 and to 0.59% of GDP in 2008. Moreover, public funding for research is predominant, as a functional research market with specific funding mechanisms is still lacking.

In the EU, there are allocated for R&D sums of money about 5 times larger, as GDP percentage. If we also consider the GDP/capita, which in EU is 3.4 times higher than in Romania, it means that in Romania R&D expenditure/capita are 15-20 times lower than in EU.

Romania has pledged to increase expenditure for R&D in accordance with the Lisbon Strategy (a total expenditure of 2.5 to 3% of GDP at the horizon of 2013-2015), but the current economic situation requiring expenditure cuts could result in not complying with these commitments. However, additional funding could have a beneficial effect only with a simultaneous real reform in the system.

**Figure 1. Total R&D expenditure (GDP %), on funding sources, 2005-2009**



Source: National Institute of Statistics, *Data series 2005/2010*, [www.insse.ro](http://www.insse.ro)

In terms of human resources, we can talk about a significant decrease in the number of researchers (in 2004 the figures were at half in comparison to the early '90s), although there has been a very slightly improvement lately. The share of R&D employees in total active population is low: 4.81 R&D employees/1,000 employees and 3.13 researchers/1,000 employees, compared to the European averages of 13.8 and 5.4. The same reasons, as well as low wages, inadequate resources for performance and the opportunities offered by research programs leads to the serious problem of "brain drain", while we face a gradual increase in the average age of qualified R&D staff (approx. 60% of the total researchers are over 40).

The problem of "brain drain" is another difficult situation for the RDI system, as the most qualified persons look for research opportunities anywhere in the world. A classification of R&D employees by sector reveals the highest concentration of staff in the business sector, followed by the governmental sector and the academic education sector. According to the scientific area, the largest number of R&D employees is found in technological and engineering sciences, followed at a great distance by natural and exact sciences, while the last positions are occupied by agricultural sciences, humanities and medical sciences.

The modest results of research and the weak international collaboration are reflected in the small number of articles in the main knowledge flow, the small number of citations of scientific results published by Romanian authors, and the lack of interest in protecting intellectual property. The extremely small number of patent applications from Romanian authors in the country, but especially in Europe, USA or Japan, confirm this situation.

The conclusion is that the RDI system failed to generate impressive examples of success in transferring research results into socio-economic development. According to Data from ISI Web of Knowledge, Web of Science, Romania ranks 48 of 146 countries by number of citations and 43 in the number of articles. Romania's contribution is 0.07% of number of citations and 0.2% of world scientific productivity. Romanian articles are cited 3 times less than the world average of 9.43 citations per article. Romania has a similar performance with Thailand, Slovenia, Bulgaria, Croatia, Saudi Arabia and Iran as impact through number of citations. Regarding the number of articles, performances are similar to Egypt, Slovakia, Chile, Iran and Hong Kong. If we take into consideration the scientific productivity, reporting the number of citations or the number of articles to population, the situation is even worse – Romania made 894 articles/1 million people, ranking 74<sup>th</sup> in the world and had 3,091 citations/ 1 million people, ranking the 69<sup>th</sup>, compared to other EU countries (Sweden - 18,000 citations, Netherlands - 16,000 citations or UK - 12,000 citations). Therefore, Romania needs to improve four times its scientific productivity to reach the average level of the New Member States and eight times to reach the EU average. Regarding scientific productivity by area, the best represented areas are chemistry, physics, engineering and technology, mathematics, registering a weak presence in bio/medical research.

The situation of registered patents continued to decline and Romania is characterized by a very long time needed between applying for the patent and obtaining the patent (about 30 months) and in that time obsolescence is inevitable and there is the danger of any substitute. The situation is even more problematic in the number of patents registered at foreign authorities. From this point of view, Romania is behind most European countries. European Patent Office has granted no more than 3 patents/ year for requests from Romania. Romania has only 0.85 patent applications/ 1million inhabitants, compared to 7.23 applications in the New Member States and the EU-15 average of 133.59. The situation is similar in patents granted by the USA or Japan (3 patents/ year at USA authorities and 2 applications at the Japanese authorities over the past 10 years).

Since RDI activity is seen as a response to growth and competitiveness, at European and international level were established some systems to measure it. Several indicators are used for this purpose,

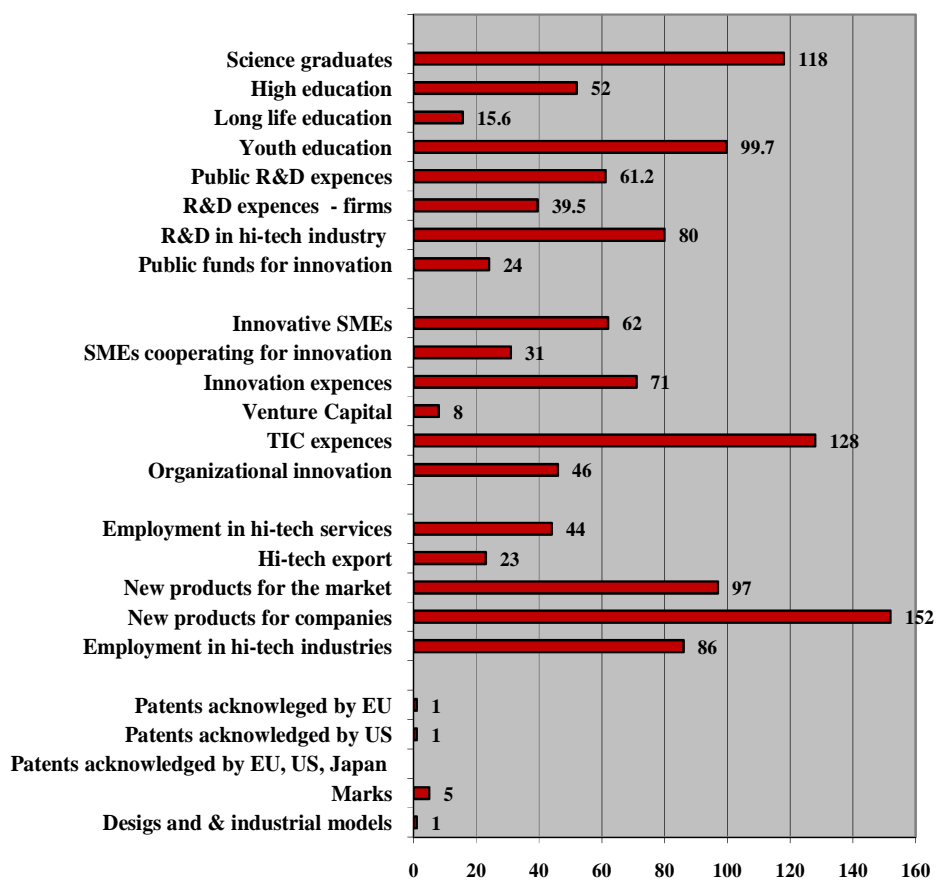
but we will mainly refer to the European Innovation Scoreboard (EIS), an instrument using a set of indexes yearly recalculated to compare the evolution of various countries in Europe and worldwide. These indexes highlight the poor performance of the Romanian system of innovation and its evolution over recent years and they are useful in predicting future economic performance and in identifying main obstacles for its development.

Romania has been included in the EIS analysis since 2003, when the scoreboard contained 12 indexes, classifying the countries in four groups: *moving ahead*, *losing momentum*, *catching up*, *falling further behind*. In this respect, Romania was included in the “catching up” group from 2003 until the last report in 2009.

The assessment methodology has changed over time as the benchmarking system has continually evolved, becoming richer and more explicit each year. During all this time Romania placed itself on the last positions in the ranking, so we can conclude that Romania has not been able yet to build a national system of innovation. Its performance has been evaluated as very poor in terms of innovation creation and weak on innovation diffusion. The weakest performance was for intellectual property rights and knowledge creation.

According to the latest report, Romania is a leader in its group, with a performance well below the European average, but with one of the highest rates of improvement. The analysis shows that Romania is relatively efficient in transforming innovation inputs into applicable results, but is ineffective in making these inputs in intellectual property results. A multitude of causes could be found for this situation: legislative and institutional dysfunctions, inadequate infrastructure, isolation from international research community, current low participation and poor cooperation between research institutions and industries, resulting in a limited number of partnerships and scientific collaborations, a small number of researchers and programs.

**Figure 2. Romania's innovative performance in comparison with EU, 2009**



**Source: European Commission, *EIS Comparative analysis of innovation performance*, 2009, pp 30-33**

RDI sectors are characterized by low wages, lack of a competitive internal environment, the absence of innovation culture in the SMEs sector and the necessary financial tools. Romania faces difficulties in

creating a national innovation system and it is recommended to increase long life education, R&D investment and the share of firms implementing innovation projects or receiving innovation support. Romania must make huge efforts to catch up the other EU members in order to compete globally and it is its responsibility to change the current situation. Investment in innovation and creativity is the condition for further development in the areas the Lisbon strategy highlights.

### 3. Strategic guidelines in developing the Romanian RDI system

One of the opportunities created by EU membership is the obligation to **strengthen the administrative capacity in research and the infrastructure**, as long as there is an alarming gap between Romania's and EU members' research infrastructure. Developing an adequate infrastructure could be done by increasing capital expenditure in total R&D expenditures, replacing the old equipment with a new, modern one, developing infrastructure and simultaneously increasing its use, in order to provide for the Romanian researchers competitive research and access for to functional partnerships at European and international level.

Another important issue aims a significant **increase of the GDP share for scientific research and technological development**, even by setting minimum levels of public funding for RDI, increasing the role of private capital in funding research. Increasing the volume of funds for RDI is important but, more important is their efficient allocation and use. To revitalize the RDI system is necessary a restructure in policies and directions of action, in the sense of a reevaluation of the funds use, of the allocation mechanisms and by establishing a reasonable proportion between expenses for fundamental research and applied research, and also between product research and technological research.

A complete transformation of the RDI system requires the **development of human capital**. This could be done by recruiting and specializing young researchers, offering scholarships and post-doc programs, increasing the attractiveness of a career in research, attracting competitive researchers in universities and research institutes. Human resources development in research must be done according to the European model of career, improving work conditions in research centers, applying an attractive system of payment and assuring stimulative perspectives of professional development.

The engine for the innovation mechanism must be the **internal demand**, come from both public and private sectors together with foreign direct investment in IT and long life learning opportunities. Due to the poor level of research at company level and the poor valorification of research results in industrial production it is necessary to strengthen innovation capacity of firms through scientific research and technology. One of the solutions is to recreate the R&D function in most producing firms, whose absence decreased drastically the innovation potential and delayed the restructuring and modernization of equipments and processes.

Then, another condition for accelerating the innovation process is to improve **cooperation between industries and universities**, developing technology transfer centers. A great opportunity is the emphasis put in EU on interdisciplinary approaches and research projects involving information and communication technologies. Priorities must refer to the support in creating and developing excellence centers and domestic sources of competence and scientific expertise. This is possible by selecting the best R&D organizations according to relevant criteria, encouraging partnerships between research units and companies and developing network activities with foreign institutions and improving offers regarding the transfer of research results.

The keys to success are **partnerships and scientific collaborations**. The necessary conditions for taking part in European and international projects refer to establishing complex, multinational teams of highly trained specialists, simultaneously increasing the capacity of co-financing. Given the present difficult situation, we could better benefit from the international experience, provided the capacity of Romanian research to act as performant partners and to improve the quality and efficiency of participating in European programs.

Only by creating new technologies embodied in the emergence of new solutions, Romania can skip some steps which have taken many years for most developed EU countries. But we still don't know to what extent the adopted mechanisms will provide in a reasonable period of time the convergence of research and technological innovation - from generating knowledge to its use in production, increasing the role of research, development and innovation.

### 4. Conclusions

The Romanian RDI system has undergone a very difficult period after 1989: under-funded, with a fragile business sector only partially exerting a real demand for innovation, practically isolated, fragmented, with minimal resources, mainly through public funding, within the framework of some formal and autarkic under-systems.

Under the effect of chronic underinvestment, the number of researchers has decreased simultaneously with the increasing of average age. The low attractiveness of a career in research resulted in the loss of quality human resources and made it extremely difficult to attract young people into research. We speak of a complex of reasons related to the delayed institutional reform, the poor quality of research& development infrastructure and the lack of an evaluation system to stimulate and reward real performance and excellence.

But, to act as a responsible country in the global environment means: to creating knowledge through continuous innovation, efficiently disseminating it to all members and areas in society, to increase the efficiency of research systems as engines for change in the new economic paradigm, to create flexible learning systems and to support policies and an appropriate mix of measures, address both the present and the future.

Through research, development and innovation we can change the reality and imagine of the economy, but this is a long, difficult way, requiring long time commitment, reforms and efforts. A great transformation of the Romanian RDI system involves responses to challenges such as: development of human capital to meet the competitive needs in this activity, attracting scientists at universities and public research institutes, reducing fragmentation through fostering cooperation in a highly competitive environment, focusing public and private investment in research towards results with direct application to solve problems of national interest, developing infrastructure, while increasing the success rate in international projects.

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## FINANCING SMALL AND MEDIUM ENTERPRISES DURING THE ECONOMIC CRISIS

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**Abstract:** *Statistics show that the SME sector is dominant within the economies because it represents the main source for job creation and adapts easily to the business environment, which is in a permanent state of change. The New Strategy of the European Union concerning SMEs is highlighted by the financial crisis, the globalization process of the economies and the pressure issued on the surrounding environment. Synchronizing the economic crisis in several countries in Europe is an endangering fact, which leads to a slow process of recovery of national economies affected by the economic crisis. In the state of the current crisis, SMEs are more vulnerable than large companies, because they have low reserves, a small mass of incorporated resources, a low technical level, low stability and not a lot of experience. One of the biggest opportunities of which Romanian SMEs benefit of due to E.U. adhesion represents the accessing of structural European funds: the European Regional Development Fund (FEDR), the European Social Fund (FSE), and the Cohesion Fund (FC). In order to make better the financing access, Romania decided to use the JEREMIE initiative, allocating the sum of 100 million euros through the Operational Sector Program – Increase of Economic Competitiveness (POS CCE). We believe that SMEs which will be able to access European structural funds will prosper.*

**Key words:** economic crisis, structural funds, entrepreneurial spirit, national multi-annual program, non-refundable financing

**JEL Classification:** G32, M21, D92

Some specialists believe that the 21st century is the century of the SMEs. Without the development of this sector, the economic evolution of any country, as well as the world level, would not be possible. Hopes concerning SMEs have grown rapidly on a global scale, in both developed and developing countries.

Statistics show that almost in all countries of the world, SMEs are dominant, and they account for 99 % from the total number of companies and they have a substantial percentage within GDP creation and labor force supply. An essential attribute of SMEs is the fact that they constitute an important source for new jobs, ergo 2/3 of newly created jobs are due to SMEs.

At the same time, these firms have the ability to reduce the capacity of large firms to control the market.

On a global scale, the economic environment is in a permanent state of change, so that SMEs, due to their flexibility, have a high degree of adaptation, also favored by their smaller size and quicker decision process.

For the European Union, SMEs are a major factor for economic growth. In order to build a strong European economy, the E.U. has decided to enrich their entrepreneurial spirit in Europe and to create needed conditions to develop innovative practices, which lead to the creation and the development of SMEs. Reaching these objectives is vital to ensure economic stability, needed to support the social progress and to protect the environment.

The new European strategy for SMEs for the next years was created in a time of a profound economic crisis and the intensifying of long-term challenges, like globalization, pressure on national resources and the ageing of the population.

The main challenge towards the developing of the business environment in all the countries of the world is the current financial crisis. Recession is caused by a severe financial crisis at a global level, which will prevent a quick economic recovery. The synchronization of the crisis in more countries across Europe is a dangerous fact, which will lead to a slow recovery of national economies. Countries in Central and Eastern Europe are more exposed to the global crisis because of several reasons: dependency towards external markets; large budget deficits; large dependency of foreign capital flows, large volumes of foreign currency credits. We believe that the biggest vulnerability of these countries is tied to the need for external financing.

Subsidiaries of major economic banks, which are present in this part of Europe, depend on their "mother banks", which generated even more risk concerning capital withdrawal.

Recent studies reveal that Romania's economy suffered a severe setback from the annual growth rate of 7% registered between 2006-2008 to -7,1% in 2009, a decrease maintained in 2010 and possibly it will last in the following period.

In the context of Romania's integration within the structures of the European Union, SMEs were exposed to several major shifts within the business environment, provoked by economic restructuring and the effects of the economic crisis. The most affected SMEs are those which must respect environment standards, as well as quality, hygiene, food safety, product safety protocols, because to respect these conditions costly investments are required.

At this time, many SMEs in Romania are affected by the application of compatibility requirements with the Communitarian Aquis concerning state help, the canceling of fiscal subsidies and the consolidation of fiscal discipline.

In this context, in order to support SMEs, the National SME Cooperation Agency established, financed and implemented 13 programs, in order to beneficiate of a better representancy at a European level, to have a pro-active attitude and to be informed concerning the evolution of policies within the field, at an E.U. level.

The financed programs are: the Multi-Annual National Program during 2005 – 2008 for the development of entrepreneurial culture among women managers from the SME sector; the National Multi-Annual Program during 2005 – 2009 to support micro-enterprises and small enterprises towards training and consulting services; the National Multi-Annual Program during 2006-2009 to support SMEs in developing exports; the Program for the development and modernization of commercial activities for market products and services; The Program for organizing the SME Fair TIMM 2007; the National Multi-Annual Program 2006-2009 to support craftsmanship; the Program for supporting the development of SMEs through funds within the reinvested profit margin; the Program for the organization of the National Cooperative Fair 2007; The National Multi-Annual Program 2006-2009 for supporting investments; the Program for developing entrepreneurial abilities among young investors and facilitating the access to financing; the Program concerning the increase of SME competitiveness through implementing and certification of quality systems; the National Multi-Annual Program during 2002-2009 for the creation and development of technological and business incubators; the UNCTAD EMPRETEC towards supporting SME development.

One of the biggest opportunities of which SMEs can benefit due to the integration of is the access of European funds. The three structural funds which offer non-refundable assistance to Romania are: The European Social Fund (FSE), the European Regional Development Fund (FEDR), and the Cohesion Fund (FC). Of the seven sector programs in which structural funds are organized, SMEs benefit from financing during the Operational Sector Program Increase of Economic Competitiveness. We mention that the accessing of these funds and their management means a challenge, because it requires adequate technical and financial preparation. Credit access is generally difficult for SMEs, considering cost levels, but most particularly the guarantee conditions for the credit imposed by banks, these can't be fulfilled due to the under-capitalization of SMEs and the absence of collateral. Implementing several innovative financial instruments is paramount to exploit the increasing potential of SMEs and that is why Romania decided to follow up on the JEREMIE initiative, also allocating the sum of 100 million euros, financed through FEDR and through POS CCE. The sum is destined to make better the access to financing of SMEs through two pillars: warranty (2/3 of the sum) and risk / growth capital (1/3 of the sum). Within the current difficult conditions of the financial market, which generated a certain adversity of banking and financial institutions to grant loans to SMEs the JEREMIE participation fund will contribute with its own interventions, beginning with 2010 towards encouraging financial intermediaries to finance SMEs more substantially, as a division of risks with the JEREMIE credit and warranty fund.

Another program approved in 2007 by the European Parliament is the General Framework for Competitiveness and Innovation 2007-2013 (CIP), whose objective is the stimulation of investments in innovation starting from the fulfillment of the Lisbon Strategy objectives. This program is addressed to enterprises within the innovating industry and particularly SMEs, considering their percentage within the European Union and the difficulties which they must overcome within the economic exploitation of results from research and development, firms which will beneficiate from support from the E.U. in fields such as: energy, information technology, research and development and environmental protection. While eco-innovation will be a transversal theme, which will always be found within the components of the CIP program, structured in 3 specific subprograms.



The first subprogram is start-up and SME growth, the Program component of Innovation and Entrepreneurship, which sustains activities for the development of entrepreneurial spirit and the growth of industrial competitiveness and innovation, having a total budget of 2, 17 billion euros.

The second program is IT & C, the Program component of strategic support concerning information technology and communication, which has activities of efficient education and permanent formation, with a budget of 730 million euros.

The third subprogram the Intense usage of unconventional energy and reduction of energy consumption, a component of the "Smart Energy for Europe" program, having a budget of 730 million euros and meant to support the energy field.

The potential and quality of the results of a national economy depends, in a considerable measure of the ability to determine the creation and functioning of a larger and larger number of SMEs, which would supply products and services of good quality, at lower costs and prices and in according amounts with the requirements of the internal and external markets.

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# THE EFFECTS OF THE MODIFICATION OF THE VAT RATE ON THE BUDGETARY REVENUES AND INFLATION

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**Abstract:** *The study proposes to analyze the impact of the modification of the VAT quantum on the budgetary income in the context of the present economic crisis. The article proposes to determine also the eventual inflationary effects of the increase of VAT. The financial-economic crisis has increased the preoccupations regarding the sustainability of the fiscal system and a monetary policy that will absorb the shocks of the national economy. Even if the increase of the VAT rate has led to an increase of the budgetary income, the results are under expectation. But it seems that the inflationary effects of the modification of VAT are negligible.*

**Key words:** fiscal policy, VAT, revenue, inflation rate

**JEL Classification:** E63, E66

## 1. Introduction

Creating an environment favourable to convergence in Romania requires, as said by the specialists in the field, among other things, the implementation of a sustainable and credible strategy for fiscal consolidation, which can help reduce inflationary pressures on demand as well as macroeconomic imbalances. Mr. Iulian Văcărel, member of the Romanian Academy, considers that fiscal policy is “an influence factor on GDP distribution, redistribution and utilization processes” providing a set of „definitive elements and fiscal policy benchmarks”. Making budget amendments to fund additional current expenditures as a result of unused investment expenditures causes problems in the national internal institutional framework regarding fiscal policy, thus raising concerns about the stringency of the budget implementation. Summarizing all measures and actions relating to taxes, the concept of taxation is a tool with particularly significant impact on the behavior of economic agents. The possibility of using fiscal instruments as ongoing support and boost economic growth occurred in the four decade of the twentieth century, as the reorientation of state policy on tax, proposed by JM Keynes. Application of Keynesian doctrine has led to new methods of taxation and tax burdens settlement (progressivity, tax diversification, tax relief, etc.) in order to stimulate global growth. Since then taxation has increased and adapted to the requirements of socio-economic development became a favorite instrument of state policy.

With the current economic and financial crisis, fiscal policy through its elements should have been the basic instrument for making the economy steady. Following the perpetuation of deficits in the previous years, the efficiency of the fiscal policy was less felt on real economy. Given the fact that in the periods of expansion when Romania should have accumulated it stood out through huge deficits, making Romania the largest "pro-cyclical" between the Member States of the European Union. The inefficiency of the fiscal policy is reflected precisely by the period of expansion, when we should have accumulated and did not, and during the recession when we should have raised the expenses but we cut them instead.

As a result of the expansionary and pro-cyclical policy practiced during 2008, as well as in the context of the current economic and financial crisis, Romania faces serious problems regarding the real economy, manifested especially by the reduction of incomes as a result of the reduction of wages by 25% in the budgetary sector starting with 1 July 2010, increasing VAT, freezing pensions, increasing unemployment, rising prices and the state's inability to take those measures that are consistent with the needs of the economy.

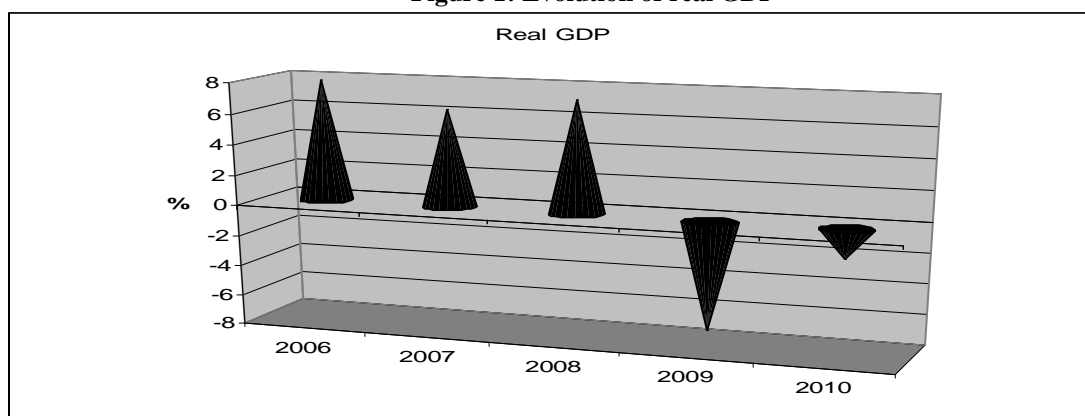
A well-based fiscal policy can be beneficial for progress, or may inhibit development, leading to involution or even to social tensions if it does not take into account the actual conditions of economic and social life. On the long term, the incapacity to maintain financial stability may only lead to another inflammation of inflation. A consistent policy mix is essential for restoring the macroeconomic balance. The study is divided into three sequences: an overview of the evolution of budgetary revenues from VAT, an econometric analysis of the relationship between inflation and VAT and the conclusions of the study. The

research methods used for the purpose of this study are: documentation, analysis and interpretation of correlations, trends and conclusions.

**2. The evolution of budgetary revenues from VAT during 2006 - 2010. The effects of the modification of the VAT rate**

The inconsistency of the fiscal policy during 2006-2010 by the uncertainty it created, an uncertainty underlined by a large number of taxes and fees, over 400, inhibited businesses despite the fact that many changes and exemptions given did not have the desired effect to stimulate businesses. The cycle of economic boom during 2006-2008 increased the tendency of firms for tax evasion, stimulating the expansion of informal economy. As a result, the economy entered a vicious circle which determined policymakers to adopt measures that ignored the challenges that the economy was facing on the long term. All these measures have resulted in a rather high contraction of the economy in 2009 (-7.1%) considering that in the previous year, 2008, our country experienced an unprecedented economic growth of 7.4%. One can not say that these growth rates during 2006-2008 are the result of economic reformatory policies or measures that lead to added value. This increase was determined by the existence of exogenous factors rather than endogenous factors of the national economy including the most important ones, the accelerated dynamics of growth in the sector of construction and building materials. One can not omit the importance of accelerated growth in consumption, consumption credits, which, despite having a relatively low power in terms of revenue had great potential for indebtedness.

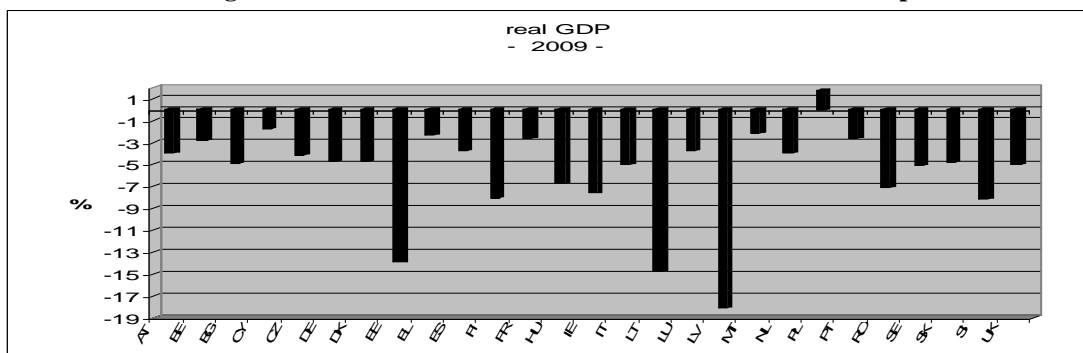
**Figure 1: Evolution of real GDP**



Source: National Institute of Statistics, author's calculation

Moreover, in the year 2009, the only state in the European Union that registered an economic growth of more than 1% was Poland. This increase was due to the fact that the government and the consumers have spent quite enough to cover the losses caused by the lack of external demand. Thus, two thirds of domestic demand was made by Polish people and the state. Unlike Romania, Poland has a large internal market so it is less dependent on foreign markets.

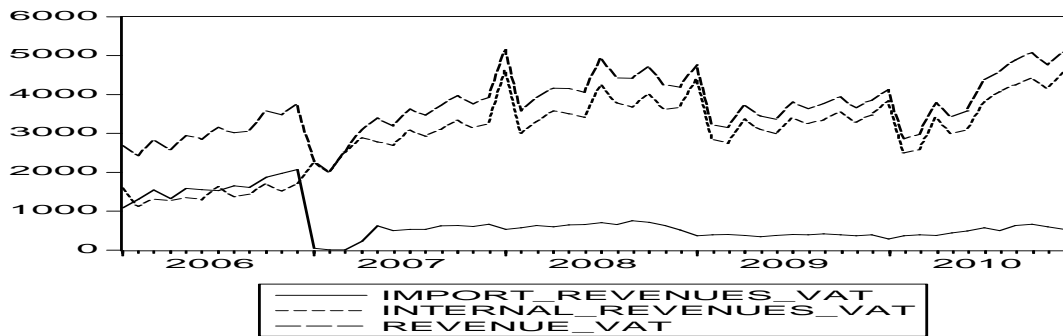
**Figure 2: Evolution of real GDP in the Member State of European Union**



Source: European Commission

A well-based fiscal policy can be beneficial for progress, or may inhibit development, leading to involution or even social tensions if it does not take into account the actual conditions of economic and social life. In this regard following the evolution of VAT receipts during 2006-2010 a decrease can be noticed for the first time in 2009 after a period of economic boom, a decrease that happened in the worst moment i.e. when the economic contraction of Romania and the imminence of public budgets imbalance led to a need of achieving a high degree of tax revenue in GDP.

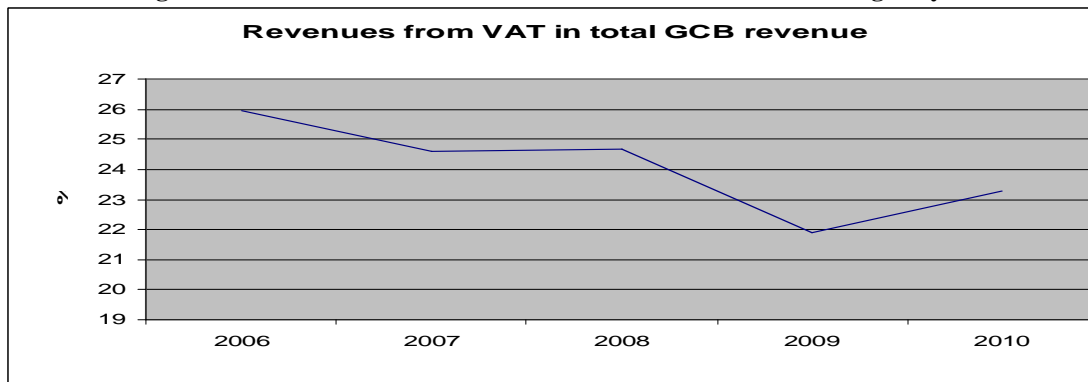
**Figure 3: Evolution of VAT revenues**



Source: Ministry of Public Finance, author's calculation

Following the measures taken in the year 2010, starting with July 1, the standard VAT rate increased from 19% to 24% which resulted in the second half of the year in an increase in revenue collection but not at the level of the previous years.

**Figure 4: The share of TVA revenues in the total of collected budgetary revenues**

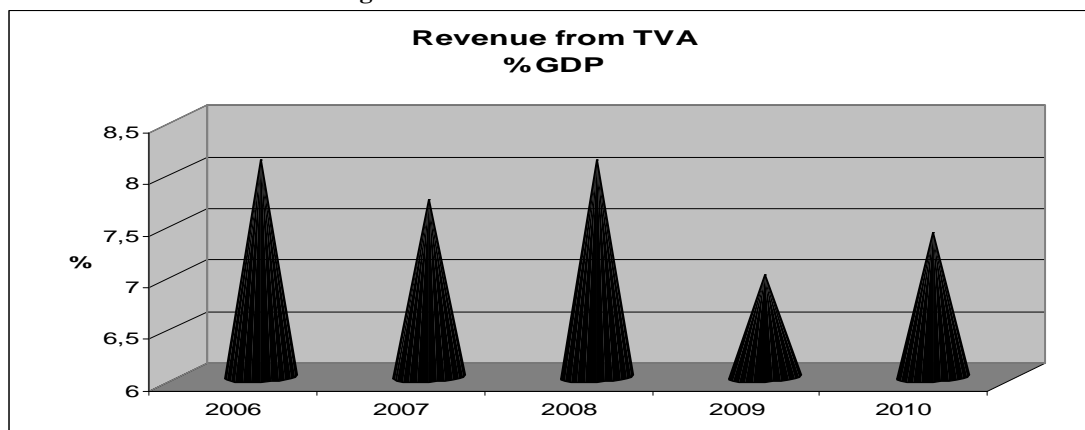


Source: Ministry of Public Finance, author's calculation

Continued contraction in domestic demand reflects the financial constraints that the public and private sector population is facing, as well as the perception of a high risk from the private sector of consumption and investment.

As seen in the chart below, during 2006-2008 revenues from VAT showed a slight increase to the maximum level of 8.11% of GDP, growth which was mainly due to production, consumption, incomes, the volum of relatively large imports and to voluntary compliance, while in 2009 there has been a dramatic decrease of these revenues by more than 1% of GDP to a level below 7% of GDP. The increase of the VAT rate led to a decrease in purchasing power, reduction of imports, producers were forced to restrict their production, reducing the demand for production factors - employees, business or production facilities, and capital, all these reflecting in the status of the economy.

Figure 5: The share of TVA revenues in GDP



Source: Ministry of Public Finance, author's calculation

The sharp decrease in the level of revenues from VAT in the year 2009 is less understandable as the evolution from the previous years reveals an increasing tendency for the level of revenue collection from VAT. Moreover, the contraction of the economy and the weakening of the state's financial resources in the context of the global economic crisis of 2009 have again highlighted the shortcomings of institutions involved in collecting revenues as well as the reduced performance and the inability to react in time in order to counter those phenomena that might affect the economy's evolution over a long period of time.

Following the change in the standard VAT rate from 19% to 24% starting with July 1, 2010, VAT revenues grew slightly in the last quarter of 2010, as shown in the following table by simulating changes in the rates:

Table 1: Simulation of the modification of the VAT rate from 19 to 24%

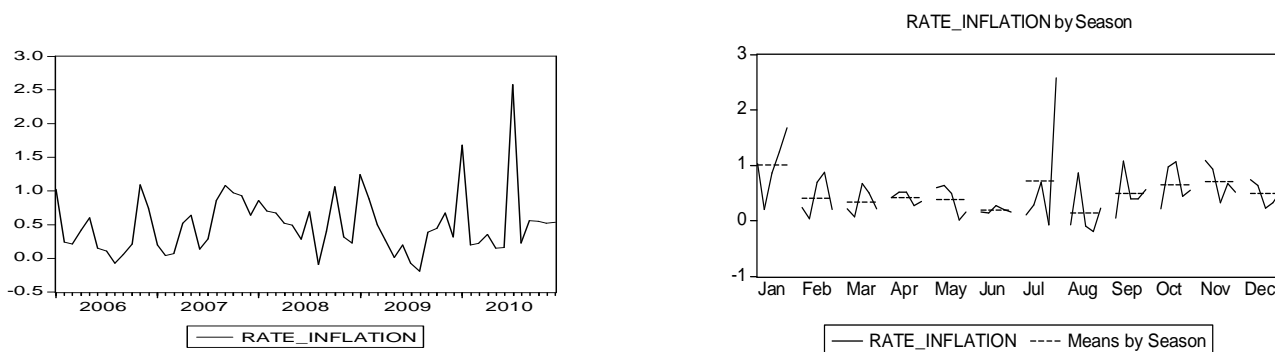
	Rate	RON
Taxable base of TVA , 19% rate		249.380.828.221
VAT, 19% rate	19%	47.382.357.362
VAT, 24% rate	24%	59.851.398.773
Theoretical increase of VAT		12.469.041.411
Degree of voluntary compliance achieved in the first 7 months, 2010	76%	9.476.471.472
Average revenues in the last five months of the 2009	41,41%	
VAT revenue in the last five months due to changes in the rates of 19% to 24%		3.924.665.852

Source: Ministry of Public Finance, author's calculation

## 2. The analysis of the relationship between inflation and VAT

In order to econometrically highlight the relationship between the increase in prices and VAT I used time series because this type of series is statistically ranked in a defined time period.

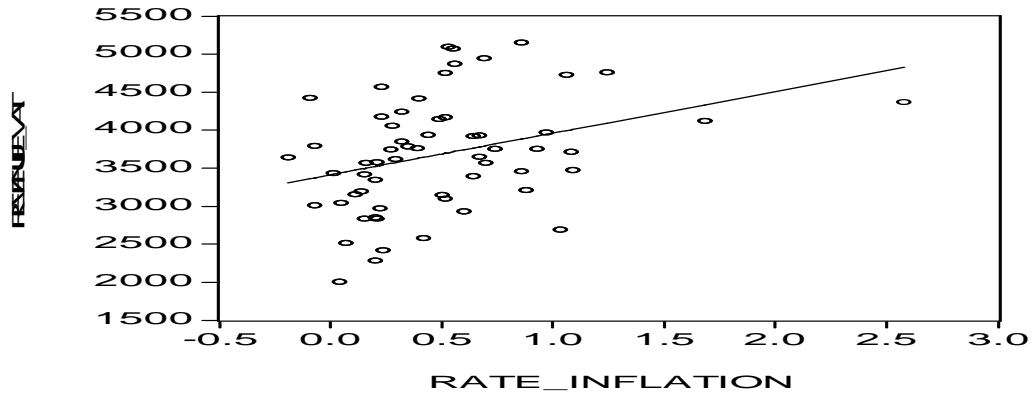
Figure 6: Graphical representation of monthly and quarterly Inflation



Source: National Institute of Statistics, author's calculation

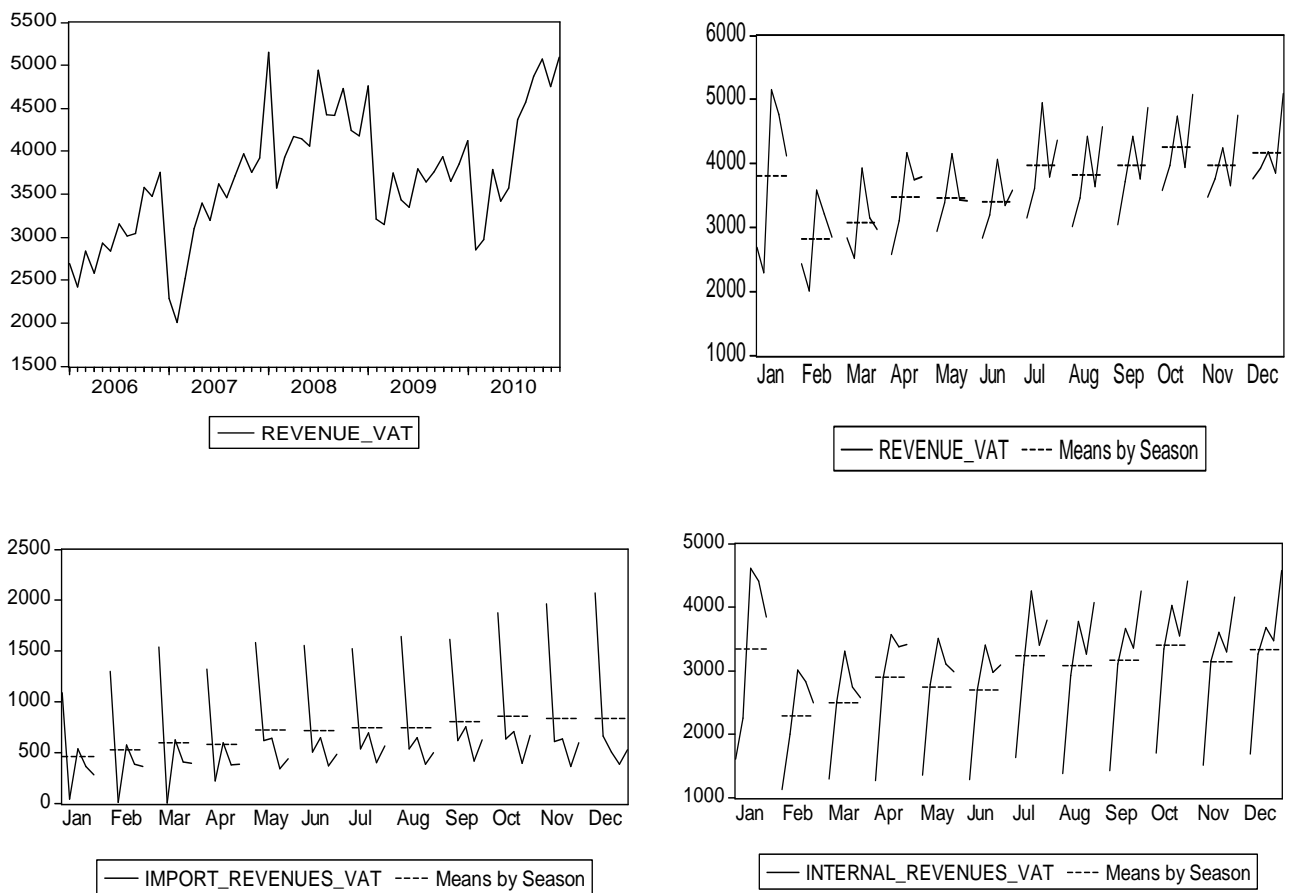
Looking at the price evolution during 2006 - 2010 we can see that there were no major fluctuations from one period to another, except in the third quarter of 2010 due to the increase of the standard VAT rate from 19% to 24% starting with July 1 2010, whose impact in prices was however limited by the continuous shortage of demand. Negative influences were generated by the dynamics of the administered prices and the impact on prices of food products, the adverse shocks felt in the domestic and the international markets.

**Figure 7: Correlation between VAT revenues and inflation rate**



Source: Ministry of Public Finance, National Institute of Statistics, author's calculation

**Figure 8: Graphical representation of monthly and quarterly of VAT revenues**



Source: Ministry of Public Finance, author's calculation

The increase of the VAT rate was gradually conducted in the third quarter of the year 2010, the biggest effects being manifested in the case of the price of tobacco products, administered prices and costs of telephone services. The increase of the VAT rate was felt in goods and services that have a large share in the consumer basket of about 91%. There is also a seasonal component, in this case the quarterly series of inflation shows that the averages for the 4 quarters are not at the same level, significant increases were recorded in the third quarter, following the increase in the VAT rate from 19% to 24%.

The continuous shortage in demand and the uncertainties regarding the impact of austerity measures on consumer demand have determined most suppliers to absorb a significant portion of the price increase resulting from the change in the VAT rate.

In fact, throughout the period of 2006 - 2010 following the evolution of VAT receipts, we note that the highest receipts were conducted during the 2007-2008 economic boom and in the months after the increase of the standard VAT rate.

To quantify the relationship between VAT and inflation the VAR model was used and the following results were achieved.

**2.1. For estimating the parameters of the regression model we used the method of the smallest squares as shown by the equation:**

(1) Inflation = b + a Revenue\_VAT + ε<sub>i</sub>

Dependent Variable: NFLATION

Method: Least Squares

Date: 03/21/11 Time: 22:32

Sample: 2006:01 2010:12

Included observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
REVENUE_VAT	0.000213	7.69E-05	2.766719	0.0076
C	-0.289404	0.288961	-1.001534	0.3207
R-squared	0.116591	Mean dependent var		0.494667
Adjusted R-squared	0.101360	S.D. dependent var		0.461249
S.E. of regression	0.437249	Akaike info criterion		1.216136
Sum squared resid	11.08881	Schwarz criterion		1.285947
Log likelihood	-34.48407	F-statistic		7.654737
Durbin-Watson stat	1.826074	Prob(F-statistic)		0.007585

Following the results obtained by using the method of smallest squares we can say that:

- between inflation and the revenues collected from VAT there is no direct relationship, the regression coefficient having a value of 0.000213
- R- squared coefficient of determination having a value of 0.116591 indicates that the variation of inflation is only temporarily affected by the VAT, which means that approximately 11% of the variation in inflation is explained by VAT. Econometrically, R-squared shows that proportion of the dispersion of the dependent variable (in our case inflation) that can be expressed through the independent variable (in our case VAT).

To check the autocorrelation of residual terms we used the Durbin-Watson test which can take values between 0 and 4. In this case Durbin - Watson statistic = 1.826074, which tends to 2, which means that errors are not auto correlated. The value of this statistic is difficult to interpret by only taking into account its position in relation with 2 because it not only depends on the values of the series of residues but also on the number of exogenous variables included in the regression model (in this case 1) and on the data series length (60 observations).

For this test the following hypotheses are defined:

H0: ρ = 0 values for residual variables are not auto correlated;

H1: ρ ≠ 0 the series of residues presents first-order autocorrelation;

The Durbin-Watson distribution table shows inferior α = 0.05 and = 1.55 dsuperior = 1.62, which means we have 1.62 < DW = 1.826074 < 4-1.55, therefore there is no significant first-order linear correlation at the level of the residues series, H0 is accepted.

**2.2. Since we do not know exactly which variable influences the other, we shall estimate a VAR.**

Vector autoregressive models (VAR), popularized by Sims (1980) and VAX (VAR integrated by exogenous variables) appear to meet most of the characteristics required. Such a class of models explains the dynamics of relevant time series  $x_t = (x_1, \dots, x_k, t, t)$  as linear functions of their own past.

It is important to note that the VAR model does not imply for a variable to be exogenous, as is the case of OLS. If the case of estimated VAR model for two variables, it is practically assumed that the variable x is influenced by its previous values, lags, and by current values and lags of the other variable, y.

Vector Autoregression Estimates

Date: 03/21/11 Time: 22:49

Sample(adjusted): 2006:03 2010:12

Included observations: 58 after adjusting

endpoints

Standard errors in ( ) & t-statistics in [ ]

	INFLATION	REVENUE_VAT
INFLATION(-1)	0.012888 (0.14635) [ 0.08806]	-234.9181 (156.821) [-1.49800]
INFLATION(-2)	-0.047977 (0.14629) [-0.32796]	-65.62985 (156.756) [-0.41868]
REVENUE_VAT(-1)	0.000115 (0.00014) [ 0.85002]	0.643002 (0.14494) [ 4.43630]
REVENUE_VAT(-2)	2.71E-05 (0.00014) [ 0.19862]	0.195694 (0.14636) [ 1.33709]
C	-0.014256 (0.35300) [-0.04038]	792.4498 (378.248) [ 2.09505]
R-squared	0.045454	0.549054
Adj. R-squared	-0.026587	0.515020
Sum sq. resids	11.64498	13370702
S.E. equation	0.468739	502.2722
F-statistic	0.630946	16.13268
Log likelihood	-35.73697	-440.3943
Akaike AIC	1.404723	15.35842
Schwarz SC	1.582347	15.53605
Mean dependent	0.489828	3722.838
S.D. dependent	0.462630	721.2360
Determinant Residual Covariance		49036.17
Log Likelihood (d.f. adjusted)		-477.8060
Akaike Information Criteria		16.82090
Schwarz Criteria		17.17614

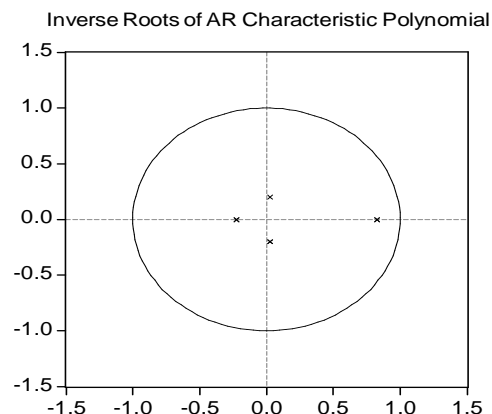
Conclusion: taking the test shows that there is no direct relationship between inflation and VAT. After creating the VAR model we follow its stability from the two variables involved, inflation and VAT. As shown, both roots are below 1 which means that the model is stable.



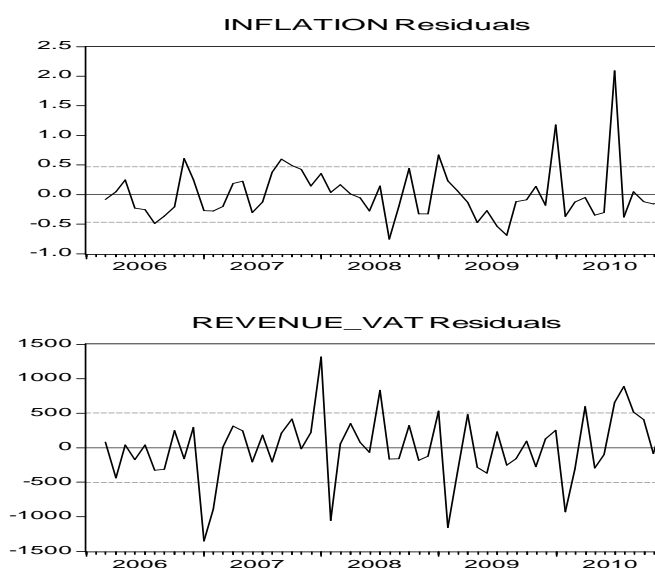
Roots of Characteristic Polynomial  
 Endogenous variables: INFLATION  
 REVENUE\_VAT  
 Exogenous variables: C  
 Lag specification: 1 2  
 Date: 03/21/11 Time: 22:54

Root	Modulus
0.826482	0.826482
-0.225218	0.225218
0.027313 - 0.200321i	0.202175
0.027313 + 0.200321i	0.202175

No root lies outside the unit circle.  
 VAR satisfies the stability condition.



From the equation used in the model the following residues are obtained:



**Conclusions:**

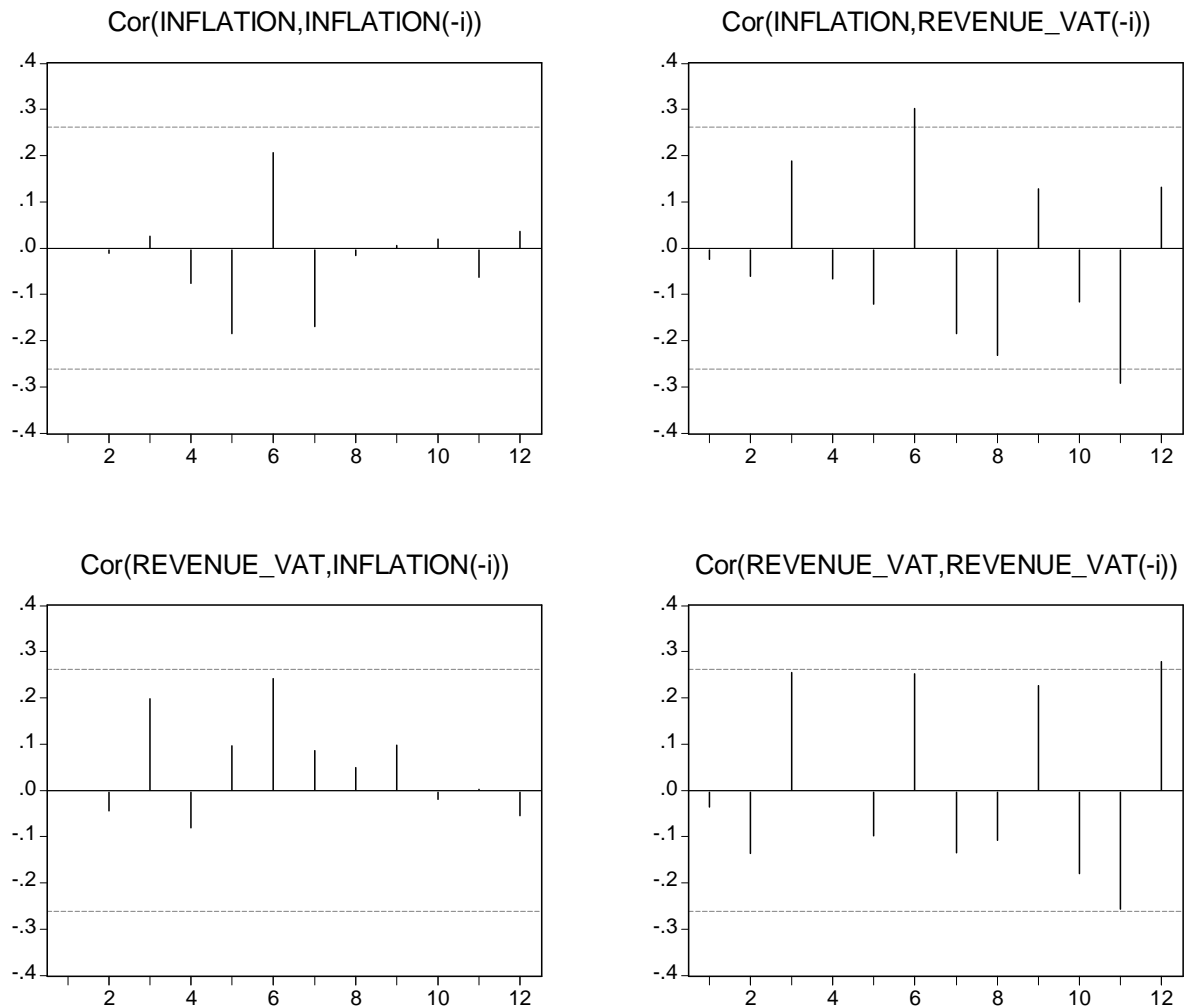
In the context of the current economic and financial crisis, the fiscal policy should be the basic instrument of economic stabilization. Following the continuity of deficits from the previous years, the effectiveness of the fiscal policy on the real economy was slightly felt.

The fiscal policy practiced during 2006, the existence of a large number of taxes and fees, over 400, inhibited the business environment despite the many given changes and exemptions which did not have the desired effect in terms of stimulating businesses. The cycle of economic boom during 2006-2008 increased the attraction of firms towards tax evasion, stimulating the expansion of informal economy.

Following the evolution of revenues from VAT during 2006-2010 a decrease of these revenues can be noticed for the first time in 2009 after a period of economic boom, the decrease took place in the worst moment, ie when economic contraction in Romania and the imminent public budgets imbalance led to the need for a high degree of tax revenues in GDP.

The increase of the standard VAT rate from 19% to 24% has not resulted in a significant increase in revenues as expected; at the end of 2010 additional revenue of over 3 billion RON was recorded. The effect of increasing its rate was felt in the evolution of prices, although this transfer was done gradually and easily supported by the population. The correlation analysis between the value added tax and the evolution of prices shows that there is no strong correlation between these two variables, the effect of the increase being gradual and on short term.

## Autocorrelations with 2 Std.Err. Bounds



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## PATTERNS OF PRICE CONVERGENCE IN ROMANIA AND THE EUROPEAN UNION

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**Abstract:** Although caught in the turmoil of the recent crises, we need to stay focused on the upcoming euro adoption and its implications for Romania. The completion of the convergence criteria implies, among others, the convergence of prices. This study analyzes the price convergence in EU27 through a spatial econometric approach, emphasizing the Romanian situation and the expected price behaviour in the future years, as an important component for monetary policy, investment decisions, uncertainty and risk management. The spatial analysis is expected to reveal spatial dependences in the European Union, offering support for decision making at both political and private level.

**Key words:** price convergence, monetary integration, spatial econometrics, tradable / non-tradable goods.

**JEL classification:** E31; F15.

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### 1. Introduction

Even though caught in the turmoil of the recent crises worldwide, we do not have to lose from our attention the upcoming euro adoption and its implications for our economy. As Romania did not have the opt-out possibility, starting with the accession day in January 2007, we entered the second stage of the European integration: the completion of the convergence criteria of the Maastricht Treaty which will lead to the euro adoption.

As the existence of regional price discrepancy denotes imperfect market efficiency, the convergence of prices can be regarded as an indicator of market integration. Consequently, convergence of prices constitutes an important part of the integration process and a quite important criterion. Moreover, its antagonistic development against the inflation rate criterion increases its weight in the overall process, due to the fact that inflation convergence criteria may limit the approximation of prices, mainly if less developed new-comers join the Union with a baggage of lower comparative price levels.

Prices have evolved fast in Romania up to few years ago, when their growth rate diminished. The spatial approach is conducted with the intention of revealing the position of the Romanian price level comparative to the other European Union members, because Romanians that go abroad come back with the feeling that Romania is, for many sectors, more expensive than its Western partners. Furthermore, the rationale of the present analysis is to present the price evolution of the last years and to try to foresee how the price conditions will shape up on the Romanian market in the future years, as caught in the convergence process and euro adoption perspectives. Describing the behaviour of prices constitutes an important component for monetary policy, investment decisions, uncertainty and risk management. Moreover, upon joining the Euro Area (EA), a supplementary stimulus towards convergence in the prices of comparable goods is to be anticipated, due to the removal of exchange rate risk for the trade operations between the member states and the increased price transparency. Consequently, euro adoption will shape up price risk management necessities, eliminating the exchange rate risk with the major trade partners, the other European

Union (EU) countries. However, as price conditions will change, for both tradable and non-tradable goods – at a larger or less larger extent, they will generate different production conditions, investment capabilities, and definitely, different risk exposures from the perspective of prices.

Although the convergence is taking place slowly even in the Economic and Monetary Union (EMU) countries, and there are studies (as for example, Deutsche Bundesbank, 2009) that even proved a divergence for some particular goods, the convergence and catching-up process will happen eventually and Romania needs to be prepared.

The body of the present study is comprised of two parts. One of them (Section 2) offers the theoretical background for price convergence and a description of the data and methodology used for the research. The other one (Section 3) presents the proper spatial analysis of price convergence, revealing the major changes that occurred in the price levels for different groups of products and services, taking also into account the regulated prices (i.e. gas, electricity, etc.). In the end, some conclusions and further remarks are expressed.

## 2. Theoretical Background

### 2.1. *The Law of One Price and Its Connotations for the European Union*

The theoretical considerations based on which on a fully integrated market the prices are expected to converge have their origins in the Law of One Price (LoOP). This law stipulates that ‘in competitive markets free of transportation costs and official barriers to trade, identical goods sold in different countries must sell for the same price’ (Krugman and Obstfeld, 2005). Considering two identical goods, according to this law, they should be priced at parity, based to the fact that they are perfect substitutes (Lamont and Thaler, 2003). If prices differ, riskless transactions taking the form of arbitrage (acquisitions from the cheap locations and further spellings on the expensive ones, making profit out of the price difference) are expected to occur, clearing up eventually the price differentials.

Obviously, the payment of the exact same price, regardless of location, cannot be assumed, based on simple arguments like the existence of trade transaction costs, which are composed of transportation and distribution costs, information costs, and of course, if there is no single currency, convertibility costs, including related costs of hedging against exchange rate fluctuation (Deutsche Bundesbank, 2009, p. 34). These kinds of costs manifest a higher effect, making it more difficult if not even impeding the convergence, for internationally non-tradable goods, such as services. However, in order for arbitrage not to occur, the existent price differentials need to be limited at these transaction costs levels.

Economic integration offers a very propitious background for price convergence among member countries. With regard to European Union, the process of integration already theoretically created the background for price convergence, eliminating up to a large extent tariff and non-tariff trade barriers and requiring the convergence of the VAT rates (Deutsche Bundesbank, 2009, p. 34). Moreover, for the EMU area, trade transaction costs decreased due to the introduction of the single currency (which eliminated the costs of currency exchange and of hedging exchange rate risks), determining also the fall of information costs, due to the consequent increase in price transparency. Also, the EMU offers improved circumstances for cross-border arbitrage maneuvers.

There are two ways for describing the convergence of prices: the sigma and the beta convergence. Sigma convergence implies the decrease over time of the standard deviation of prices, while beta implies that countries with different levels of prices are approaching either the same point (absolute beta convergence) or to each other (conditional beta convergence). Also there are two channels through which the convergence takes place: the inflation (lower prices in less developed countries are increasing faster than in the more advanced economies, implying a higher rate of inflation in the first group) and the exchange rate (the appreciation of the national currency through the growth of the comparative price level expressed in purchasing power standards). While the currency appreciation has an equal impact on each price in the economy, the inflation may affect prices of different categories of goods and services in uneven way. (Losoncz, 2009, p.3-4).

In accordance to the economic theory, during the convergence process, the price level of tradable goods is expected to fall as a result of consumer access to cheaper alternatives and the economies of scale effect in a larger market that should allow for a decline of marginal unit production cost. Nevertheless, in the case of non-tradable goods, the introduction of the euro has the effect of raising the price level in the countries that are catching up, phenomenon known as the Balassa-Samuelson effect (European Central Bank, 2002; Deutsche Bundesbank, 2009).

## 2.2. Data and Methodology

The data used for the analysis in the present study consist of the annual comparative price levels indices from 1997 onward for the European Union members, the average of the EU and of the Euro Area.

With regard to methodology, to discover spatial interconnection among the members of the European Union, spatial econometrics tools were used. They help at discovering spatial dependence and spatial heterogeneity encountered in a data set. *Spatial dependence* (or interaction) refers to the fact that an observation associated with a location (i) depends on observations at other locations (j):  $y_i = f(y_j)$ ,  $i = 1, \dots, n$  and  $j \neq i$ . It is also called spatial autocorrelation – the coincidence of value similarity with location similarity. Spatial autocorrelation is positive if neighbors have approximately the same values for the variables analyzed and negative if one geographical entity has around it values different of its own. *Spatial heterogeneity* deals with variations in relationships over space (spatial structure). It is a structural instability in the form of non-constant error variances (heteroskedasticity) or model coefficients (variable coefficients, spatial regimes). It is a particular case of a non-spherical model. The variance of each element fluctuates with each observation. The linear relationship for spatial heterogeneity can be written as:  $y_i = X_i \beta_i + \varepsilon_i$ , where

- $i = 1, \dots, n$  (the indexes of observations collected),
- $X_i$  is the (1x k) vector of explanatory variables with an associated set of parameters  $\beta_i$ ,
- $y_i$  is the dependent variable at location  $i$ ,
- $\varepsilon_i$  is the stochastic disturbance in the linear model.

The first step in spatial analysis is to construct the maps and other graphs which highlight spatial relationships between variables. For the purpose of this study, it has been used the percentile map of the European Union.

Further, after seeing how countries are grouped, depending on the variables taken into account, the second step is to construct a spatial weights matrix (a squared matrix which has the number of lines and columns equal to the number of countries observed). For detecting potential presence of spatial autocorrelation were used the ESDA techniques that detect global and local spatial autocorrelation. The global type was tested using the Moran's I statistic (Moran, 1950), which is an overall measure of spatial autocorrelation. The working hypotheses are: the null  $H_0$ : absence of spatial autocorrelation (the observed value of one location does not depend on the values of neighbors) and the alternative  $H_1$ : there is concentration of similar values in space. The Moran's I statistic is computed as:  $I_t = \frac{z_t' W z_t}{z_t' z_t}$ , where  $t$

represents the year,  $z$  the observation vector in year  $t$  as a deviation from the average and  $W$  is the standardized weights matrix (Cliff and Ord, 1981; Upton and Fingleton, 1985). If  $I_t$  is larger / smaller than  $E(I) = -1/(n-1)$  there is positive / negative global autocorrelation. The Moran's I statistic comes together

with the Moran's diagram, which has four quadrants, each representing a type of autocorrelation:

- The HH quadrant: regions with a high value of the parameters are associated with regions with the same level (high - high),
- The LL quadrant: regions with a low value of the parameters are associated with regions with the same level (low - low),
- The HL quadrant: regions with a high value of the parameters are associated with regions with low levels (high - low),
- The LH quadrant: regions with a low value of the parameters are associated with regions with high levels (low - high).

Quadrants HH and LL correspond to positive spatial autocorrelation and indicate spatial clustering of similar values. Negative spatial autocorrelation is given by the HL and LH quadrants and there is spatial clustering of dissimilar values. To test for the stability of the Moran's I statistic, the most used is the randomization procedure. It generates spatially random simulated data sets. It is an inference procedure based on a permutation approach 'in which a reference distribution is calculated for spatially random layouts with the same data (values) as observed' (Anselin, 2003). In the GeoDa 0.9.5-i software the implicit number of permutations ranges from 99 to 999 with accuracy increasing in the same way. It results in a histogram with the Moran's I statistic as a yellow bar. It shows the number of permutation, the pseudo-significance level (p-value), the theoretical mean (E(I)), the average of the reference distributions (Mean) and the standard deviation for the reference distribution (Sd).

The last phase of a spatial convergence analysis is the estimation of the  $\beta$  convergence. This part is intended to find the regression model that best explains the spatial relationship. Here, we stopped at the classical Ordinary Least Squares (OLS) method that estimates the unconditional  $\beta$  – convergence model.

Apart from the traditional measures of fit (like  $R^2$ , adjusted- $R^2$ , etc.) there are three parameters computed to ensure comparability of the fit with the spatial regression model: the log likelihood, the Akaike information criterion and the Schwarz criterion (in fact, these are the proper measures of fit for spatial models and not the standard ones). The higher the log likelihood, the better the fit. For the information criteria, the lower the value, the better the fit. The consistency of the OLS regression is then analyzed using the multicollinearity condition number, the Jarque-Bera test for the normality of the errors and three heteroskedasticity (a non-constant error variance) tests: Breusch – Pagan, Koenker – Bassett and White.

The final set of statistics used measure the degree of spatial autocorrelation. In the GeoDa 0.9.5-i software are implemented six such tests. The Moran's I statistic which is the same computed in the second step of the analysis. But while it detects problems of misspecification in the model, it does not suggest the alternative to be used further. For this are the other five tests, all as Lagrange Multiplier (LM) statistics. The first two LM-lag and Robust LM-lag are for the spatial lag model. The next two – LM-error and Robust LM-error – point the spatial error model as alternative. The fifth one, LM-SARMA, is related to higher order models that combine spatial lag terms with the spatial error ones. The tests follow the  $\chi^2$  distribution with 1 degree of freedom. The process of decision for the most suitable model starts from comparing the LM-lag and the LM-error. If none of them rejects the null (the p-value > 0.05), the OLS results are consistent and the analysis stops here.

### 3. The Analysis of Price Convergence

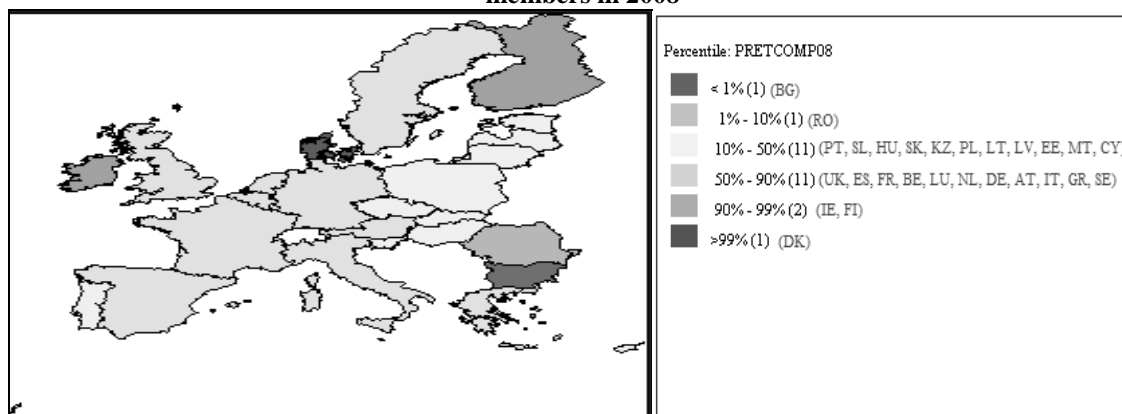
#### 3.1. The Price Convergence for Romania

The Maastricht criteria include two antagonistic classes: the inflation criterion (in the nominal convergence group) and the price convergence one (in the real convergence group). The Optimum Currency Area is an area in which, eventually, its members will come to have the same levels of incomes and prices (at least in theory). Price convergence is thus an intrinsic process of any monetary union.

The Central and Eastern European countries have entered the European Union with an important inheritance of low levels of incomes and prices. During the communist regimes, everything in economy was controlled by the state. In the early 1990s, the end of the communist period left these countries with very low levels of prices and incomes in comparison with the Western old members of the European Union. Closing this great gap, may result in inflationary pressures that may deviate a country from fulfilling the price stability criterion. National authorities are thus faced with a major problem: what should prevail – price stability or price convergence? The answer is very easy. Price stability is more important as this is the main adherence criterion. Nevertheless, price convergence would take place sooner or later, making necessary a good analysis of the process, for the consequences implied at both governmental and private level.

Price convergence has increased lately in Romania (as seen in figure 2), being faster than in other new members (like Bulgaria, Slovakia, Latvia, etc.) for different products. Still, for the household final consumption, in most of the years, only Bulgaria had a lower level than Romania (as shown by the map in figure 1), with France, Ireland and the Nordic countries being the most expensive. Taking the value of the European Union (EU27) as reference, in 2008, the price levels of final consumption by private households, including indirect taxes, was 104.1 in the Euro Area, while in Romania was only 62.1.

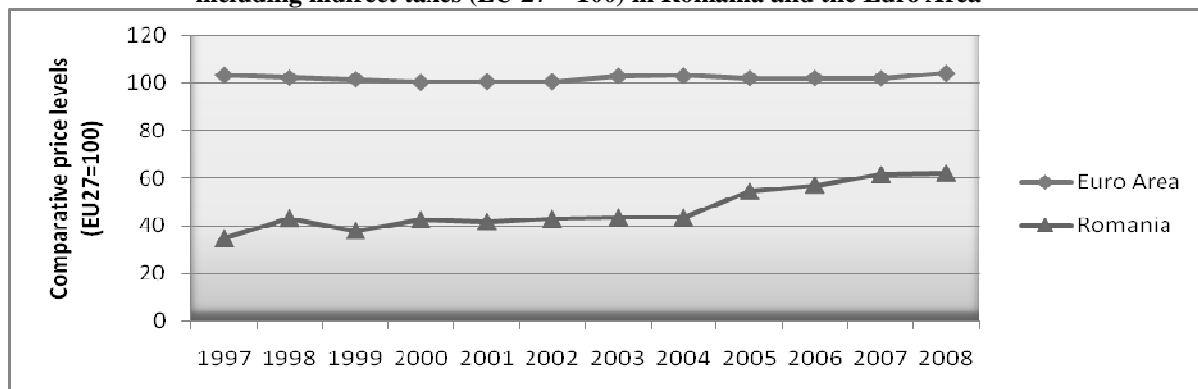
**Figure 1: Percentile map – comparative price level of final consumption by private households for the EU members in 2008**



Source: authors' calculations based on Eurostat data using GeoDa 0.9.5i software

Spatial price gap is quite denotative between old and new members. This creates inflationary pressures in the latter while leading to shopping fluxes which increase demand and, consequently, prices in the destination countries. As it can be seen in the map in figure 1, price convergence takes place on two different directions: East – West (new members versus old ones) and North – South (the Northern countries which are known for their wealth, and the Southern ones, poorer). These findings were also proved by the econometric analysis (detailed in the further subsection of the present study). When constructing the spatial interdependence model, the coefficient for longitude came out negative, while the one for latitude positive. Studying the speed of price convergence may help authorities at taking the right decisions when it comes to find the equilibrium between this and inflation evolutions. Moreover, it may offer a perspective for private consumers, producers and investors regarding the future price conditions.

**Figure 2: Annual evolution of comparative price level indices of final consumption by private households including indirect taxes (EU 27 = 100) in Romania and the Euro Area**



Source: authors' elaboration based on data released by Eurostat.

The average level of price convergence is influenced by the individual evolution of all its components. Prices in Romania are noticeably lower for the majority of these components, with some exceptions that will be discussed further.

The Eurostat data show that in what regards food and non-alcoholic beverages, prices for milk, cheese and eggs are almost equal to the ones in the Euro Area. From 2007, oils and fats have become more expensive in Romania (the comparative price level index was 116.1 in Romania in 2008 and 98.4 for the Euro Area, taking the EU27 as a basis for comparison – EU27 = 100). Almost at the same level are beverages, both alcoholic and non-alcoholic.

Comparable indices are also to be found for clothing and footwear, audio-visual, photographic and information processing equipment, etc. Using the ESA95 aggregates, indicators of the gross capital formation are closer to the euro area levels, indicating an increased price convergence. It is the case of machinery and equipment, metal products, electrical and optical equipment, transport equipment and civil engineering works. Software has lately become more expensive in Romania.

In terms of goods, semi-durable and durable goods have converged more quickly to prices in the Euro Area. However, the services sector has remained far behind it.

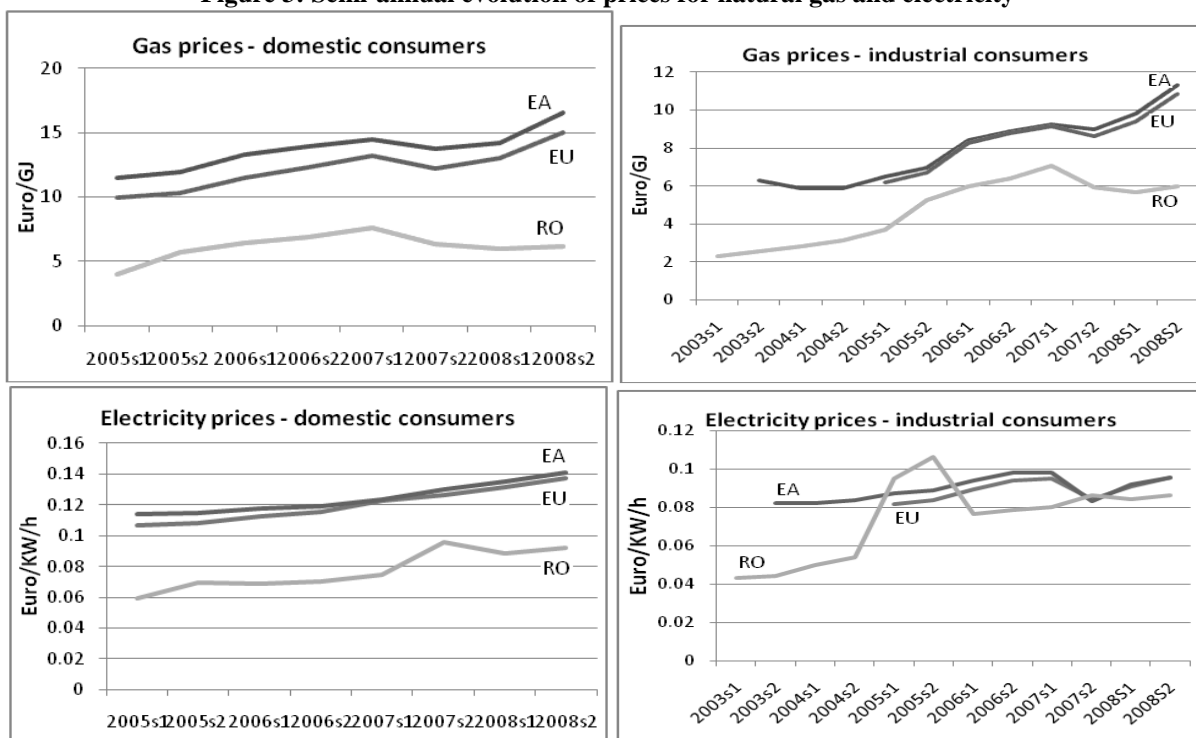
The conclusions that can be drawn are not very good. First of all, the problem is in the non-durable goods (which include basically food). Entering the Euro Area means bringing all prices as close as possible to the average level. The process will generate important inflationary pressures. In addition, when adopting the common currency, prices will be rounded upwards (as previously happened in all the members that are already in the EMU) and costs of monetary transformations will be supported by the consumer. In Romania will appear the so called “inflationary illusion” phenomenon (also called “inflationary masochism”), i.e. the people will have the impression that prices have become higher for products they buy frequently, while the effect upon the real income will be the one measured by the official inflation rate. An important observation is to be made here. When measuring inflation an average household is used. Due to the existent low level for food products, prices will go higher for goods and services that weight more in the consumption basket of the under-average households. And because these are the majority in Romania, the inflation rate measured by the perceived inflation surveys will be higher than the one measured by Eurostat (Gocev, 2006). Indeed, according to the European Commission's Focus on Inflation, all Eurobarometers intended to measure the citizens' perception of the euro in the months following the changeover found this: from the consumer's point of view, prices have gone higher. Different types of households have different behavioral patterns.

High income households are not affected by changes in food prices, utility prices and so on. In their consumption baskets, luxury products weight more. And usually is this type of products that has the fastest convergence path. Lower income households are affected by changes in food prices, utilities, transportation, health care, etc. Inflationary jump due to all the costs of adopting a new currency will be much more felt by the latter group of citizens.

Here comes in discussion another important issue – the convergence of regulated prices. Regulated prices are a component of the equilibrium real appreciation (term that refers to a steady rise in prices in sectors where there is no external competition and the market is monopolistic). They comprise public utility services (water, electricity, gas, etc.), public transportation, communication, education, healthcare and other similar domains. The level of regulated prices in Romania is still very low when compared to the Euro Area averages (an example for gas and electricity prices can be seen in figure 3). Communications are the closest to the EA average (comparative price level indices of 78.4, 103.1 respectively in 2008). Other groups have half the prices of the EA. On the last places as price convergence are the health and education sectors. Prices in education represented in 2008 only 23.6% of the EU27 level in Romania, while in the EA they were 111.3% of the EU27 level. In healthcare, a Romanian paid the equivalent of 36.6% of the EU27 average and a citizen of the Euro Area paid 103.6%. This may explain the many foreign students coming to Romania and the medical tourism from the developed countries.

The regulated prices together with the overall price level are positively correlated with the level of economic development (Magyar Nemzeti Bank, 2008) for the countries of the European Union. A 1% increase in the GDP level leads to a more than 0.9% increase both in the level of prices in general and in the level of the regulated prices. The direct consequence is inflationary pressure. The level of inflationary pressure depends also on how much weight regulated sectors in the consumption basket. In the European Union and the Euro Area regulated prices represent somewhere around 24% of the total consumption basket, while in Romania they represent around 34%. So, increases in the regulated prices' levels, in order to adjust them to the EA level, will be more intensively felt in the inflation level in Romania. Apart from electricity prices for industrial consumers, important differences are yet to be lowered.

**Figure 3: Semi-annual evolution of prices for natural gas and electricity**



Source: authors' elaboration based on data released by NBR, Eurostat, NIS.

A part of the price convergence is given by the Balassa – Samuelson effect. Regulated sectors are sectors with no external competition. They are characterized by monopolistic behavior. Sectors that are exposed to international markets through foreign trade are characterized by an increase in productivity and, of course, in prices. The Balassa – Samuelson effect manifests through an increase in the prices of goods and

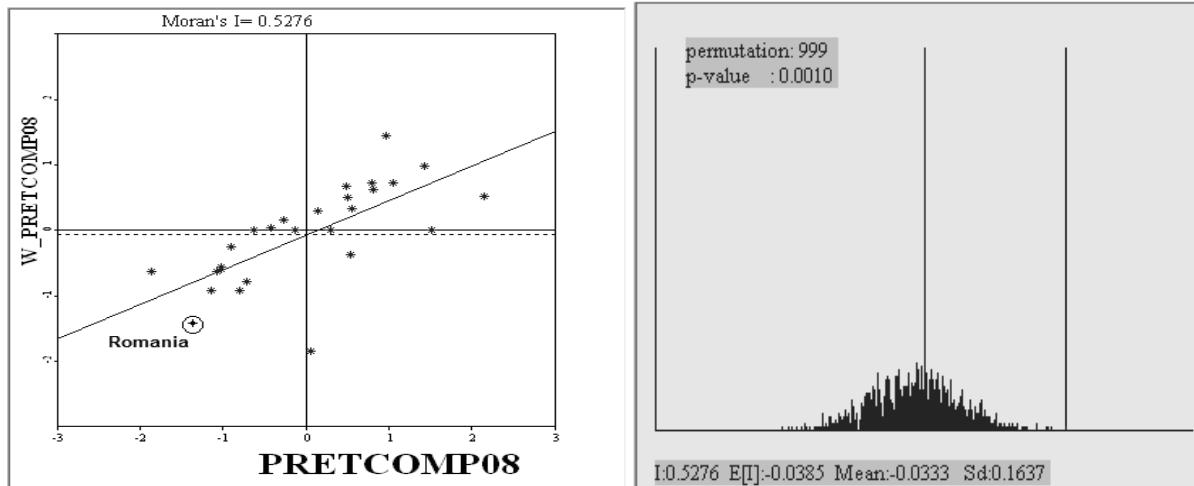


services which are not traded internationally (*non-tradables*) much faster than the ones subjected to foreign trade (*tradables*). Consequently, it appears the necessity to liberalize a part of the regulated sectors.

**3.2. The Spatial Convergence of Prices in the European Union**

Spatial price convergence analysis finds positive spatial autocorrelation for prices. With a p value of 0.001, the Moran’s I statistic rejects the null of no spatial autocorrelation. Moreover, the statistic’s value is 0.5276, much higher than  $E[I] = -0.0385$ . The results are the same when constructing the LISA diagrams.

**Figure 3. Moran’s I test and randomization for comparative prices in 2008**



Source: own calculations using GeoDa 0.9.5-i software

For the purpose of this research, comparative price levels were studied against longitude and latitude to see if can be found an adequate regression model to represent the spatial dependences outlined through the maps. The unconditional  $\beta$  – convergence model was first estimated using OLS:

$$PRETCOMP08 = \alpha e + \beta_1 X + \beta_2 Y + \varepsilon, \quad \varepsilon \sim N(0, \sigma^2_e)$$

where: PRETCOMP08 – comparative price levels in 2008

X – longitude

Y – latitude

e – the unit vector

In table 1 there are presented the OLS estimation results for the comparative price levels for 2008.

**Table 1. OLS estimation results for comparative price levels in 2008**

**REGRESSION**

**SUMMARY OF OUTPUT: ORDINARY LEAST SQUARES ESTIMATION**

Dependent Variable: **PRETCOMP08** Number of Observations: 27  
**R-squared: 0.322084** F-statistic : 5.7013  
 Adjusted R-squared: 0.265591 Prob(F-statistic): 0.00942133  
 Sum squared residual: 8902.51 **Log likelihood: -116.588**  
 Sigma-square: 370.938 **Akaike info criterion: 239.175**  
 S.E. of regression: 19.2597 **Schwarz criterion: 243.063**  
 Sigma-square ML: 329.723  
 S.E of regression ML: 18.1583

Variable	Coefficient	Std.Error	t-Statistic	Probability
CONSTANT	52.55678	23.33616	2.252161	0.0337329
X	-0.8985964	0.3145832	-2.856466	0.0087048
Y	1.065717	0.4782345	2.228439	0.0354775

**REGRESSION DIAGNOSTICS**

MULTICOLLINEARITY CONDITION NUMBER 14.50848

TEST ON NORMALITY OF ERRORS

TEST	DF	VALUE	PROB
Jarque-Bera	2	2.005595	0.3668518

**DIAGNOSTICS FOR HETEROSKEDASTICITY**

RANDOM COEFFICIENTS

TEST	DF	VALUE	PROB
Breusch-Pagan test	2	2.633772	0.2679685

Koenker-Bassett test	2	5.532913	0.0628844
SPECIFICATION ROBUST TEST			
TEST	DF	VALUE	PROB
White	5	5.986687	0.3075165

#### **DIAGNOSTICS FOR SPATIAL DEPENDENCE**

FOR WEIGHT MATRIX : **euweights.GAL** (row-standardized weights)

TEST	MI/DF	VALUE	PROB
Moran's I (error)	0.304072	2.4337387	0.0149438
Lagrange Multiplier (lag)	1	0.1968202	0.6572998
Robust LM (lag)	1	0.1509844	0.6975964
Lagrange Multiplier (error)	1	3.1609592	0.0754189
Robust LM (error)	1	3.1151234	0.0775686
Lagrange Multiplier (SARMA)	2	3.3119436	0.1909065

The results (Table 1) show that the coefficients  $\alpha$  and  $\beta$  are all significant and they confirm the  $\beta$  – convergence hypothesis. The  $\beta_1$  coefficient is negative (-0.8986) which means that when going from West to East the level of prices decreases. In the same time, the  $\beta_2$  parameter is positive, proving the increase in price levels from South towards North. The model is:

$$\text{PRETCOMP08} = 52.56e - 0.8986X + 1.066Y + \varepsilon$$

The Moran's I test emphasizes once again the presence of spatial dependence (prob = 0.0149 < 0.05). The other parameters used to measure a model's validity all show that the OLS estimation is consistent in this case and analysis stops here. Based on this equation, when making time – space convergence analyses, it can be computed the convergence speed.

#### **4. Conclusions**

As a part of both the integration and convergence process, prices have evolved fast in Romania in the recent years. However, few years ago, their growth rate diminished. The spatial approach revealed one of the lowest levels of prices in the European Union, only with Bulgaria situated below our country. The explanation for the fact that Romanians who go abroad come back with the feeling that Romania is, for many sectors, more expensive than its Western partners can be found in the way the comparative price level of final consumption is constructed by the European Union. Here may appear the same thing as for inflation measurements. Inflation is gauged for a medium income family, while in Romania more families are below that level. This means that products needed for the everyday use of a common family in Romania are more expensive, but are not accounted for, because they do not weight the same in the measurement units' basket. With regard to the convergence of regulated prices, their level in Romania is still very low when compared to the Euro Area one. Communications are the closest to the EA average, while on the last places as price convergence are the health and education sectors, aspect that may explain up to a large extent the many foreign students coming to Romania and the medical tourism from the developed countries. However, a problem that arises from this aspect is that increases in the regulated prices' levels, in order to adjust them to the Euro Area level, will be more intensively felt in the inflation level in Romania, due to their increased weight in the total consumption basket (10 percentage points over the EU one).

Furthermore, the analysis proved that the spatial price gap is quite denotative between old and new members, creating inflationary pressures in the latter while leading to shopping fluxes which increase demand and consequently prices in the destination countries. In addition, both the spatial and the econometric analysis proved the fact that the price convergence takes place on two different directions: East – West (new members versus old ones) and North – South (the Northern countries which are known for their wealth, and the Southern ones, poorer). In conclusion, when accounting for price convergence, not only the West – East (old members versus new ones) have to be kept in mind, but also North – South (richer versus poorer) convergence needs to be accounted for.

The above results are of major importance for decision factors in Romania, in particular, and in the European Union, in general, when dealing with price decisions and risk. Thus, at the Union's level, one can see the direction of both price convergence and inflationary pressures. As emphasized in the analysis, the two phenomena mentioned above have a greater probability to happen in the Eastern and Southern members, which, practically, are the poorer and have been affected more by the international financial crisis. These are the members that need more monitoring and more aid in order to comply with the Maastricht criteria and have a sound and safe membership in the EMU.

For Romania, in particular, this phenomenon, of price convergence, has to be very carefully assessed by authorities, due to its contradiction with the main convergence criterion – the inflation rate. As resulted from the analysis, convergence pressures will appear not only from the internal market (for different types of

goods and services), but also from neighbors, as Romania proved to be positively correlated with them in terms of prices.

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## ENVIRONMENTAL REQUIREMENTS FOR PROJECTS FINANCED BY COHESION AND STRUCTURAL FUNDS

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**Abstract:** *In recent years, the European Commission has introduced a range of initiatives from general guidance to handbooks and targeted regulation to bring environment, and latterly sustainable development, into the implementation of the Funds. The paper aim is to identify and analyses the main requirements related environment for financing from Cohesion and Structural Funds.*

**Key words:** European policy, sustainable development, environmental integration, structural funds

**JEL classification:** H23, Q01, Q58

### 1. Introduction

Environmental appraisal of regional development plans in the context of the European Union's Structural Funds process has been a mandatory obligation since 1993. This arose from specific regulatory provisions with respect to the Funds as well as increasing public pressure to ensure that the use of the Structural Funds to co finance regional development programs, projects, or aid schemes did not result in environmental damage.(Bradley, 2006)

In recent years, the European Commission has introduced a range of initiatives from general guidance to handbooks and targeted regulation to bring environment, and latterly sustainable development, into the implementation of the Funds.(Massimo, 2003).

In 1999, the European Parliament approved new regulations for the Structural Funds, in which environment and sustainable development, as horizontal factors in programmes, had several new points of emphasis. Scope was identified to differentiate the rates of co-financing on the basis of the regional importance attached to the protection and improvement of the environment. Structural Funds partnerships at all levels were to be broadened to include organizations concerned with environmental protection and sustainable development. The ERDF was to be seen to support the clean and efficient utilization of energy and the development of renewable energy sources, and environmental considerations were to form a greater part of evaluation. Ex-ante evaluations, especially, were to assess the effectiveness of environmental integration and compatibility with national, regional and local environmental management objectives, as well as providing a quantified description of the environmental baseline and an estimate of the expected environmental impact of the strategy.(EC,1999)

In July 2004, the Commission presented a package of five proposals for Regulations on the reform of regional policy, a reform enter into force on 1 January 2007. For the period 2007-2013, the budget allocated to regional policy amounts to around 348 billion EUR, comprising 278 billion EUR for the Structural Funds and 70 billion EUR for the Cohesion Fund. This represents 35% of the Community budget and is the second largest budget item. Structural Funds and Cohesion Fund support for the three objectives always involves co-financing. The rates of co-financing may be reduced in accordance with the "polluter pays" principle or where a project generates income.

The Commission proposes that the actions concentrate on a limited number of Community priorities, reflecting the Lisbon (growth, competitiveness and employment) and Göteborg (environment) agendas. On this basis, a core list of key themes has been drawn up for the operational programmes: innovation, knowledge-based economy, environment, risk prevention, accessibility and services of general economic interest.

The main features of importance for the environment are: a strong commitment to environment and sustainable development in the overall objectives, environmental partners in the partnership, sustainable development as a cross-cutting principle, technical assistance at the initiative of the Member States can be used for environmental purposes, the application of the principles of the precautionary principle, the principle of preventive action, and the polluter pays principle.

The new legal base for Structural Funds and Cohesion Fund. states that: “The Member State or the managing authority shall provide the Commission with the following information on major projects: a) information on the body to be responsible for implementation; b) information on the nature of the investment and a description of it, its financial volume and location; c) the results of the feasibility studies; d) a timetable for implementing the project and, where the implementation period for the operation concerned is expected to be longer than the programming period, the phases for which Community co-financing is requested during the 2007-2013 programming period; e) a cost-benefit analysis, including a risk assessment and the foreseeable impact on the sector concerned and on the socio-economic situation of the Member State and/or the region and, when possible, of the other regions of the Community; f) an analysis of the environmental impact; g) a justification for the public contribution; h) the financing plan showing the total planned financial resources and the planned contribution from the Funds, the EIB, the EIF and all other sources of Community financing, including the indicative annual plan of the financial contribution from the ERDF or the Cohesion Fund for the major project.

## **2. Cost benefit analyses and environmental issues**

Usually CBA is an analytical tool which used to estimate the socio-economic impact related to the implementation of certain policy actions and/or projects. The impact must be assessed against predetermined objectives and the analysis is usually made taking into account the sum of all individuals directly and indirectly concerned by the action. In particular, major projects finance by Cohesion Fund and the European Regional Development Fund require the preparation of a Cost-Benefit Analysis as part of the applications.

For the programming period 2007-2013, the EC has provided a set of working rules to promote consistency in the CBA for Cohesion Fund and the European Regional Development Fund applications.

The purpose for requiring the submission of a CBA for major projects is twofold. First, it has to be shown that the project is desirable from an economic point of view and contributes to the goals of EU regional policy. Second, evidence should be provided that the contribution of the Funds is needed for the project to be financially viable.

In principle, all impacts should be assessed: financial, economic, social, environmental, etc. The objective of CBA is to identify and monetise all possible impacts in order to determine the project's costs and benefits; then the results are aggregated (net benefits) and conclusions are drawn on whether the project is desirable and worth implementing. Costs and benefits should be evaluated on an incremental basis, by considering the difference between the project scenario and an alternative scenario without the project.(EC,2008)

Not all socio-economic impacts can always be quantified and valued. This is why, in addition to the estimation of performance indicators, consideration of non-monetised costs and benefits should be taken into account, particularly in relation to the following issues: (net) impact on employment, environmental protection, social equality, and equal opportunities.(Pearson, 2008)

Project benefits could take the form of benefits to society that are not properly taken into account in the financial analysis because, even if they are an intended outcome of the project, they are not fully captured by the financial prices due to the lack of a market value. In project analysis, an externality is an effect of a project not reflected in its financial accounts and consequently not included in the valuation. Externalities may be positive or negative. A typical example is the improvement in the quality of life of people living in an area that benefit from an environmental project. Quality of life could be improved as results of, for example, expected improvements to general human health in the area (as a result of reduction in pollution), or improvement in the attractiveness of the area subject to the intervention (due to improved environmental condition, for example cleaner watercourse as rivers and lakes). Benefits related to projects in the energy sectors are expected, among others, in term of reduction of harmful emissions of gases (including CO<sub>2</sub> and SO<sub>2</sub>), and fine particles.

It is worth keeping in mind that the project could also have negative externalities not reflected in the opportunity costs and that need to be taken into account in the economic analysis. Negative externalities could take the form of possible impacts on the environment (spoiling of scenery, naturalistic impact, loss of local land and real estate value due to disamenities, such as noise and odour), negative impact due to the opening of building sites or increased emission due to increased transport activities triggered by the project (for example as a result of the establishment of transfer stations for waste distant from the disposal site)

Externalities (both positive and negative) are potentially present in all proposed actions and likely to be dependent on the specific characteristics of the projects. To that respect, it is recommended that externalities are identified on a case-by-case basis when performing the Economic Analysis.

It is anticipated that, once all potential externalities are identified, the challenge is to take them into account in the Economic Analysis, since this will require translating them in economic terms by assigning a "price" to them. This step could result being fairly complicated since, by definition, externalities don't have a price which is established by the market and, therefore, proxies needs to be used to convert them in economic terms.

The general recommendation is to limit the assessment of externalities in the Economic Analysis to those for which a solid economic argument could be presented and for which a monetisation or estimates are realistically possible. In such cases where monetisation is difficult to justify, the identified externalities could be addressed as part of a multicriterial analysis, for example in the framework of option selection.

To a certain extent, externalities are similar across projects or action that concern one specific sector, due to the characteristics and features of the actions traditionally concerned.

The Polluter Pays Principle is one of the principles of Community environmental policy and applies throughout the European territory. In the words of the CF Regulation it specifies that the project dossier must include "an indication of the environmental protection measures taken, and their cost, including compliance with the polluter-pays principle".

### **3. Environmental impact assessment**

Environmental impact assessment is an assessment of the possible impact, positive or negative, that a proposed project may have on the natural environment. The purpose of the assessment is to ensure that decision makers consider the ensuring environmental impacts to decide whether to proceed with the project. The potential Cohesion Fund beneficiary must implement the an EIA procedure for major project.

Environmental impact analysis: the statement of the environmental impact of a project that identifies its physical or biological effects on the environment in a broad sense. This would include the forecasting of potential pollution emissions, loss of visual amenity, and so on. environmental assessment is a tool for decision makers, which helps to prepare and adopt sustainable decisions and decisions that minimize negative impacts on the environment and enhance the positive aspects. Environmental assessment is thus an integral part of the decision making process on promoting a policy, plan, program or project.

The information to be provided by the developer in accordance shall include at least:

- Description of the project, represent description of actual project and site description, the project is break down into its key components and for each component is listed all of the sources of environmental disturbance.
- Alternatives that have been considered, examine alternatives that have been considered
- Description of the environment, is listed of all aspects of the environment that may be effected by the development
- Description of the significant effects on the environment, the most frequent method used here is use of the Leopold Matrix a tool used in the systematic examination of potential interactions example: in a windfarm development a significant impact may be collisions with birds
- Mitigation, once description of the significant effects on the environment has been completed it will be obvious where the impacts will be greatest, using this information ways to avoid negative impacts should be developed
- Non-technical summary
- Lack of know-how/technical difficulties, this section is to advise any areas of weakness in knowledge, it can be used to focus areas of future research

### **4. Conclusion**

Environmental requirements in the Cohesion and Structural Instrumenst has been as obligation since 1993. As consequences of increasing public pressure to ensure that the use of the Structural Funds to co finance regional development programs, projects, or aid schemes did not result in environmental damage in the new regulation it can be found numerous features of importance for the environment.

To facilitate environmental integration in the Structural Funds, the European Commission has produced various forms of guidance. Beside environmental impact assessment that is requested for financing, costs and benefits analyses take into account environmental protection, moreover a number of environmental principle are requested ,the application of the principles of the precautionary principle, the principle of preventive action, and the polluter pays principle.

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## PATTERNS OF ECONOMIC GROWTH IN EUROPEAN UNION. A POST-CRISIS EVALUATION

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**Abstract:** *The period before the crisis was unique in terms of economic growth for most EU countries. Enlargement and globalization could be the two keywords which explain the favourable trends in years 2000. Nevertheless, the 27 countries are far to be homogenous and their reaction to crisis was very different. Are the differences coming from the past? This paper identifies certain patterns in economic growth of different EU countries and suggests grouping the countries according to these patterns in order to offer an explanation for their evolution in crisis time and to find a base for future differentiated EU policies.*

**Key words:** economic growth, crisis, European Union

**JEL classification:** F15, O40, O52

### 21. Introduction

The world experienced a long period of growth in the last 50-60 years. Globalization has driven economic growth by technology, financial markets, trade openness and foreign direct investments. Even in the good years, there are a lot of critical opinions regarding the effects of globalization. As Amartya Sen (2008) says, globalization can be even *a gift from the West to the world, even the devil itself*. We can look back in history and see that all the great developments happened in Europe: first Renaissance, then Enlightenment and later the Industrial Revolution and these lead to a massive increase in living standards. In this view, globalization is another step to the good westernization of the world. On the other side we have critics of globalization and they say that Western countries in Europe and North America has established rules of trade and business relations that do not serve the interests of poorer people of the world. The recent crisis brings some more arguments for globalization critics.

At the end of 2008 became clear that the world is going to enter in the most severe crisis in the last half century. Since then, a lot of studies, analysis, books and articles has been written. Paul Krugman (2009) published *The Return of Depression on Economics and the Crisis of 2008*, George Soros (2008) wrote *The New Paradigm for Financial Markets: the credit crisis of 2008 and what it means*, specialists from World Bank, International Monetary Fund, OECD, EU, etc. all asked themselves *how was it possible and what can be done in the future*.

One of the biggest threats is considered the temptation to reject and deny the accomplishments, to forget the good things that happened. The period since 1950 has been unique in terms of economic growth. We know now the idea that recessions and expansions follow a regular, predictable pattern is wrong. They do not. In fact, business cycles vary considerably in size and duration over time. The business cycles became a misnomer, because countries confronted with longer expansions and shorter contractions (Table 1).

**Table 1. Average business cycle duration, contractions and expansions 1980 – 2009**

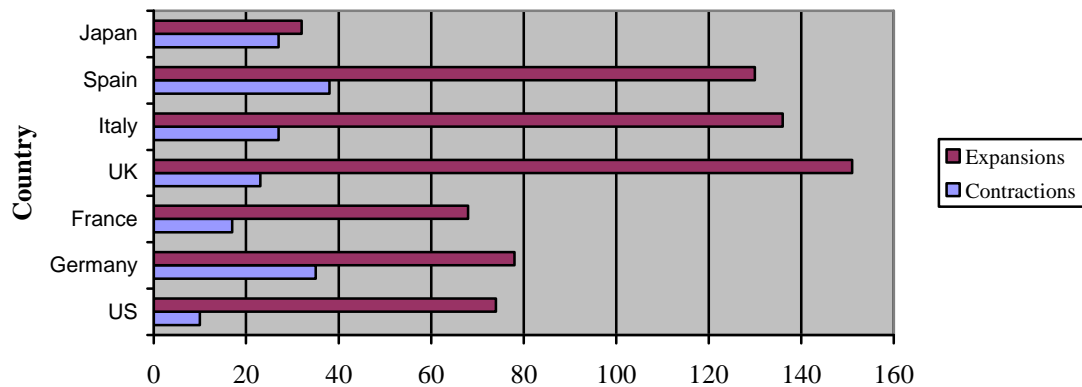
Trough	Peak	Duration (in month)			
		Contraction	Expansion	Cycle (peak to peak)	
US		10	74	84	4 cycles
Germany		35	78	113	3 cycles
France		17	68	85	4 cycles
UK		23	151	174	2 cycles
Italy		27	136	163	2 cycles
Spain		38	130	168	2 cycles
Japan		27	32	59	3 cycles

Source: Author's calculation based on National Bureau of Economic Research, USA data



In the era of globalization we enjoyed long periods of growth, and shorter and weaker downturns (Figure 1). What is truly remarkable about this era is not only the overall rate of economic growth, but the high rates of growth achieved by best performing countries. Japan, the Republic of Korea and China were the growth champions during the three subperiods 1950-1973, 1973-1990, 1990-2005, with annual per capita growth rates between 6 and 8 percent (Rodrik, 2010).

**Figure 1: Expansions and contractions 1980-2009 (in month)**



Source: Author based on NBER data and the business cycles duration (Appendix 1)

What happened now? After expansions of 46 months (Japan) up to 194 months (UK) these countries entered into crisis (see Appendix 1 for details). GDP per capita growth rate is not the only indicator that went down. The trade, the foreign direct investment, employment were the signs of a deep recession. The current trade crisis, for example, is a uniquely synchronized fall. In a study on OECD countries, Arajuo and Martins (2010) show that several culprits have proposed the trade collapse (credit crunch, global production chains, generalised loss of confidence), the great synchronisation rather than their individual effects that may explain what has happened. The great synchronisation is demonstrated for OECD countries but is also available for the global economy as a whole.

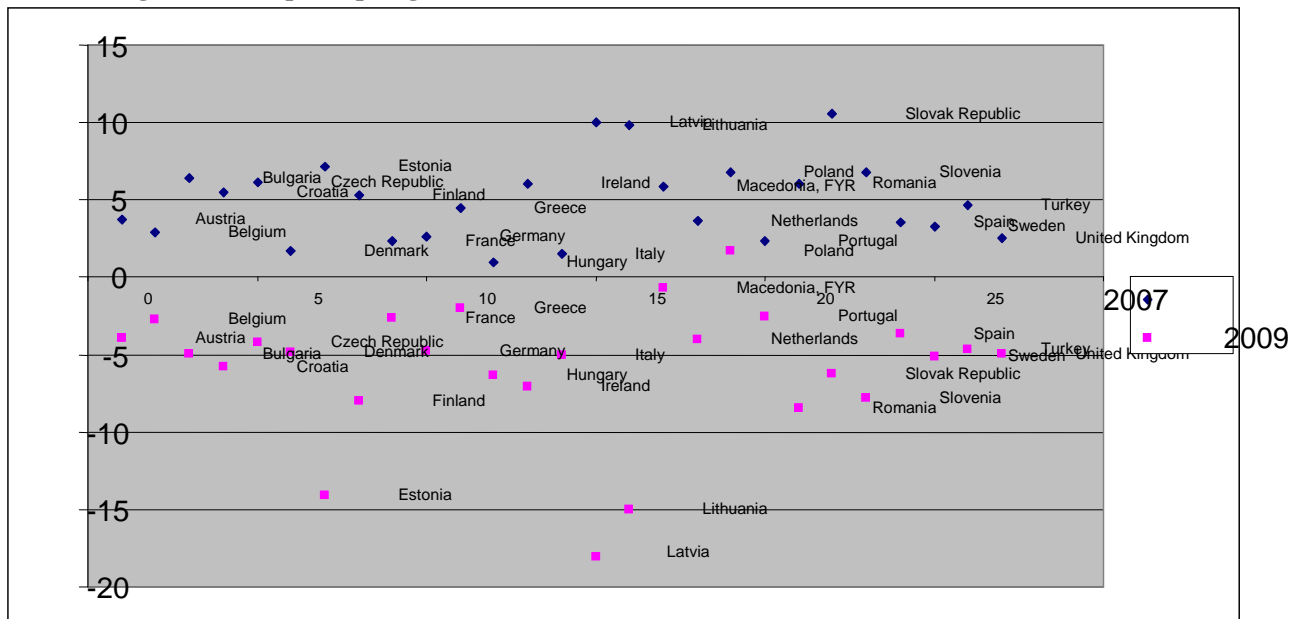
## 22. European Union: economic growth before and after the crisis

Europe is more than European Union. International reports often analyze the European Countries grouping them by other criteria than political integration. World Bank (2011) analyzing the performances of Europe and Central Asia Region explains the slow aggregate growth rate of the region by the fact that top five most affected countries in this crisis are: Bulgaria, Kazakhstan, Lithuania, Romania and Ukraine. The common characteristics of these countries are high levels of household indebtedness and widespread unemployment that have held back consumer demand, while banking sector consolidation and large quantities of bad-loans are limiting new lending. Also, the links with the Old Europe, where financial restructuring and economic growth are still slow, meant a weak recovery in foreign capital inflows, export revenues and remittances for developing Europe and Central Asia.

Moreover, European Union 27 members and candidates, high income or developing countries all experienced a dramatic decline in output, all in 2009, being a part of the “great synchronization” that we mentioned above. Nevertheless, European Union integration makes the big differences between European countries. There are studies, like Friedrich, Schnabel and Zettelmeyer (2010) that demonstrate the importance of EU integration before and after the economic crisis in terms of the effects on GDP growth rate. They show that that financial integration has indeed caused higher growth in European transition economies in the year preceding the current crisis whereas the same is not true for the other developing countries. Being interested in explaining differences between developing countries in growth rate, the study only includes a homogeneous sample. They conclude that political and financial integration are complementary and political integration can considerably increase the benefits of financial integration.

In 2009 whole European Union find itself in a deep recession. Looking for patterns in economic growth we find that the countries with highest drops in GDP growth rates are countries with the highest growth rate in 2007 (Figure 2). The same reaction had the candidate countries that we plotted on the figure: Croatia and Turkey with a GDP growth rate over 5% in 2007 registered a over -5% in 2009; FYR Macedonia remains an exception, with a high growth rate in 2007 and a small drop in 2009.

Figure 2. GDP per capita growth rates in 2007 and 2009 in EU and candidates countries



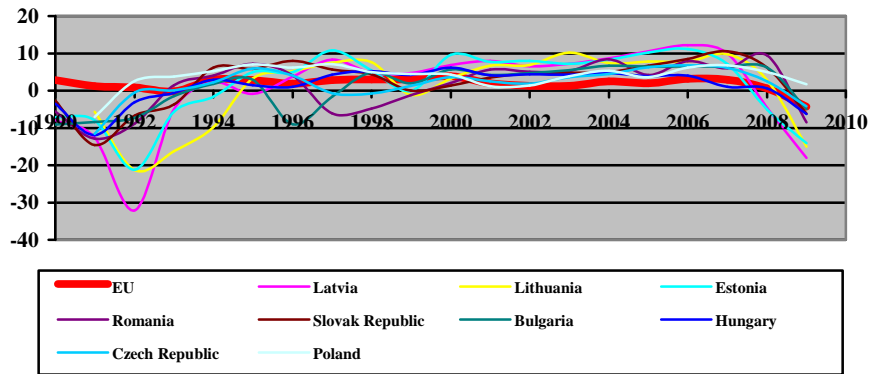
Source: Author based on World Bank database

Inside European Union we can group the 27 countries in four homogenous groups in order to provide a tool for understanding the causes and consequences of the crisis and for providing efficient policies. The four groups we are proposing are:

- Type H (High growth – High fall) - Figure 3: Latvia, Lithuania, Estonia, Romania, Hungary, Bulgaria, Poland, Czech Republic and Slovak Republic. There are countries with high growth rates before and great decreases (even two digits) in 2009 and all are New Member States of EU, former socialist countries. First years of transition were very turbulent for these economies, the degree of convergence in terms of GDP growth rate with EU before 2000 was low. After year 2000, they entered in a long period of sustained growth, stimulated by the preparation for EU entrance, and later in 2009 these countries experienced the deepest recessions (Appendix 2): - 18%, -15%, -14,1% the Baltics and -8,5%. Romania Coming from a period of 7-8 years of strong economic growth (the highest growth rates in EU) they are the four countries most affected by the crisis and they are still recovering (Romania will have a positive growth rate only in 2011).
- Type SH (Small High growth – High fall EU countries) - Figure 4: Cyprus, Malta, Slovenia, Luxembourg, Ireland. The combination high growth – deep fall is the same like in the other group but we considered the differences sufficiently important to separate them. These five countries have small and very dynamic economies, being over the average growth rate of EU almost all the time. Surprisingly, they were very affected by the crisis, mostly because of the dimensions of those economies.
- Type M (Medium growth – Medium fall) - Figure 5: Sweden, Italy, Denmark, United Kingdom, Germany, Portugal. Those countries loss in 2009 was about 3,6%-5%, (the EU average was - 4,3% in the same year). For the entire period GDP growth rate in these countries is following the EU 27 average.
- Type L (Low growth – low fall) - Figure 6: Netherlands, Austria, Spain, Belgium, France, Greece. Normally, we could say that in this category we find the best performers of the European Union. Even their growth rates before the crisis were not impressive, the lost in 2009 was below 3%. Greece is the big question in this group, the proof that GDP growth rate is far to be the only relevant indicator for the economic crisis.

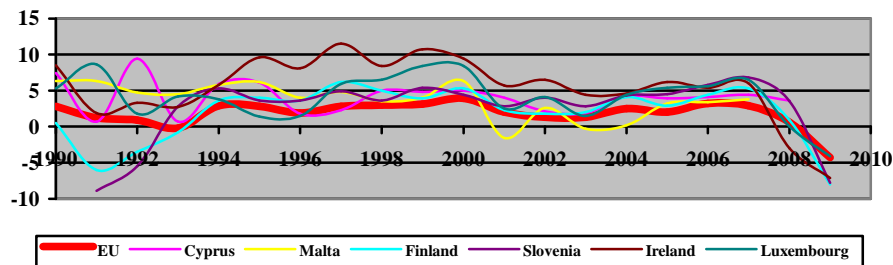
All 27 countries are now recovering. How is European Union planning to promote the economic growth after the crisis? Under the idea of “Driving the European Recovery”, EU is now implementing a plan focused on four main directions: reforming the financial system, supporting the real economy, keeping people in employment and promoting global recovering.

Figure 3. Type H countries



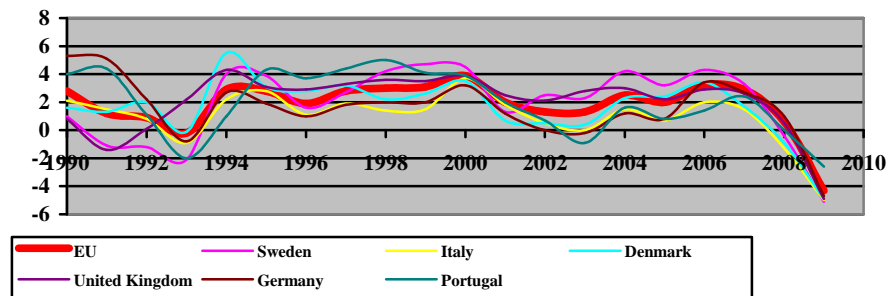
Source: Author

Figure 4. Type SH countries



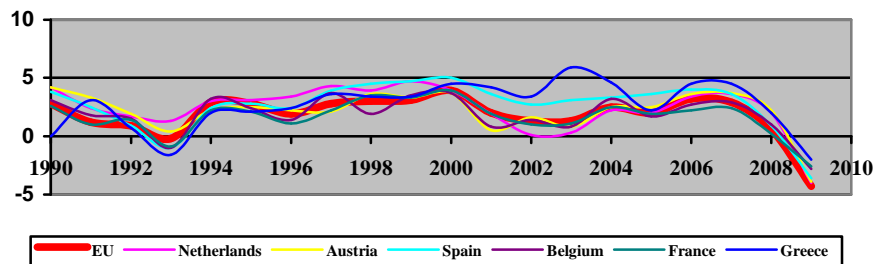
Source: Author

Figure 5. Type M countries



Source: Author

Figure 6. Type L countries



Source: Author

### 23. Conclusions

The difference between the EU countries in terms of economic growth before and after the crisis cannot be explained only by threshold effects in financial development, institutional quality, and trade integration. We suggest that economic, financial and political integration are complementary and the political integration can considerably increase the benefits of economic and financial integration, and the real convergence process.

Analysing the patterns of economic growth before and after the crisis we identified four categories: high – high (countries with high growth rates before the crisis and a high drop in output and GDP per capita in crisis time); low – low countries (there are the most stable economies of the EU, with a smoother business cycle, that experienced slow growth in years 2000 and the lowest drop in 2009); small high – high countries (they are small dynamic economies, with almost the same pattern of economic growth like the first category, but with structural differences regarding the causes and consequences of the crisis); medium – medium countries (their output had a strong felled down after a period of rather slow economic growth in the years before the crisis).

The results have some policy implications. They suggest that the negative side effects of integration that became evident in the current crisis must be weighed carefully against clear evidence that economic integration has had significant growth effects in the European Union. This does not imply that the risks associated with financial integration, divergences inside European Union, individual policy responses do not need to be mentioned, but it does suggest that policy should seek various ways to better manage those risks, rather than push back European and global integration *per se*.

### 24. Acknowledgements

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## Appendix 1

## Business cycle duration, peak and trough dates, US, 1980 – 2009

United States					
Trough	Peak	Duration (in month)			
		Contraction	Expansion	Cycle (peak to peak)	
	1/1980	-	-	-	-
7/1980	7/1981	6	12	18	1/1980 - 7/1981
11/1982	7/1990	16	92	108	7/1981 - 7/1990
3/1991	3/2001	8	120	128	7/1990 - 3/2001
11/2001	12/2007	8	73	81	3/2001 - 12/2007
6/2009	...	(18)	...	...	...
Average (in month)		10	74	84	
Germany					
Trough	Peak	Duration (in month)			
		Contraction	Expansion	Cycle (peak to peak)	
-	1/1980	-	-	-	-
10/1982	1/1991	34	98	132	1/1980 - 1/1991
4/1994	1/2001	39	81	120	1/1991 - 1/2001
8/2003	4/2008	31	56	87	1/2001 - 4/2008
1/2009	...	(9)	...	...	...
Average (in month)		35	78	113	
France					
Trough	Peak	Duration (in month)			
		Contraction	Expansion	Cycle (peak to peak)	
-	8/1979	-	-	-	-
6/1980	4/1982	10	22	32	8/1979 - 4/1982
12/1984	2/1992	32	86	118	4/1982 - 2/1992
8/1993	8/2002	16	108	124	2/1992 - 8/2002
5/2003	2/2008	9	57	66	8/2002 - 2/2008
2/2009	...	(12)	...	...	...
Average (in month)		17	68	85	
UK					
Trough	Peak	Duration (in month)			
		Contraction	Expansion	Cycle (peak to peak)	
	6/1979	-	-	-	-
5/1981	5/1990	23	108	131	6/1979 - 5/1990
3/1992	5/2008	22	194	216	5/1990 - 5/2008
...	...	-	-	-	-
Average (in month)		23	151	174	
Italy					
Trough	Peak	Duration (in month)			
		Contraction	Expansion	Cycle (peak to peak)	
	5/1980	-	-	-	-
5/1983	2/1992	36	105	141	5/1980 - 2/1992
10/1993	8/2007	18	166	184	2/1992 - 8/2007
...	...	-	-	-	-
Average (in month)		27	136	163	
Spain					
Trough	Peak	Duration (in month)			
		Contraction	Expansion	Cycle (peak to peak)	
	3/1980				
5/1984	11/1991	50	90	140	3/1980 - 11/1991
12/1993	2/2008	25	170	195	11/1991 - 2/2008
...	...	-	-	-	-

Average (in month)		38	130	168	
Japan					
Trough	Peak	Duration (in month)			
		Contraction	Expansion	Cycle (peak to peak)	
2/1975	4/1992	-	-	-	-
2/1994	3/1997	22	37	59	4/1992 - 3/1997
7/1999	8/2000	28	13	41	3/1997 - 8/2000
4/2003	2/2008	32	46	78	8/2000 - 2/2008
3/2009	...	(23)			....
Average (in month)		27	32	59	

Source: NBER

## Appendix 2

## GDP growth rate (% annual)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Austria	4,2	3,3	1,9	0,4	2,2	2,5	2,2	2,1	3,6	3,3	3,7	0,5	1,6	0,8	2,5	2,5	3,6	3,7	2,2	-3,9
Belgium	3,1	1,8	1,5	-1,0	3,2	2,4	1,4	3,7	1,9	3,5	3,7	0,8	1,4	0,8	3,2	1,7	2,7	2,9	1,0	-2,8
Bulgaria	-9,1	-8,4	-7,3	-1,5	1,8	2,9	-9,0	-1,6	4,9	2,0	5,7	4,2	4,7	5,5	6,7	6,4	6,5	6,4	6,2	-4,9
Cyprus	7,4	0,7	9,4	0,7	5,9	6,1	1,8	2,3	5,0	4,8	5,0	4,0	2,1	1,9	4,2	3,9	4,1	4,4	3,6	
Czech Republic		-11,6	-0,5	0,1	2,2	5,9	4,0	-0,7	-0,8	1,3	3,6	2,5	1,9	3,6	4,5	6,3	6,8	6,1	2,5	-4,2
Denmark	1,6	1,3	2,0	-0,1	5,5	3,1	2,8	3,2	2,2	2,6	3,5	0,7	0,5	0,4	2,3	2,4	3,4	1,7	-0,9	-4,9
Estonia	-7,1	-8,0	-21,2	-5,7	-1,6	5,0	5,0	10,8	5,4	-0,1	9,6	7,7	8,0	7,2	8,3	10,2	11,2	7,1	-5,1	-14,1
Finland	0,5	-6,0	-3,5	-0,8	3,6	4,0	3,6	6,2	5,0	3,9	5,3	2,3	1,8	2,0	4,1	2,9	4,4	5,3	0,9	-8,0
France	2,6	1,0	1,4	-0,9	2,2	2,1	1,1	2,2	3,5	3,3	3,9	1,9	1,0	1,1	2,5	1,9	2,2	2,4	0,2	-2,6
Germany	5,3	5,1	2,2	-0,8	2,7	1,9	1,0	1,8	2,0	2,0	3,2	1,2	0,0	-0,2	1,2	0,8	3,4	2,7	1,0	-4,7
Greece	0,0	3,1	0,7	-1,6	2,0	2,1	2,4	3,6	3,4	3,4	4,5	4,2	3,4	5,9	4,6	2,2	4,5	4,5	2,0	-2,0
Hungary	-3,5	-11,9	-3,1	-0,6	2,9	1,5	1,0	4,3	5,2	4,2	6,2	4,1	4,4	4,3	4,7	3,9	4,0	1,0	0,6	-6,3
Ireland	8,5	1,9	3,3	2,7	5,8	9,6	8,1	11,5	8,4	10,7	9,4	5,7	6,5	4,4	4,6	6,2	5,4	6,0	-3,0	-7,1
Italy	2,1	1,5	0,8	-0,9	2,2	2,8	1,1	1,9	1,4	1,5	3,7	1,8	0,5	0,0	1,5	0,7	2,0	1,5	-1,3	-5,0
Latvia	-7,9	-12,6	-32,1	-5,0	2,2	-0,9	3,8	8,3	4,7	4,7	6,9	8,0	6,5	7,2	8,7	10,6	12,2	10,0	-4,6	-18,0
Lithuania		-5,7	-21,3	-16,2	-9,8	3,3	5,2	7,5	7,6	-1,1	3,3	6,7	6,9	10,2	7,4	7,8	7,8	9,8	2,8	-15,0
Luxembourg	5,3	8,6	1,8	4,2	3,8	1,4	1,5	5,9	6,5	8,4	8,4	2,5	4,1	1,5	4,4	5,4	5,6	6,5	0,0	-4,1
Malta	6,3	6,3	4,7	4,5	5,8	6,2	4,0	4,8	3,5	4,0	6,3	-1,6	2,6	-0,3	0,2	3,2	3,4	3,8		
Netherlands	4,2	2,4	1,7	1,3	3,0	3,1	3,4	4,3	3,9	4,7	3,9	1,9	0,1	0,3	2,2	2,0	3,4	3,6	2,0	-4,0
Poland		-7,0	2,6	3,8	5,2	7,0	6,2	7,1	5,0	4,5	4,3	1,2	1,4	3,9	5,3	3,6	6,2	6,8	5,0	1,7
Portugal	4,0	4,4	1,1	-2,0	1,0	4,3	3,7	4,4	5,0	4,1	3,9	2,0	0,7	-0,9	1,6	0,8	1,4	2,4	0,0	-2,6
Romania	-5,6	-12,9	-8,8	1,5	4,0	7,2	4,0	-6,1	-4,8	-1,2	2,1	5,7	5,1	5,2	8,4	4,2	7,9	6,0	9,4	-8,5
Slovak Republic	-2,7	-14,6	-6,7	-3,7	6,2	5,8	8,0	5,7	4,4	0,0	1,4	3,5	4,6	4,8	5,0	6,7	8,5	10,6	6,2	-6,2
Slovenia		-8,9	-5,5	2,8	5,3	3,6	3,6	4,9	3,6	5,4	4,4	2,8	4,0	2,8	4,3	4,5	5,8	6,8	3,5	-7,8
Spain	3,8	2,5	0,9	-1,0	2,4	2,8	2,4	3,9	4,5	4,7	5,0	3,6	2,7	3,1	3,3	3,6	4,0	3,6	0,9	-3,6
Sweden	1,0	-1,1	-1,2	-2,1	4,0	3,9	1,6	2,7	4,2	4,7	4,5	1,3	2,5	2,3	4,2	3,2	4,3	3,3	-0,4	-5,1
United Kingdom	0,8	-1,4	0,1	2,2	4,3	3,1	2,9	3,3	3,6	3,5	3,9	2,5	2,1	2,8	3,0	2,2	2,9	2,6	0,5	-4,9

Source: World Bank, 2011

## THE IMPACT OF POOR LANGUAGE SKILLS ON INTERNATIONAL BUSINESS

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**Abstract:** *This paper aims at proving that poor language skills have a strong negative impact upon international business. Its main objective is to show that steps should be taken by international companies to improve their employees' language skills in order to prevent economic loss. Business schools well should adapt their curriculum to meet the requirements of the 21<sup>st</sup> century business environment and business organizations should invest more in foreign language learning with special focus on English, as the lingua franca of today's global market.*

**Key words:** English language, international business, language/communication skills

**JEL classification:** A12 - Relation of Economics to Other Disciplines

### Introduction

Language knowledge is necessary in contemporary business world. The development of listening, speaking, reading and writing skills are allegedly the main focus of every educational institution in the world, but this does not mean that students and business professionals have considerably improved their communication skills. The effects of employees' poor language skills are in most cases disastrous to multinational companies, forced to operate in various parts of the world and cultures.

Companies all over the world are spending huge amounts to improve their employees' communication skills. For example, according to Zane K. Quible and Frances Griffin, the American National Commission on Writing (NCW) published in 2004 the results of a study they had conducted on 64 American corporations; the study showed that the costs incurred by the corporations' attempt to improve their employees' writing skills were around 3.1 billion USD. Quible and Griffin argue that the costs of poor written communication skills impact upon the company's image (employers and employees included), productivity, and the decision-making process (Quible and Griffin 2007, 32). Even if the authors mentioned above focus on writing skills, their analysis might be extended to the other language skills as well.

American corporations are a good example for European Union employers that should also consider estimating their costs entailed by their employees' poor language skills. English is a *lingua franca* of the European business environment – but a *lingua franca* which still belongs to its native speakers (see Jordão 2009, 95) – and most players on the EU markets use it as their "natural" medium of communication.

### "Languages Mean Business"

One of the main reasons why language skills have been constantly degrading over the past few years is the replacement of traditional grammar teaching with context-based strategies in a totally inappropriate manner. Even though traditional grammar drills have proved inefficient over the years, educators should start focusing again on grammar and punctuation rules. "Researchers have shown that the ability of students to eliminate their sentence-level errors improved when instruction was combined with other approaches (e.g., in-context writing, sentence combining, glossing, error labeling). Without such instruction, businesses will continue to suffer the high costs of a lost generation of employees whose writing is plagued with sentence-level deficiencies" (Quible and Griffin 2007, 35).

Instruction involves adjustment of business school curricula to meet the challenges of the 21<sup>st</sup> century. American researchers look up to European countries that have started a long time ago this process: "Countries that take languages seriously treat them as important core subjects. In many countries, at least one foreign language is compulsory for all students. Often, foreign languages are accorded the same status as mathematics, reading, and writing and are required for school exit examinations and university entrance" (Christian, Pufahl, and Rhodes 2005, 227-228).

The Business Forum on Multilingualism established in 2007, published a report in July 2008 titled: "LANGUAGES MEAN BUSINESS. Companies work better with languages. Recommendations from the Business Forum for Multilingualism established by the European Commission." The Report started from the assumption that "A significant percentage of European SME's lose business every year as a direct result of linguistic and intercultural weaknesses. Although it appears certain that English will keep its leading role as the world business language, it is other languages that will make the difference between mainstream and excellence and provide a competitive edge." Even though the position of English as *lingua franca* of the

business environment is not going to be challenged, at least in the near future, the Report emphasizes the fact that member states should focus on one of the objectives set during the Summit in Barcelona in 2002: "National Governments are still very far from the common objective defined by the Member States at the Summit meeting in Barcelona in 2002 that every citizen should learn two languages at school in addition to his or her mother tongue. In many countries the trend is reversed when it comes to acquiring solid working knowledge of a second or even a first foreign language. Truly plurilingual persons have often acquired their languages outside the formal education system. However, official recognition of non-formal and informal learning is unusual, and such language skills are seldom taken into account as true personal merits" (Business Forum on Multilingualism 2008, 5).

Therefore, language acquisition should be primarily the result of formal education in order to prove efficient for the European business environment. The ELF (English as a *lingua franca*) learners must improve their "linguistic and cultural behavior" (Watterson 2008, 2). The Business Forum for Multilingualism established by the European Commission drafted a set of recommendations for all Member States, divided into general objectives and specific measures as shown in the table below:

**Table 1. Objectives set by the Business Forum for Multilingualism**

<b>General Measures</b>	Member States should promote both formal and informal learning of a wide range of languages;
	Language strategies should be implemented at top management level in European companies;
	National, regional and local bodies support companies in their efforts to use languages strategically;
	A European platform should be created for a permanent exchange of best practices languages for business.
<b>Specific Measures</b>	Companies should revise their recruitment policies and development strategies within human resources management, set up individual language competence targets for employees matched to their specific tasks and responsibilities;
	Companies should apply a wide range of language management strategies (e.g. investing in language training, employing native speakers of different languages using language technology and working with translators, interpreters, communicators and cultural mediators);
	Companies should seek to enhance international mobility for staff.
	Member States should provide appropriate recognition for language skills in school leaving certificates and insist on their added value in the terms of career opportunities later on;
	Member States should encourage language learning at all levels and widen the range of languages taught.
	Member States should introduce more practice oriented language learning modules from secondary school and all through tertiary school including vocational training;
	Member States should recommend national trade promotion organizations to include language strategies in their support programs, in particular those directed towards SME's with a view to enhancing their export prospects;
	Member States should include language training in national programs for lifelong learning and social integration.

(see Business Forum on Multilingualism 2008, 6-7)

The main failure or delay in implementing such measures is the loss of important contracts, but in fact, the true impact of poor language skills on European and international business is truly unquantifiable. According to the above-mentioned report, the literature abounds in evidence in this respect: "A large proportion of European SME's lose contracts every year as a direct result of linguistic and intercultural weaknesses. Those were the findings in the ELAN report, which was published by the Commission in February 2007. It was the first European-wide survey of business lost as a result of lack of language skills in companies. The report is based on a sample of almost 2000 SME's from EU 27 and candidate countries. As many as 11 % of the SME's in the sample declared having lost contracts as a direct result of linguistic and intercultural weaknesses. The macroeconomic conclusions presented in the study suggest considerable potential for improvement of export performance of SME's if languages can be used strategically. This has been confirmed by several national studies" (Business Forum on Multilingualism 2008, 8).

There are several voices who claim that the impact of language proficiency upon economy at both microeconomic and macroeconomic levels is completely quantifiable. For example, the authors of the TIRF report argue that "there are measurable economic returns on English and plurilingual skills for individuals, corporations, and economies. TIRF's findings also suggest that there is a considerable price to be paid if corporate global and local communications fail, or are ineffective due to poor language proficiency of employees. It is clear that this entire subject, i.e. the economic return on English and plurilingual skills, as well as on corporate language strategies, begs further research and study" (TIRF 2009, 5). The huge impact of communication skills on firms' daily activities is due to the extensive use of English in multiple business



situations, such as telephone calls, communication with co-workers and customers or clients, in meetings, in e-mail messages etc. The TIRF report shows that English is used by the employees of international corporation in more than 50% of communication situations.

The main conclusion of the TIRF report is that English is one of the most important languages used by global corporations in their interaction with partners and employees and, as a result, the costs of not trying to develop language skills in English may have a huge negative impact upon current business activities and future development. Moreover, we should note that the 21<sup>st</sup> century business world requires proficiency in more than one foreign language, with English being treated more like a "basic skill" by most corporations: "Effective communication across diverse linguistic and cultural backgrounds is a requirement for the 21<sup>st</sup> century global corporation." Therefore accurate assessment of language skills is a must, the TIRF report suggesting a set of language needs assessment questions (originally developed by Global English, [www.globalenglish.com](http://www.globalenglish.com)):

1. Is your organization already feeling the impact of insufficient English skills?
2. Does your workforce include significant numbers of non-native speakers of English who need English to do their jobs effectively?
3. How often do employees need to use English during the business day?
4. How many of these employees have the level they need to use in their jobs?
5. What is your current solution for English language learning? (TIRF 2009, 49; 55)

Therefore, English really means business. The questions above require timely and accurate answers. Significant loss should always trigger thorough analysis, but it is always easier to prevent than to cure major defects. Even though, for the business professional, the effects of poor communication (including language) skills is economic loss, for the language professional or educator working in a business environment their implications are more serious. The true cost of language problems in international business is the fact that they destroy relationships thus making business impossible; they prevent job seekers from finding jobs on the global market; they incur higher costs than the costs required for a solution to such problems (see Damerow and Bailey 2010, 70).

### Conclusions

English is a global language. It is the *lingua franca* of international business and most business professionals and educators of the 21<sup>st</sup> century consider it a basic skill. Companies run by managers with strong language skills perform better on the global market and are more efficient in their everyday business relationships with customers and employees. Development of better language skills require appropriate investment policies and considerable changes in the curriculum of business schools, as the costs of overcoming language barriers are insignificant in comparison to the costs related to poor communication/language skills.

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## CRISIS EFFECTS ON ORGANIC AGRICULTURE

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**Abstract:** *Organic agriculture arose in the early twentieth century, but the principles of this system of agriculture were promoted after the Second World War, by consumers and physicians concerned about the effect of food on human health. This branch of agriculture is in constant development, demand for organic products exceed supply of such products.*

**Key words:** organic farming, crisis, effects

**JEL classification :** Q15, Q18, Q19

### 1. Introduction

Organic farming (similar to organic farming within or biological) is, according to data compiled by the Ministry of Agriculture, a process "modern" to cultivate plants, to fatten livestock and produce food, which differs fundamentally from conventional agriculture. The role of this system of agriculture is to produce cleaner, more food, more suitable for human body's metabolism, but in complete correlation with environmental preservation and development of respect for nature and its laws.

Organic farming contributes to increased economic activities with a significant added value and has a major contribution to increasing interest in the countryside.

From the consumer point of view, organic farming creates authentic quality food and drink produced without using synthetic chemicals. When you purchase organic products at the same time support a sector that brings other benefits such as care for the environment, biodiversity, animal welfare and rural development.

### 2. Supporting organic farming

Common Agricultural Policy of the European Commission mentions support for agriculture and the environment as a key strategic objective. The Commission is committed to supporting organic farming purposes, including environmental protection and rural development. The high quality of products they recommend organic sector creates.

Organic products are generally more expensive than conventional products, because there are many technological and cost of compliance with standards, which can not be compensated by applying the principles of market economy. Therefore, there are a number of financial mechanisms for the EU supports farmers who meet the standards of organic farming community.

These financial arrangements can be both direct payments, as well as supporting the investment process, training aids and training, compensatory payment.

### 3. Rules regarding organic farming

Alternative agriculture is characterized by replacing the desire productivist at ecologically rational, biological diversity branches and the base of agricultural production, pest and diseases through integrated approach, based on the principle of homeostasis, the use of organic fertilizers (manure, compost); recovery "vocation" of the environment and soil fertility, considered the most valuable component of the agricultural ecosystem. Switching from conventional to the organic farming is done by following the conversion period, which in plant has a duration of 2 years for annual crops and 3 years for perennial crops.

Farming system is based on adherence to strict production standards and principles in accordance with Community law and national law implementing Community law.

### 4. The link between economic decline and rises in the agro-food industry

The world economy is in recession and not global crisis. Crises are felt by some segments that are less prepared to respond to the recession action factors, namely higher prices on the lack of consumption kWh production factors, while the whole world has a downward trend in labor productivity over the past ten years.

In this context, the economic downturn in our economy dependent on foreign speculative factors, and they did experience a number of effects that have led to increased direct and indirect production costs, as follows:

- Increase in utility prices - directly influence the cost price of the product;
- Increased raw material costs ADC production (such as in the plant - fertilizer, fertilizers, etc.).
- Increase in fuel prices;
- Increasing cost of living which has led to pressure on wages.

Cost more expensive credit-even during the course of investment;

- Lack of mechanisms to compensate for the additional cost for these differences.

Thus, the only way to bear these additional costs is to incorporate them in the final price of the product sold on the market.

Announced rises directly connected with the current economic recession and the inclusion of input price increases in consumer prices, will lead to market exit in the absence of the Romanian farmer to support his real instruments.

The economic crisis hit in full organic agriculture, several European manufacturers are already announcing that it has withdrawn from these cultures. Organic consumer market hard won, after many years struggled to survive and to take all necessary steps to certification.

At European level, Germany and Britain are the largest and most important exporters of organic products, this segment of agriculture supported by state funds million. Even so, consumers of organic products are those with above average incomes, it is still a market niche.

Although the global trend is to return to nature, the practice proves that this is not accessible to anyone. Even if demand increases, supply stagnates because there are many producers and those who aspire to organic status must pass through a difficult and costly process to enter the market. Last year, consumption of organic products has decreased during the period from September to October, but recent months have seen a stagnation of the market, so analysts do not rush to make gloomy predictions.

### 5. Romania's situation before the crisis

Today, according to statistics provided by the Ministry of Agriculture and Rural Development is developing organic agriculture contrary to the economic crisis that exists in our country. According to research organic market grows by 10-15% per year. This is due to the fact that demand is greater than supply and it's so important leads to two issues: a greater cantitare important food and farming sector development on the production and processing.

Data provided by the Ministry of Agriculture indicates that organic farming is a dynamic sector with an evolving sector both on the plant as well as on the livestock sector.

Romania has an exceptionally fertile land in southern and western plains country, rainfall and reasonable access to a large network of rivers that can be used for irrigation, but also a large number of farmers with good agricultural training.

**Table 1 . Operators and surface dynamics in organic farming**

Indicator	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010*</u>
<b>The number of organic farms</b>	3409	3834	4191	3228	4322
<b>Certified organic area (ha)</b>	143.194	190.129	221.411	240.000	260.000
<b>Share of cultivated land in organic farming in total agricultural area of certified</b>	1	1	1,5	1,7	1,86
<b>Farmland planted with annual crops (ha)</b>	45605	65112	86454	110014,4	129336
<b>Certified farmland and grassland pasture permanent crops (ha)</b>	51200	57600	46006,5	39232,8	46000
<b>The area of certified under permanent crops, orchards and vineyards (ha)</b>	294	954	1518	1869,4	3600

\*Data are being finalized

Source : Ministry of Agriculture and Rural Development

In the past 40 years and especially over the past 20 years, agricultural land in Romania was chemicalized at very low levels, but in the last ten years, between one and three million hectares of arable land of the highest quality have remained uncultivated, which means that in some areas during the conversion to organic farming are reduced to only one year ..

Following an analysis of the past five years, we see that in 2009 the number of registered organic operators decreased by 23% compared to 2008, a significant decline in conditions in which places great emphasis on ecological development.

Instead, in 2010 there was a substantial increase in operators, they returned and even exceeding the number in 2008 by 10%. If they would have maintained the steady growth of 10-15% per year, the number of operators at the end of 2010 would have been more than that now..

## 6. Conclusions

In conclusion, at this moment in Romania is a good part of the greening of agriculture due to the fact that millions of hectares of land have been fertilized or chemically treated for several years and agriculture environmental cost is not only an alternative but a radical change and the ideal production system.

We can not overlook the fact that Romania can find a place on the European market for organic products in western Europe because climatic conditions favor the development of foliar diseases requiring polluting technologies to combat them. In Romania, there is good agricultural land for organic production of cereals and increasing environmental quality without synthetic chemical fertilizer consumption may occur as a result of expansion and encourage the cultivation of soybeans, peas, sunflower, for which there are gaps on European market for protein and vegetable oils.

European fundraising is a necessity in this field of "Organic Farming". Preserving bio-diversity of agricultural practices, are subsidized by Package 4, the measure of agri - environment.

## 7. Thanks

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## FACTORS THAT TRIGGER INFLATION IN ROMANIA

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**Abstract:** *The main objective considered by the monetary authorities in Romania after EU integration is to maintain the inflation target imposed. To achieve this goal, the slowdown in inflation can be maintained by reducing price volatility and minimizing the impact of inflation determined by the new taxes imposed on alcohol and tobacco products. The persistence of inflationary risks associated with the current macroeconomic framework generated by the economic crisis, largely due to increase in some categories of indirect taxes as well as exposure to domestic demand urges monetary authorities to pursue policies that consider these issues. This context makes it necessary to elaborate a model for studying the inflationary influence of key factors.*

**Key words:** inflation, multiple linear model, inflation targeting.

**JEL classification:** G17

### 1. Introduction

Inflation is one of the most controversial and complex phenomena in the economy, raising a number of definitions, interpretations and attempts to measure and counteract its effects. In today's economy, inflation is a universal reality, as it affects all countries in various forms and in varying degrees. Inflation is considered permanent because, having appeared before the economic science, it has gone through several stages and has ceded only rarely. The issue of inflation is a major concern of economic theory and practice worldwide. Inflation, with all its meanings and intensities, is a macroeconomic problem.

Many specialists consider that inflation is an extremely important phenomenon of contemporary economies, especially of those in transition, where the increased complexity of economic and social life, increased interdependence between internal and external factors as well as the need for integration of new economic, human and social principles in development strategies are some of the key factors in the evolution of these economies.

As a macroeconomic process, inflation is caused by a number of factors that compete with different intensities, over shorter and longer periods of time, in establishing and maintaining this process. The inflation mechanism generated by a number of factors influences, in its turn, the evolution of all real economy indicators. The factors generating inflationary mechanisms are general, individual or specific. They can be grouped into the following categories: internal factors (economic, social and political, monetary, financial and currency) and external factors.

For emergent economies in Eastern and Central Europe, stringent control on prices adopted before transition towards the market economy inevitably led to high inflation rates, with the liberalization of prices. General economic context and conduct of macroeconomic policies adopted have induced different rates and volatility of this imbalance, with different implications on the costs and the solutions adopted.

### 2. Macroeconomic factors underlying inflation in EU countries

A particularly important factor for high rates of inflation in emerging countries is the vicious association between budget deficit, monetary growth and inflation growth. According to studies by Burton and Fischer in 1998 the seniorage average income within moderate economies was 18% of GDP before stabilization and fell to 15% after inflation has been reduced. Seniorage incomes were associated with the average budget deficit to GDP ratio. However differences in inflation rates can not be strictly attributed to tax system differences. Tax system adaptability to external shocks, however, was an important factor. In contrast to the inflation tax approach, addressing the "balance sheet" highlights the role of the exchange rate in determining prices on domestic markets.

Empirical studies are rather ambiguous whether a fixed or flexible exchange rate leads to lower inflation. Some cross-sectoral studies have shown that inflation is lower under fixed exchange rate regimes

than under flexible regimes. This is true only for fixed regimes that have not gone through frequent adjustments.

A key determinant of inflation is wage level. Its role in the dynamics of wage inflation in emerging countries has received attention under two perspectives. One is that exogenous shocks on wages lead to inflation of "cost-push" if the monetary authorities adopt an accommodative policy. The second is that the indexing mechanism which takes into account past values can generate strong persistent effects.

An important and specific factor in emerging economies is the role that relative prices play in the inflation process. In classical models of inflation, relative price changes do not affect aggregate inflation, since changes in the level of industrial prices are expected to be off-setting. Only aggregate demand changes have implications for inflation. However, the role of relative prices in inflation has received much attention with the study conducted by Ball and Mankiw in 1996 which showed that firms react differently to a higher price shock than to a lower one.

Another underlying factor in the phenomenon of inflation is given by the mechanism relating current inflation to the inflation registered in the past. Theoretical considerations suggest that certain variables should be included in an empirical study on inflation. In some stringent assumptions - especially perfect flexibility of wages and prices and a stable equilibrium of the real exchange rate - conventional economic theory suggests that inflation can be explained only by money supply. However, relaxing the stringent assumptions of each of these potential explanations induces new inflation. Relaxing the assumption on wage and price flexibility implies roles for unit labor cost, respectively pricing policies in explaining inflation. Similarly, real exchange rate instability means that this assumption is also potentially relevant in explaining inflation.

Studies on inflation in transition economies have highlighted both the role of traditional cost factors (cost-push) and demand (demand-pull) in generating and sustaining inflation and relative price adjustment effect in delaying disinflation. It seems that each of these factors were present in Romania. Increasing cost pressures resulted from wage growth stages in excess to productivity - essentially due to lack of financial discipline - and the real depreciation of the currency. Pressure factors included adjusting monetary fiscal deficits and / or quasi-fiscal, reflecting the new financial indiscipline and lax budgetary constraints, ubiquitous in the enterprises. Relative price adjustments were in Romania, in particular, extended due to fragmented and occasionally reversed process of price liberalization.

Inflation can not be explained by a cause and effect reasoning, rather it is a process, a chain of events that influence each other in engaging price increases at different rates. The phenomenon that plays the role of detonator may vary, afterwards a number of factors contribute to feed increasing prices. The main factors that gave rise to inflation are the monetary supply and demand of goods and services, production costs, but the root causes of all lies in the nature and structure of the economy, of which inflation is only a reflection.

Analyzing the factors and causes of the inflationary process we see that they all overlap and influence each other in various ways over time and space. Thus, unjustified increase of money incomes of certain categories of businesses, deficits in government budget and accounts reflecting economic relations with foreign countries, increased costs, money supply, currency depreciation and reducing the supply of goods and services, etc.. are just some of the many circumstances that can trigger, enhance, preserve and maintain the inflationary process.

### **3. Modeling inflation in relation to significant macroeconomic variables. Main factors of influence**

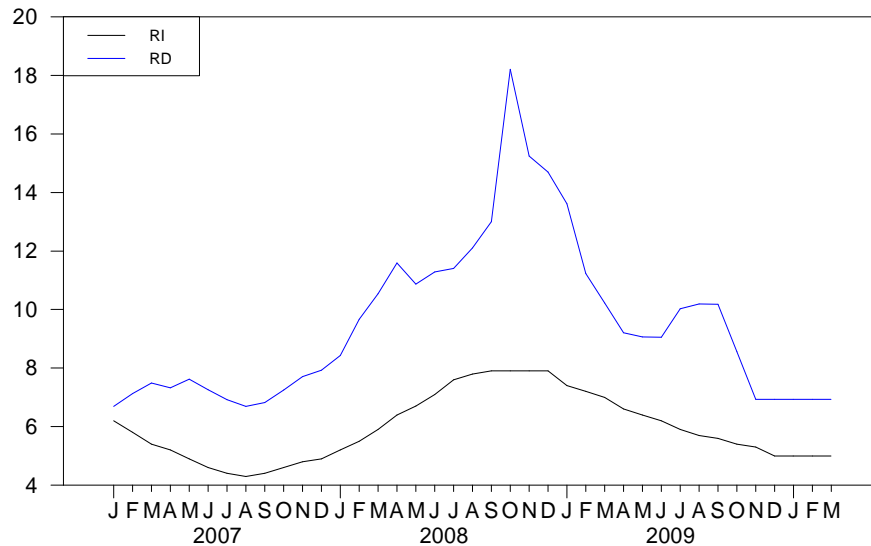
In the last decades, the main problem of economies worldwide was the general rise in the level of prices. The pressure generated by this growth has led to significant discrepancies in the monetary, political, economical and social environment. Inflation is the main factor of economic crisis, discouraging investment and causing the migration of capital to other countries. The balance destruction created by inflation affects decisions made in the private sector, which has the ultimate impact on output and leading to economic stagnation. After years in which Romania has experienced a high level of inflation, in recent years it faces a significant process of disinflation. This has great impact on the development of Romanian economy and foreign trade activity.

To develop a regression model of inflation is necessary to highlight the importance of the main factors of influence. These factors are very different and originate from both the economy and domestic and foreign sources. From a large number of factors that have an impact on inflation we will choose those factors which have a great influence on inflation in Romania. It is very important to choose those factors which can be found in national and European statistic publications. Factors that were taken into consideration are:

- Unemployment rate
- Exchange Rates
- Interest Rates
- Production price index
- M2 Monetary aggregate
- Non-governmental credit

The data used in the construction of this model were provided by Eurostat and the NBR over a period of three years 2007-2009 monthly.

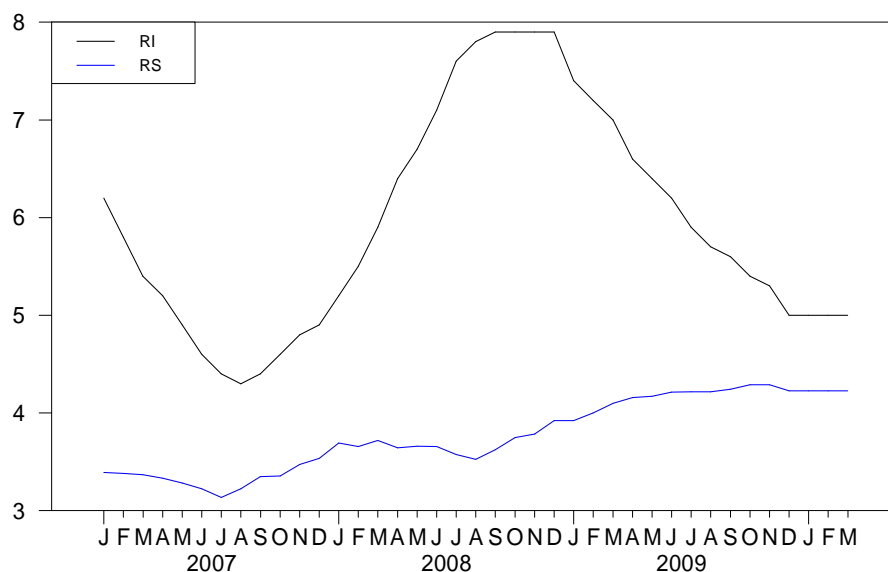
**Figure 1: Comparison between interest rate and inflation rate**



Source: Author's calculation using Eurostat data

If we analyze the evolution of the interest rate in comparison with the evolution of inflation rate one can notice that the interest rate is fluctuating more at the middle of 2008 acquiring the biggest values. Also the inflation rate is following the same ascending trend reaching the value of 7,9%. From the graphic we can observe that there is a positive correlation between the interest rate and the inflation rate.

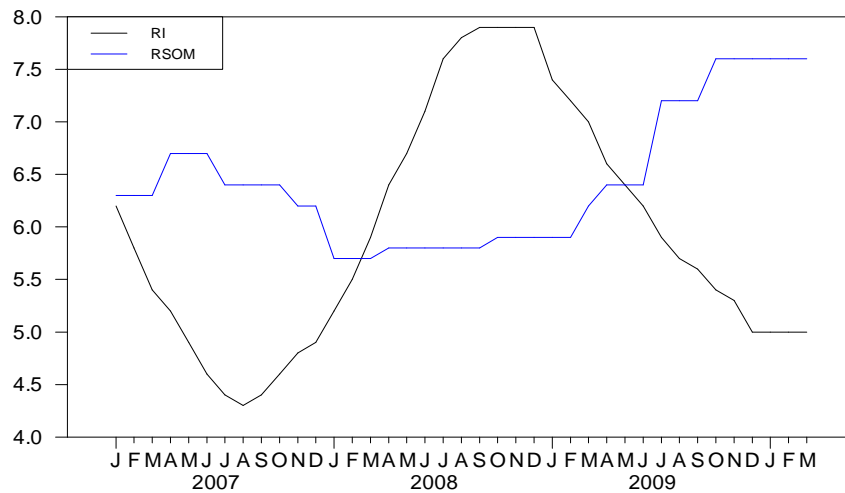
**Figure 2: Comparison between inflation rate and exchange rate**



Source: Author's calculation using Eurostat data

From the above graphic in which is analyzed the inflation rate in comparison with the exchange rate one can observe the fact that the exchange rate is following an ascending trend while the inflation rate has a random trend.

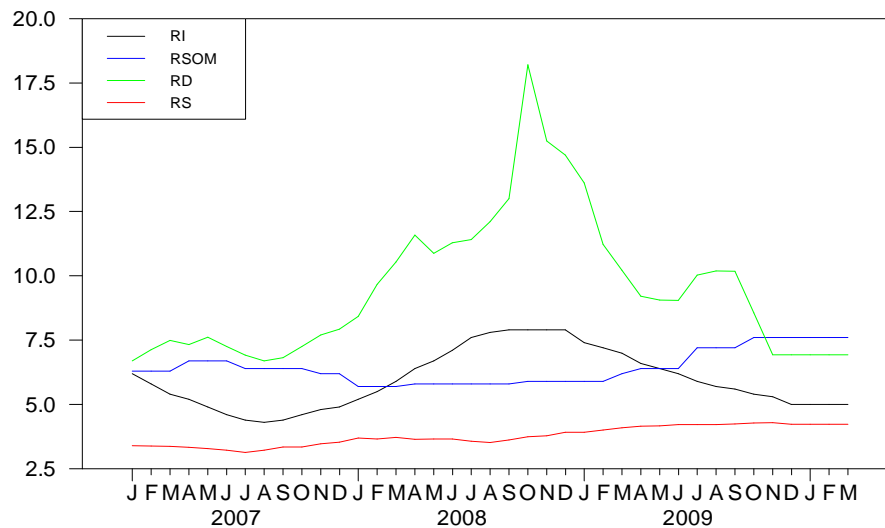
**Figure 3: Comparison between inflation rate and unemployment rate**



Source: Author's calculation using Eurostat data

In the case analyzed we can notice the fact that in the first months of 2009 the unemployment rate is following an ascending trend in opposition with the inflation rate that is taking a descending trend.

**Figure 4: Comparison between inflation rate and the others indicators**



Source: Author's calculation using Eurostat data

**4. Obtained results**

**Table 1: Linear regression between inflation rate and interest rate**

Variable	Coeff	Std Error	T-Stat	Signif
1. Constant	2.53	0.365	6.92	0.00000006
2. RD	0.36	0.0364	9.93	0.00000001

Source: Author's calculation using Eurostat data



In this table we can observe that the regression coefficient R is scored at 0,73 which states the fact that there is a strong connection between inflation rate and interest rate. The coefficient value of 0,36 indicates a positive relation between the variables analyzed..

**Table 2: Linear regression between inflation rate and exchange rate**

Variable	Coeff	Std Error	T-Stat	Signif
1. Constant	2.23	1.948	1.14	0.25971616
2. RS	1.016	0.519	1.95	0.05872655

Source: Author's calculation using Eurostat data

As we can see from studding the table the value of R is only 0,1 which indicates the fact that there is a connection between inflation and exchange rate. At the same time the coefficient value of 1,01 indicates o positive bond between those variables.

**Table 3 : Linear regression between inflation rate and unemployment rate**

Variable	Coeff	Std Error	T-Stat	Signif
1. Constant	12.51	1.91	6.55	0.00000017
2. RSOM	-1.023	0.30	-3.41	0.00168687

Source: Author's calculation using Eurostat data

Between the inflation rate and the unemployment rate there is a strong connection attributed to the value of R which is in this case of 0,25. At the same time the value of -1,02 of the unemployment coefficient indicates the fact that the unemployment rate is descending while the inflation rate is ascending.

**Table 4 :Linear regression between inflation rate and the price production index**

Variable	Coeff	Std Error	T-Stat	Signif
1. Constant	1.631.	0.22	1.33	0.19058957
2. IPP	0.038	0.01	3.62	0.00094257

Source: Author's calculation using Eurostat data

**Table 5 :Linear regression between inflation rate and the monetary aggregate M2**

Variable	Coeff	Std Error	T-Stat	Signif
1. Constant	2.62	1.0317706526	2.54	0.01569695
2. M2	0.0022	0.0066	3.34	0.00201906

Source: Author's calculation using Eurostat data

**Table 6: Linear regression between inflation rate and the non-governmental credit**

Variable	Coeff	Std Error	T-Stat	Signif
1. Constant	3.10	0.69	4.44	0.00008959
2. CN	0.00170	0.041	4.28	0.00014253

Source: Author's calculation using Eurostat data

Following completion of a multiple linear model, it can be seen that the value of  $R^2$  is 0.8 which means that the inflation rate in Romania is strongly influenced by changes in factors independent of the model. All tests show a strong dependence between inflation and other factors of influence. Interest rate coefficient value of 0.24 indicates that inflation and interest rates have a similar trend. Interest rates have been less volatile lately, which may explain lower price index.

Regarding the relationship between inflation and unemployment, it can be seen that the coefficient is negative, which leads to an inverse relationship between the two variables. There can also be noticed a positive value attributed to the exchange rate coefficient, which leads to a similar trend of inflation and exchange rate within the period analyzed.

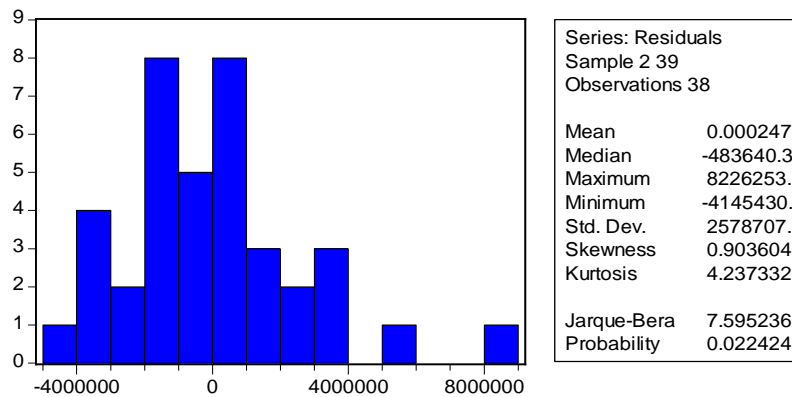
The negative value of the coefficient M2 indicates that the inflation rate rose in value while M2 felt. M2 decreased with the increasing demand for deposits. Finally, the government credit coefficient indicates a relatively weak link between it and the inflation rate.

**Table 7: Multiple regression between ri and other variables**

Linear Regression - Estimation by Least Squares				
Dependent Variable RI				
Monthly Data From 2007:01 To 2009:12				
Usable Observations	36	Degrees of Freedom	29	
Centered R**2	0.806410	R Bar **2	0.766357	
Uncentered R**2	0.993297	T x R**2	35.759	
Mean of Dependent Variable	6.027777778			
Std Error of Dependent Variable	1.1577345146			
Standard Error of Estimate	0.5596099503			
Sum of Squared Residuals	9.0817355994			
Regression F(6,29)	20.1335			
Significance Level of F	0.00000000			
Durbin-Watson Statistic	0.555914			
Variable	Coeff	Std Error	T-Stat	Signif
1. Constant	4.137660772	3.385156484	1.22230	0.23143785
2. RD	0.245145801	0.071576004	3.42497	0.00185560
3. RSOM	-0.549203482	0.293407243	-1.87181	0.07135016
4. RS	1.660306212	1.117791534	1.48535	0.14824293
5. M2	-0.000000054	0.000000044	-1.22675	0.22978410
6. IPP	0.001170521	0.012833732	0.09121	0.92795554
7. CN	0.000000030	0.000000026	1.16546	0.25332913

Source: Author's calculation using Eurostat data

**Figure 5: Testing normality of errors**



Source: Author's calculation using Eurostat data

Once we apply the Jarque Bera test, we can see that  $JB \gg 0$ , and the probability of acceptance test  $P = 0.02 > 5\%$ , which means that the residues do not follow the normal law.

<b>Table 9: Heteroskedasticity test</b>			
<b>ARCH Test:</b>			
F-statistic	0.698877	Prob. F(1,35)	0.408833
Obs*R-squared	0.724349	Prob. Chi-Square(1)	0.394721

Source: Author's calculation using Eurostat data

The ARCH test is used to test the following hypotheses:

H0: residues have the same variance;

H1: residues have the same variance.

$M = T * R^2 = 83.23$ . The probability is  $0.39 > 5\%$ , which means that the null hypothesis is accepted. Errors have the same variance.

## 5. Concluding remarks

The reaction the National Bank of Romania to the potential inflation shocks should be based on a credible monetary policy model. This model is intended to include previous experience with the decisive factors influencing the inflation rate. The accuracy of such a model is only possible if the economy is not affected by one of the following risks:

- Wage rates growth more than expected, uncorrelated with productivity growth;
- Deviation from the parameters set in the budget execution;
- Large discrepancy between savings and investment

The ascension of Romania in the European Union has brought about changes in the price of consumer goods through the adoption of policies specific to the European community as well as the influences resulting from integration into a common market.

The analysis carried out in this work has shown that inflation remains one of the most important macroeconomic indicators reflecting the performance of an economy and the living standards of the population. Because of the importance that inflation decrease and maintenance at a low level have, anti-inflationary measures should be a core objective of all governments, representing an ultimate indicator of the government grade of efficiency in a given country.

Although recently there has been undeniable progress, Romania remains the country with the highest levels of inflation among countries in transition. Controlling this major macroeconomic imbalance over recent years proved to be a costly and painful treatment for all socio-economic categories, who paid the price for a continuous erosion of the purchasing power and had to cope with uncertainty and a decline in living standards.

## 6. Acknowledgments

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## CIVIL SOCIETY, A THIRD PUBLIC POLICIES OPTION IN COMBATING THE GLOBAL CRISIS

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**Abstract:** *The need for decentralization of the administrative system is one of the most discussed and acclaimed topics, in the Romanian governing acts. Decentralization, however, cannot be achieved without political decentralization, a democratization process of democracy, achieved from top to bottom, in which the state supports the evolution of the civil society through partnership, by stimulating local initiative and community development. According to Anthony Giddens' theory, which is even more relevant due to the present economic recession, it states that the civil society represents a third option (neo-liberalism and social democracy being the other two) in achieving social welfare. The welfare type state concept is replaced by the welfare society concept, in which the state and the civil society work together for progress, development and mutual support. Apart from the need for a participant democracy, the objective of this present study is to analyze the stages of the present political decentralization in Romania. We intend to find explanations and solutions regarding the fragile voice of the Romanian participant political culture. What were we lacking: logistics or the collective mentality (a consequence of the emerging democracy...)? What are the distinctive mechanisms for proper governing, by which we can monitor the citizens' involvement in the process of public decision and the ongoing possibility of influencing the governmental authorities' policies and decisions by the people, at a national level by empowering the citizens with more authority? Respecting the existing interests of the society and not only those of the dignitaries, constitutes a condition for representation, something that the Romanian democracy lacks. Monitoring the manner in which the citizens' interests are represented by public decision, constitutes a fundamental element of proper governing. This study's objective is to create certain logistic conditions for the organization of the citizens' public policies debates, regarding the governing programs or the text of certain laws; the mechanisms should not be limited only to collecting and monitoring, but they should encompass the manner in which the citizens', the experts' and the civil society's representatives proposals are existing in the public decision.*

**Key words:** decentralization, public affairs, welfare government

**JEL classification:** H12; H53; H68; H83

### 1. Introduction

Reducing the costs without diminishing the services offered is one of the main concerns of the governing bodies at the present time. In order to answer to the fiscal restraints, the public institutions have implemented the institutional management as a great endeavour, despite the dysfunctions of the social welfare state.

The *Welfare State* represents a form of governing, in which the state is responsible for promoting and protecting the citizens' welfare, by means of social policies, guaranteeing: financial income, medical care, education, support and assistance in case of illness, retirement or the lack of jobs.

The evolution of this type of state, that assures a complex social protection and assistance system, in addition to certain demographic indices (ascending evolution of life expectancy, demographic aging) have determined the governments' increase of costs for pensions and medical services

The government's cost regarding wages and social spending increased more than work productivity did, which in turn led to an even greater financial crisis.

The Neo-liberalism implemented by Margaret Thatcher represented a model for reinventing the governing act (reinventing government), by adopting solutions from the markets' mechanisms and reaffirming the government's efficiency. The public's problems cannot be solved by a single "actor", such as the state, in a world that is in a full state of globalization, with insufficient national budgets of the states, whilst the citizens' expectations are continuously changing. It's a reality that has marked the governing process at the beginning of the 80's, more so during the Reagen administration in the United States and Thatcher's administration in Great Britain. The governments are forced to attract private investments in order to solve the public problems. At this point the public-private guidelines in the governmental sector, profit and non-profit, have been established. Social evolution represents an objective that is assured by this private profit and non-profit partnership with the civil society and the private sector.

## 2. Sections

Anthony Giddens (1999 p.10) considers that the economic basis of such a partnership is the mixed economy. The democratization of democracy it is attained by a certain governing act that is based on reciprocal partnership and control between the government and the civil society.

In the Next Step Program that was implemented in Great Britain<sup>13</sup> at the beginning of the 80's, the civil society had been considered a self generating mechanism for social solidarity. The need for implementing such a reform program in the public sector has been considered as being a natural effect of globalization. The effects of globalization determined the diminishing of the importance of the nation state. The beginning of the 90's outlined an image of a state that will hold on to the cultural, economic and governmental power over its citizens, but in order to be exerted it had to collaborate with local public administration, with the non-governmental associations and transnational groups. The governing concept does not identify itself anymore with the government, the NGO's and the transnational organizations take part in the governing act (2007, p.539).

Therefore, the state's response to globalization is the implementation of decentralization, especially the decentralization of the political component. The new public management and the public sector reform are implemented with the help of the entrepreneurial government (the governmental institution will employ every resource it has at its disposal in order to maximize productivity and work efficiency). The reform of the national budget sector, in the Next Step Program has the following objectives:

- a) Organizational and financial reform.
- b) Delegating responsibility from the public services to the private players.
- c) Privatization of the public services

The thatcherian neo-liberalism states that social welfare is assured by the market's mechanisms, requiring a minimal involvement on behalf of the state, which has to assure only the legal control(2001,p.102).

Returning to Anthony Giddens' concept, the civil society represents a third path, a third solution for achieving social welfare. In neo-liberalism, the role of the state is minimal and the civil society has to evolve spontaneously, whilst in the social democracy, the civil society is rather dysfunctional in providing social welfare, and the democratization of democracy would represent a new concept of public policies, a process from top to bottom in which the state supports the evolution of the civil society through partnership, encouraging local initiative and community development(2001,p.65-105). The concept of the welfare state is replaced with the welfare society concept, in which the state and the civil society work together for welfare and reciprocal support.

When defining the concept of civil society, the Center for a civil society of the London School of Economics states that the civil society is a collective independent set of actions which aims for the same objectives, interests and values, encompassing NGO's, volunteer, informal type organizations, which represent the interests and believes of the socio-professional categories, of the community, women and minorities.

In ancient Greece, the civil society was represented by a society led by citizens actively involved in politics. A. Ferguson defines civil society in his paper, "An Essay on the History of Civil Society", as being the opposite of the chaotic condition, in which each one fights with the others, the source for social peace being the involvement of the people in complex relations at a social level.

The common interpretation in the 20<sup>th</sup> century of the civil society is that of a cultural superstructure. Civil society is an unfulfilled reality of the emerging democracies, in which there is a lack of involvement of the citizens in the socio-political life. Revitalizing the civil society determines a revitalization of democracy.

In the emerging democracies, the civil society is the state's opponent, be it totalitarian or corrupt. An active civil society is not only a factor in the efficient functioning of democracy, but an indicator of it as well. The outburst of the citizens' involvement, in which a greater deal of importance is expressed towards any citizen, their relevance for the political system goes beyond one's voting choice. The civil society is the guarantor of democracy.

Etzioni (2002) considers the concept in older democracies outdated, civil society is only mentioned by western politicians as a propagandistic instrument, in order to renew their speech which in turn will gratify their own need in appealing the masses.

The term, *Community based organization* determined at the beginning of the 90's, the civil society theory as a partner of the state:

- Discussing and elaborating public policies
- Social services' provider
- Compensating for the public policies' deficiencies as a partner of the state.

Recognizing the role of the civil society in the social and economic evolution is pointed out by the international organizations: World Bank, U.N., E.U. In the areas where the institutions of the state don't function properly, the representatives fo the civil society constitute themselves in partners of the international organizations, in order to stimulate from bottom to the top, the citizens' involvement.

### 3. Conclusions

In the young romanian democracy, (2002) the problem of responding to globalization by means of decentralization represents one of the main subjects regarding the public sector reform. The lack of implementing decentralization is before anything else, a lack of political decentralization. This present study takes into consideration the citizens' involvement in the decisional taking process, rising importance of the democratic consultation process and expression of these decisions. When referring to the athenian citizens, in his paper on *The athenian greatness*, Pericles stated that, "...the athenian people consider that the one that does not interfere in the acropolis' affairs, is not only indolent but is also worthless"(2004). The vision and perception of the athenian democracy is that of a solid democracy, according to which nothing can exist outside a participant political culture. Political decentralization represents the ongoing possibility of influencing the governmental and public authorities' decisions by the people, at a national and especially at a local level, by conferring more power to the citizens. In the anglo-saxon thinking, the concept is called citizen empowerment. The political decisions that are taken after consultations at a wider level of the population and higher involvement on its behalf, will reflect more adequately the interests of the community, which are monitored at the citizens' level and not only the interests of the political representatives of the population, the interests of the dignitaries, which tend to represent by their public actions an insignificant percentage of the population.

The legitimate supervisor of the public policies must be the citizens, and due to the economic recession, an alternative to social democracy which will find difficult to apply the welfare governing model is governing and administering by means of culture and participant democracy. The civil society governing type, represents the best approach in preventing the effects of manipulation of the democratic electoral system, by the political leaders, who take decisions and implement policies that will favor themselves or the ones that they promoted in key positions. Political decentralization dictates the extension of the administrative duties be carried out at the public sector level, in order to create the proper conditions needed for public debating of certain public policies or normative acts, collecting policies from the citizens and civil society and their analysis, as well as creating information centers regarding the citizens' rights. The lack of political decentralization in the country's reality might be determined by the inexistence of a democratic framework regarding:

- The distinction of the state's powers
- Political pluralism
- Proper functioning of the state's institutions
- Informing and educating the citizens to become more involved

The causality analysis presents a double inadequacy: in the collective mentality and in the institutional logistic to organize citizens' debates. For example, organizing a debate with the civil society's representatives from a certain area of action with regard to a certain political strategy project in that certain area, arises at least a few essential problems. What is the criteria used when selecting which NGO's to take part, what are the designated locations for public debate and how can the public institutions provide these locations (is social determination enough or does a reason has to exist from top to bottom, by subscribing to the institutional objectives)? Logistical problems are the manner in which the collection of proposals and commentaries launched during the public debate regarding a certain text and forwarding these proposals to the group of experts. The conclusions of these specialized groups, technical in nature, must be presented to the deciding political members, who will decide how the strategy is going to be changed after the public debate.

It is without a doubt that due to this logistical inadequacy as well as the collective mentality, a bottom to top manner of action, from the communities to the governmental level cannot constitute a

stimulating solution of the civil society's reactiv response. The process must take place from top to bottom, by means of public policies included in the governing programs, such that the role of the civil society be a dynamic one.

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## FROM THE MOTIVATION OF CRISIS TO THE CRISIS OF MOTIVATION

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**Abstract:** The paper attempts to highlight in a theoretical - descriptive manner the essential aspects related to the theory of value from the classic and marginalistic perspective. Then the authors approach a crucial interpretation of the elements of value from the viewpoint of the objective and subjective theories and proceed to a review of the human motivations generating misbalance.

**Key words:** value, motivation, misbalance, crisis

**JEL classification:** H12

### Introduction

The main objective of this paper is to prove the correlation between the causes of the present economic - financial crisis and the crisis of theories and the system of values.

The specific objectives result from the presentation of the main theories of value from classic and neo-classic perspective and to identify the elements whose interpretation and application have triggered deep misbalances both on the economic and on the social level.

The research methodology is based on analysis and synthesis, historic approach, scientific abstractisation and correlation of theories and approaches.

### 1. The theory of value

#### 1.1. The classic theory of value

In John Locke's opinion there is a clear distinction between the concept of value *in se* and that of market value. He sees the connection between labour and value only in relation with property.

We may definitely consider Adam Smith to be the founder of the theory of value-labour. In *The Wealth of Nations* (1776), he pointed out: "Thus labour appears obviously as the only universal and accurate measure of value and as the only standard against which we may compare the values of different merchandise, in all times and in all places".

His main contribution resides in the deciphering of the market role in human society. His philosophy on this matter is that the market generates a spontaneous order and that the comprehension of its mechanisms is essential for the analysis of the economic-social processes involved.

Ideologically contested, Karl Marx's theory of value-labour introduces the historically limited character of capitalism. He underlines the idea that labour materialised in goods and services has a double composition: that of labour responding to a socially determined need and that constituting the object of an exchange value.

But how can one measure, from the quantitative and qualitative perspective, the labour incorporated in an asset or transmitted through a service? How can one determine what is socially necessary? The distinction of Marxism in comparison with other theories, which take into account rarity, consists in the insistence upon the role of labour in the creation of exchange value.

When two persons exchange two assets one considers them equivalent through the prism of the usage value, so they satisfy a socially determined need.

In the context of capitalist economy, the employer pays the labour force, not the value-generating labour or the counter-value of the human capital. This value contains a surplus, a part of plus-value, taken over by the capitalist and representing the most important component of the profit of annuity.

#### 1.2. Neo-classic theories

The neo-classics realise a sophistication of classic theories, especially that of Adam Smith, as a response to the so-called water-diamond paradox introduced by the latter.



”Nothing more useful than water, but almost nothing can be bought with it; almost nothing can be obtained in exchange of water. A diamond, on the contrary, has no usage value; nevertheless, in exchange of it, one may obtain a large quantity of goods.”

The theory of value based on utility seems contradicted. This paradox is explained from a marginalist perspective. By introducing the concept of function as the relation between inputs and outputs one analyses the effect of the consumption of an additional unit of a certain asset which leads to an increasingly reduced individual utility, down to zero (to the saturation threshold), which means that the usage value of a good depends on individuals and of the moment of choice.

Practically, people do not exchange goods with equal values, as it would appear equitable, but goods that everybody considers useful at a certain point, or desired irrationally (ostentatious consumption, consumption through compensation, imitative, induced through incentive techniques of sales boosting and publicity).

The economic value is not limited to goods and services. The liberty of economic values to their material support allows their exchange and transformation in the monetary equivalent (money) by means of the economic phenomenon called price.

The market value represents an indicator of the quality of the services provided, the key of the organisations’ learning capacity.

## 2. Is there a correlation between value and the economy’s cyclic run?

We may answer this question starting from the simplest mathematical expression of the exchange value of some merchandise, according to the objective theatre of value.

$$(1) V_M = p * q \quad (\text{consumer's perspective})$$

$$(2) V_M = C + V + P \quad (\text{producer's perspective})$$

where:

$V_M$  – value of a good, service, item of merchandise,

$p$  – unitary price, tariff,

$q$  – quantity of goods, services purchased,

$C$  – value of the production means consumed,

$V$  – value of the necessary product,

$P$  – value of plus-product.

$V + P$  - newly created value, which in the process of distribution returns of the production factors under the form of wages, profit, annuity, interest.

The usage value does not measure a quality intrinsic to the merchandise, but its capacity to satisfy human needs.

The subjective theory started from the premise that the exchange value may be explained through utility and rarity.

The context in which we analyse the value-crisis correlation starts thus from the assertion that the value of the goods produced primarily originates in the quantity and quality of the labour used, correlated with the economic preferences (as manifestation of the social need expressed through the demand for merchandise), and the abundance (or rarity) degree and the quality of the production factors.

Let us take these elements of this conclusion of the theories of value and analyse them one by one:

a) One claims that the primary source of value is labour under quantitative and qualitative aspect, however there is no generally applicable standard, no unitary method to measure it.

If the goods-merchandise take the form of a strictly necessary produce (e.g. bread) and nevertheless the baker’s salary is evidently inferior to the salary of a broker on the capital market or of a banker (who are not involved in the creation of real value), how can we claim that labour is the source of value?

The speculative actions of multiplication of scriptural currency are recognised different by society, as being much more useful than those from the positive economy.

If we approach this issue from the buyer’s perspective, the same quantity of goods (for instance a dwelling) has a higher value in the years of the real estate market boost, or in a certain location (capital, city, downtown area) expressed by higher and higher prices, even if effectively the dwelling is the same and satisfies the same primary need for shelter of the respective family.

The producer’s perspective highlights even more interesting aspects.

b) In formula (2) the production costs ( $C$ ) contain the value of the production means consumed (labour, nature, capital, neofactors). How do we measure nevertheless the costs of the nature production factor? Do

we assess the land at the land or real estate market price, the raw materials at the purchase price from the supplier, etc.?

However, NATURE provides us with these goods (along with air, heat, light), considered in economy as free, free of charge goods, without counter part from those who exploit them.

Practically one pays the right of ownership to a natural or legal person over free goods.

Not only do we pay nothing to nature, but also the economic activity generated negative externalities, i.e. private costs lower than social costs (pollution, destruction of the environment).

“The clandestine passengers” in the respective communities are the organisations and individuals who do not externalise the social costs generated by pollution, under all its forms.

In this context, by the power of the extended negative example, the measuring of value triggers misbalances in the overvaluation process.

c) The second element of the relation is the value of the necessary product (V), practically the subjective appraisal of utility.

The situation here is already at the limit separating the economic and the psychological. The ostentatious consumption, the consumption through compensation, imitative consumption become dominant in a consumer society, and the usage value is manipulated through subtle procedures on the level of the consumers’ behaviour. One more exaggeration component of one of the value’s components.

d) The third element, plus-value or surplus value of capital gains (P), originates, in Marx’s opinion (as mentioned before), mainly in the payment to the worker by the capitalist of only part of the labour value, i.e. of the labour force used for the production of goods or the providing of services. An important part of this elements is represented by the direct effects of the use of neofactors in manufacture (technologies information, entrepreneurship, innovation professions).

e) The newly created value containing the last two elements analyses returns, through an inequitable distribution, to the owners of the production factors, and not only.

The state appears here, and its economic role has increasingly grown; the state takes over part of plus-value under the form of taxes and fees. The way in which it fulfils its main function, that of redistribution for assuring social prosperity and security, may contribute to the new overvaluation of the taxation basis, and thus the denaturation of the size of the newly created value.

### 3. Motivation of crisis and crisis of motivation

In these past years, the word *crisis* has been perhaps one of the most frequently used terms, irrespective of the communication language.

Specialists, politicians have issued diverse explanations for the phenomena having triggered the present world crisis.

Most explanations come from the economic domain, ranging from the “real estate speculative bubble” to the excessive monetisation through indebtedment and capital market transactions, to causes of political nature referring to the regrouping of the power factors on the global level.

Applying however the iceberg principle, these explanations highlight only monetary-financial phenomena of wealth redistribution, without taking into consideration the motivations of people’s economic behaviour.

If we analyse all the above based on the Laws of Nature, we shall be surprised to find that the very fundament of the contemporary economic system is shaky.

Any economic activity should respond to a certain system of needs, which would be characterised by dynamism and diversity as well as rationality and sustainability.

The latter premise cannot be assured in the absence of a system of social values founded on equilibrium, equity between generations and observance of the Laws of Nature.

It is impossible for a minority favoured by the ephemeral ownership of economic and political power to attract most of the newly created value, through the exploitation of natural resources and labour force, whereas the overwhelming majority of the world population is at the limit of biological survival, and not to fear from the future backfire “revenge” of the situation created.

Even if one succeeds, through specific means of mass manipulation, in annihilating the will and in instituting fear (the fear of future, life, punishment, the others etc.), in the long term another natural law comes into force, *the law of entropy*, according to which the degree of disorder increases along the accumulation of tensions provoked by contradictory forces.

Whoever thinks that there are phenomena without causes and effects, he has either understood nothing from the experience of the great empires, or is just naive!

Even in situations of crisis (practically in the last hour), although one talks about solidarity, in reality the action and confrontation of opposite forces becomes fiercer.

The rich will do anything in their power to profit from the crisis, annihilating their adversaries, signing and sealing with lots of money “the political devil” who has access to the more and more expensive financial resources, whereas the poor become poorer, more desperate and abandoned.

Their motivations are thus completely different.

The former found their actions on greed, hunger for power, a form of despair before the possibility of losing their social statue (extremely important for them), the latter on the despair of the survival of themselves and their families.

From the biological viewpoint, it is likely that the organism that will survive is that organism that has reserves it can attract to consumption.

From the psychological perspective, the organism who will resist is that organism who has a positive normal motivation, and socially the survivors will be those who have the power given by justice, unity and rationality (although history has offered sufficient short-term exceptions).

The labour motivation is an aspect that should be taken into account, and that the austerity economic policies ignore.

In the context in which the nominal and the real revenue are reduced both through the cut in salaries and pensions, and inflation, it is obvious we shall witness the implicit reduction of labour productiveness, both quantitatively and qualitatively. Romanians have a saying: *They pretend to pay us, we pretend to work!*

As purchasing power drops, the demand will diminish and thus automatically the supply, i.e. the revenues of producers and implicitly profit, demotivating the business environment to stay in the real economy, assuming the risk of passing the activity to the underground economy.

In parallel the number of taxpayers diminishes, through the reduction of the number of employees, of the taxation basis and thus of the revenues to the state budget, whereas the social assistance expenditure (unemployment indemnities, aids etc.) grows.

Part of the population, in the absence of the possibility to exercise their right to labour, migrate, reducing both the internal market demand and the capacity of demographic regeneration of labour force, creating a major misbalance on the labour market between the employed population (employees) and the unemployed (children, unemployed persons, persons unable to work and pensioners).

Neither the motivation to get rich, nor that to survive may be satisfied in this situation by a state unable to have a long-term strategy and to rationally manage the crisis.

However if we really looked for the actual cause, we would find that the very absence of ideals and human, moral, ethic values of “progress and civilisation” of human society represent the key to the problem.

One talked at a certain point of the transition to a human society based on knowledge, i.e. on the assimilation of the lessons of the past, on the comprehension of communion and respect towards NATURE, and the fellow HUMANS. A society where through education one could pass on the precepts of interconnection between all the parts of the system and a harmonisation of energy and interests.

#### 4. Conclusion

Any crisis is the external manifestation of certain misbalances.

A brief review of the mechanisms of producing and measuring value and human motivations in a society (irrespective of the political form of organisation) highlights the following aspects:

1. The gap between the supply of goods and the currency quantity in circulation, the supplementing of the monetary mass through the actions of the financial market (bank and capital markets) and of the real estate markets, having at their fundament negative motivations (greed, manipulation, struggle for power) generates the creation of moneys without real value, which allows the generalisation of the inflation phenomenon.

2. The gap between the real needs of the population and the demand for merchandise. The generalisation of the consumerist model, of the needs that are permanently self-multiplying lead in fact to a more and more accented lack of satisfaction of the needs from the lower level of Maslow's pyramid, whereas the higher needs (the exclusively human ones) are no longer granted any resource. Again negative motivations generate their multiplication.

3. The gap between what the natural environment offers and what people offer in exchange.

Ignorance, anthropocentrism and institution of certain human rights without reciprocity, i.e. man's obligations towards nature, are, in the contemporary epoch, intrinsic attributes of human education and behaviour.

4. The lack of system of values in the interhuman relations. The absolutisation of the rivalry component introduced by the generalisation of the idea of competition together with the ignoring of the other components of the notion, that of co-operation, which could generate win-win relations, is another source of misbalance.

5. If the real progress generated by the present technical - scientific revolution were directed toward the generation of equity between development and not toward the deepening of social polarity and a division of the world in areas below the poverty threshold, at the limit of survival, and very rich areas, at the limit of unjustified excess, further misbalances could be attenuated.

Obviously, these are only some of the causes of the present crisis, and, far from being exhaustive, this presentation attempts at being a starting point for the opening of a real debate on misbalances and motivations which represent in fact causes and not effects.

The iceberg that sank the Titanic was barely visible at the surface, but nevertheless so deadly!

The specialists in the fields of economy, psychology, history, natural sciences have the difficult mission to discover what lies beyond the surface of phenomena, and, in a systemic approach, cause - effect - feedback reaction, to proceed, in a holistic interdisciplinary manner, to the research of causes and the design and planning of scientific measures meant to reduce the effect of the present economic-financial, but mostly human, crisis,

The crisis lies within us, and consequently we are the only ones who can find it!

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## ASPECTS REGARDING THE GLOBAL CRISIS AND ITS IMPACT ON TOURISM INDUSTRY

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**Abstract:** *This crisis is negatively affecting all countries, particularly developing countries, and threatening the livelihoods, well-being and development opportunities. The crisis has not only highlighted long-standing systemic fragilities and imbalances, but has also led to an intensification of efforts to reform and strengthen the international financial system and industry like tourism industry that we focus on in our case study. In the latest 50 years, tourism increased continuously, but the current crisis had negative impact. In 2010, tourism is increasing again, the number of arrivals being at 2008 levels, although the tourism revenues increase more slowly.*

**Keywords:** crisis, developing countries, impacts of the crisis, international economic interdependence, tourism

**JEL classification:** H12, L83

### 1. Introduction

Developing countries, which did not cause the global economic and financial crisis, are nonetheless severely affected by it. The economic and social progress achieved during recent years, in particular on internationally agreed development goals, including the Millennium Development Goals, is now being threatened in developing countries, particularly least developed countries. This progress, partially underpinned by a period of high economic growth in many countries, needs to be secured and enhanced in the face of threats posed by the crisis. An equitable global recovery requires the full participation of all countries in shaping appropriate responses to the crisis.

Although the financial and economic crisis has affected all countries, it is important to take into account the varying impacts and challenges of the crisis on the different categories of developing countries.

In today's globalized economy, all nations are far more closely tied together than ever before. The global reach of the crisis calls for prompt, decisive and coordinated action to address its causes, mitigate its impact and strengthen or establish the necessary mechanisms to help prevent similar crises in the future.

### 2. The current economic crisis

#### 2.1. Causes of the crisis

The specialists consider that the starting of the financial crisis in October 2008, in USA and other countries represents the most serious commotion of the international finances from the Great Depression from 1929-1933. Effects of the present crisis are spreading, beyond the financial sphere, to the level of the world economy, affecting the economical growth and the labor market and generating a series of other linked up effects with conjuncture implications or with long and medium terms implications, regarding the structure of the financial world system and its interface with the real economy.

The drivers of the financial and economic crisis are complex and multifaceted. The main causes of the crisis are linked to systemic fragilities and imbalances that contributed to the inadequate functioning of the global economy.

Major underlying factors in the current situation included inconsistent and insufficiently coordinated macroeconomic policies and inadequate structural reforms, which led to unsustainable global macroeconomic outcomes.

The present financial crisis which crosses the world economy points out the interlacing of some common causes, traditional of the economical-financial crisis phenomena, generally, with other untraditional, specific.

Among the main traditional causes of the economical-financial crisis we mention: the boom period of the credit growing in very big proportions; the strong growth of the prices for the actives, mainly on the real-estate market; the lending in uncontrolled proportions of the economical agents less or at all solvable (it is about the sub-prime mortgagers)

Regarding the particular untraditional causes of the financial crisis started in October 2008, we mention, first of all, the proportion and the profundity of the sub-prime crisis.

The sub-prime mortgage crisis, which led to a wider crisis in credit markets, was partly caused by an “excess” supply of liquidity in global capital markets and the failures of the central banks in the United States and some other advanced industrial countries to act to restrain liquidity and dampen the speculative increases in housing and other asset prices. While lax financial regulation may have contributed to the particular *form* taken by the crisis, the magnitude of this excess liquidity, and other associated factors, made further difficulties likely.

These factors were made acute by major failures in financial regulation, supervision and monitoring of the financial sector, and inadequate surveillance and early warning. These regulatory failures, compounded by over-reliance on market self-regulation, overall lack of transparency, financial integrity and irresponsible behavior, have led to excessive risk-taking, unsustainably high asset prices, irresponsible leveraging and high levels of consumption fuelled by easy credit and inflated asset prices. Financial regulators, policymakers and institutions failed to appreciate the full measure of risks in the financial system or address the extent of the growing economic vulnerabilities and their cross-border linkages. Insufficient emphasis on equitable human development has contributed to significant inequalities among countries and peoples. Other weaknesses of a systemic nature also contributed to the unfolding crisis, which has demonstrated the need for more effective government involvement to ensure an appropriate balance between the market and public interest.

The level of international economic interdependence may also have contributed to an increase in vulnerability of the global economic system to external shocks that produce larger negative impacts on global aggregate demand.

## 2.2. Impacts of the crisis

The crisis has produced or exacerbated serious, wide-ranging yet differentiated impacts across the globe. Since the crisis began, many States have reported negative impacts, which vary by country, region, level of development and severity, including the following:

- Rapid increases in unemployment, poverty and hunger
- Deceleration of growth, economic contraction
- Negative effects on trade balances and balance of payments
- Dwindling levels of foreign direct investment
- Large and volatile movements in exchange rates
- Growing budget deficits, falling tax revenues and reduction of fiscal space
- Contraction of world trade
- Increased volatility and falling prices for primary commodities
- Declining remittances to developing countries
- Sharply reduced revenues from tourism
- Massive reversal of private capital inflows
- Reduced access to credit and trade financing
- Reduced public confidence in financial institutions
- Reduced ability to maintain social safety nets and provide other social services, such as health and education
- Collapse of housing markets.

### Impact on developing countries

The crisis is likely to extract a particularly high toll on developing countries for following reasons:

- the citizens of these countries have fewer resources with which to cope with a crisis of this magnitude;
- the limited ability to borrow in international financial markets may impose constraints on their ability to pursue counter-cyclical fiscal and monetary policies;
- these ever-present threats have been exacerbated by financial market integration. Countries that have fully opened their capital accounts, have engaged in financial market liberalization, and have relied on private finance from international capital markets are among those likely to be most adversely affected.

Developing countries are forced, for instance, to pursue pro-cyclical fiscal policies because tax revenues decline in a downturn and they cannot find adequate financing for existing, let alone expanded, government expenditures. In this crisis especially, many firms and countries will face credit constraints and higher borrowing costs because capital flows to developing countries are likely to be markedly lower and

risk premiums have increased substantially. To retain foreign investors, countries may be tempted to raise interest rates, with adverse effects on the real economy.

Many countries have come to rely on foreign banks, some from countries that were poorly regulated and followed inappropriate macroeconomic policies and that now find their capital badly impaired. These institutions are now repatriating capital, with adverse effects on developing countries. The difficulty is compounded by the fact that many developing countries have entered into free trade agreements (FTAs), bilateral investment treaties (BITs) and World Trade Organization commitments that enshrine the policies of market fundamentalism noted above and further limit their ability to regulate financial institutions and instruments, manage capital flows, or protect themselves from the effects of financial market protectionism.

**3. Impact of the crisis in tourism industry – retrospective and actual tendencies**

Tourism has become, in the latest decades, an industry that recorded one of the highest developments of all. This part will make an overview of tourism evolution, then focusing on the actual tendencies and the impact of crisis on this field.

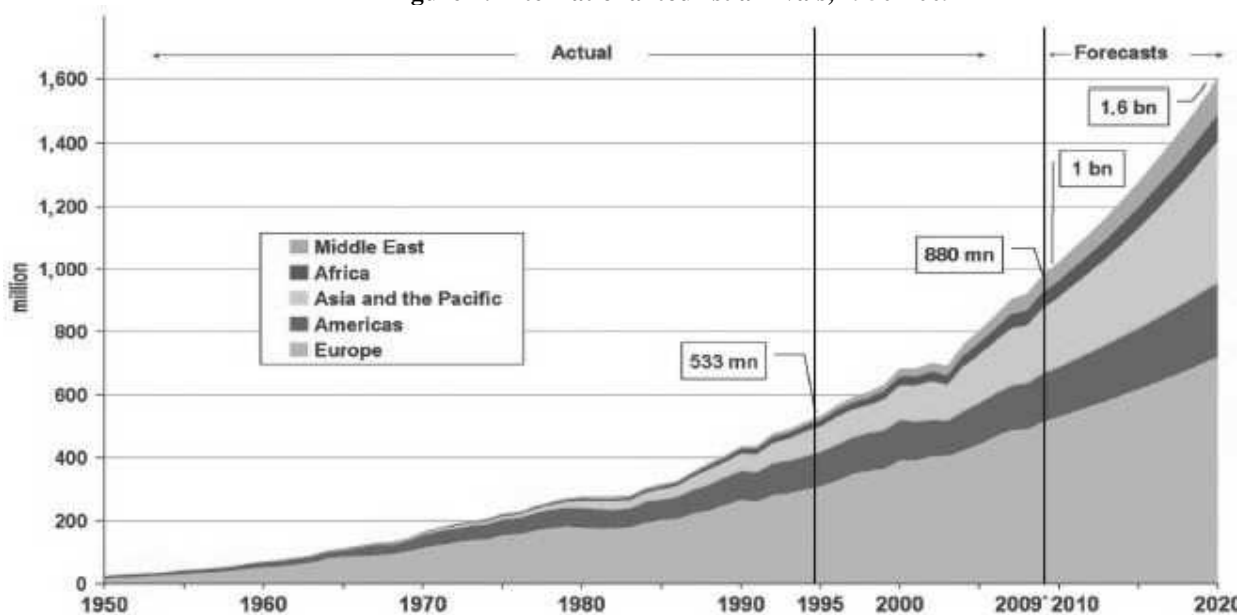
An advantage of the tourism development, compared to other fields, is that the resources, on which develops, are permanent and do not exhaust, if they are used rationally.

Tourism has an increasingly influence in a country's balance of payments, being given the receipts growing volume from receiver international tourism and of expenses caused by the issuing international tourism.

Due to the economic advantage of international tourism, many developing countries have taken steps to develop their tourism industry, this kind of "invisible trade" could bring large amounts of currencies into the economy. Some statistics on international tourist arrivals evolution, distribution and dynamics of financial indicators of tourism in areas come to support the previous assertions.

Exports of tourism represents approximately 30% of world exports of commercial services and 6% of total exports of goods and services. Tourism is on the fourth place in the categories of goods and services subject to export, after fuels, chemicals and automotive products (*UNWTO Tourism Highlights, 2010 edition*, World Tourism Organization (UNWTO), p.2). For many developing countries, tourism is a basic category of exports and one of the most important sources of foreign exchange, creating jobs and opportunities for development. In the world, the contribution of tourism to economic activity is estimated to an average of 5% of GDP, and 6-7% of all jobs in the world are due to tourism (directly or indirectly) (*UNWTO Tourism Highlights, 2010 edition*, World Tourism Organization (UNWTO), p.2). The share of tourism in GDP varies from about 2% in developed countries where the sector is small, to 10% in states where they represent a core activity. In developing countries, small islands or areas where tourism is a key sector, this proportion may be even higher.

**Figure 1: International tourist arrivals, 1950-2009**



Source: *UNWTO Tourism Highlights, 2010 edition*, World Tourism Organization (UNWTO), p.11

Tourism activity has experienced explosive growth over the past 60 years, which has made tourism to become an important economic and social phenomenon of the twentieth century. Also, new destinations appeared, in addition to the traditional ones - Europe and North America. It is to be noticed that the number of international tourist arrivals grew from around 25 million in 1950, to over 800 million in 2008, which corresponds to an annual average growth of 6,5% (O.M.T. - <http://www.unwto.org/facts/eng/historical.htm>) (Figure 1).

It is noteworthy, that in this period, an average increase of 13% in Asia and the Pacific, and of 10% in the Middle East, while America and Europe have recorded annual increases under the average (6%, respectively 5%). New destinations recorded higher increases compared to the old ones, so the proportions of different destinations in total changed (Europe and North and South America currently having a smaller proportion in total arrivals - 76% in 2000, from 82% in 1990 and 95% in 1950) (O.M.T. - <http://www.unwto.org/facts/eng/historical.htm>).

The following table shows the number of international tourist arrivals in the period 1950-2009, both overall and in the main regions of the world. Thus, one can see that within 55 years (1950-2005), the number of arrivals has increased about 32 times, all regions recording significant increases, but not in the same proportion. In absolute values, Europe attracts more than half of international tourist flows, followed by Asia and Pacific with about 20%, and by America with about 16%.

**Table 1: International tourist arrivals, 1950-2009 (million)**

Year	Total	Africa	America	Asia and Pacific	Europe	Middle East
1950	25.3	0.5	7.5	0.2	16.8	0.2
1960	69.3	0.8	16.7	0.9	50.4	0.6
1970	165.8	2.4	42.3	6.2	113.0	1.9
1980	278.1	7.2	62.3	23.0	178.5	7.1
1990	439.5	15.2	92.8	56.2	265.6	9.6
2000	687.0	28.3	128.1	110.5	395.9	24.2
2001	686.7	29.1	122.1	115.7	395.2	24.5
2002	707.0	30.0	116.7	124.9	407.0	28.5
2003	694.6	31.6	113.1	113.3	407.1	29.5
2004	765.1	34.5	125.7	144.2	424.4	36.3
2005	806.8	37.3	133.5	155.4	441.5	39.0
2008	919	44,5	147,8	184,1	486,3	55,9
2009	880	46	140,6	181,2	459,3	53

Source: *Tourism Market Trends, 2006 Edition – Annex 3*, World Tourism Organization (UNWTO); *UNWTO World Tourism Barometer*, Vol.8, No.3, October 2010

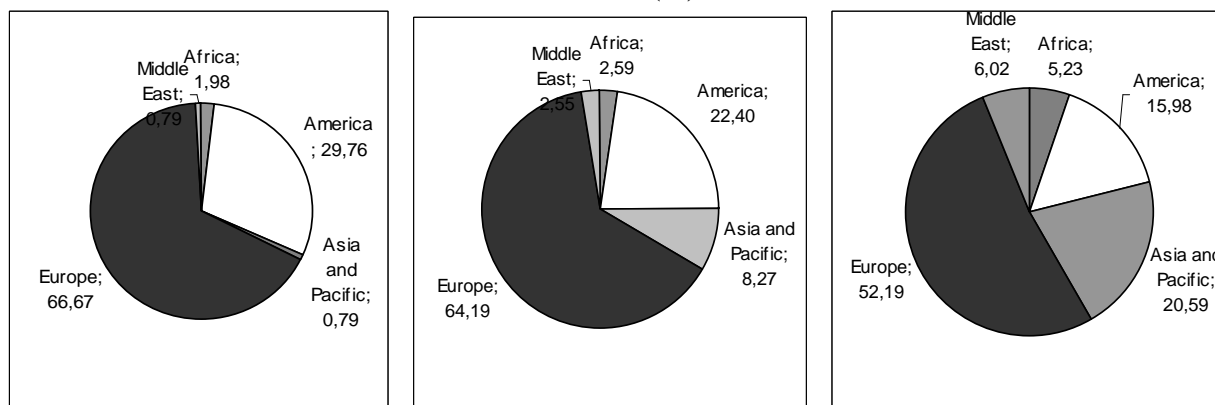
Regarding the growth rhythm of tourist activity, it recorded an average of 6,5%, during 1950-2005, with higher increases at first, and more moderate in recent years. By areas, the largest increases were in Asia and Pacific (12,5%), and in the Middle East (10,1%), followed by Africa (8,1%). Europe and America have been growing under the world average of 6,1%, and, respectively 5,4%.

Tourism continues to have a positive trend, even in spite of moment decreases of short term (due to phenomena such as crises, regional conflicts or political instability), thus, the total number of tourists traveling abroad have increased from 1995 to 2008, becoming almost double.

Different rates of growth, recorded in 5 main areas of the world have led to changes in the weights of these areas, in total. Thus, it can be seen in figure 2, that in 1950 Europe had a share of 66,67% in the total number of arrivals, and North and South America 29,76%. In 1980, the share of these destinations has dropped to 64,19%, respectively 22,4%, and in 2009 to 52,19%, respectively, 15,98%, while increasing the share of other large areas, particularly that including Asia and the Pacific (from 0,79% in 1950 to 20,59% in 2009).



**Figure 2: The structure of tourist international arrivals in the 5 main areas of the world in 1950, 1980 and 2009 (%)**



Source: Graph elaborated using data from *Tourism Market Trends, 2006 Edition – Annex 3*, World Tourism Organization (UNWTO)

Typically, in 4 of 5 cases recorded in international tourism arrivals, the tourist choose to travel to the region where he/she lives. The main source of international visitors is represented by the developed countries in Europe, America, Asia and the Pacific. Thus, 55% of international tourists come from Europe, 20% from Asia and Pacific and 16% from America (UNWTO *Tourism Highlights, 2010 edition*, World Tourism Organization (UNWTO), p.10).

In terms of income from international tourism, they have increased over 300 times during 1950-2009, especially after 1970. As with arrivals, the Europe area receives more than half of this revenue, followed by America with 21%, and, respectively, by Asia and the Pacific with about 20%. As the number of arrivals, revenue has also recorded a decrease in 2009, when it declined in real terms by 5,7% (UNWTO *Tourism Highlights, 2010 edition*, World Tourism Organization (UNWTO), p.4).

**Table 3: Income from international tourism, 1950-2005 (billion USD)**

Years	Total	Africa	America	Asia and Pacific	Europe	Middle East
1950	2.1	0.1	1.1	0.04	0.9	0.03
1960	6.9	0.2	2.5	0.2	3.9	0.1
1970	17.9	0.5	4.8	1.2	11.0	0.4
1980	104.4	3.4	24.7	11.2	61.6	3.5
1990	270.2	6.4	69.3	46.5	142.9	5.1
2000	481.6	10.5	130.8	90.2	232.5	17.6
2005	682.7	21.5	144.6	140.8	348.3	27.6
2009	852	28,9	165,2	203,7	413	41,2

Source: *Tourism Market Trends, 2006 Edition – Annex 10*, World Tourism Organization (UNWTO); *UNWTO Tourism Highlights, 2010 edition*, World Tourism Organization (UNWTO)

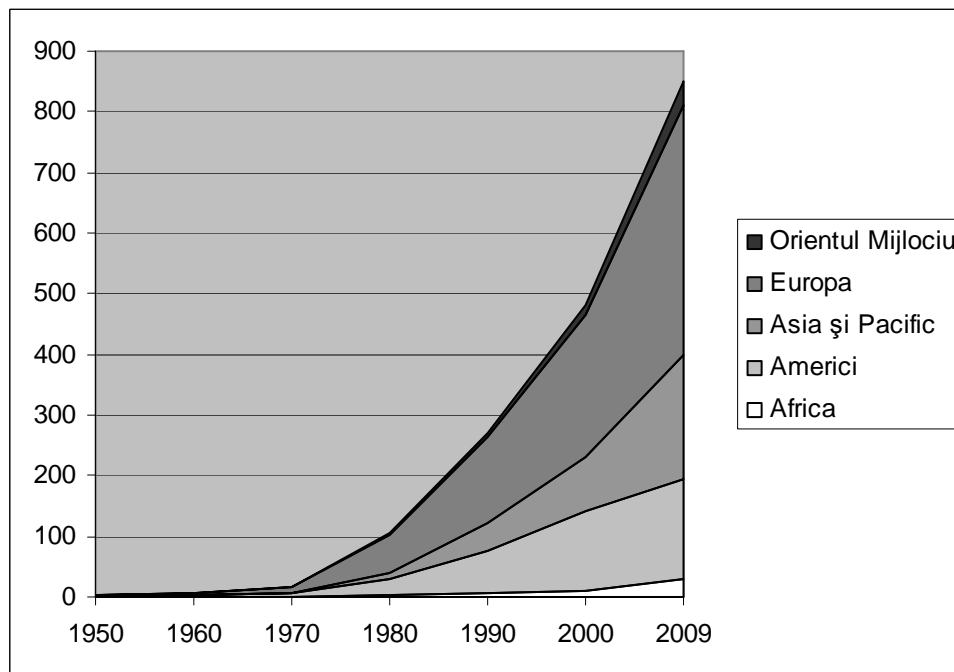
Figure 3 graphically shows increases in international tourism revenues in the period 1950-2009, reflecting the extent that the phenomenon of tourism took.

If we compare the increase of arrivals with the revenue one, we see that within 60 years the number of tourists has increased more than 30 times, while earnings have increased over 400 times, which can be attributed to revenue growth, which resulted in allocating more financial resources for tourism (longer stays, farer destinations, more goods and services purchased).

After a lean period due to global crisis, in late 2009 an increase in international tourism has been recorded. Although the number of arrivals dropped by about 4% overall, in the last quarter there were small increases, heralding a positive trend. Usually income has the same trend as the number of arrivals, but the decreases are more pronounced. In regional terms, in 2009 the following changes occurred: Europe -6%, Asia and Pacific -2%, the Americas -5%, Middle East -6%, Africa +5% ([http://www.unwto.org/media/news/en/press\\_det.php?id=5361&idioma=E](http://www.unwto.org/media/news/en/press_det.php?id=5361&idioma=E)), overall recording a decrease of

4,2% (*UNWTO Tourism Highlights, 2010 edition*, World Tourism Organization (UNWTO), p.2). 2010 has brought the increase of tourist activity, the most dynamic areas being Asia and the Pacific, and the Middle East, while America and Europe have seen more moderate growth. The values for the number of arrivals recorded in 2010 have exceeded those in 2008, as well as the projections for 2010. For 2011, a moderate growth is expected, at around an average of 4%, which will be exceeded in particular by emerging destinations.

**Figure 3: The evolution of income from international tourism, 1950-2005 (billion USD)**



Source: Graph elaborated using data from *Tourism Market Trends, 2006 Edition – Annex 10*, World Tourism Organization (UNWTO); *UNWTO Tourism Highlights, 2010 edition*, World Tourism Organization (UNWTO)

Although tourism has felt seriously enough the impact of global crisis, its influence was lower than in other export sectors, being one of the fastest growing industries and a key factor in economic growth and employment. Although the number of arrivals increased to 2008 levels, the same cannot be said about tourism revenues, they increasing more slowly, for several reasons, such as the fact that tourists tend to travel closer to residence cities, to travel for shorter periods and spend less money. In addition to moderate increases recorded by countries traditionally regarded as sources of international tourists (Germany 1,5%, U.S.A. 2,5%, France 2%, Italy 3%, Japan 8%), one can notice that emerging economies that recorded large increases in tourist expenditure abroad (China 22%, Russian Federation 26%, Brazil 54%) (*UNWTO World Tourism Barometer*, Vol.8, No.3, October 2010, World Tourism Organization).

Forecasts made by experts in the field estimate a value of 1602 million international visitors in 2020, if it is considered an annual increase of 4,3%, and in terms of foreign exchange earnings, they will reach 2000 billion USD, with an annual growth average of 6,7% (Snak O., Baron P., Neacșu N., 2006, p.492). Highest growth rates of arrivals will be recorded in East Asia / Pacific and Middle East (7%, respectively, 6,7%) (Snak O., Baron P., Neacșu N., 2006, p.492). Europe will continue to be the main destination for international travelers, but its share in the total number of arrivals will fall under 50%. America will also record slight decreases. With the development of international tourism, domestic tourism also is expected to record increases. Forecasts rank China among the main tourist destinations in 2020. In the area of Europe, it is estimated that in Central and Eastern countries will record the largest increases, Russian Federation and the Czech Republic focusing more than one third of the total. This forecasted growth for Central and Eastern Europe is due on the one hand, to the reduced initial level and, on the other hand, to the not yet fully exploited potential. Increases in the Western and Southern European markets will be moderate, because they are saturated.

Data from recent decades show that the development of tourism in recent years has not been linear, the boom periods interpolating with moderate increases, but the overall trend was upward. Therefore, it is foreseen that in 2020, the number of international arrivals will be about 1,6 billion (*UNWTO Tourism*

*Highlights, 2010 edition*, World Tourism Organization (UNWTO), p.11) (figure 1). Estimated share for 2020 of the five major regions, in terms of number of international arrivals, is: Europe 45,9% (717 million tourists), Asia and Pacific 26,6% (416 million tourists), the Americas 18,1 % (282 million tourists), Africa 5% (77 million tourists), Middle East 4,4% (69 million tourists).

One can consider that the basis of tourism growth are a number of factors, from which, the most important are (Snak O., Baron P., Neacșu N., 2006, p.159):

- revival of the economically underdeveloped regions;
- size and variety of tourism development;
- the growing interest of developed countries for developing countries, and in Europe for those in Central and Eastern Europe;
- high availability of the population, in terms of income and free time to travel abroad;
- enhancing manifesting links between populations of different ethnic regions;
- increase trade at intraregional and interregional level, due to the trend towards privatization and deregulation;
- increasing importance of computing on the distribution systems.

Among the problems that tourism faces with, braking its development we can mention (Snak O., Baron P., Neacșu N., 2006, p.159):

- lack of funding, due to low contribution brought by capital markets, to finance infrastructure and equipment for optimal exploitation of tourism resources;
- risk of conflict between tourism developers and local communities, on projects that do not comply with the protection of the environment, to sustainable development.

#### 4. Conclusions

The international economic issues of the last years have created global interdependences between EU member states. As consequences of the last 50 years, the European Union has achieved remarkable successes by exploiting the interconnections, coming from growth of globalization to a successful and steady economic achievement on continental level. In this way, EU signifies one of the essential economic engines of the world, representing almost 30% of total GDP and almost 20% of global commercial flows, where euro has become the key international currency.

In order to manage the growth processes of the economic and financial interdependencies, EU has the obligation of maintaining economic relationships with many states and institutes, where its final objective consists in favoring the economic welfare and steadiness.

Starting with this economic politics, the Committee of European Union has tried an analysis able to justify the impact towards the economic crisis, by admitting a strategy of coordinated output. The duration 2008-2010 has launched the European economy to a recession time, with reduced real GDP to almost 4% in 2009 and by an unsecured and fragile program or recovering. One of the first decisions taken into account by EU Committee was the intervention so as to establish, recovering and reform of banking sector. The European Economic Recovery Plan was launched in December 2008, so as to reestablish the trust. The general fiscal stimulation has reached 5% of GDP in EU.

In conclusion, the influence of crisis in tourism was high, however it was lower than in other export sectors, being one of the fastest growing industries and a key factor in economic growth and employment. For example, at the time being, the number of arrivals increased to 2008 levels. However, the income increase is slow, for several reasons, such as the fact that tourists tend to travel closer to residence cities, to travel for shorter periods and spend less money. This positive trend is expected also for the future, experts forecasting an average growth of 4%.

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## INSIGHT ON THE CRISIS AND AFTER CRISIS EUROPEAN AUTOMOTIVE INDUSTRY

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**Abstract:** *The article focuses on the Automotive Industry, one of the most important sectors worldwide. The European Commission and the Member States proposed a number of solutions in hand for this turmoil for the automotive producers dealing with difficult times. One of the solutions refers to the extension of state aid granted, and this is a center part of the article, oriented to one of the producers present on the Romanian market. The numbers from the last EC report on car prices also show that crisis isn't over yet and there are still things to be done for economic recovery.*

**Key words:** automotive sector, competition, state aid

**JEL classification:** L53, L26

### 1. Introduction

One of the strategic industries in the European Union and beyond is the automotive sector. Not only because it has over 12 million jobs depending on it but it is also a good example of how hard can an economic turmoil hit with registrations down by 20% in 2009 going down. Given its links to other economic sectors as well as the global dimensions of the supply industry and vehicle trade millions of peoples, especially employees all over the European Union were affected by the negative economic aspects. The European Economic Recovery Plan of 2008 proposed a set of means in order to ease the access to credit, reestablish the rules for state aid in the particular circumstances of crisis, increasing the demand for new vehicles with the help of governmental measures, minimizing the social costs and retaining the skilled workforce and most off all protecting the fair competition in the open markets. Very important proved to be the partnership between the trade unions, EU Member States and the industry within the process called CARS 21.

### 2. European Unions measures for the automotive industry dealing with the crisis

In the early days of the crisis the European Commission Vice President in chef, Günter Verheugen, said: "We are talking about millions of jobs, not only in the automotive sector, but in the supply chain and in the aftermarket. We are committed to defend these jobs, because the European automotive industry is the most competitive and innovative industry in the world. We have already identified the needed support and now we have to concentrate on rapid delivery in a coherent way. In addition, we should avoid burdening the industry with new legislation. We need to closely coordinate our efforts with Member States and ensure that the broad range of available support tools is applied effectively. The new CARS 21 round table will help to do so."

Who was and still is responsible for dealing with the crisis challenges? The answer in hand is the industry it self. The Commission role in to setting the master elements of support for the sector and allowing the transparency and celerity of the national recovery schemes was crucial. This couldn't work hadn't been for the code of best practices and the common guiding principles.

In December 2008 was adopted a new Temporary Framework for State aid measures which was revised in February 2009. This framework was designed in order that member states be able to provide aid to the firms dealing with liquidity problems, problems that are not prior to the crisis. The state aid measures include as well loans for the production of green products. The horizontal policy instruments cover much of this public support. The European Investment Bank approved 3.8 billion euros worth projects in the automotive sector. It is important to say that there is a banking sector's aid scheme to which the financial branches of car makers can address. The public sector support is temporary and most of all very well targeted in order to level up the industry's efforts during the crisis as well as to prevent people from loosing their jobs. Another process beside CARS 21, the European Commission has a "European Partnership for the anticipation of change in the automotive sector" which was launched in October 2007. This European

Partnership proposes a platform aimed to foresee and extenuate the social impact of restructuring in the motor vehicle sector. The Commission offered the Member States different forms of helping hands

One form of help is compound of various EU funds and policy instruments that can be mobilized in order to back up the social cost of adjustment and ensure that the future competitiveness of the industry is retained by the maintenance of the skill levels required.

Another form of help is that the European Social Fund (ESF) increased the advance payments and simplified criteria in order to prevent some downsides such as unemployment by means of financing trainings and wage as well as non-wage labor costs.

Are also offered numerous ways to benefit from the finances offered by the European Globalization Adjustment Fund (EGF). The EGF has by now intervened in a number of four automotive sector cases and in a fifth in the pipeline.

All these measures are facing a very big risk and that risk refers to the protectionism and even worse, the risk of the rebirth of the nationalism. The automotive producers always find it difficult to access third country markets, and the one to blame for that is the protectionism. This protectionism is revealed by measures such as new import licensing requirements or raised import duties, all of them making it very difficult for the motor vehicle producers to get on the third countries markets. For this reason the EU is committed to avoid all new trade restrictions created towards third countries. It is superfluous to say that the Commission expects the same trade treatment from the third countries.

Another measured emphasized by the Commission is strengthening the CARS 21 process. This process was started in 2005 when the member states organized a round table that gathered the automotive industry representatives and the trade unions ones, in order to assure a platform with mutual information, dialogue and best practices.

### **3. An European solution: State aid for the Romanian automotive industry**

Now looking back to our country, a question is rising: How does the Romanian automotive industry stand in terms of anti-crisis European measures?

Considering the EC Treaty rules on state aid, the European Commission has permitted a planned state guarantee by Romania to enable Ford Romania SA to get a loan granted by the European Investment Bank (EIB). The project that got the loan proposes to develop a low-Co2 engine and subsequent vehicle production at Ford's Craiova plant. Romania provides a 80% guarantee that respects the conditions contained by the Commission's Temporary Framework for state aid measures. The Temporary Framework gives the opportunity to the Member states to facilitate the accession to finance in times of crisis (See also, IP/08/1993). In this case, Ford Romania would pay an adequate remuneration for the guarantee and provide sufficient securities in case the guarantee would be drawn. For these reasons it is compatible with Article 87(3) (b) of the Treaty, that permits aid to "remedy a serious disturbance in the economy of a Member state".

"The Commission can authorize this state guarantee, which should contribute to Ford's trans-European investment project for environmentally-friendly cars without giving rise to undue distortions of competition", said Neelie Kroes, who was the Competition Commissioner at that time.

Ford Romania is intends to use the EIB funds for it's project at Craiova plant. The project worths over 1 billion euro and the Romanian plant is part of a joint European venture working on developing low-CO2 emission engines and cars. From the total loan of 600 million euro granted by EIB, Ford Romania receives two third (400 million euro) and one third ( 200 million euro) goes to Ford Werke GmbH in Germany. The guarantees are provided for five years, starting with 2009 and until 2014 with a maturity of 7 years. Ford Romania will also have to pay a premium for the guarantees and also provide the Romanian Government with high-quality sided covering the guaranteed amount. This collateral would be callable by the Romanian state if it had to pay out any money under the guarantee. The level of the premium paid during the lifetime of the loan is in line with the provisions of the Commission's Temporary Framework (N 478/2009).

Ford Romania also received a training aid worthing 57 million euro planned by Romania. This aid was authorized by the commission under certain conditions and EU state aid rules. This aid is for the extensive training that the company plans to offer for its current and future employees in a 5 years period. 9 000 of employees are considered for The training program during the mentioned period of time. The total cost of the training program is approximated to 185 million euro, and the company will finance about 128 million euro. The aid is aimed to redress a verified market failure ( in this case the underinvestment in training and is appropriate as policy instrument ) and due to this fact the Commission approved the aid and

said it was in line with EU rules on training aid. It has a demonstrated inducement effect and also is limited in covering 50% of the eligible costs of general training, and 25% of the eligible costs of specific training. This is a conditioned state aid because the commission wanted to make sure that its amount matches the training expenses; that bad effects on competition are minimized and also that employees can take full advantage of the skills developed through the training. The conditions refer to aspects concerning the payment of the aid and also "reporting and monitoring requirements".

In the respect of the matter Neelie Kroes said: "The proposed aid supports an ambitious training project expected to produce positive effects for the employees of the Craiova plant, for regional development and for society as a whole. However, we imposed stringent conditions to make sure that the aid achieves its objectives and does not give rise to undue distortions of competition."

Ford Romania SA goal is to provide training to its current and future employees at the Craiova plant in an intense and personalized manner in fields of knowledge, safety, language(s), IT, business fundamentals and general industrial skills. The company will finance from its own funds entirely, the training directly relevant for its own production activities and the one for meeting safety-at-work requirements coming from legislation both the Romanian one and the European one. The aid is granted for the training consisting of additional, in-depth skills to the employees at the Craiova plant (see IP/09/863).

As if the aid amount exceeded the €2 million threshold for exemption from notification of the General Block Exemption Regulation (see IP/08/1110) The Commission's disposed an investigation that found that the aid was in line with the Communication on training aid, because the aid was, as we said, targeted at redressing a verified market failure, i.e. underinvestment in training. The aid is also viewed as an instrument to achieve the desired purpose – i.e. encouraging the company to invest in additional training for its employees. Furthermore the aid has a demonstrated incentive effect, proved by the fact that the company would not offer an extensive training to its employees hadn't it been for the aid. The aid is proportional to the costs estimated to be made during the training, and especially is limited in amount to covering 50 per cent of the eligible costs of general training, and particularly 25 per cent of the eligible costs of specific training.

In order to assure a limited distortion effects of the aid and to make the most of the positive effects for the workforce as well as for the entire society, the commission imposed a number of conditions:

- the aid shall be paid in periodic installments, in amounts corresponding to the expenses actually incurred
- Ford Romania SA shall report annually to the Romanian authorities and the Commission on the training offered and the expenses incurred
- the employees at the Craiova plant shall receive attendance certificates stating the content of the training received (C39/2008)

#### **4. Looking at the facts: EC car price report**

The latest report on car prices issued by the European Commission shows in number how does the automotive industry is dealing with crisis. In real terms the report proves that Prices fell slightly, in the European Union in 2009 while converging within the EU's single market. In the mean time prices for repair and maintenance services as well as spare parts continued to rise above inflation. This is a confirmation of the importance of new tightened competition rules, that were adopted by June the 1<sup>st</sup> 2010. The car prices are relatively stable due to the measures taken in the member states to counter down the recession by stimulating the buy of new cars. The European Commission Vice President in charge of Competition Policy said: "I am very happy that consumers in Europe are continuing to benefit from strong competition in the markets for car sales. At the same time, I am dismayed to see that the price for repairs and spare parts continued to rise during the economic recession. This shows that bringing more competition in the after-sales market was the right choice and should pave the way for more efficient services to the benefit of European consumers"

In the report is used the price index for cars which reflects the nominal prices paid by consumers, and includes rebates, VAT and registration taxes. This index increased by 1.1%, against a 1.7% rise in overall consumer prices and this means a fall in real car prices of 0.6%.

In 24 out of 27 European Union Member states, car prices fell in the past year. Exceptions are the Netherlands and the UK which prices increased with +7.7% and Sweden where prices raised with +2.7%. In the last two mentioned states we must recall that the car buyers benefited in 2008 from an extraordinary fall in prices of -9.7% and -5.0% respective, thus UK and Sweden are still better off today compared to the year of 2008. In the UK, there is another important aspect, the temporary decrease in VAT in January 2010.

The fall in real automotive prices was very deep in Slovenia with -13.4%, Lithuania with -11.1%, Slovakia with -11.0%, Romania with -10.1%, the Czech Republic with -9.4%, Malta with -9.2% and Bulgaria with -9.1%. The prices decreases might have another cause that is the fact that the new member states were hit harder by the recession than the other member states. In the larger markets, real prices decreased most notably in Spain with -4.7%, while Italy, Germany and France experienced slight price reductions with -1.1%, -1.0% and -0.6% respectively.

Good news for the consumers as the fall of real car prices express again the favorable long-term price trend, due to the overcapacity in global production and the tight competition between car makers. The increased demand for smaller cars can also be seen

Quite contrary the prices for repairs and maintenance as well as spare parts continued to rise well above inflation with +1.5% and 0.7% in real terms.

In May 2010 was adopted the new MVBBER that introduces more competition in the after sales markets, by removing the benefit of block exemption for those manufacturers that have a market share of repair and maintenance market that exceeds 30 per cent. The car renewal schemes adopted in some of the member states were reflected in the new car registrations showing a total of 14.4 million new cars registered in 2009. However this was not sufficient in preventing a drop in sales of 1.6% compared with 2008 and a bigger drop of 9.5% compared with the prior crisis year of 2007.

The car prices report is part of the Commission's monitoring of the motor vehicle sector and is presented as it follows:

**Table 1: Year-on-year change in price index and real car prices in % (January 2010 compared with January 2009).**

Countries outside the Euro zone	Nominal Car Prices	Headline inflation	Real Car Prices
Bulgaria	-7.3	1.8	-9.1
Czech Republic	-9.0	0.4	-9.4
Denmark	-0.5	1.9	-2.4
Estonia	-6.9	-1.0	-5.9
Hungary	5.6	6.2	-0.6
Latvia	-8.3	-3.3	-5.0
Lithuania	-11.4	-0.3	-11.1
Poland	2.8	3.9	-1.1
Romania	-4.9	5.2	-10.1
Sweden	5.4	2.7	2.7
United Kingdom	11.2	3.5	7.7

Source: Eurostat (Car prices are expressed in local currencies, taking into account rebates)

## 5. Conclusions

It may seem superfluous to say that desperate times ask for desperate measures and the current crises well proves that. The automotive sector, one of the most important in the industrial chain, was and still is in need for help. A national and European help for facing the turmoil of the economic context, this mean desperate times. The desperate measures suppose the use of a very useful but otherwise dangerous tool that is the state aid. European Commission and the member states understood that this may be the only way to redress this sector and the case of Ford Romania analyzed is a living proof of that fact.



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## SOCIAL AND ECONOMIC COHESION IN ROMANIA FOR SUSTAINABLE DEVELOPMENT IN THE CONTEXT OF ANTI CRISIS POLICIES

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**Abstract:** *The sustainable development seen as a paretian optimum express the possibility of bringing well being for the present generation without affecting the future generation opportunities for it. Using the principle for the present generation assessment only could reflect the inter stakeholders relations and their not always convergent interests. The social and economic cohesion is a public policy objective and can be achieved when the decision maker use the same level of importance for all the stakeholders.*

**Key words:** social cohesion, well-being, stakeholder, policy

**JEL classification:** H12 H52 H53 H54 I18 I38 J61 J64 R58

### 1. Introduction. Defining “social cohesion”

The term „economic and social cohesion” is frequently used to present about current situation of region and people. Social cohesion was defined by many authors. In this respect, Robert Putnam says that social cohesion is dependent on a multiplicity of bridging groups witch interact with others (Putnam, Robert 1995). In addition, other authors shows that this construction reflects division based on social class and economic factors and is complemented by social capital theories relating to the bonding between people and the presence of mutual trust. It is seen to be undermined by the social exclusion experienced by individuals or groups, generally by their social class and economic position.

Others view in this term (Concerted development of social cohesion indicators, 2005) a society ability to secure the long term well-being of all its members, including equitable access to available resources, respect for human dignity with due regard for diversity, personal and collective autonomy and responsible participation. Matarasso and Chell definition is as important, setting that social cohesion refers to promotion of stable, co-operative and sustainable communities”( Matarasso, F. with Chell, J.,1998). Social cohesion is the ongoing process of developing a community of shared values, shared challenges and equal opportunities based on a sense of hope, trust and reciprocity”( Social Cohesion Network, quoted by Stanley, 2001). In addition, social cohesion is the extent to which people respond collectively to achieve their valued outcomes and to deal with the economic, social, political or environmental stresses (positive or negative) that affect them”.( Reimer, B., Wilkinson, D. and Woodrow, A.,2002).

Societies that boast higher levels of social cohesion provide a better institutional framework for economic growth and attract investment by offering an environment of trust and clearly defined rules.( Ocampo, José Antonio, 2002) According to Jensen, the term social cohesion is used to describe a process more than a condition or end state, while it is seen as involving a sense of commitment, and a desire or capacity to live together in harmony”( Jensen, J.,1998, p.5). Social cohesion becomes an integral part of democratization of democracy. By developing a new way of approaching old problems, by positing a radically different conception of citizenship and community, by arguing for new measures of accountability, by providing the impetus for the emergences of new modes of evaluations of public policies, by arguing for increased representation and participation by marginalized groups and above all by encouraging the development of skills talents and capacities of all, social cohesion democratizes democracy.

The most general meaning of cohesion concept is something opposite to disintegration. The defining components of social cohesion are equity, individual and collective dignity, autonomy and participation. Cohesive society can be defined as mutually supportive community of free individuals pursuing these common goals by democratic means.

### 2. Social cohesion policy

„Social cohesion may thus be understood in terms of both the effectiveness of instituted social inclusion mechanisms and the behaviours and value judgments of the members of society. Behaviours and value judgments include issues as diverse as trust in institutions, social capital, belonging and solidarity,

acceptance of social rules and the willingness to participate in deliberative processes and collective endeavours.”( Machinea, J.L, 2007, p. 17). Inclusion mechanisms include employment, educational systems, rights and policies designed to encourage equity, well-being and social protection.

The latest EU report (Breska von, E., 2010) on cohesion policy speaks on one hand about a significance of cohesion policies in order to comply with the Lisbon strategy and on the other about great regional discrepancies within the EU. Undoubtedly, differences in regional conditions present a barrier to effective growth.

The main objective of economic and social cohesion policy is to reduce economic and social disparities between the regions covered by such a vision. Thus, the fourth report on economic and social cohesion, the European Commission stressed that the main beneficiaries of this level of reduction of disparities in the period 1994-2006 were Greece, Spain, Ireland and Portugal, which have achieved impressive growth.

„Between 1995 and 2005, Greece reduced the gap with the rest of EU-27, moving from 74% to reach 88% of the EU-27 average in 2005. By the same year, Spain and Ireland had moved from 91% and 102%, respectively, to reach 102% and 145% of the Union average. At the same time growth in Portugal has been below the EU average since 1999. In 2005 its GDP per head was 74% of the EU average.”( European Commission - Growing Regions, growing Europe, 2007). In addition, The underdeveloped regions in the EU-15, which were major recipients of support under cohesion policy during the period 2000–2006, showed a significant increase in GDP per head relative to the rest of the EU between 1995 and 2004.

Starting from simple and rational way of determining the economic outcome, factors that have contributed to the recovery, following the use of cohesion funds, are represented by increasing employment and productivity, increase the level of education, reducing unemployment and geographical concentration.

Therefore, the same report shows that nine out of ten of the more developed regions have seen their employment increase and almost as many saw their productivity increase. Nevertheless, between 1995 and 2004, productivity declined in 29 regions in Italy, France, Spain and Germany, while employment declined in 16 regions mostly in Eastern Germany and in Northern England and in 2005 employment rates in the lagging regions were still some 11 percentage points lower than those in the rest of the Union. Between 2000 and 2005, unemployment fell from 13.4% to 12.4% in the lagging regions, in the more developed regions, unemployment remained stable, at 8%. In addition, the gap between unemployment rate of women and than of men was reduced in this period in the EU.

The actual development age, the knowledge economy era, requires a more educated and well qualified workforce.

### **3. Social and economic responsibility in the context of global crises**

Cohesion Policy is important for boosting the competitiveness of more advanced regions as well as less-developed ones. On average it accounts for around 25 % of total public investment at regional level in non-Convergence regions in Spain and France. It totals around 15 % of public expenditure on environmental protection in the West Midlands and London and some 25 % of public expenditure on improving the adaptability of workers and helping disadvantaged groups find employment in Central and Northern Italy.

The economic crisis led most national governments and some regional authorities to introduce ‘ad hoc’ stimulus packages to mitigate the effects on growth and employment. Public investment was a major component of these packages. The legacy of the crisis, however, is a dramatic increase in government borrowing and debt. While this mostly stems from a fall in tax revenue, restoring macroeconomic stability and reducing government deficits in the coming years to more sustainable levels is likely to put pressure on public expenditure programmes and on public investment in particular.

Table 1 shows that the GDP per inhabitant was strongly hit by the economic crisis that started in the end of 2008, that period, 2008-2009 represents the minimum value for our indicator.

The economic crisis hit regions specialized in manufacturing, in particular. The highest increases in unemployment, however, were in regions highly dependent on construction. Regions specialized in tourism, most of them with a GDP per head below the EU average, and have not yet been affected significantly, just as regions with large shares of public employment. Regions specialized in financial and business services, most of them capital city regions or buoyant metropolitan regions, have been affected to an average extent in terms of the impact on GDP and employment.

The current global economic crisis is a major challenge for the European Union and requires a rapid response to counter the impacts on the whole economy. Since October 2008, the Commission has proposed a series of measures to speed up the implementation of European cohesion policy programs for the 2007-2013

periods to ensure that all cohesion policy resources are fully mobilized to support Member State and regional recovery efforts. The idea is to introduce greater flexibility (modifying cohesion policy programs, simplifying financial management), give regions a head start (increasing cash flow, help with major projects, simplify state aid rules ) and target cohesion policy programs on smart investment(investing in areas of high growth potential, maintaining public investment, more energy-efficiency investments)( European Union, 2009, p.3).

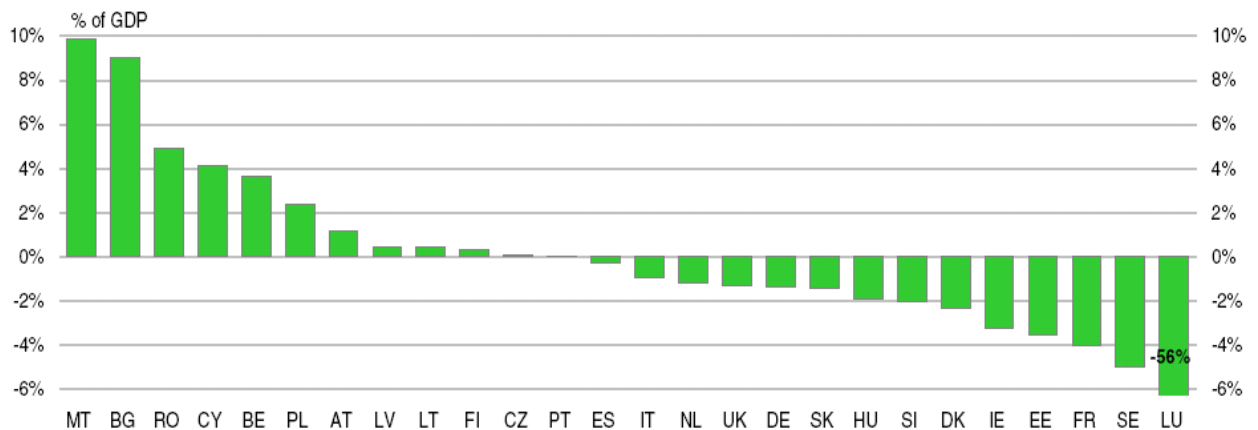
**Table 1- Gross domestic product at current prices, 2007-2010 (euro per inhabitant)**

Region/Country	2010	2009	2008	2007
<b>EU 27</b>	:	23600	25100	25000
<b>Belgium</b>	32400	31400	32200	31500
<b>Bulgaria</b>	:	:	4700	4000
<b>Czech Republic</b>	:	13100	14200	12300
<b>Denmark</b>	42300	40300	42500	41700
<b>Germany</b>	30600	29300	30200	29600
<b>Estonia</b>	10800	10300	12000	11800
<b>Ireland</b>	:	35700	40500	43400
<b>Greece</b>	20400	20800	21100	20300
<b>Spain</b>	23100	22900	23900	23500
<b>France</b>	:	29600	30400	29700
<b>Italy</b>	25600	25200	26200	26000
<b>Cyprus</b>	:	21200	21800	20300
<b>Latvia</b>	8000	8200	10200	9300
<b>Lithuania</b>	8300	7900	9600	8500
<b>Luxembourg</b>	:	76500	81200	78100
<b>Hungary</b>	9800	9300	10600	10000
<b>Malta</b>	15100	14200	14300	13400
<b>Netherlands</b>	35600	34600	36300	34900
<b>Austria</b>	33900	32800	34000	32800
<b>Poland</b>	:	8100	9500	8200
<b>Portugal</b>	16300	15800	16200	15900
<b>Romania</b>	<b>5700</b>	<b>5500</b>	<b>6500</b>	<b>5800</b>
<b>Slovenia</b>	17600	17300	18400	17100
<b>Slovakia</b>	12100	11600	11900	10200
<b>Finland</b>	33600	32100	34800	34000
<b>Sweden</b>	36900	31300	36100	36900
<b>United Kingdom</b>	27300	25300	29600	33700
<b>United States</b>	35700	32900	32000	34000

Source: [http://epp.eurostat.ec.europa.eu/portal/page/portal/national\\_accounts/data/database](http://epp.eurostat.ec.europa.eu/portal/page/portal/national_accounts/data/database)

Because of the immense sensitivity of the investment ‘flows to the economic cycle, this period of crisis was joined with the FDI contraction. Both inflows and outflows declined much more than GDP in 2009 according to the EU social cohesion reports. Total FDI inflows amounted to just under 3% of GDP in 2009 and net outflows to around 4%. In addition in 2008, Bulgaria (4.5% of GDP) and Romania (4.2% of GDP) were by far the largest recipients of net remittances from other parts of the EU.

The Romanian economy suffered seriously from recession (Zaman C, 2010, p.5), with the GDP falling by 7.1% in 2009 and the unemployment reaching the highest transitional rates (8.3% in February 2010), as economic conditions destroyed 439,000 jobs in 2009 – the equivalent of about 10% of official employment, according to the Annual National Report about pensions, health and long-term care .

**Figure 1: Balance of net FDI inflows and outflows, 2009**

Source: European Commission - Investing in Europe's future, Fifth report on economic, social and territorial cohesion, November 2010

#### 4. Romanian social protection system

The Romanian pension system is based on a PAYG type of social insurance (first, public pillar), and privately administered individual accounts, both compulsory (Law no. 411/2004 and Law no. 23/2007) (second pillar) and voluntary (Law no. 204/2006) (third pillar). The second pillar, regulated by the Law no. 411/2004, regarding privately managed pension funds, introduced in January 2008, compulsory for all persons below the age of 35 at 1st January 2008 and optional for the age group 36-45. At the start of the functioning of this pillar, the contribution rate was 2% of base. Within 8 years after start, contribution rate will be increased to 6%, an increase of 0.5 percentage points per year, at the beginning of January 1 of each year. The third pillar was introduced in June 2007 and is alimeted by voluntary contributions; by law, the amount of these contributions is limited to the equivalent of 15% of the gross wage. For 2011, contribution rate related to private pension funds is 3% (Art. 17 (2) of Law no. 287/2010 on state social insurance budget in 2011).

Both mandatory pillars are earnings-related schemes. "Benefits under the first pillar are calculated from the individual's accumulated points, which are determined by his/her wages relative to the average wage. Second pillar benefits are a function of the individual's contributions and investment earnings; the procedures governing the payout of benefits are yet to be established." (Zaman C, 2010, p.7) Since first pillar pension systems are financed by contributions paid by employers and workers as a percentage of wages, revenues are tied to formal sector employment and wages. As both have fallen due to the crisis, pension system revenues have taken a sizable hit. For funded pension systems (second and third pillars), the crisis potentially impacts benefits due to decreasing asset values for the financial instruments in which the pension funds are invested. The decline in asset values has a direct impact on those just reaching retirement age.

Starting with January 1, 2011 public pension system is governed by Law no. 263/2010 regarding a unified pension legislation repealing the provisions of Law no. 19/2000 on public pension and other social insurance rights. The main directions (the Minister of Labour, Family and Social Protection site) of reform introduced by Law no. 263/2010 are:

- Increasing the standard retirement age for women (until January 2015 to 60 years for women and 65 men and, gradually increase the retirement age for women only at 60 to 63 years, until January 2030). By increasing the retirement age, together with more drastic measures imposed to early retirement, the number of pensioners is expected to decline by 284,000 in 2020.
- Increasing the complete contribution stage to obtain a retirement pension for women from 28 years in January 2011 to 35 years in January 2030. For men, the gradual increase in complete contribution necessary to obtain a retirement pension will be 33 years from January 2011 to 35 January 2015.
- Minimum contribution period required to obtain a pension from the unified public pension system will increase gradually to 13 January 2011, 15 years old in January 2015 for both women and men.
- The integration of "special categories" of persons in the unified public pension system (in active military personnel, soldiers and volunteers, policemen and civil servants with special status in the prison system administration, national defense, public order and national security);
- The regulation of the procedure for the pension point;

- Increasing the number of contributors to the unified public pension system with those who earned income from liberal professions, managers, family associations;
- Discouraging early retirement number, the new law provides tougher conditions for granting this type of pension, setting the penalty given to 0.75% for each month of early retirement from retirement age. Many persons prefer to get retired before the standard age if they fulfill the required conditions, in spite of the penalty that reduces the level of benefits they will receive.

The public pension system in Romania still confronts with serious problems related to financial sustainability and demographic pressures. "Although population has seen a modest increase in recent months (a difference of 2,749 persons between births and deaths in September 2009, according to the Institute of Statistics), the old-age dependency ratio in November 2009 represented 0.98 (5.65 million contributors for 5.54 million retired) and will continue to increase to 55.3% by 2050." (Zaman C, 2010, p.12).

Romania had reversed recently introduced cuts in contribution rates. The rate cuts had been intended to reduce labor costs and to foster formal labor market participation, but were reversed in light of the crisis and need for revenue. In addition, "Romania reduced contribution rates in the second pillar, while increasing them in the first pillar. In the case of Romania, they delayed a scheduled rise in second pillar contribution rates. Temporarily of course this raises revenue and alleviates some of the current shortfall, but workers will now see reduced balances in their second pillar accounts at retirement and consequently lower pensions" (World Bank Report, 2009, p.9). Since they made higher contributions to the public system, they will expect the public system to finance higher first pillar pensions to compensate for the reduced second pillar pensions. The fiscal impact of this long-run, short-run trade-off depends on the particulars of each pension system, the extent of the contribution change, and the duration of the change, but is unlikely to be favorable for either the Government or the individuals

**Table 2: Policy Actions in ECA Countries – Legislated and Considered in Response to the Global Economic and Financial Crisis**

Policy Action	Legislated
Change in Overall Contribution Rate	From 27.5% in 2008 to 31.3% in 2011 for normal condition of labor.
Adjustment to Second Pillar Contribution Rate	Contribution rates to the 2nd pillar frozen at 2% (instead of legislated increase to 2.5%)
Increase in Retirement Age	Increase in retirement age to 63 for women and 65 for men
Measures to Address Early Retirement	Elimination of special pension schemes and early retirement

Source: World Bank Report - Pensions in Crisis: Europe and Central Asia Regional Policy Note, November 2009, p.11

The reforms of the funded (private) pension system, although on the right path, have been slow, in particular with regards to the second pillar of the system. "The accumulation of assets was slowed down by the decision of the Government to freeze the contributions at 2% as from May 2008. Consequently, the mandatory pillar of the private pension system has remained for 22 months at the same contribution rate." (Zaman C, 2010, p.16) The 2.5% contribution, which was supposed to be introduced in January 2009, was adopted in March 2010, although this year the rate was initially planned to reach 3%.

Romanian health care is financed primarily through contributions of the population. For 2011, the contribution rate for employed people represented 10.7% of payroll, of which employers paid 5.2% and employees 5.5%. The health care system was reformed in 2009 by decentralization of hospitals, perceived as a solution for their inappropriate management (transferring the public health units that will be subordinated to the local administration) and by the introduction of a co-payment mechanism in the system, which is supposed to partially alleviate the problem of insufficiency of financial resources (patients are required to pay a contribution which varies according to the type of medical service provided and the individual's category). In addition, 2011 is programmed for the computerization of the public health system, by the introduction of national health card.

**Tabel 3: Active population, employed and unemployed population in Romania**

Thou persons

Indicator	2006	2007	2008	2009
Active population - total	10041	9994	9944	9924
- Female	4515	4479	4418	4400
-Urban	5595	5494	5471	5475
Employed population - total	9313	9353	9369	9243
- Female	4239	4237	4212	4143
-Urban	5115	5072	5101	5032
Unemployed total	728	641	575	681
- Female	276	242	206	257
-Urban	480	422	370	443

Source: Romania in figures, statistical abstract, National Institute of Statistics, 2010, p.17

After a continuous growth over the period 2006 - 2008, occupied population in 2009 reached the lowest value in the past four years. Among those employed, 55.2% are men. Until 2002, most people employed was a rural one. Since 2003, most of the occupant and population reside in rural and urban, 54.4% respectively in 2009. Category prevails among the population of employees occupied 67.2% respectively in 2009. The number of unemployed, defined according to ILO, in 2009 was 681,000 persons, both increase compared with 2008 (18.4%) and as compared to 2007 (6.2%). In 2009, the number total unemployed, 28.9% were young (15-24 years).

In late December 2010, the national unemployment rate was 6.87%, lower by 0.08 percentage points than in November of 2010 and 0.9% lower than in December 2009. The total number of unemployed at the end of December, 629,960 people fell by 6,516 persons compared to the previous month end.

According to the National Agency of Employment (ANOFM), of the total registered unemployed, 329640 unemployed 297320 were unpaid. The number of unemployed increased by 4,990 persons, and unpaid unemployed persons decreased by 11,506 from the previous month. Unpaid unemployed in total unemployed (47.42%) decreased from the previous month by 1.33%. Regarding sex registered unemployment in December 2010 compared to the previous month, the male unemployment rate increased to a value of 7.44% in November, the value of 7.47% and the female unemployment rate declined from 6, 38% to 6.20%.

The chart below shows the evolution of the number of registered unemployed during 2010

**Table 4: The evolution of the Romanian unemployment rate in 2010, by gender**

Indicator	January	February	March	April	May	June	July	August	September	October	November	December
Unemployment rate	8.10	8.33	8.36	8.07	7.67	7.44	7.43	7.39	7.35	7.08	6.95	6.87
Unemployment rate-female	7.26	7.36	7.43	7.20	6.90	6.70	6.77	6.84	6.78	6.54	6.38	6.20
Unemployment rate-male	8.82	9.16	9.17	8.80	8.40	8.08	7.99	7.85	7.85	7.55	7.44	7.47

<http://www.anofm.ro/statistica>

In December the number of unemployed decreased slightly, due to the reduction of unpaid unemployed

## 5. Conclusions

This paper bring up some social security measures that it have been put into practice, due to global financial and economic developments with direct impact on people well-being. Social cohesion policy serves to reduce inter-regional and inter-generational disparities in terms of economic, social, and territorial with directly impact on the quality of sustainable development. Political and administrative decisions relating to pension system or health system aimed to improve the sustainability of these systems and long-term functionality. In the context of crises the nature of those measures can be different, turning to support to households, increased public investment, business support, or labor market measures



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## AFTER THE CRISIS: A CHINESE CENTURY?

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**Abstract:** *This paper examines the potential of the renminbi to become an international currency. China has become the second economic power after the crisis so why couldn't renminbi become a world currency? Although a lot reform is needed, China emerged from a third world country to a real economic superpower. Still, at present, the renminbi is not used internationally. I reviewed the factors that contribute to the international role of a currency, focusing on the China's financial system development. Three possible scenarios have been made regarding the future of the financial international system. I observed that even though a lot has been made in the direction of liberalization, the renmibi is not likely to become international in the near future.*

**Key words:** China, international currency, renminbi

**JEL classification:** F02, F31, F33, E42

### 1. Introduction

The current global financial and economic crisis is among the most severe in modern history. The effects of the crisis, which largely originated in the U.S mortgage market, have had an impact on the export-oriented economies of Asia, including China. Compared to the other major economic powers of the world, however, China is emerging strongly and quickly. These changing economic realities have raised a lot of questions concerning the future of the international financial system, the future hegemony of the U.S and the possible rise of China.

### 2. China's economy – before and after the crisis

#### 2.1. Before the crisis – investments and growth

Before the current crisis, China was the fourth largest economy in the world and the third largest trading nation.(IMF Survey, 2007). Growth has averaged 10 percent for the past 30 years, the most impressive record in history. Real GDP in 2006 was about 13 times the level of 1978, when the economic reforms were initiated.

Regarding the international trade, China placed substantial pressure on the global economy. Its current account surplus soared in the years before the crisis. In 2007, it was about 11 percent of its GDP, unprecedented for a large country that is not a large exporter of resources such as oil. It also had the largest foreign reserves in the world, despite the acute poverty of the Chinese people. (Bergsten, Freeman, Lardy and Mitchell, 2009).

China's pressure to the international monetary system was also extremely serious. Alone among the world's major economies, China rejected the adoption of a flexible exchange rate policy, which would promote adjustment of its balance-of payments position and help avoid a buildup of large imbalances. Moreover, it has intervened massively in the currency markets to maintain a substantially undervalued exchange rate, which has produced huge current account surpluses

Still, at the press conference following the close of the annual meeting of China's legislature in march 2007, Premier Wen Jiabao made an astoning statement, saying: „ *China's economic growth is unsteady, unbalanced, uncoordinated and unsustainable*”. And this is remarkable for two reasons: first, because China had a growth pace avereging 10 percent for three decades and second because he was in charge of the economy for previous 5 years.

The interpretation has to be made starting from the source of growth. It is true that China experienced superheated growth between 2003 and the first half of 2008. But this rapid growth was based on an extremely unbalanced pattern of development. Investment as a share of GDP was sustained at over 40 percent, while household consumption fell to only 36 percent of GDP (the remainder went to government consumption and net exports). (Bergsten, Freeman, Lardy and Mitchell, 2009). The high rate of investment

has been driven partly by the state banks offering low interest rates, as well as there being low prices for complementary factors of production to physical capital such as land and energy. At the same time, there have been high levels of precautionary savings by households in China, resulting from a weakening of the social safety net relating to provision of education, health care and retirement.

Ever since then, it was well accepted—both among most external experts and as a matter of formal policy of the Chinese government—that Chinese growth has been overly reliant on investment and net exports, and that there is a need to move toward a more consumption-friendly growth pattern.

## **2.2 After the crisis – Great “Stimulus Program” Forward**

The crisis began, as it is well known, in the financial sector of the United States, the largest and arguably the most sophisticated in the world. Because of the prominent role of the state in Chinese finance, the country hasn't suffered a significant immediate effect from the financial turmoil in the United States. But the turmoil intensified, spreading from the relatively small sub-prime mortgage market to essentially the whole financial sector.

Since China does not report quarterly GDP components, the analysis of economic developments there has to rely more on less formal information and partial statistics. There were significant declines, it has been reported, in residential investment and private investment targeted on export markets (China Watch Report, 2009). Still, while housing prices began to contract in 2007 due to a tighter monetary policy (a process that was expedited when the crisis hit in 2008), they have started to rebound in December 2008. The impact of the shock in external demand on China was that net exports were a key trigger of output deceleration. China's net export position stayed positive, Exports fell by 20% in the first quarter of 2009, but imports fell by 31%, creating a trade surplus of \$63 billion (China Watch Report, 2009).

China responded with the world's first major stimulus program and managed to keep its year-on-year growth to 6.1%, still well below its 8% target and the 10.6% rate achieved a year earlier. (Sheldon, 2009). On November 2008, the Chinese government announced it would implement a two-year 4 trillion yuan (\$586 billion) stimulus package (equivalent to 13.3% of China's 2008 GDP), largely dedicated to infrastructure projects. The package would finance public transport infrastructure, affordable housing, rural infrastructure, environmental projects, technological innovation, health and education, and rebuilding areas hit by disasters (such as areas that were hit by the May 12, 2008 earthquake, primarily in Sichuan province). China's stimulus was one of the largest economic stimulus packages (both in spending levels and as a percent of GDP) that have been announced by the world's major economies to date, although it is unclear to what extent the stimulus package represents new spending versus projects that were already in the works before the economic downturn hit China.

This means that China's economy became much more dependent upon investment, and even less “balanced” than it has been. This is the inevitable consequence of the successful stimulus package. This pattern is not likely to change in the foreseeable future, either. Obviously, if investment has been ramped up so rapidly, some investment decisions have been made hastily, and will turn out to be poor decisions. Already the authorities have expressed concern that many projects are endangering worker safety, because they were begun hastily and without adequate safety provisions. The worry more generally is that local governments have promoted projects that were unable to pass previously for safety, environmental, or economic reasons, dusted them off, and resubmitted them in the current permissive environment.

These concerns are also manifest in the vast amount of new loans on the banks' balance sheets. Reserve requirements were cut to 13.5% from 17.5% already in the second quarter of 2008. Bank loans increased by a remarkable 22% year-on-year in the first quarter of 2009, quite notable in a period of considerable financial de-leveraging in the rest of the world (Petri and Plummer, 2009). A number of commentators have noted that banks cannot possibly be doing serious risk and return evaluations for the vast quantity of loans they have approved since the beginning of 2009. Inevitably, this will cause the banks' portfolio of non-performing loans to begin to creep upward after 15 years of sustained decreases. It is probably “worth it,” given that the government will be able to pay for poor lending decisions out of a future, larger economy, but it is still a long-term cost of the present policy.

With all this, it was first reported in 2010 that China had the world's second biggest economy, but data released from Japan in 2011 finally confirmed that. It is expected that in 2040, the Chinese economy will reach \$123 trillion, or nearly three times the economic output of the entire globe in 2000. China's per capita income will hit \$85,000, more than double the forecast for the European Union, and also much higher than that of India and Japan, as The Economist estimates.

## **3. Renmibi – the next international currency?**

Before the Great Depression of 1929, the sterling was considered the main international currency, and Great Britain dominated the world financial system. But the World War I and the panic of 1929 eroded the sterling’s supremacy. The British were determined to pursue their traditional economic imperialism, but they had emerged from the war economically devastated and, for the first time, a debtor nation owing war debts to the United States. (Baldwin and Wyplosz, 2006). Moreover, after the World War II, all European nations involved were even more indebted, a fact which determined the U.S dollar to appreciate strongly and, therefore, became the key currency of the world. As China finds its footing as the next superpower and its currency becomes more widespread, what does it mean for the international financial system?

**3.1 The determinants of an international currency**

An international currency is one that is used outside its home country. The classical three functions of money domestically—medium of exchange, store of value and unit of account—can be transferred to the level of international money, as summarised in Table 1.

**Table 1: Roles of an International Currency Function of money**

	<b>Governments</b>	<b>Private actors</b>
<b>Store of value</b>	Reserve currency	Currency substitution
<b>Medium of exchange</b>	Vehicle currency for foreign exchange intervention	Invoicing trade and financial transactions
<b>Unit of account</b>	Anchor for pegging local currency	Denominating trade and financial transactions

Source: Chin and Frankel (2005)

The internationalization of a currency depends on a host of factors— the size of an economy and its trade volume; the breadth, depth, and liquidity of its capital markets; and the stability and convertibility of its currency.

**3.1.1 The size of the Chinese economy**

International currencies are usually associated with large, competitive economies with far-reaching trade and financial ties. China by now has become a major player in the world economy. The Chinese economy accounts for 16% of the world GDP, compared to the United States, which represents 20.4% of the world output and euro area with 14.3% (IMF, 2010). However, with the amazing growth rates since the beginning of the twenty-first century, China has managed to surpass the United Kingdom in 2005, Germany in 2007 and Japan in 2010, becoming the world’s second-largest economy after the United States. IMF has projected that China will overtake the United States to become the world’s largest economy by 2012, should China continue to grow at its current rate. Moreover, the Chinese economy it is estimated to be 24% of the world economy by 2024 (IMF, 2010).

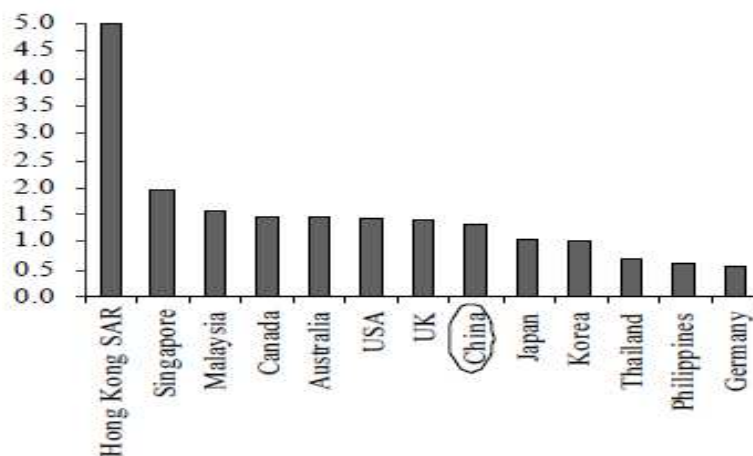
However, a large GDP size does not necessarily equate to a wealthy or healthy economy. Despite its number two world ranking in absolute economic size, China remains far behind the other leading economies in average per capita income level.

**3.1.2 The state of development of the financial market**

International currencies are usually associated with large, liquid and open financial markets.. In particular, a deep and liquid secondary market of a wide range of securities would attract international investors, including central banks to allocate assets in their reserve management according to their risk, liquidity and return requirements. (Greenspan, 2001)

The development of China’s financial markets lags behind other major economies mainly in two ways. First, the domestic financial markets are still subject to some restrictions including the remaining floors and ceilings on bank lending and deposit interest rates. Second, the market is largely closed to international investors.

China’s capital markets are still at an early stage of development and it may take China one to two decades to develop capital markets into comparable breadth and depth. China has lower equity and bond market capitalizations to GDP ratios relative to that of issuing countries of major currencies. Secondly, China’s capital market openness to the rest of the world is still very restricted. By mid 2009, only 87 foreign financial institutions were allowed to trade shares on the secondary market – approximately 1–2 percent of the Shanghai exchange’s market capitalization. (Deutsche Bank Reaserch, 2009). Thirdly, high transaction costs and low regulatory framework make Chinese market less efficient and hard to integrate in the international financial system.

**Table 2: Stock market capitalization as share of the GDP**

Source: World Bank, 2009

Nevertheless, some progressive steps have been taken. Since 2010, investment limit have been raised, and foreign banks were approved to issue RMB-denominated corporate bonds. Another unprecedented move was made in 2009 when Ministry of Finance in China started to sell RMB-denominated sovereign bonds in Hong Kong to foreign institutional and retail investors (Wu, Pan, and Wang, 2010).

### 3.1.3 The stability and convertibility of the Chinese currency

A currency can be regarded as “fully convertible” when any holder is free to convert it at a market rate into one of the major international reserve currencies (Greene 1991). Currently, the renminbi lacks the foremost prerequisite to become a global currency: free and full convertibility. Although the renminbi is convertible under current account, the capital account is still controlled on many aspects, mainly on securities and assets

Since 1993, when the Chinese currency was devalued from 5.8 to 8.7, the RMB fluctuated little against the dollar. On 21 July 2005 China adopted a managed floating exchange rate regime based on market supply and demand with reference to a basket of currencies, and the renminbi had steadily appreciated against the dollar in real terms. Still, inflows through export earnings and large inflows of FDI have required central bank intervention to keep the RMB from rising, with the consequence that China has accumulated an enormous quantity of foreign exchange reserves.

On June 19, 2010 China announced again a return to a more flexible and more market-based exchange rate regime like that they had pursued during 2005–2008. The results have been weak, however. As of September 10, 2010 the renminbi had risen by less than 1 percent. Peterson Institute’s latest calculations suggest that China would have to let the renminbi appreciate by about 15 percent on a trade-weighted basis and about 25 percent against the dollar to achieve equilibrium, defined as cutting the Chinese surplus to 3 percent of GDP. Hence it is obvious that China is still “manipulating” the value of its currency.

## 3.2 The use of the renminbi in the world

The international use of the RMB is rather limited. The renminbi is neither a currency playing the role of store of value, nor an anchor for public purpose. It has also very limited scope of being used as a medium of exchange in the form of trade and financial transactions invoicing for both residents and non-residents. However, at a very limited level, the renminbi has started being used by non-residents as vehicle and an invoicing currency in trade and financial flows, mostly on regional basis.

### 3.2.1 Private use of the Chinese currency

One important role that the renminbi is playing is in trade settlement. The use of the Chinese currency in circulation in the neighbouring countries is increasing. However, it is difficult to conduct a precise estimation of the magnitude of renminbi circulation in these economies. This is because that the renminbi is not fully convertible. The renminbi cannot be deposited in the banking systems of most neighbouring economies.

Some available data suggested that, for instance, in Mongolia, 60% of the cash in local circulation is the renminbi. In Korea, the renminbi is accepted in shops and restaurants. In Vietnam, the renminbi can be exchanged via unofficial banking. The RMB it is also accepted in countries such as Laos, Myanmar,

Vietnam, Cambodia and Nepal. In Hong Kong, the renminbi has become the second-largest exchange currency after the Hong Kong dollar. (Gao and Yu, 2009).

Another use of the renminbi is the international bond market. In 2007, banks were allowed to issue RMB-denominated bonds in Hong Kong. Hopewell Highway Infrastructure, a Hong Kong-based construction firm, became the first company other than a bank to receive authorization to issue renminbi-denominated bonds in Hong Kong, in 2010. (Eichengreen, 2010) Still, according to BIS Quarterly Review, the renminbi-denominated international bonds and notes amounts outstanding of Jun. 2010 is very small compared to other major countries (0.05% of the total amount). (BIS, 2010)

### **3.2.2 Public use of the Chinese currency**

China has become an important fund supplier in Bilateral Swap Arrangements (BSAs). In 2007, has signed BSAs with Japan, Korea, Thailand, Malaysia, the Philippines and Indonesia, respectively. Between 2008 and 2009, other bilateral swap arrangements have been signed with Korea, Hong Kong, Malaysia and Belarus. This was a serious move that China has made in response to the widespread of financial crisis. By doing that, China actually was sharing burden with Japan and international financial organizations to help out the countries in trouble in Asia. Some observers believe that this actually is the signal that the Chinese government started paying serious attention to encouraging its currency being used internationally. (Gao and Yu, 2009).

As for the use in international reserves, the renminbi has been used for the first time in 2006 by the Philippine Monetary Committee, which announced that they will accept renminbi as vehicle currency of central bank reserves. According to the report of Financial Times at Sep. 20, 2010, Malaysia's central bank has bought renminbi-denominated bonds as reserves. With all this, the public role of the renminbi is only a regional one, and is still limited.

## **3.3 Possible scenarios**

### **3.3.1 First scenario – the dollar will remain the major international currency**

The international role of the dollar remains substantial a decade after the introduction of the euro, and despite changes in the value of the dollar and the financial turmoil that began in 2007. The dollar is used as a major form of cash currency, and is the main currency for exchange rate pegs, and for invoicing foreign transactions. Network externalities create inertia – everyone uses the dollar because everyone else is using the dollar. (Goldberg, 2010) But the most important role of the dollar

The US dollar's disadvantages relative to other reserve currencies – the euro, pound and yen – are not pressing in the near term. The economies that are strengthening their positions in the global system are mainly those from the emerging market world, such as China. Unfortunately, these economies do not offer any feasible substitutes to the US dollar as a global or reserve currency in the short term, as I showed before in the case of the Chinese economy.

### **3.3.2 Second scenario – towards a multi-global currency system**

An international monetary system in which the dollar, the euro and the renminbi share the reserve currency role will be an improvement over a system in which countries seeking to accumulate reserves have no alternative to accumulating dollars. In this way, no country will be able to finance its deficit as it did the US. All central banks will accumulate a diversified portfolio of reserves, and there won't be an "international reserve currency". In this way, the probability of a new crisis in the international financial system will be slightly diminished.

This system will not solve the "Triffin dilemma", but at least will reduce the deficit pressure on a certain country. In 2002 Mundell identified a "triple monetary union" (the euro, the dollar and the yen) which could serve as a multi-global currency system.

Another proposal, which came from de China's governor, was to transform the IMF's Special Drawing Rights (SDRs) into a true global currency. One approach proposed by the Commission is for countries to agree to exchange their own currencies for International Currency Certificates (ICC), which could be converted into Special Drawing Rights, and vice versa. (Financial Times, March 24, 2009)

But there would be several technical hurdles. SDRs would need promoting in foreign-exchange trading, international trade invoicing and as a currency in which private international financial deals like loans, bonds and deposits are denominated. Agreeing a wider basket of currencies on which to base the SDRs would also take some negotiation. But on the other hand, this means that the big step has been made and the end of dollar dominance has been brought into discussion. And given that China holds almost 30% of the world's entire reserves, this leads the way to a third scenario.

### 3.3.3 Third scenario - RMB as a new global currency

Whichever direction international monetary system reform is heading, Asia is under-represented in the global currency system. Traditionally, much of Asia was a part of the 'dollar bloc'. But as the future of the dollar dims and economic interdependence among Asian economies intensifies, the question arises: should Asia have its own currencies, regional or international, that better reflect its growing global economic importance?

After the current global crisis leading to continuous downward pressure on the US dollar and a deteriorating US economy, the role of the dollar started to diminish. So, some influential economists in China have become more optimistic in demanding accelerated internationalization of the RMB. With its massive foreign exchange reserves, China has been able to keep the RMB stable and, consequently, some countries have expressed their willingness of the RMB as a settlement or reserve currency.

After thirty years of reform and opening-up, China has become one of the most dynamic economies in the world. The latest estimates of the IMF suggested that China will become the largest economy by 2012, which is an important factor in achieving an international role. Chinese officials have targeted 2020 as the date by which both Beijing and Shanghai should become leading international financial centers, with deep and liquid financial markets open to the rest of the world. By implication, that is the date by which they want to see the renminbi become a leading international currency. ()

But as I showed before, the renminbi has to overcome a lot of obstacles in order to become a real international currency.

First, the developed financial market is the key element for a currency being used as an international vehicle currency. An underdeveloped domestic financial market makes that country an immature creditor that cannot lend to foreigners in its own currency to finance its cumulating current account surpluses. And China is such an example, because it cannot lend in RMB due to interest rate restrictions on domestic bank deposits and loans, as well as high reserve requirements on domestic banks (McKinon and Schnable, 2009). Despite some encouraging moves, it will be some years before China's capital markets can successfully transit to a more open and mature stage. Deutsche Bank Research (2009) has predicted that continuous growth of China's capital markets would significantly raise the country's profile in the international financial system, and by 2018, China could account for 13 percent of global bond markets, more than 40 percent of global stock markets and 18 percent of global banking markets. Even so, China's capital markets will need another decade to mature. As discussed earlier, only when domestic capital markets in a country are open and deep can its currency become extensively accepted in other capital markets around the world.

Second, currency convertibility and the increasing use of a currency in international trade are pre-requisites for the development of an international market. The Chinese Government is very reluctant in additional relaxation and liberalization. And they are right to do so, as more exchange rate flexibility in a context where banks were allowed to take on large foreign currency exposure would open the door to the same problems as faced the Asian emerging market economies in the 1997-98 Asian financial crisis.

Anyway, the status of a currency usually changes slowly, in time. Given the situation of the Chinese currency and the reforms performed so far, it may take decades until it could become a real international currency. In sum, it is difficult to predict how soon this will happen. It will be necessary that RMB to become a major currency in invoicing international trade, to be accepted as in other country's foreign exchange reserves and to be largely used as vehicle currency in foreign exchange transactions. Furthermore, politically it is also not certain whether other countries would have the confidence to accept the RMB for various international uses, the RMB being a currency issued by a country controlled by a communist party. Only time will tell what role it will play in the financial international system.

## 4. Conclusions

Even before the current crisis, China was the fourth largest economy in the world, with a growth average of 10 percent for the past 30 years, the most impressive record in history. The financial crisis, although affected the entire world, caught China in a favorable position of having an enormous trade surplus. China responded with the world's first major stimulus program and managed to keep its year-on-year growth to 6.1%, still well below its 8% target and the 10.6% rate achieved a year earlier.

With all this, the Chinese currency is barely used internationally. In fact, it's only use is a regional one, in trade and to some extent in the international bond market. The renminbi is also used in Bilateral Swap Arrangements with neighbouring countries, but at a limited level.

Although a lot of reform has been made, the limited use of the Chinese currency is mainly caused by the underdevelopment of its financial market. The financial market is still subject to a lot of restrictions, being relatively closed to international investors. China has lower equity and bond market capitalizations to GDP ratios relative to that of issuing countries of major currencies and it's a relatively inefficient market. Being underdeveloped means being an immature creditor – not being able to play the role of “lender of last resort”, like the US is doing. Moreover, the renminbi lacks one of the most important qualities of an international currency: free and full convertibility.

With all this shortfalls, it is unlikely that the renminbi to become a world currency before 2020. Until then, the dollar will probably continue to be the main international currency in the near future.

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## EDUCATION AND DEVELOPMENT. IDEAS FOR INSTITUTIONAL REFORM

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**Abstract:** *The economic literature tends to bring together development theory and institutional economics by emphasizing the institutions role in explaining economic performance differences among different countries. New institutionalism could also be seen as a very useful exercise to link education sector and economic performance. As we will underline in this paper, more education does not mean necessarily economic performance. Education could positively influence economic growth only if it is correlated with the individuals' preferences and labor market requirements. We will emphasize some institutional changes in order to bring more flexibility and responsibility in education sector in accordance to labor market signals.*

**Keywords:** institutional change, education, labor market, economic development

**JEL Classification:** B52, I22, J24

Especially in the last decade, the economic literature tends to bring together development theory and institutional economics by emphasizing the institutions role in explaining economic performance differences among different countries. Indeed, the specific approach of institutionalists could be seen as a very useful exercise to link education sector and economic performance, since it has the capacity to explain and assert education role in development process comparing to other quantitative or qualitative theoretical approaches. The main explanation is based ultimately on recognizing that the educational inputs, as well as the quality of educational human capital existing in an economy, have a different contribution to economic development in accordance to the institutional arrangement that prevails in education sector, labor market and business environment.

This is the reason why we appreciate that simply emphasizing the impact of education on economic development based on vague and limited empirical correlations could lead to misleading results. Moreover, to understand the role of education on economic performance means taking into account an essential element: institutional structure e.g. the network of incentives and constraints existing in the economy. The specific institutional paradigm starts by considering two important economic sectors in the attempt to integrate education in the development function: education sector and labor market, as an anteroom for business environment.

As we will underline in this paper, more education does not mean necessarily economic performance. Education could positively influence economic growth only if it proves it's usefulness by increasing individual's income and economy's productivity and national output. Thus, the correlation between education and labor market in the first place necessary, but also inevitable as long as individuals view education the proper way to leave a relative poverty. From this perspective, the level of education is – or should be – the natural consequence of structure of incentives and constraints of the labor market. Moreover, educational services, as well as types of specific education, are subject to individual choice like any other good. The coordination of individual preferences and labor market requirements lead us to the following conclusion: education sector should respond adequately to individuals' and labor market demand.

Further, we will emphasis some institutional changes in order to bring more flexibility and responsibility in education sector in accordance to labor market signals. In the economic literature there is a vast series of studies that explain the primordial role of institutions – seen as the existing set of incentives and constraints – in the education output. Thus, North (1990, p. 72) emphasizes the double correlation between informal institutions and the level of social knowledge. Education undoubtedly influences the people's perception on the surrounding world but, at the same time, the way in which they judge, explain and justify their action in society. Similarly, their perceptions about the world tend to explain and influence their

behavior in getting more knowledge. For example, North explains that, in medieval period, the western societies have been dominated by church as regard education. This is probably the reason why the knowledge and discovery process has been stimulated in some areas, while in other countries social ideologies are intolerant to theoretical knowledge development.

The analysis of human behavior from the institutional perspective is able to explain, for example, the orientation of human capital (gained through education) to profitable activities such as piracy to the detriment of productive activities. Thus, if the opportunities favored by institutional existing frame make piracy a profitable work, then we could expect an increase of knowledge and abilities oriented to exploit such opportunities. As North (1990, p. 73) pointed out “the incentives included in the institutional structure play a decisive role in selecting the most profitable knowledge and skills”. To a similar conclusion has also reached Pritchett (2004). He emphasized, because of the deficiencies of institutional arrangements, cognitive abilities have been mostly directed to unproductive social activities in many transition countries. Easterly (2002) considers education plays a secondary role in development process comparative to structure of incentives that prevails in emerging economies. Moreover, Hanushek and Wössmann (2007, p. 41-43) emphasized the positive role of the openness of the economy on the quality of educational output and, in extent, on economic growth process. In the same time, they insist on the greater impact that qualitative education has on economic development especially in those countries in which institutions favor productive entrepreneurial initiatives. According to their opinion, productive institutions and the quality of education may develop a symbiotic relationship in order to lead economic development. Therefore, like in the case of an economy, where its performances depend on the quality of economic institutions that governs social interactions on the labor and goods market, on free trade or foreign investments, the education system could not work properly in the absence of a favorable institutional arrangement. The performance of every organization is strongly influenced by the incentives and constraints structure that influence the behavior of its members. Therefore, if the members of educational organizations (schools, education departments or minister) receive earnings or penalties in accordance with their personal achievements, then it is naturally to expect an increase in the organizations’ performance. But this to be true, we should understand and create the specific pro-market institutional arrangement in the education sector. Obviously, by market relations in education sector we do not understand only the existence of education demand and supply. The simple fact that students could choose a specific university or parents could choose the primary school for their children does not necessary mean there is a market. The absence of free entry and competition among schools, as well as the costumers’ capability to penalize some education providers reveal there is no market at all.

From this perspective, the reform directions should to aim three important areas: the introduction of a real competition among educational organizations, decentralization of education sector, and bringing more responsibility in educational organizations. We consider the first direction to be the most important one, as long as the other two directions appear as potential consequences of implementing an institutional arrangement aimed to increase competition among schools. Thus, furthermore we will focus on some different solutions destined to achieve this goal.

The arguments in favor of competition are based on the natural right of parents to choose their children’s education. The possibility to choose your own education or to your own children means necessarily competition among education schools, private or public, and stimulate them to diversify the educational services and to increase quality of education. In the past years, many education studies around the world reveal a negative correlation between public financing and the quality of education provided. Having no way to control public education has determined the individuals to spend less and less to influence government policies in this matter. This probably explains why public education is presently the subject of negotiations between school unions and minister, none of them paying attention to parent’s and children’s preferences. By promoting competition among education providers means the proper path in which the present educational controversies leave the struggle between unions and minister and become voluntary interactions between education providers and consumers. Instruments like voucher, fiscal credit or human capital contract could prove their usefulness in attaining this goal, even if the state will still play an important role in education matters, especially regarding the financing issue.

### **1. The specific voucher educational program**

It is addressed especially to the pupils educated in public schools with low performances to turn to private schools which have well-known standards of education. Using the voucher system those children can be able to finance their studies. If this program is applied, it is expected that inefficient public schools

become more motivated to improve their educational process, teaching methods, curricula and so on. It is also stimulated the emergence of new private schools focused on offering new innovative ways to serve education demand. The mentioned program is based on the experience of the state of Florida, combined with financing elements from Europe or Asia (e.g. Hong Kong); it is supposed to be flexible enough to ensure substantial growth of private education. For example, the model applied in Florida is based on two directions. On one hand it allows parents whose children attend low quality public schools to transfer them to private schools according to their preferences. On the other side, as a consequence to the possibility of choice, strong stimulants for public schools emerge in order to change their self-sufficient attitude towards the educational process.

An efficient way to test the viability of this model could be experimental schools. The Ministry of Education could implement this program in selected schools considered to have poor results obtained at national tests. It is obvious that the Ministry can use other performance indicators such as results to national exams, admission to college grades and so on. Although the Florida experiment has as purpose obtaining in two years out of four the F degree, it is possible to build another arrangement, for example three years out of four, or two out of three, according to the estimated representative time frame. We also suggest that the one year option could be efficient, the main reason being that public schools will be alert for new ways to improve the educational process even from the current year, motivated by their interest to keep the pupils for the next year, or even to bring in new ones. Regarding the value of the educational voucher, we can consider that public resources per student are a good start in financing matter. Concerning the ability to finance a new school, the Dutch model is the best example.

Therefore, following Holland's example, groups of parents (minimum 20) interested in founding a new school must be granted funds and investment grants for modernizing schools with technical equipment.

## **2. The universal educational voucher program**

The second proposal for reform is more radical, trying to implement a universal voucher program based on Sweden's experience. Among the main features of this model we can identify: the educational voucher can be used for both private and public schools, depending on the parents choice; any school is free to participate at this program, including private schools profit-motivated; the amount of governmental financing must no cover the entire school taxes (for example it could be about 75-80% of the sum, as in the Danish model); schools must be able to cover the rest of the costs for the educational process by imposing schooling taxes, such as in Germany or Hong Kong; similar to the model of Hong Kong, there must be a special system of scholarships meant to facilitate the access to education in private schools of children coming from low income family.

If this program would be applied in Romania, we foresee a very good perspective, for two reasons. Firstly, as mentioned above, it increases parent's influence in choosing schools (they become more responsible), assures opportunities for everyone and also stimulates competition between schools. Secondly, the development of the private schools is paradoxally meant to stimulate the government to implement this program. Most primary and secondary schools are public and by introducing the universal voucher there will be no extra pressure over budgetary resources. This program will only redistribute the public funds according to the demands and preferences of parents and not according to the bureaucratic decisions based almost exclusively on quantitative evaluations. We can also think of reducing public expense, for two reasons: Firstly, voucher covers only 75-80% of the educational cost in the public system and secondly, because increasing the education services competition, will lead to a cost-cutting management.

Although such a measure can be blamed to put aside the quality standards, we remind that private schools (and even the public ones) depend on offering high quality education, because this is the criteria for receiving the voucher.

## **3. Fiscal credits for education**

The third proposal is the result of a success of USA and Canada's models. It basically involves offering a fiscal credit to parents whose children go to private schools. The procedure is relatively simple: from the total amount of the taxes paid by one family, expenses for education are deducted. If the family has low incomes and the taxes paid are less then the schooling taxes we recommend creating a legislative context to allow additional funds to facilitate the access to private schools.

The advantage of this proposal is encouraging parents to send their children to private schools, and therefore stimulating competition among education services suppliers. Some parents, whose children used to attend public schools, will choose private schools. Therefore, the fiscal credit will bring into force the ethical criteria. The only losers in this model would be the inefficient schools, practically, that ones that don't fulfill the quality standards according to the customers' expectations.

In conclusion, we strongly believe that such proposals are aimed at achieving common goals like increasing quality in education process, bringing more ethics in this field and, furthermore, stimulating competition among schools.

#### **4. Human capital contract**

Human capital contract has a novelty nature comparing to voucher, the other instrument analyzed above. Comparing to voucher, it requires a minimal interference of the state, the essential role being that of building legal framework. "Human capital contract promote equal chance for everybody, and it is directed to the source of income disparities, without impending competition, without destroying incentives and without redistributing incomes in society. The foreseen results are an enhancing competition, a proper orientation of incentives and constraints, an elimination of causes that lead to (state created) arbitrarily inequalities" (Palacios, 2002, p. 2).

Human capital contract is a specific contract through an individual could finance its higher education in exchange to a percentage of his future annual income paid for a specific period of time. The decision to finance the education of potential beneficiary (e.g. student), the (private) human-capital investment fund might be based on different criteria, like the evolution of the economic sector, the reputation of university, his previous school results etc. Further, since repayment depends on earnings and thus adjusts to the student's capacity to pay, human capital contracts should be more attractive to students than traditional student loans. If, for example, the student is unemployed for a while, he should not pay anything to its investor until he enters again in the work field. Such an instrument in financing education could be seen at work in Great Britain, although the government plays the role of investment fund.

What are the main advantages of this instrument? In the first place, this institutional arrangement is less risky for the student, because it is not obliged to pay a fixed amount as long as repayment depends on the existence of earnings. Therefore, this instrument protects students from an eventually default in unemployment period. Moreover, due to its flexibility, it makes his life easier if his carrier is less profitable than he expect. This advantage can be seen as a powerful constraint for the investment fund to finance human capital, since it confronts with an increased entrepreneurial risk. Nevertheless, it might be surprisingly but the investor is in a better position than student regarding the risk. The first could reduce significantly the risk by diversification, exactly in the same way as insurance companies do. Student has not this opportunity at all. His future specialization cannot be changed costly and infinitely as response to economy trends. The investment funds could extend the number of contracts, and the loss from some contracts is compensated by the returns of other, or to extend the spectrum of skills and competencies financed according to labor market signals. Another advantage of this kind of contract, compare to other existing financing instruments such as traditional student loans, is that it requires no other guarantee mechanism. Another way to put this is: human capital contract is influenced by the type of education, the dynamics of a specific sector, not by the financial situation of his family.

The introduction and development of this instrument requires three steps: establishing the contractual clauses, finding the financial resources, and, very important, policymakers should assure investors that such contracts are fully enforceable and afford them the same legal protection that student loans receive today. Human capital contracts should be acknowledged as securities so that investment funds will be allowed to hold them. The effects of these arrangements are, among others, less risk for the student, transfer of risk to a party that can manage it better, increased information regarding the economic value of education, and increased competition in the higher education market.

In conclusion, these alternative institutional arrangements in the sphere of management and financing education could bring more liberalization of educational services, an important social field which has been wrongly treated as a traditional state monopoly.

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## CLUSTERS PROMOTION THROUGH TRANSNATIONAL COOPERATION IN ADRIATIC DANUBIAN REGIONS

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**Abstract:** *To overcome the current situation which is characterized by **the lack of an exchange of information among the countries in Adriatic Danubian Area on the potential for antreprenorial cooperation** (facilitating trade exchanges, specialization, access to innovation, joint initiatives on the global markets), there are some initiatives, as for example the Project "Adriatic Danube Clustering" (ADC).*

*Our paper will present some of its results, as for example the commodity trade flows among the ADC Project Countries, and of course the main built clusters in some of the strategic common economic sectors of ADC area.*

**Key words:** cluster, SME, networking

**JEL classification:** R 12, R 58, R 39

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In the Adriatic area there are thousands of active companies with quite similar profiles, but the information about the potential for cooperation among the countries in the area is scarce because of the lack of visibility of SME-s, in general, and of transnational connections between companies and the supporting organizations, in particular.

To overcome the current situation which is characterized by **the lack of an exchange of information among the countries in South-East Europe on the potential for antreprenorial cooperation** (facilitating trade exchanges, specialization, access to innovation, joint initiatives on the global markets), there are some well known European initiatives in this respect.

**The specific goals of such European initiatives are as it follows:**

- **Promotion of transnational antreprenorial cooperation** among the strategic productive sectors in South-East Europe;
- **Eliminating the current trend of companies in the South East Europeam area to be specialized in the same types of products**
- Capacity building of the countries in the project with a view to consolidating the **local marketing** of the area and thus increase the attractiveness of the Adriatic-Danube area and better face international competition as well as to developing local economies by using the endogenous resources.
- **Stimulation of productive capacities** of companies in order to create **cluster networks** in the strategic economic sectors, meant to improve the actual integration of the transnational competitive chains of SME-s and contribute thus to the narrowing of regional disparities and to an increase in the attractiveness of the SEE area for FDI;
- **Improvement of information on the cross-border cooperation potential** in this area of Europe and promote it, so that SME-s in the region have a bigger visibility.
- Identification of the transnational competitive chains of SME-s, as pillars of growth and attractiveness in the area;
- Leveraging the propductive complementarities of the existing and emerging clusters;
- Improvement of horizontal links among comapanies in the Adriatic-Danube area;
- Stepping up partnership among the economic stakeholders in the region that are dealing with the identification and development of clusters;
- Stepping up the development of some **innovative economic policies**, of **vertical relations among companies**, of the visibility and accessibility of **local productive systems** and continued growth at a regional level;
- **Improvement of the business environment** with the help of the innovative instruments, as for instance, special **digital business ecosystems**.

**The major outcomes of such European initiatives** are the new sustainable and effective facilities for: setting up **cluster networks** that should integrate local companies and systems of production; building a **regional economic identity** of the European area; development of the different European areas as an **integrated productive system** of high competitiveness and strengthening its **capacity of attracting** foreign investors.

Clusters represent an important instrument for regional economic development, for improving competitiveness and innovation capability of firms and for creating more jobs in Europe.

According to the economic literature (Leucuta, 2010), the main dimensions of a cluster are the following :

-geographical concentration of specialised firms, advanced skills and competences in the labour forces and supporting institutions which increase knowledge flows and spill-overs as a result of their proximity

-functional purpose in view to provide a range of specialised and customised services to a specific group of firms; clusters facilitate both intensive competition and close cooperation, sometimes described as « co-opetition »

-social glue or so-called « institutional fix » that holds the different interlinked innovation actors –such as universities, business and public authorities-together and facilitates intense interaction and cooperation amongst them .

The Project "Adriatic Danube Clustering" (ADC) is one of the numerous projects that implement the European Union policy of support for cluster-based economic development. This project is financed as part of the Transnational Cooperation Program for South-East Europe 2007-2013, a program with European funding in which Romania has the Institute for Economic Forecasting as partner in the project. The Institute for Economic Forecasting is running the ADC project in partnership with other eight countries in the Adriatic-Danube region, Italy, Serbia, Slovenia, Bulgaria, Croatia, Montenegro and Bosnia-Herzegovina.

The ADC Project intends to identify in each partner country in the Adriatic-Danube area companies and/or clusters that have been built or are in the process of being built and have activities in strategic and competitive sectors of the economy of the nine countries and that are of common interest for all the partners in the project, for the purpose of supporting them in the process of development following opportunities of transnational cooperation in general and cooperation among the countries in the project, in particular.

In order to reach this objective there have been analyzed the commodity trade flows among the ADC Project Countries, and of course the main built clusters in the strategic common economic sectors of ADC area, which were discovered in the agrofood -, modernhousing -, mechatronics and logistics sectors.

Table 1

### Total Exports – Partner Country Shares in National Totals

2006													
	BG	BA	HR	HU	IT	KS	MN	RO	SE	SI	EU27 ExtEU	EU27 IntEU	Total
BG	0	0.86	1.73	0.92	<b>10.35</b>	0.00	0	3.95	3.29	0.78	39.32	60.68	100
HU	0.77	0.38	1.49	0	<b>5.59</b>	0.02	0.03	4.12	0.97	1.04	20.79	79.21	100
IT	0.47	0.13	0.82	1.01	0	0.01	0.04	1.67	0.28	0.95	38.84	61.16	100
RO	2.81	0.55	0.46	4.94	<b>17.78</b>	0	0	0	0	0.36	29.72	70.28	100
SI	0.56	3.09	<b>8.74</b>	2.84	<b>12.37</b>	0.43	0.52	1.22	3.53	0	31.61	68.39	100
2007													
BG	0	0.20	0.93	1.06	<b>10.30</b>	0.25	0.04	4.89	4.41	1.57	39.17	60.83	100
HU	0.85	0.39	1.49	0	<b>5.65</b>	0.02	0.03	4.51	1.25	1.10	21.04	78.96	100
IT	0.49	0.14	0.77	1.02	0	0.01	0.04	1.64	0.33	1.04	39.09	60.91	100
RO	3.18	0.18	0.40	<b>5.72</b>	<b>17.03</b>	0.03	0.04	0	1.05	0.56	28.02	71.98	100
SI	0.73	3.01	<b>7.98</b>	3.81	<b>12.41</b>	0.40	0.64	2.00	3.88	0	30.69	69.31	100
2008													
BG	0	0.35	0.83	0.94	<b>8.37</b>	0.29	0.07	<b>7.25</b>	4.36	0.79	40.03	59.97	100
HU	1.03	0.53	1.58	0	<b>5.42</b>	0.03	0.06	<b>5.32</b>	1.41	1.16	21.82	78.18	100
IT	0.52	0.17	0.85	0.99	0	0.01	0.06	1.69	0.33	1.08	41.14	58.86	100
RO	4.15	0.21	0.29	<b>5.12</b>	<b>15.49</b>	0.03	0.09	0	1.38	0.48	29.46	70.54	100
SI	0.78	3.29	<b>8.28</b>	3.74	<b>11.65</b>	0.47	0.63	2.04	4.05	0	31.91	68.09	100

Source: Authors' computations, based on Eurostat data.

In the following paragraphs we'll present some of the principal results obtained until the actual phase of the project, with the intention to publish also the final results, at the end of the project.



The trade in commodities among the ADC Project countries intensified over the recent period (the analyzed interval refers to 2006-2008), by country pairs or overall, each country representing significant trade partner. Thus, in what regards the overall *exports*, **Italy** was constantly a very important market for the ADC Project countries that are also EU members (especially for **Bulgaria**, **Romania** and **Slovenia**), **Hungary** was an important market for **Romania**, **Bulgaria** became a more important market for **Romania**, and **Romania** was an increasingly important market for **Bulgaria** and **Hungary**. From among the ADC Project non-EU countries, **Croatia** was an important market for **Slovenia**, **Bosnia-Herzegovina** a significant market also for **Slovenia**, and **Serbia** a significant market for **Bulgaria** and **Slovenia** (see Table 1).

As regards the overall *imports*, **Italy** was again a very important market for the ADC Project countries that are also EU members (also especially for **Bulgaria**, **Romania** and **Slovenia**), **Hungary** was an important market for **Romania** and a significant one for **Bulgaria** and **Slovenia**, **Bulgaria** became a significant market for **Romania**, and **Romania** became important for **Bulgaria** and was significant for **Hungary** and, less, for **Italy**. From among the ADC Project non-EU countries, **Croatia** and **Serbia** were significant markets for **Slovenia** (see Table 2).

Table 2

Total Imports – Partner Country Shares in National Totals

2006													
	BG	BA	HR	HU	IT	KS	MN	RO	SE	SI	EU27 ExtEU	EU27 IntEU	Total
<b>BG</b>	0	0.11	0.27	1.54	<b>10.54</b>	0	0	4.52	1.09	0.62	38.86	61.14	100
<b>HU</b>	0.19	0.20	0.23	0	4.55	0	0.03	2.76	0.23	0.60	29.78	70.22	100
<b>IT</b>	0.36	0.11	0.45	0.96	0	0.00	0.05	1.22	0.21	0.56	42.45	57.55	100
<b>RO</b>	0.95	0.15	0.14	3.27	<b>14.52</b>	0	0	0	0	0.47	36.64	63.36	100
<b>SI</b>	0.55	2.10	4.60	3.49	<b>17.77</b>	0.03	0.10	0.60	1.35	0	22.25	77.75	100
2007													
<b>BG</b>	0	0.11	0.37	3.07	<b>8.66</b>	0.01	0.00	4.53	0.80	0.82	41.55	58.45	100
<b>HU</b>	0.14	0.21	0.30	0	4.52	0.00	0.13	2.17	0.33	0.91	30.52	69.48	100
<b>IT</b>	0.34	0.11	0.37	1.08	0	0.00	0.04	1.18	0.22	0.62	42.29	57.71	100
<b>RO</b>	1.19	0.07	0.12	<b>6.95</b>	<b>12.72</b>	0.01	0.00	0	0.47	0.94	28.70	71.30	100
<b>SI</b>	0.81	1.81	4.63	3.29	<b>17.06</b>	0.02	0.10	0.62	1.66	0	26.26	73.74	100
2008													
<b>BG</b>	0	0.06	0.26	2.80	<b>7.95</b>	0.03	0.00	<b>5.62</b>	0.73	0.83	43.30	56.70	100
<b>HU</b>	0.15	0.17	0.34	0	4.27	0.00	0.01	2.14	0.35	0.91	31.79	68.21	100
<b>IT</b>	0.31	0.12	0.36	0.99	0	0.01	0.03	1.15	0.19	0.60	45.35	54.65	100
<b>RO</b>	1.83	0.08	0.11	<b>7.51</b>	<b>11.58</b>	0.00	0.01	0	0.43	0.83	30.31	69.69	100
<b>SI</b>	0.54	1.77	4.14	3.56	<b>16.52</b>	0.01	0.16	0.62	1.74	0	28.74	71.26	100

Source: Authors' computations, based on Eurostat data.

However, when considering the *product groups* (the analysis was based on broad product groups as according to the standard SITC classification, over the interval 2006-2008) significant differences revealed among the ADC Project countries. A simplified set of indicators was used, including the *shares of partner countries in product group's exports and imports of a given country* and the *specialization index* (as a measure of comparative advantage), computed as according to the formula proposed by Neven (1995).

$$ACA = (x_i^k / \sum_j X_{ij} - m_i^k / \sum_j M_{ij}) * 100$$

where:  $x_i^k$  is the exports of sector i of country j to partner country k (the share in the national exports of a given sector exports to a given partner), and  $m_i^k$  is the imports of sector i of country j from partner country k (the share in the national imports of a given sector imports from a given partner). The variation interval ranges between 100% and -100%, but the apparent comparative advantage determined as according to the Neven formula is not often exceeding +/-10%; if its value is positive, then a country is specialized in a given sector in relation to its partner(s), while if the value is negative one may say that a country is sub-specialized in a given sector in relation to its partner(s).

By product groups, the analysis revealed the following (see ANNEX\_1\_Foreign Trade, ANNEX\_2\_Foreign Trade and ANNEX\_3\_Foreign Trade):

- **Italy** and **Hungary** and to the end of interval **Romania** were important and significant *export markets* for the ADC Project countries that were also EU members for products included in group 0 – *Food and live animals*, while **Bulgaria** was important exports market for **Romania** and **Slovenia** a significant



market for **Hungary** and **Italy**. **Bosnia and Herzegovina** was an important export market for **Slovenia** and a significant one for **Hungary**, **Croatia** an important market for **Slovenia** and a significant one for **Hungary** and **Romania**, **Kosovo** and **Montenegro** significant markets for **Slovenia**, and **Serbia** a significant market also for **Slovenia**. In what regards the *imports*, **Italy** and **Hungary** were clearly important and significant markets for the ADC Project countries that were also EU members, **Bulgaria** became an important market for **Romania** and vice-versa, and **Slovenia** was a significant market only for **Hungary**. From among the non-EU ADC Project countries, **Croatia** was important imports market for **Slovenia** and a significant one for **Hungary**, and **Serbia** a significant one for **Slovenia**. Considering the *specialization* in the trade flows of group 0 – Food and live animals among the ADC Project countries, one may see that all the EU countries recorded very high and high indices in their relationships with **Bosnia and Herzegovina**, **Kosovo** and **Montenegro** (except for **Romania**), and also in their relationships with **Romania** (in 2008), **Hungary** and **Slovenia** recorded high indices in their relationships with **Italy**, **Hungary** in its relationship with **Slovenia**, and **Bulgaria** and **Romania** in their relationships with **Croatia**. High and very high *de-specialization* indices were recorded by the ADC Project EU countries in their relationships (excluding themselves, of course) with **Bulgaria**, **Hungary** and **Serbia**.

- The important and significant *exports markets* for the ADC Project countries in the case of group 1 – **Beverages and tobacco** – were fewer, suggesting a “country-pair” pattern: **Italy** for **Romania** and **Slovenia**, **Romania** for **Bulgaria** and **Hungary**, **Bulgaria** for **Romania**, **Croatia** for **Hungary** and **Slovenia**, **Hungary** for **Romania**, **Slovenia** for **Hungary**, and **Bosnia and Herzegovina**, **Kosovo**, **Montenegro** and **Serbia** for **Slovenia**. The important and significant *imports markets* were also fewer: **Italy** for all the rest of the ADC Project EU countries, **Bulgaria** for **Romania**, **Hungary** for **Romania** and **Slovenia**, **Romania** for **Bulgaria**, **Hungary** and **Italy**, and **Croatia** for **Hungary** and **Slovenia**. Consequently, the trade *specialization* was low among the considered country, some significant indices being recorded by the ADC Project EU countries in their relationships with **Kosovo**, by **Bulgaria** and **Slovenia** in their relationships with **Montenegro** and **Bosnia and Herzegovina**, and by **Romania** in its relationships with **Croatia** and **Italy**.
- The product group 2 – **Crude materials, inedible, except fuels** – recorded higher export and import values, **Italy** being the most important *exports and imports market* for the ADC Project countries. Other important and significant *exports markets* were **Bulgaria** for **Romania**, **Hungary** for **Bulgaria**, **Romania** and **Slovenia**, **Romania** for **Bulgaria**, **Hungary** and **Italy**, and **Slovenia** for **Hungary** and **Italy**. From among the ADC Project non-EU countries, **Bosnia and Herzegovina** was a significant exports market for **Hungary** and **Slovenia**, **Croatia** for **Slovenia** and **Italy**, and **Serbia** for **Bulgaria**, **Hungary** and **Slovenia**. As regards other important and significant *imports markets*, one may mention **Bulgaria** again for **Romania**, **Hungary** for **Italy**, **Romania** and **Slovenia**, **Romania** for **Bulgaria** and **Hungary**, **Slovenia** for **Italy**, **Bosnia and Herzegovina** for **Romania** and **Slovenia**, **Croatia** for **Slovenia** and **Italy**, and **Serbia** for **Bulgaria** and **Slovenia**. However, very few high and significant *specialization indices* were recorded in the trade relationships among the ADC Project EU countries, only in the relationships of **Romania** with **Bulgaria**, of **Bulgaria** and **Romania** with **Hungary**, of **Bulgaria**, **Hungary** and **Slovenia** with **Italy**, and of **Bulgaria**, **Hungary** and **Romania** with **Slovenia**. As regards the ADC Project non-EU countries, one may notice the very high and high *de-specialization* indices in the relationships of the EU countries with them, except for a positive index in the case of relationships of **Romania** with **Montenegro** and **Serbia**, suggesting a likely “one-way” pattern.
- The important and significant *exports markets* among the ADC Project EU countries in the case of product group 3 – **Mineral fuels, lubricants and related materials** – are few, namely **Bulgaria** and **Hungary** for **Romania**, **Italy** for **Bulgaria** and **Slovenia**, and **Slovenia** for **Bulgaria**, **Hungary** and **Italy**. However, one may notice important and significant exports markets for the EU countries among the ADC Project non-EU countries: **Bosnia and Herzegovina** for **Slovenia** and **Hungary**, **Croatia** for all the ADC Project EU members (except for **Romania**), and **Serbia** for **Bulgaria**, **Hungary** and **Romania**. The important and significant *imports markets* are fewer in the considered area: **Italy** for **Slovenia**, **Romania** for **Bulgaria** and **Hungary**, **Bulgaria** for **Slovenia**, **Hungary** for **Romania** and **Slovenia**, and **Croatia** for **Slovenia**. Due to the specific of the group, one may notice, in general, very high *specialization indices* in the relationships of the ADC Project EU countries both with partners from the same group and with partners from the ADC Project non-EU countries, *de-specialization* prevailing mostly in the relationships of **Slovenia** with the above-mentioned groups of countries.

- The product group 4 – *Animal and vegetable fats, oils and waxes* – recorded lower values regarding the trade among the ADC Project countries, but some highly specialized *exports markets*: **Bulgaria** for **Romania** and less for **Hungary**, **Romania** for **Bulgaria** and **Hungary**, **Italy** for **Hungary**, **Romania** and **Slovenia**, **Hungary** for **Romania** and **Slovenia**, **Croatia** for **Slovenia**, **Bosnia and Herzegovina** for **Hungary** and **Slovenia** and **Serbia** for **Bulgaria** and **Slovenia**. Highly specialized *imports markets* were also noticeable: **Italy** for the rest of the ADC Project EU countries (especially for **Slovenia**), **Hungary** and **Bulgaria** for **Romania** and vice-versa, **Serbia** for **Slovenia**, and **Croatia** and **Bosnia and Herzegovina** also for **Slovenia**. Given the “two-ways” trade pattern, *specialization* is almost missing within the trade relationships of the countries in the area concerning that group of products.
- In what regards the product group 5 – *Chemicals and related products* – **Italy** was proven to be the most important *exports and imports market* for the ADC Project countries. Important and significant *exports markets* were also **Bulgaria** and **Hungary** for **Romania** and vice-versa, **Bulgaria** for **Hungary** and **Slovenia**, **Hungary** for **Italy** and **Slovenia**, **Romania** for **Slovenia** and **Slovenia** for **Bulgaria** and **Hungary**, **Bosnia and Herzegovina** for **Slovenia**, **Bulgaria** and **Romania**, **Croatia** for **Slovenia**, **Bulgaria** and **Hungary**, and **Serbia** for **Slovenia**, **Bulgaria**, **Hungary** and **Romania**. The important and significant *imports markets* among the countries in the area were fewer: **Hungary** for **Bulgaria**, **Romania** and **Slovenia**, **Romania** for **Bulgaria** and **Hungary**, **Bulgaria** for **Romania**, **Slovenia** for **Bulgaria**, **Hungary** and **Romania** and **Croatia** and **Serbia** for **Slovenia**. Very high and high *specialization* indices were generally recorded in the trade relationships of the ADC Project EU countries with the non-EU group (less for **Serbia**, with the exception of its relationship with **Slovenia**), and also in their trade relationships with countries in their own group: for **Hungary**, **Slovenia** and **Italy** in their relationships with **Bulgaria** and **Romania**, for **Italy** and **Slovenia** in their relationships with **Hungary**, and for **Italy** in its relationship with **Slovenia**.
- **Italy** was also the dominating *exports and imports market* within the ADC Project group of countries in what regards the trade with commodities belonging to group 6 – *Manufactured goods classified chiefly by material*. Other significant *exports markets* in the area were **Hungary** and **Romania** for the rest of the ADC Project EU countries, **Bulgaria** for **Hungary** and **Romania**, **Slovenia** for **Hungary** and **Italy**, **Croatia** for **Slovenia** and **Hungary**, **Serbia** for **Bulgaria**, **Hungary**, **Romania** and **Slovenia**, and **Bosnia and Herzegovina** for **Slovenia**. Important and significant *imports markets* were also **Hungary** for **Romania**, **Bulgaria** and **Slovenia**, **Romania** for the rest of the ADC Project EU countries, **Bulgaria** for **Romania**, **Slovenia** for **Italy**, **Bosnia and Herzegovina** and **Croatia** for **Slovenia**, and **Serbia** for **Bulgaria** and **Slovenia**. Consequently, very high and high *specialization* indices were recorded in the relationships of all the ADC Project EU countries with **Hungary**, of **Bulgaria** and **Italy** with **Romania**, of **Romania** with **Slovenia**, of **Bulgaria** and **Slovenia** with **Italy**, of **Slovenia** with **Bulgaria**, of **Italy**, **Romania** and **Slovenia** with **Bosnia and Herzegovina**, of **Italy** and **Slovenia** with **Croatia**, of **Hungary**, **Romania** and **Slovenia** with **Kosovo**, and very high *de-specialization* indices in the relationships of all the ADC Project EU countries with **Serbia** and with **Montenegro**.
- Clearly the most advanced of all the ADC Project economies, **Italy** was again the main *exports and imports market* as regards the trade with products belonging to the technically most advanced, though very eclectic group - 7 – *Machinery and equipment, including for transport*. However, among the increasingly important and significant *exports markets* for the countries in the area one may also notice **Hungary** and **Romania** for the rest of the ADC Project EU countries, **Bulgaria** for **Romania**, **Slovenia** for **Bulgaria**, **Serbia** for **Bulgaria** and **Slovenia**, and **Bosnia and Herzegovina** and **Croatia** for **Slovenia**. Among the other important and significant *imports markets* one may include **Hungary** for the rest of the ADC Project EU countries, **Romania** for **Bulgaria** and **Hungary**, **Slovenia** for **Bulgaria** and **Romania**, and **Bosnia and Herzegovina** and **Croatia** for **Slovenia**. In what regards the trade *specialization*, one may first notice the generally high levels of both *specialization* and *de-specialization indices* in the trade relationships of the ADC Project countries with products belonging to group 7, pointing among others towards sub-group and even product specializations on the markets in the area. Thus, the highest *specialization indices* were recorded in the relationships of **Hungary**, **Italy** and **Slovenia** with **Bulgaria**, of **Slovenia** with **Hungary**, of **Hungary** with **Italy**, of **Italy** with **Romania**, of **Bulgaria**, **Italy** and **Romania** with **Bosnia and Herzegovina**, of **Hungary**, **Italy** and **Slovenia** with **Croatia**, of **Bulgaria**, **Italy**, **Romania** and **Slovenia** with **Kosovo**, of **Hungary**, **Italy** and **Slovenia** with **Montenegro** and of **Hungary**, **Italy**, **Romania** and **Slovenia** with **Serbia**, while the highest *de-specialization indices* were recorded in the relationships of **Romania** with **Bulgaria**, of **Hungary** with **Bulgaria** and **Italy**, of **Bulgaria** and **Romania** with **Italy**, of **Hungary** with **Romania**, of **Hungary**,

**Bulgaria and Romania with Slovenia, of Hungary with Bosnia and Herzegovina and with Kosovo, and of Bulgaria and Romania with Croatia and with Montenegro.**

- Finally, the analysis revealed that **Italy** was once more the dominant *exports and imports market* for the ADC Project countries in what regards the trade in commodities belonging to group 8 – *Miscellaneous manufactured articles*; a group with still important, but decreasing export and import values and very diverse technological sophistication. From among the other (few) significant *exports markets* in the area one may also notice **Hungary** for **Romania, Slovenia and Bulgaria, Romania** for the other ADC Project EU countries, and **Croatia, Bosnia and Herzegovina and Serbia** for **Slovenia**, while among the other important and significant imports markets one may mention **Hungary** for **Romania, Slovenia and Bulgaria, Romania** for **Bulgaria, Hungary and Italy, Bulgaria** for **Italy and Romania, Slovenia** for **Hungary**, and **Croatia, Bosnia and Herzegovina and Serbia** for **Slovenia**. The *specialization* was high in the trade relationships with products belonging to group 8 of **Bulgaria and Romania with Italy**, of all the ADC Project EU countries with **Hungary**, but also with **Kosovo and Montenegro**, of **Slovenia with Bulgaria**, of **Bulgaria with Romania**, and of **Romania with Slovenia**, while high *de-specialization indices* were recorded in the relationships of the ADC Project EU countries with **Bosnia and Herzegovina, Croatia** (except for **Romania**) and **Serbia** (except for **Slovenia**).

Until now, the socio-economic profile of the area has been defined within the ADC Context Analysis, based on the main economical indicators on the NUTS II and NUTS III level, of which we present the most relevant: GDP/capita and unemployment rate – as partial results of the ADC Economic Map.

Besides these we'll present also only a part of the main maps containing the network of built clusters in the strategic economic sectors of ADC countries.

Figure 1

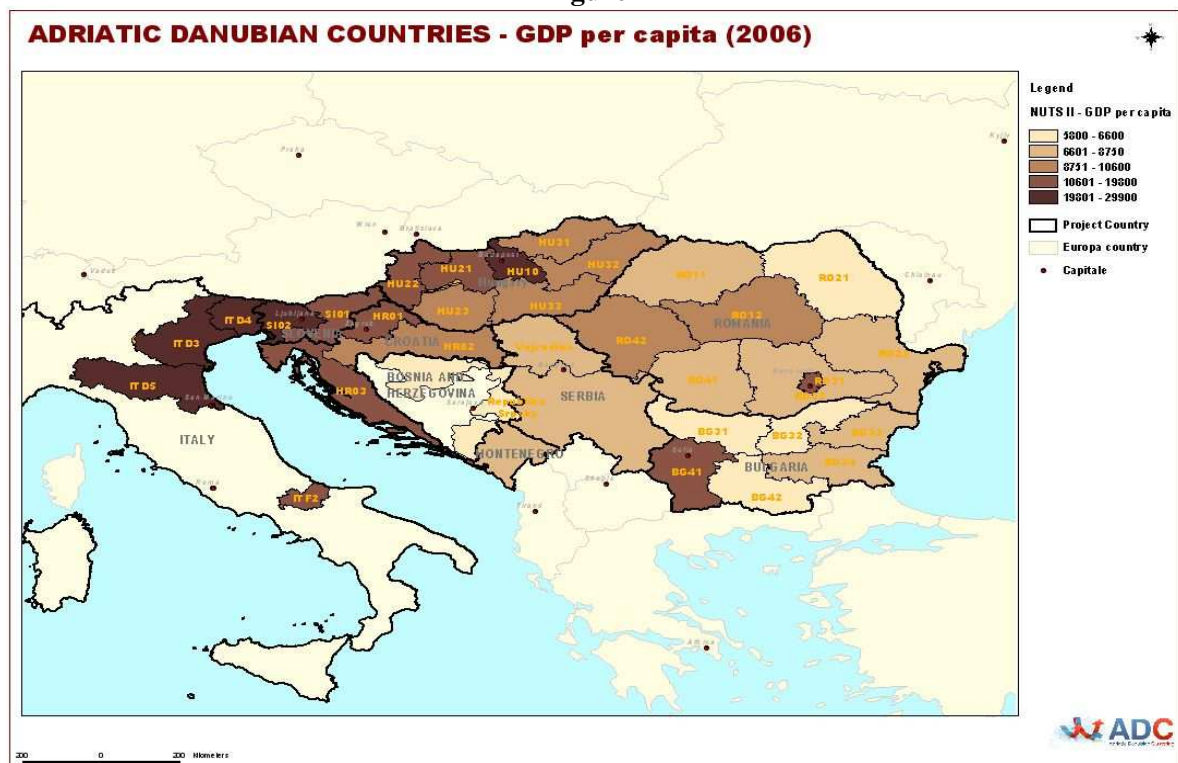


Figure 2

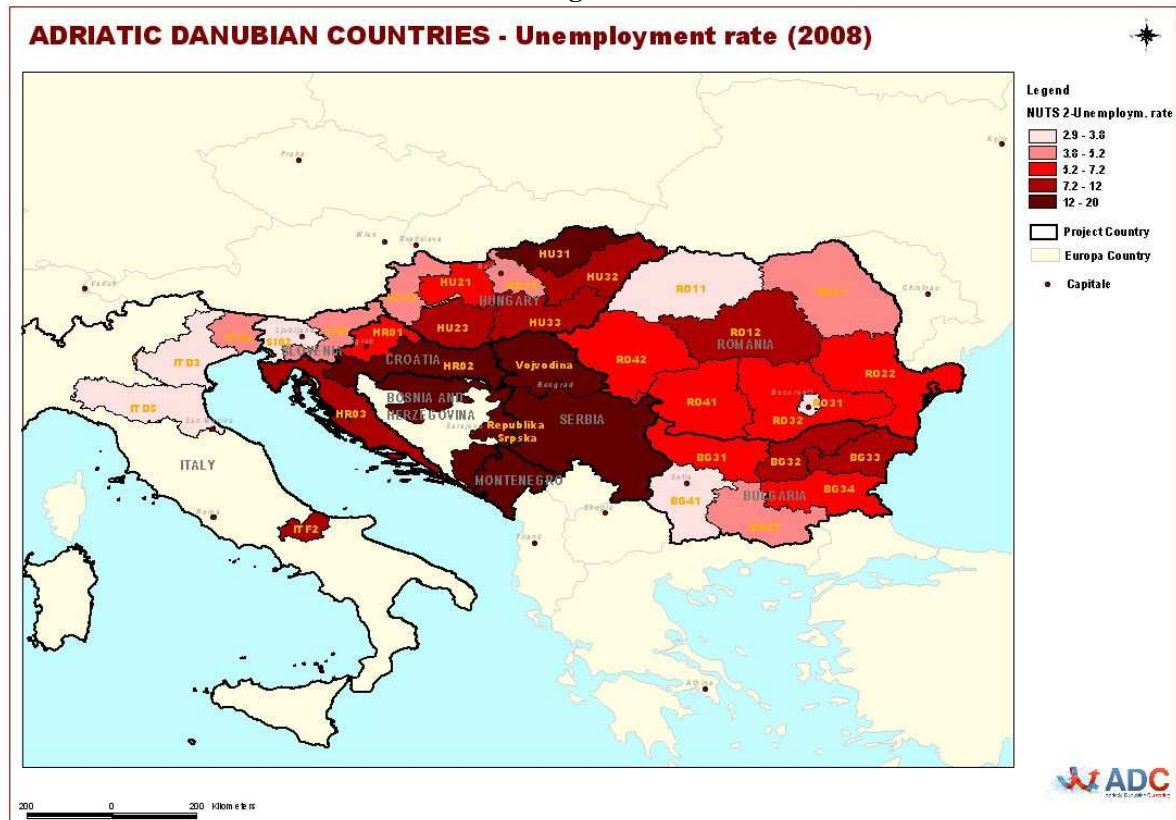
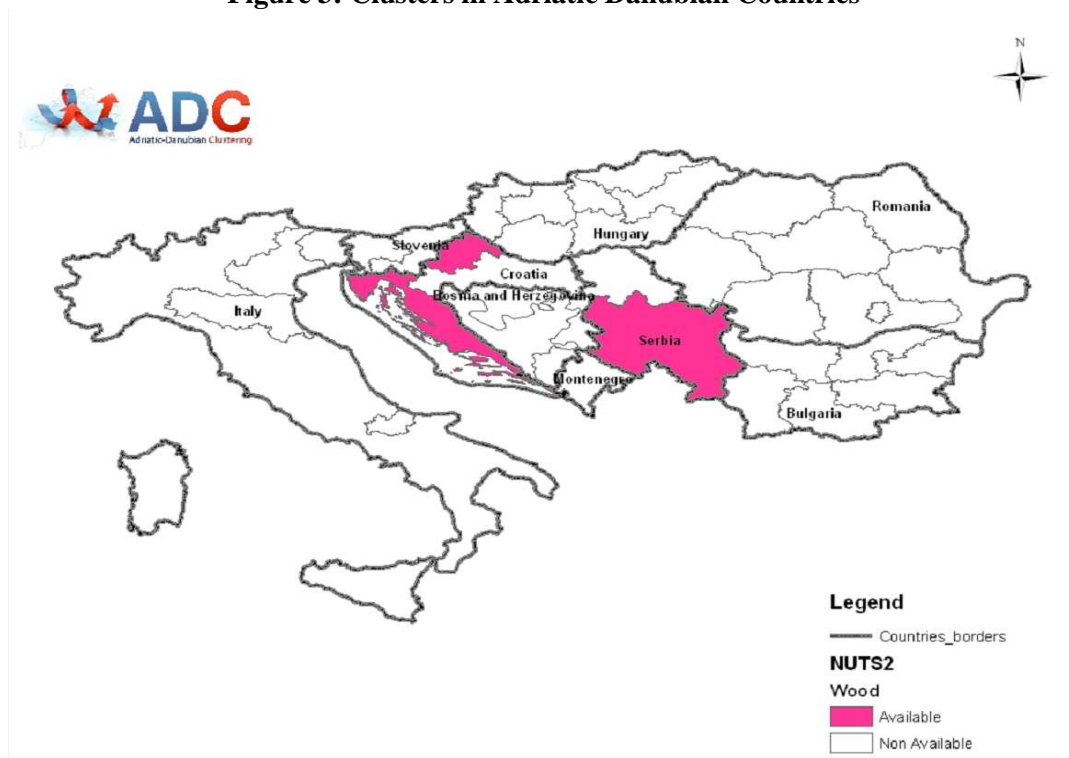
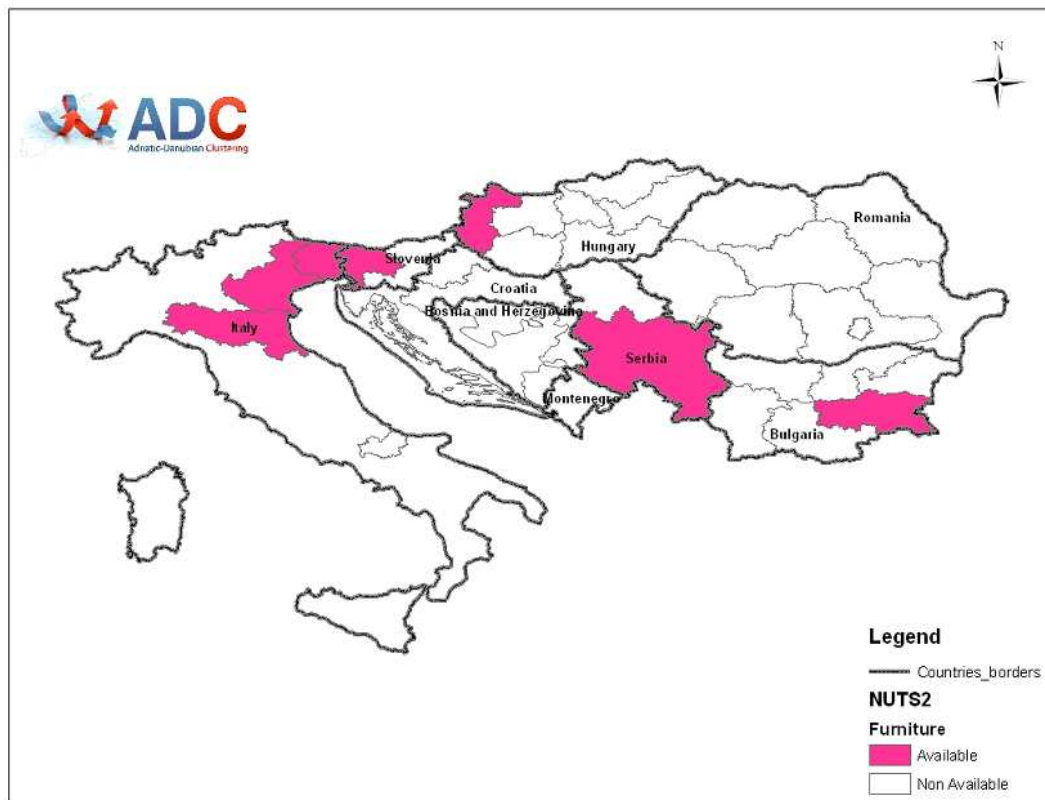


Figure 3: Clusters in Adriatic Danubian Countries





Source: Authors's processings

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## THE ECONOMIC CRISIS AND ITS EFFECTS ON SMALL AND MEDIUM ENTERPRISES SECTOR IN ROMANIA

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**Abstract:** *In today's business environment, small and medium-sized enterprises (SMEs) are the pillar of the economy of every state, the engine with which it works. This is the most numerous and important sector of business, performing economic, technical and social functions. SME sector is the key to generate both economic growth and sustainable and continue economic development. This paper aims to analyze the effects of global economic crisis over the SME sector in Romania and to present the package of measures to counteract the effect of the crisis.*

**Key-words:** economic crisis, small and medium enterprises, Romania, anti-crisis measures, European Union.

**JEL classification:** G01, M21.

### 1. Introduction

In today's business environment, SMEs are the pillar of the economy of every state, the engine with which it works. SME sector is the key that generates both economic growth and sustainable and continue economic development. Vital contribution of SMEs to economic growth is now a widely recognized fact. Highlighting their economic and social positive effects have led to consideration of SME sector as an area of strategic interest to the economy. Although, by definition, SMEs are relatively small size, they are characterized by complexity and variety, specific features and functionality, whose knowledge and consideration are required in order to maximize its economic and social performance.

### 2. Definition of SMEs

In order to analyse the role and the importance of small and medium-sized enterprises (SMEs) firstly it is necessary to define them. Taking into account that Romania became an EU member, the SMEs definition has been aligned to unique market requirements (Recommendation no. 2003/361/EC). In our country, the SMEs definition is stipulated by the Law no. 346/2004 on stimulating the creation and development of SMEs, published in the Romanian Official Gazette, Part I, no. 681 of July 29, 2004, with subsequent amendments (Ordinance no. 27/26 January 2006). Therefore, an enterprise is considered to be a SME if it fulfils the criteria regarding: the number of employees, turnover and maximum capital.

**Table 1. SMEs classification criteria**

Undertaking category	Number of employees	Turnover (mil. Euros)	Total assets (mil. Euros)
Microenterprises	<10	≤2 OR	≤2
Small enterprises	<50	≤10 OR	≤10
Medium enterprises	<250	≤50 OR	≤43

Source: <http://europa.eu>

Regarding the internal organization of SMEs, it is decisively influenced by two considerations:

- in most cases, over 80%, leadership is provided by the owner, which can prevent in a certain extent the appearance and delegation of authority in the event;
- the employees are poorly represented in the unions, which leads to the formation of a privileged relationships between employees and owners. Smooth work process depends on the capacity of the enterprise management to rule these established relationships.

Generally, in the economy are two types of SMEs:

1. Small traditional business, which usually has no long term strategy and has a small market to sell its products; also, the manufacture of the goods and their development are transmitted through from generation to generation.

2. The new type of SMEs (modern SMEs) uses a high technology, seeks for new markets, tries to find a loophole technology to create products better suited to their destination, higher quality products accompanied by a higher service, especially regarding reliability, durability and finishing of the goods. In

general, modern SMEs are competitive in obtaining a complex product. This competence is assured both by training studies organised for the employees and by special skills and experience.

In the present highly competitive business environment, the importance of small and middle enterprises (SMEs) has become more and more outstanding, mostly demonstrated by the following economic and social aspects:

- they bring an important contribution to the strengthening of the competitive environment, they stimulate the market reducing the capacity of the big companies to influence it and undermining their exclusive position;
- they offer a strong individuality of their products and services;
- they represent the most important source of new labor places;
- they present a better response and adaptability to the market needs;
- they create opportunities for the development and adjustment of new technologies;
- they exploit efficiently the market niches which are considered unprofitable by the big companies;
- they exploit efficiently the local resources;
- they represent the suppliers specialized for the big companies;
- they contribute to the development of the entrepreneurial culture and assures the delivery of a high number of entrepreneurs capable to assume risks;
- they stimulate the investments from the population economies or from other funds which, otherwise, wouldn't obtain a profit;
- they contribute to the political and social stability on long and very long term;
- they generate most of the GDP of each country, usually between 55%-95%;
- they act as a more dynamic agent of the economy by the large number of created entrepreneurs, while developing a new social category, which contribute to the social bases of transition;
- they stimulate regional and rural development.

### **3. Context of economic crisis emergence and its impact on SME sector**

Undoubtedly, the most profound phenomenon that has affected people and economic agents in Romania was the economic crisis, which began to make its presence felt since the second half of 2008. The world economic crisis included more and more our country. The SME sector, the most dynamic in the Romanian economy, was also hit by the economic recession.

Among the main causes leading to the emergence and thereafter, stressing the crisis, we can mention:

- political instability;
- global economic crisis;
- fiscal instability;
- policies to restrict access to bank loans and raising interest rates;
- non-payment or late payment of state debts to economic agents;
- the financial policy of the state to borrow from banks;
- excessive lending.

Although in 2008 Romania registered a record growth of 7.8%, experts claimed that our country is located at the end of a sharp increase in the economic cycle. These proved to be so true, given that Romania is increasingly felt most affected by the impact of global economic recession.

In 2008, the world economy has slowed the growth rate due the fact that the financial crisis have spread and turned into an economic crisis. The impact of the financial crisis has been felt also over the evolution of world trade, given that it had an increase of 4.4% in 2008 compared with 6.3% in 2007. In the euro area since the second half of 2008, with the financial market tensions and economic conditions worsening, the economic crisis has grown significantly. Economic growth has seen a significant restriction, from 2.7% in 2007 to 0.8% in 2008. For 2011, according to the European Commission's economic forecasts, Romania will register a growth of 1.5%. Given that current economic policies will remain unchanged, in 2012 GDP growth in Romania will reach the threshold of 3%.

In Romania, the economic situation wasn't very favorable presented. In late 2008, inflation stood at 6.3%, lower than at the end of 2007 by 0.3 percentage points, exceeding the upper limit of the range of variation associated with the inflation target announced by the Central Bank (3.8% ± 1 percentage point). In September 2010, Romania ranked first in terms of inflation in the European Union, with a value of 7.7%, up with 0.6 percent from August 2010.

Regarding the SME sector in Romania, this is the most dynamic sector of the Romanian economy, generating around 70-80% of GDP. The SME sector, considered to be the most influenced by the economic

situation, was among the first sector hit by the global economic crisis, which also included Romanian economy.

The economic crisis has, generally, a negative impact on the SME sector, helping to decrease the rate of development and leading to an increasing number of bankruptcies. Usually, most vulnerable in such situations are startups, lacking the necessary resources to ensure their survival in conditions of recession. However, for a limited number of SMEs, the economic crisis may represent an opportunity, given that they show knowledge in depth of physiognomy environment in which they operate, are able to identify changes occurring in the market and are characterized by speed and flexibility. In times of crisis, SMEs, unlike large companies, are capable to launch new products and services more easily, because the decisions can be taken quickly, business strategy development is not so laborious, and approvals can be obtained making a substantial saving of time and resources. Thus, SMEs can be considered a privileged sector, even in situations of economic recession, if they act promptly and they offer solutions perfectly adapted to the market circumstances.

Among the most important effects that economic and financial crisis may have on the economy, these represented real challenges for SME sector, we can mention: the sharp rise in prices of raw materials, energy and food, financial bottlenecks, lack of cash to invest, more difficult credit conditions, lower demand for goods and services, fluctuations in exchange rate against major currencies, inflation, political instability and law. Most SMEs affected by the economic crisis are functional in sectors such as trade, construction and real estate.

**Table 2. The active SMEs number, on total and dimension categories**

Enterprise category	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Micro</b>	374,25	377,49	417,36	358,78	386,56	410,76	431,02	602,71	573,29
<b>Small</b>	30,34	30,23	33,85	36,39	39,12	43,41	47,02	49,56	43,724
<b>Medium</b>	7,73	7,76	8,14	9,12	9,15	9,32	9,57	9,75	8,435
<b>Total</b>	412,33	415,49	459,36	404,30	434,84	463,50	487,62	662,02	625,45

Source: The Annual SMEs Report 2010 and White Charter of SMEs in Romania 2010

The statistics show that, late in 2010, were functional about 450,000 SMEs, which amounted in aggregate, around 2.7 million employees, which is nearly 60% of the total number of employees in Romania. This represents an worrying situation for the Romanian business environment, because, just in a single year (2009-2010) we see the biggest drop in the number of SMEs from 2001 to present. This is a decrease in the number of SMEs with about 176,000 enterprises in one year, a value that has not been recorded from the beginning of the analyses.

One of the main causes of this sever situation is the economic crisis that we are still crossing since two years ago. Although, some experts believe that, at present, Romania crosses the height of the crisis, there are positive signs for our country due to the fact that European economy began to function in its normal parameters.

**Table 3. Evolution of SMEs records between 2007-2009**

Year	2007	2008	2009
<b>Records</b>	142,073	140,642	116,022
<b>Cancellations</b>	20,401	17,676	43,615
<b>Suspensions</b>	12,012	12,019	133,362

Source: The Annual SMEs Report 2010

From the table above we can observe that, the number of new companies records fell in 2008 and 2009 compared to 2007 (with 1% in 2008 and about 10% in 2009). On the other hand, the number of cancellations has doubled in the year 2009, increasing with about 50%. Regarding the suspensions, they had an exponential trend, increasing its number in 2009 compared to 2007 by about 11 times. This critical situation recorded in the year 2009 had, as a main cause, the introduction of minimum tax, as a budget and fiscal measure, for all enterprises.



In Romania, the economic crisis began to make its presence felt since the second half of 2008, with disastrous effects for the SME sector felt more acutely during the years 2009 and 2010. This was added to the lack of government measures to boost the SME sector. In 2009, with GEO 34/2009, published in the Official Gazette Part I no. 249/2009, the minimum tax was introduced, which each firm was obliged to pay whether or not it has profit. Subsequently, this ordinance suffered two other modifications and additions (GEO 90/2009 and GEO 111/2009), but they have not changed in any way the pre-tax scale. The consequences of this decision may have been as severe for the Romanian business environment. Ovidiu Nicolescu, president of the Small and Medium Sized Private Enterprises in Romania estimate that about 100,000 companies have failed in this period of time, because of the introduction of the minimum tax, as a budget and fiscal measure.

However, since October 1<sup>st</sup> 2010 the 87/2010 – Amendments to Law no. 571/2003 on Fiscal Code was adopted. It stipulates the cancellation of the minimum tax and payment of the tax following the general rule. From the perspective of Romanian business environment, eliminating the minimum tax could have beneficial effects in the years to come: bankruptcies and suspensions will be halted, unemployment will be reduced, the number of new business record will increase and the gray economy will not be encouraged. So, there are multiple signs that eliminating the minimum tax will favorably influence the Romanian business environment, giving the sign for new investments considered absolutely necessary to revitalize the economy.

Regarding unemployment, it stood at 6.8% in December 2010, lower with 0.08% than in the previous month and 0.9% lower than the value reported in 2009. According to the National Agency of Employment (NAE), the number of unemployed was 629,960 persons, of whom 329,640 were compensated unemployed. Most people without a job were registered in Vaslui, Teleorman, Galati, Mehedinti, Dolj, Buzau counties. For Bucharest, it was reported a reduction in the number of unemployed with 0.24%, in December compared to November 2010. In late 2010, unemployment in Romania recorded values below the EU average, namely 6.8% compared to over 9%. For 2011, the NEA president expects a reduction in unemployment to 5%, given that there is a positive growth forecast for Romania, which translates to absorption of unemployment and job creation.

According to a study conducted by the National Council of Private Small and Medium Enterprises in Romania (NCPSMER) on the impact of economic crisis on SMEs in Romania, the best policy in this period, in order to diminish the effects of the crisis, is to maintain existing customers, in terms of attracting new customers is more expensive than keeping (retention) current customers. So this should be the direction in which to focus the bulk of economic agents investment. Also, as noted above, the economic crisis is considered to be beneficial for the emergence and the development of new business ideas, leading to the development of new products and services. Some possible areas to be addressed by businesses in order to mitigate the negative effects of the economic crisis could be customer relationship management, development / launch of new products, expansion into new markets where there are still untapped possibilities and unsaturated demand and European funds accessing. Most of the companies have identified the first signs of economic crisis in November 2008. Three of four companies in Romania consider the economic crisis equivalent to a drop of the demand for the products and services they supply.

The representatives of the National Association of Romanian Employers (NARE), in order to avoid the collapse of SMEs sector said the government should take some measures. They said that in Bulgaria economic conditions are much better, which led a lot of people to start their businesses in this country.

NARE presented as crisis solutions unlock credit for the financing of SMEs and providing fiscal facilities to ease the financial situation of companies, such as: VAT payment by companies on collecting, resuming credits, lower social security contributions and excise duty on gas, energy and fuel, facilitation of government guaranteed loans, regulation of the price of raw materials by the Competition Council, reorientation of the business to more profitable areas, financing from banks and access to European funds.

In 2010, 12 of the strongest investors in Romania along with a representative of the European Bank for Reconstruction and Development have drafted a "growth program" that includes a set of 80 measures, of which 12 are accredited priority of Romania, in the period 2011-2015, in order to economy starts to produce again, money. Under the plan developed by the Foreign Investors Council (FIC), Romania could reach a cumulative GDP growth of 11.6% between 2011 to 2015, approximately 250,000 new jobs (2011-2015), foreign direct investment of 25 billion Euro (2011 - 2015), budgetary revenues over 4 billion euros (2011 - 2015) and budgetary costs of 864 million euros, equivalent to 0.73% of GDP estimated for 2015.

The 15 board members who are part of the FIC have in plan for the next five years (2011-2015) to invest 10 billion euros in Romania. The 118 members of the FIC have made so far investments on the Romanian market amounted to around 30 billion euros (during 1990-2009).

The most important 12 measures proposed by the FIC are:

- introduction to the Ministry of Finance of a transparent register of claims on the state budget, each assigned with a debt maturity;
- start of the First House 3 to revitalize the real estate and constructions sectors;
- create of an Economic Development Council (EDC) to help defining long-term strategy of the Romanian economy;
- creation of subsidized credit facilities for SME sector by banks and joint contribution of the public sector. It could also be established a bank or a development fund that could take over this role (based on the model of KfW in Germany) to help increase the absorption rate of EU funds;
- development of capital markets by listing Property Fund at local and international level and by establishing an accelerated, clear and transparent program of state companies privatization - listings and strategic sales, including minority shares (in areas such as infrastructure, transport, energy);
- outsourcing (or centralized in a single entity with experience level) the process management to access EU funds. The analysis of the wage bonuses opportunities for state employees who work with EU funds and granting them according to performance ratio;
- presentation of a joint application (together with Bulgaria and Hungary) for organizing the European Football Championship in 2020;
- promote models of funding, private sector meant to support the costs of starting a major project proposed by the Government;
- accelerate investment in agriculture related infrastructure, including the absorption of EU funds;
- concentration of tax audits on taxpayers who have a high risk of tax evasion from random checks, focusing on effective measures to decrease evasion, improve tax collection and fight against money laundering;
- adjust the labor laws to make it more flexible and adaptable to changing economic environment (including but not limited to, Labor Code, Law on Employers, Collective Labor Law Conflict and Trade Unions Law);
- reform of public administration by using clearly defined indicators of efficiency.

#### 4. Conclusions

In the context of the current economic crisis, providing support for the SME sector became a very important solution in order to counter the negative effects of the economic recession. The measures to be taken must pursue economic recovery and must generate economic and social alternatives. In the current economic downturn, SMEs can provide stability and macroeconomic growth, acting as a growth engine. This is the reason why the measures proposed and adopted are leading in the direction of release funds to finance small and medium enterprises, preserve jobs and create new ones.

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## CONSIDERATIONS ON WORKFORCE MIGRATION IN THE EUROPEAN UNION

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**Abstract:** *Free movement for people is one of the most fundamental freedoms guaranteed by European Union law and it is a necessary precondition for building a single market. The mobility of citizens to other jobs can lead to similar efficiencies in the labour market. Greater adaptability on the part of workers through migration process is also a key element in making Europe Union more competitive at a global level, and at an individual level enabling employees to raise their skills levels and their employability, income and career prospects.*

**Key words:** *migration, labour market, EU Eastern enlargement*

**JEL classification:** F22, J15, J61

### • Introduction

The new economic environment resulting from the global crisis has underlined the need for monitoring and analysing the workforce market, has shown the need for additional research on ways to limit the negative impact of the crisis on the workforce markets. Even in these confusing times, it is still useful to show a long term image to emphasize the progress made on the European workforce markets in the last ten years.

Among the advantages gained by our country following the adhesion to the European Union there are a series of positive items regarding the workforce market: the possibility to access non-reimbursable funds for the training and qualification of personnel, making investments and consequently, creating jobs, creating the methodological frame and the facilities to attract direct investments, the free circulation of citizens.

Together with the liberalization of Romanian citizens' circulation in the EU, the migration phenomenon is intensified, especially the work related migration.

The first part of the paper presents the stages in the evolution of migration processes so far. The second part refers to the workforce migration in the EU and aspects on Romanian citizens' migration in the European context.

### • Stages in the evolution of migration processes

For researchers in migration it has become clear that this phenomenon must be considered as a normal and structural element of human society along history.

Garson and Loizillon (2003) consider that after the end of World War II, the European countries have experienced four main migration periods:

#### *a) Workforce migration and Europe's reconstruction: 1950s – 1960s*

Immediately after the World War II, the national ethnics and other persons who had migrated have started to return to their home countries, generating mass migration flows in Europe. However, at the same time, post-war European reconstruction required a great amount of workforce. Thus, the authorities of the interested states, companies of private agencies have started recruiting foreign workers. These large migration movements within Europe and from the developing countries have contributed to Europe's development and successive economic growths during the 1945 – 1975 period.

The competition with the socialist political model from Central and Eastern Europe has stimulated the development of policies that have lead not only to achieving a high level of occupancy but also to the improvement and modernization of social security systems and thus to the evolution towards general welfare states in Western Europe.

The heavy industry, manufacturing industry, constructions and public activities have developed during this interval, causing an important economic growth in the European countries. The immigrant workers from Ireland and South Europe (Greece, Portugal, Spain and less from Italy) – countries which have faced stagnating economies and high levels of unemployment – have answered in the beginning to the workforce market needs in Western Europe.

The 1957 Roma Treaty, which laid the foundations of the European Economic Community, was based on certain principles among which the free circulation of individuals between the six founder states. As a

result, in the 60s there has been an important increase of the migration within the Community, due partly to the high number of Italian workers going towards the five Member States.

But, even after the creation in 1968 of the legal and institutional framework to ensure this liberty, the migration flows from another countries have remained higher in quantity than the intra-community workforce migration.

The European Commission studies show that, during this interval, the forms of workforce migration have varied considerably according to the historic circumstances. Thus, France, Belgium, Holland and Great Britain had the possibility to use workforce from their present or former colonies and the economic, political and cultural relations offered the chance to obtain workforce even without specific recruitment systems. On the contrary, countries such as Germany or Switzerland did not have access to „colonial” workforce. This is why they created workforce recruitment systems to attract temporary foreign workers whom were given permission to stay as „guest workers”, their activity being needed.

From 1945 to 1975, the Member States’ economy dependency on the foreign workers has diminished the volume of the illegal immigration. Controlling illegal immigration has become a priority for the policies of many Member States after the economic decline from the mid 70s, followed by the unemployment increase.

According to the OECD statistics, from the beginning of the 60s to the beginning of the 70s, more than 30 million foreign workers have entered the European Economic Community, including temporary workers and those with multiple entries. Until the beginning of the 80s, the number of foreigners resident in Western Europe has tripled as compared to the 50s reaching 15 millions. In 2000, over 20 million foreign workers lived in the European Economic Space, meaning 5.4% from the total population, with small variations between the countries.

*b) The economic crises period: 1970 – first half of the 80s decade*

The second period of the migration was marked by the economic crises due to the increase of the oil price from 1973 and 1979. In the following years, the changes in world economy, the economic revolution and the new models of business organisation have modified the nature of work, eroded the traditional occupancy models. As a result, the workforce migration has changed.

Some European states have reduced or try to reduce immigration. The increasing unemployment and the escalation of social tensions have determined the governments to eliminate the active recruiting policies from abroad. They have increased the employers’ costs for recruiting from abroad, they have limited the categories of foreign workers who could be hired and they have set annual quotas for the workforce from abroad. The governments have also applied politics to encourage migrating workers to return to their countries of origin.

Actually, the economic regress from the host countries did not cause the massive return of the immigrants to their countries of origin. According to the United Nations estimates, only 10% of the migrating workers have returned to their countries of origin in the next two years after the oil crisis in 1973, combined with the civic crisis from 1974-1975.

Nevertheless, as shown by Gaston and Loizillon (2003) in their study, the migration of the workforce has decreased up to the late 80s. At the same time, according to the data supplied by EUROSTAT3, other categories of migrants have considerably increased, especially as a result of the family reunifications. Moreover, the workforce migration has been followed more and more by migration for other purposes, especially looking for asylum.

*4. The diversification of the member countries and of the countries of origin, the increase of asylum requests, refugees and ethnic minorities*

The third migration period, which started at the end of the 80s, is characterized by the diversification of the host and origin countries. Traditional emigration countries from Europe, such as Spain, Italy, Ireland, Greece and Portugal become immigration countries. Migrants do not come anymore from former colonies, but from a much more diversified group of countries.

According to the OECD statistics, this period is also characterized by the predominance of the migrating flows for family reunification and the renewal of the interest for workforce migration, especially for the qualified and highly qualified workers towards the end of the 90s.

After the fall of the communist block and opening the frontiers, the east to west migration flow has increased, especially the circulation of ethnic minorities. Starting from the end of the 80s to the beginning of the 90s, the return of the ethnic minorities to their countries of origin has been significant and directed to a limited number of Member States, especially Germany, but also Greece and Finland.

Since the beginning of the 90s, the aspects concerning frontiers, especially the ones about migration, have become issues of major interest in Europe. The another states do not benefit from privileged conditions

regarding access and participation to the European integration process, but they must face the external effects of the External Union, among which illegal migration. On the other hand, the European Union Member States, as well as the candidate states are confronted with new issues in the areas of frontiers' control and migration.

*d) The „preferential” workforce migration: qualified workers and temporary migration*

During the past years, there has been an increase of the permanent migration and of the temporary workforce migration due, on the one hand to the intensity of the expansion stage from the late 90s and, on the other hand, to the development of information technology and communication, health and education, areas that need highly qualified workforce. At the same time the demand for unqualified foreign workforce has increased, especially in agriculture, constructions and public works, as well as in house services (the case of Italy, Spain, Greece and Portugal).

The countries in Eastern and Central Europe are no longer just countries of emigration but also of immigration and transit, having become attractive for immigrants from the Extreme Orient. While the population from Central Europe (Czech Republic, Slovak Republic, Hungary and Poland) migrates to Western Europe countries, the same countries become a destination for the migrants coming from Eastern Europe as well as from Belarus and Ukraine. At the same time, illegal migration has reached new dimensions and has become dangerous. Following the development of the international traffic networks and their increasing role in the international workforce circulation, the policies of the Member States on migration and hiring foreigners have increased the against traffickers, employers or immigrants in an illegal situation.

Starting with the second half of the 90s, discussions on the effects of international migration of highly qualified workers have intensified. The demand for highly skilled workers can be mostly satisfied by the developing countries, the direct benefits of the „brains migration” being still much appreciated. The import of specialists still happens, even if its significance is lower. However, one may foresee an increase of the reverse flow of specialists from the rich to the less developed countries, following the decrease the demand for highly skilled personnel due to the increase of economic efficiency in the developed countries. At the same time, the capital and direct investments will go to poor countries, attracting specialists from the rich ones.

The connection between the demographic changes and the migration policies, including highly skilled labour, will be an important issue in the near future. It is expectable that some Member States prefer specialists migration and elaborate regulations and procedures that would facilitate it. But, as Marc Verwilghen, Belgian Minister of cooperation for development showed (2004), the European Union would have to identify at the same time solutions to limit the negative effects triggered by the „brain drain” on the development of the countries of origin.

• **The workforce migration in the European Union. Romania in the European context**

Romania's integration in the EU in 2007 was the major step taken by our country for its both economic and social development. Starting 2007 Romanian citizens can circulate freely within the Union or they can change their permanent domicile, becoming permanent citizens of another member country.

**Table 1: The evolution of persons who left to work abroad from 1990 to 2009**

		Stages				Total
		1990 – 1995	1996 - 2001	2002 – 2006	2007 - 2009	
<b>Gender</b>	Women	12	15	44	40	111
	Men	88	85	56	73	302
<b>Rural / Urban</b>	Rural	41	48	49	47	185
	Urban	59	52	51	58	220
<b>Nationality</b>	Romanians	92	89	94	99	374
	Hungarians	8	10	4	11	33
	Others		1	2	2	5
<b>Marital status</b>	Married	88	76	60	82	306
	Single	7	19	31	35	92
	Others(widower, divorced)	5	6	10	9	30
<b>Education</b>	Primary	3	3	1	3	10
	Gymnasium	2	8	16	12	38
	Vocational and High school	78	79	77	82	316
	University	17	9	7	32	65

Source: OECD Economic Surveys, 2009

On our country's level we can see, especially in the last ten years, a permanent or temporary movement of the citizens towards more developed countries of the Union, the choice of the destination being made depending on the salary level obtained for a potential job in the host country.

If until 2001 the migrants were mostly men, from 2002 to 2006 the number of migrant women increased a lot, the gap between genders decreasing from 76% to 12% (Table 1). If we take into account the other variables too, we may say that in the first stages left to work married men, from urban areas, with high school or vocational school studies. In time, the number of persons from rural areas, unmarried and with a lower education level has increased, so there was a diversification of the temporary emigration abroad (Sandu, 2006).

**Table 2: Main destinations of temporary emigration by historical regions, 2001-2009**

	Moldova	Muntenia	Oltenia	Dobrogea	Transylvania	Crişana - Maramureş	Banat	Bucharest
<b>Italy</b>	76	21	62	75	42	41	43	75
<b>Spain</b>	14	54	21		17	29	4	-
<b>Germany</b>	1	8	-	13	3	3	29	-
<b>Hungary</b>	-	-	-	-	17	6		-
<b>Greece</b>	3	1	-	-	-	-	13	18
<b>France</b>	1	1	3	-	3	3	-	-
<b>Others</b>	6	14	6	13	13	12	7	13
<b>NR(no response)</b>	2	3	6	-	4	6	-	-
<b>Total</b>	100	100	100	100	100	100	100	100

Source: OECD Economic Surveys, 2009

The migration of Romanian workers abroad, confirming a dimension of the neo-classic economic theory, was firstly towards economically more developed countries where there was a possibility to obtain higher wages compared to the one obtainable in Romania. However the economic dimension must be associated with the political one. The limited legal possibilities for Romanians to go to work in the West have caused the destinations for the temporary economic migration in the first 10 years after the 1989 events to be very scattered, the main targets being Israel and Italy with 17% followed by Hungary, Turkey and Spain with lower percentages. After 2001 the situation changed dramatically, Italy and Spain being by far the most wanted destinations for Romanian workers.

**Table 3: How did the migrant go abroad**

		Stages			
		1990 – 1995	1996 – 2001	2002 – 2006	2007 - 2009
<b>Helped somebody on departure</b>	Yes	22	40	60	50
	No	69	56	38	15
	No answer	8	4	2	3
<b>Who helped them leave</b>	Native relative	5	16	23	19
	Native friend	7	6	16	12
	Native acquaintance	3	3	5	4
	Others	15	20	18	12
	Not the case	69	56	38	
	No answer	0	0	1	0
<b>How were they able to find a job abroad</b>	Contracts intermediated by the Employment Agency	10	7	3	20
	Through intermediation companies in Romania	22	21	11	25
	Through relatives from abroad	7	13	27	22
	Through friends from abroad	25	24	27	26
	Left directly to the employer	17	13	15	15
	Others	12	10	12	12
	No answer	7	10	7	7

Source: OECD Economic Surveys, 2009

The possible explanations for the fact that almost three quarters of the Romanian migrants go to these countries are the cultural resemblances (including the ease to learn the two Latin languages), the local authorities' flexibility in accepting foreign immigrants and the existence, at least in Italy, of Romanians who have facilitated the migration of other Romanians through the „migrant networks”. Zaiceva and Zimmermann (2008) show that linguistic and geographical distances, migrant networks, as well as scale seem to have played a role in the allocation of migrants across destination countries. The high number of migrants in Italy in the studied interval can also be explained by the fact that the economy in this country is more developed and offers higher wages than in Spain. If we consider the historical regions too, we can emphasize the role of the networks and of certain migration traditions in the increase of the migration flow. Workers from Moldova prefer Italy, those from Muntenia prefer Spain. Many inhabitants of Banat go to Germany and those from Ardeal to Hungary.

The importance of the migrant networks results clearly from the next table, where we can see an increase in the number of those who were offered support when leaving the country, finding a house and a job abroad. In the last stage compared to the first one, the number of those who were helped when leaving has tripled and the number of those supported to find a job and a house has doubled, help being offered primarily by relatives and friends.

The fact that fewer and fewer left with contracts intermediated by the Employment Agency or through specialized companies from Romania is positively correlated with the decrease of those who said they worked legally abroad. One can also notice that the number of persons who worked in house-work and agriculture has increased, decreasing the number of those who worked in constructions, which is explicable by the increase of the women migrants number.

**Table 4: Situation of the way the migrant works abroad**

		Stage			
		1990 - 1995	1996 - 2001	2002 - 2006	2007 - 2009
<b>Areas of activity</b>	Agriculture	14	16	16	20
	Constructions	41	41	28	31
	House-work	0	7	28	32
	Others	44	32	26	29
	No answer	2	5	3	3
<b>Legal worker/ Clandestine worker</b>	Legal	53	57	31	39
	Clandestine	34	31	53	46
	Legal and clandestine	8	7	9	8
	No answer	5	6	7	6
<b>Persons who have legalized heir situation when leaving for the respective job</b>	No, they haven't even tried	68	58	53	55
	No, although they tried	0	10	28	23
	Yes	12	28	13	15
	No answer	20	5	6	7

Source: OECD Economic Surveys, 2009

The big number of Romanians who left to work abroad could not happen without effects on the Romanian labour market. From October 20th to October 30th 2007, a national representative study was conducted on the request of the Soros Foundation which targeted the identification of the issues three economic areas were confronted with (textile, constructions, hotels and restoration industries) due to the lack of workforce. The result was that in the textile industry 30% of the companies had available unoccupied jobs for more than two months. The two other economic areas faced the same issue although at a lower level.

The positive side of the matter is that these companies, in order to face the penury of workforce, have invested in most of the cases in refurbishment (76%) and in work productivity increase. Bringing workforce from abroad, which is a possible future solution, was done by only 3% of the companies. This means that, at least for the time being, the compensation of the lost workforce due to the Romanians' emigration by bringing foreign workers is not a solution.

The workforce market is in crisis, the number of persons with a new job is decreasing, the workforce market crisis affects men more than women, but the women's salaries are still lower than those of men's at the same level of work, a significant percentage of the full-time employees have had a salary decrease in the

last year and those who have made more money during the last year have been judges, high public officials and managers.

- **Conclusion**

European Union needs to make full use of its labour potential to face the challenges of an ageing population and rising global competition. Policies to promote gender equality will be needed to increase labour force participation thus adding to growth and social cohesion.

"An agenda for new skills and jobs" has like goal the modernization of labour markets and empower people by developing their of skills throughout the lifecycle with a view to increase labour participation and better match labour supply and demand, including through labour mobility.

The European Commission have to facilitate and promote intra-EU labour mobility and better match labour supply with demand with appropriate financial support from the structural funds, notably the European Social Fund (ESF), and to promote a forward-looking and comprehensive labour migration policy which would respond in a flexible way to the priorities and needs of labour markets.

The free movement of workers is not only a fundamental principle of the European Union, but also a key precondition to reap the benefits from the opportunities offered in the labour market, to ensure sustainability of member states' welfare systems, and to strengthen the EU's global competitiveness.

### **Acknowledgement**

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## ALTERNATIVE FUELS – NEW PERSPECTIVES FOR A BRIGHT FUTURE

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**Abstract:** *Recent studies have shown that our planet is terrible threatened by two major factors: pollution and the scarcity of resources.*

*At the beginning of our debate, we present both the conventional fuels and the alternatives fuels and state the most important advantages and disadvantages of the two types. We will show the new viable sources of renewable energy and will continue with the new standards for biofuels. The “hidden” costs of energy production and the role of alternative fuels are taken lightly in many studies. We will present also our conclusion and do some viable recommendations for the future.*

**Key words:** conventional fuel, alternative fuel, resources, pollution, global crisis

**JEL classification:** Q42 - Alternative Energy Sources

### 1. Introduction

“**Alternative fuels**”, also known as “**non – conventional**” or “**advanced fuels**”, are considered any materials or substances that can be used as fuels, other than conventional fuels.

In our paper we will discuss the matter of the most well known **alternative fuels** which include biodiesel, bioalcohol (*methanol, ethanol, butanol*), chemically stored electricity (*batteries and fuel cells*), hydrogen, non-fossil methane, non-fossil natural gas, vegetable oil, and other biomass sources. Than the presentation will show the new viable sources of renewable energy and will continue with the new standards for biofuels which have the role of ensuring a better life for the Planet Earth. The “hidden” costs of energy production and the role of alternative fuels are taken lightly in many studies, but the European Commission has created much tighter and stabile rules for the future showing once again the interest to humanity. (Popescu, V.A.; Popescu, Gh.; Popescu, C.R. (2010c); (2010d))

At the end of the study we will present our conclusion and also do some viable recommendations for the future taking into account the recent statistical data provided by the European Committee and by well known specialists in this field.

### 2. Alternative fuels – the answer for a healthier and brighter future

“**Alternative fuels**”, also known as “**non – conventional**” or “**advanced fuels**”, are considered any materials or substances that can be used as fuels, other than conventional fuels.

It is generally known that **conventional fuels** include: fossil fuels (*petroleum (oil), coal, propane, and natural gas*), and nuclear materials such as uranium.

The most well known **alternative fuels** include [biodiesel](#), [bioalcohol](#) (*methanol, ethanol, butanol*), chemically stored electricity (*batteries and fuel cells*), hydrogen, non-fossil methane, non-fossil natural gas, vegetable oil, and other biomass sources.

#### 2.1. Conventional fuels versus alternative fuels – a struggling battle for the future

Specialists state that **the main purpose of fuel is to store energy**, which should be in a stable form and can be easily transported to the place of production. (Popescu, V.A.; Popescu, Gh.; Popescu, C.R. (2010b)) Almost all fuels are chemical fuels.

In order to understand more about alternative fuels we are going to present some of them and to add a short enlightening description to each of the item below:

**a) Biofuels** are also considered a renewable source. Although renewable energy is used mostly to generate electricity, it is often assumed that some form of renewable energy or at least it is used to create alternative fuels.

- b) **Biomass** in the energy production industry is living and recently dead [biological material](#) which can be used as fuel or for industrial production.
- c) **Algae based biofuels** have been presented also as a potential panacea to our Crude Oil based Transportation problems. According to recent studies, algae could yield more than 2000 gallons of fuel per acre per year of production. Algae based fuels are being successfully tested by the navy. Algae based plastics show potential to reduce waste and the cost per pound of algae plastic is expected to be cheaper than traditional plastic prices.
- d) **Methanol and Ethanol fuel** are typically primary sources of energy, being considered convenient fuels for storing and transporting energy. These alcohols can be used in internal combustion engine as alternative fuels, with butanol also having known advantages, such as being the only alcohol-based motor fuel that can be transported readily by existing petroleum-product pipeline networks, instead of only by tanker trucks and railroad cars.
- e) **Hydrogen** as a fuel has been suggested to have the capability to create a hydrogen economy.
- f) **HCNG (or H<sub>2</sub>CNG)** is a mixture of [compressed natural gas](#) and 4-9 percent [hydrogen](#) by energy.
- g) **Also liquid nitrogen** is another type of emission-less fuel.
- h) **The air engine** is an emission-free piston engine using compressed air as fuel. Unlike hydrogen, compressed air is about one-tenth as expensive as fossil oil, making it an economically attractive alternative fuel.
- i) **Compressed natural gas (CNG)** is a cleaner burning alternative to conventional petroleum [automobile](#) fuels. The energy efficiency is generally equal to that of gasoline engines, but lower compared with modern diesel engines. CNG vehicles require a greater amount of space for fuel storage than conventional gasoline power vehicles because CNG takes up more space for each GGE (*Gallon of Gas Equivalent*). Almost any existing gasoline car can be turned into a bi-fuel (*gasoline/CNG*) car. However, natural gas is a finite resource like all fossil fuels, and production is expected to peak gas soon after.
- j) **Nuclear power** is any [nuclear technology](#) designed to extract usable energy from [atomic nuclei](#) via controlled [nuclear reactions](#). The most common method today is through [nuclear fission](#), though other methods include [nuclear fusion](#) and [radioactive decay](#). All current methods involve heating a working fluid such as water, which is then converted into mechanical work for the purpose of generating electricity or [propulsion](#). Today, more than 15% of the world's electricity comes from nuclear power, over 150 nuclear-powered naval vessels have been built, and a few radioisotope rockets have been produced.

## 2.2. The energy of wind turbine – a viable source of renewable energy

A very important moment in the history of renewable energy occurred in the year 2008 when more new wind-turbine power generation capacity was added in the U.S. than new coal-fired power generation. Statistics have shown that the costs of producing power with wind turbines continues to drop, but many engineers feel that the overall design of turbines is still far from optimal. But there are several problems, such as the ones stated below:

- **One issue confronting the efficiency of wind energy** is the wind itself because of its well known **changeability**. The aerodynamic performance of a wind turbine is best under steady wind flow, and the efficiency of the blades degrades when exposed to conditions such as wind gusts, turbulent flow, upstream turbine wakes, and wind shear. **As a future solution, a new type of air-flow technology may soon increase the efficiency of large wind turbines** under many different wind conditions and that is because specialists are testing new intelligent-systems-based active flow control methods with support from the U.S. Department of Energy through the University of Minnesota Wind Energy Consortium. The approach estimates the flow conditions over the blade surfaces from surface measurements and then feeds this information to an intelligent controller to implement real-time actuation on the blades to control the airflow and increase the overall efficiency of the wind turbine system. The work may also reduce excessive noise and vibration due to flow separation.
- **The second issue confronting the efficiency of wind energy is the resistance felt by the turbine blades as they beat the air.** Scientists have been looking at the drag-reduction effect of placing tiny grooves on turbine blades. The grooves are in the form of triangular riblets scored into a coating on the blade surface. They are so shallow (*between 40 and 225 microns*) that they can't be seen by the human eye - leaving the blades looking perfectly smooth. The tests implicate using wind-tunnel tests of 2.5 megawatt turbine airfoil surfaces and computer simulations; they are looking at the efficacies of various groove geometries and angles of attack. **As a solution, specialists consider changing the existing design**, which was, at first, closely analogous to that of airplane wings, but now as turbine blades having

a much thicker cross section close to the hub and wind turbines having to cope with peculiar turbulence near the ground, drag reduction won't be quite the same for wind turbines.

**2.3. New standards for biofuels – ensuring a better life for the Planet Earth**

According to specialists, the European Union's top energy officials have set the world's toughest standards for biofuels, demanding, in this particular matter, that producers meet strict environmental criteria in exchange for the right to market their products. The latest rules that have been implemented in the biofuels matter are the world's most stringent ones and their purpose is to make sure the biofuels meet the highest environmental standards.

The new strict rules take into account issues such as the ones stated below:

- ✓ Biofuel makers will be forced to prove they do not create greenhouse gas emissions or destroy forests or wetlands.
  - ✓ All EU nations have a target to replace 10 percent of transport fuel with biofuels by 2020 — up from 3.4 percent in 2008. Biofuels are usually mixed with petrol or diesel to allow car engines use them.
- There are also a lot of concerns regarding the new rules:
- ✓ **Environmentalists** have complained that such targets could force developing countries to turn unspoiled tropical forest, peatlands or wetlands over to these new cash crops, thus removing a valuable way to absorb carbon dioxide from the atmosphere. (Popescu, Gh.; Popescu, V.A.; Popescu, C.R. (2010a); (2010b))
  - ✓ **Activists** are particularly worried about palm oil plantations in Malaysia and Indonesia, where native forests have been cleared for farmland. Palm oil is mostly added to food or products like soap and cosmetics, but is increasingly being used for biofuel.
  - ✓ To make sure most of its biofuel reduces real greenhouse gas emissions, **the European Commission** will create a system to calculate how much greenhouse gas is used to produce and transport the fuel until it arrives at the gas pump.

✓ The possible **hidden costs of implementing biofuels** have been taken lightly until now.

**2.4. The “hidden” costs of energy production and the role of alternative fuels**

In our paper we also **examine the “hidden” costs of energy production and use**, such as the damage air pollution imposes on human health, which is not reflected in market prices of coal, oil, other energy sources, or the electricity and gasoline produced from them.

**The European Commission** estimated the damages as being \$120 billion in the U.S. in 2005 (*see, in this matter Table 1: “Major threats to Planet Earth and to the Lifecycle”*), a number that reflects primarily health damages from air pollution associated with electricity generation and motor vehicle transportation. All model results available to the committee indicate that climate - related damages caused by each ton of CO2 emissions will be far worse in 2030 than now; even if the total amount of annual emissions remains steady, the damages caused by each ton would increase 50% to 80%.

But economists show that this figure does not include damages from climate change, harm to ecosystems, effects of some air pollutants such as mercury, and risks to national security, which the report examines but does not monetize. There are also external effects caused by various energy sources over their entire life cycle, such as:

- the pollution generated when gasoline is used to run a car;
- the pollution created by extracting and refining oil and transporting fuel to gas stations.

**Table 1: “Major threats to Planet Earth and to the Lifecycle”**

Types of damages:	Relevant statistical data:
<p><b>Damages from electricity generation</b></p>	<p><b>a. Coal</b></p> <ul style="list-style-type: none"> <li>• Coal accounts for about half the electricity produced in the U.S.</li> <li>• In 2005 the total annual external damages from sulfur dioxide, nitrogen oxides, and particulate matter created by burning coal at 406 coal-fired power plants, which produce 95 percent of the nation's coal-generated electricity, were about \$62 billion; these nonclimate damages average about 3.2 cents for every kilowatt-hour (kwh) of energy produced. A relatively small number of plants—10% of the total number—accounted for 43% of the damages.</li> </ul>
	<ul style="list-style-type: none"> <li>• Coal-fired power plants are the single largest source of greenhouse gases in the U.S., emitting on average about a ton of CO2 per megawatt-hour of electricity produced, the report says. Climate-related monetary damages range from 0.1 cents to 10 cents per</li> </ul>

Types of damages:	Relevant statistical data:
	kilowatt-hour.
	<b>b. Natural gas</b>
	<ul style="list-style-type: none"> <li>• <b>Burning natural gas generated far less damage than coal</b>, both overall and per kilowatt-hour of electricity generated. A sample of 498 natural gas fueled plants, which accounted for 71% of gas-generated electricity, produced \$740 million in total nonclimate damages in 2005, an average of 0.16 cents per kwh. As with coal, there was a vast difference among plants; half the plants account for only 4% of the total nonclimate damages from air pollution, while 10% produce 65% of the damages.</li> </ul>
	<p><b>c. Wind power</b></p> <ul style="list-style-type: none"> <li>• The life-cycle damages of wind power, which produces just over 1% of U.S. electricity but has large growth potential, are small compared with those from coal and natural gas.</li> <li>• So are the damages associated with normal operation of the nation's 104 nuclear reactors, which provide almost 20% of the country's electricity.</li> <li>• But the life cycle of nuclear power does pose some risks; if uranium mining activities contaminate ground or surface water, for example, people could potentially be exposed to radon or other radionuclides; this risk is borne mostly by other nations, the report says, because the U.S. mines only 5 percent of the world's uranium.</li> <li>• The potential risks from a proposed long-term facility for storing high-level radioactive waste need further evaluation before they can be quantified. Life-cycle CO2 emissions from nuclear, wind, biomass, and solar power appear to be negligible when compared with fossil fuels.</li> </ul>
<b>Damages from heating</b>	<ul style="list-style-type: none"> <li>• The production of heat for buildings or industrial processes accounts for about 30% of American energy demand. Most of this heat energy comes from natural gas or, to a lesser extent, the use of electricity; the total damages from burning natural gas for heat were about \$1.4 billion in 2005.</li> <li>• The median damages in residential and commercial buildings were about 11 cents per thousand cubic feet, and the proportional harm did not vary much across regions.</li> <li>• Damages from heat in 2030 are likely to be about the same, assuming the effects of additional sources to meet demand are offset by lower-emitting sources.</li> </ul>
<b>Damages from motor vehicles and fuels</b>	<ul style="list-style-type: none"> <li>• Transportation, which today relies almost exclusively on oil, accounts for nearly 30% of U.S. energy demand.</li> <li>• In 2005 motor vehicles produced \$56 billion in health and other nonclimate - related damages.</li> <li>• Damages per vehicle mile traveled were remarkably similar among various combinations of fuels and technologies—the range was 1.2 cents to about 1.7 cents per mile traveled—and it is important to be cautious in interpreting small differences, the report says. Nonclimate-related damages for corn grain ethanol were similar to or slightly worse than gasoline, because of the energy needed to produce the corn and convert it to fuel. In contrast, ethanol made from herbaceous plants or corn stover - which are not yet commercially available—had lower damages than most other options.</li> <li>• Electric vehicles and grid-dependent (plug-in) hybrid vehicles showed somewhat higher nonclimate damages than many other technologies for both 2005 and 2030. Operating these vehicles produces few or no emissions, but producing the electricity to power them currently relies heavily on fossil fuels; also, energy used in creating the battery and electric motor adds up to 20 percent to the manufacturing part of life-cycle damages.</li> <li>• Most vehicle and fuel combinations had similar levels of greenhouse gas emissions in 2005. Both for 2005 and 2030, vehicles using gasoline made from oil extracted from tar sands and those using diesel derived from the Fischer-Tropsch process - which converts coal, methane, or biomass to liquid fuel - had the highest life-cycle greenhouse gas emissions. Vehicles using ethanol made from corn stover or herbaceous feedstock such as switchgrass had some of the lowest greenhouse gas emissions, as did those powered by</li> </ul>

Types of damages:	Relevant statistical data:
	compressed natural gas.
<b>Solutions:</b>	
<ul style="list-style-type: none"> <li>• Fully implementing federal rules on diesel fuel emissions, which require vehicles beginning in the model year 2007 to use low-sulfur diesel.</li> <li>• Take major initiatives to further lower other emissions, improve energy efficiency, or shift to a cleaner mix of energy sources in order to reduce other damages as well, such as substantially lowering the damages attributable to electric vehicles.</li> </ul>	

### 3. Conclusion

- By 2030, nonclimate damages are estimated to fall to 1.7 cents per kwh. Estimated climate damages from natural gas were half that of coal, ranging from 0.05 cents to 5 cents per kilowatt-hour.
- There are not substantial changes estimated for those emissions in 2030; while population and income growth are expected to drive up the damages caused by each ton of emissions, implementation of new fuel efficiency standards of 35.5 miles per gallon will lower emissions and damages for every vehicle mile traveled. Achieving significant reductions in greenhouse gas emissions by 2030 will likely also require breakthrough technologies, such as cost - effective carbon capture and storage or conversion of advanced biofuels, the report says. (Popescu, V.A.; Popescu, Gh.; Popescu, C.R. (2010a))
- Fully implementing federal rules on diesel fuel emissions, which require vehicles beginning in the model year 2007 to use low-sulfur diesel.
- Take major initiatives to further lower other emissions, improve energy efficiency, or shift to a cleaner mix of energy sources in order to reduce other damages as well, such as substantially lowering the damages attributable to electric vehicles.

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## ECONOMIC SOLIDARITY - EVOLUTION, SEQUENCES, MEANINGS

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**Abstract:** *Charles Gide and Charles Rist, reveal in their monumental work "The history of economic thinking, from physiocrats until today" that from an ethimological perspective, the meaning of the word solidarity come from "solidum", a word which for ancient Roman attorneys represented "the obligation which pressured debtors when they were accounted for everything". Later on, "solidum" evolved towards "solidarity", a term used within the French justice system particularly after 1870. From here on, "solidarity", became the word used until today: all people form a whole, like the members of the same body, and they must work, in an articulate fashion, and help each other.*

**Key words:** solidarity, history of economic thought, C.Gide and C.Rist

**JEL classification:** B10, B12, B31

*„The best philosophy concerning the world is to ally the sarcasm of joy  
with the indulgence of condescendence”  
Chamfort*

Although, from an economic, social, political, cultural perspective, the XIXth century will "continue" until towards 1914, when the First World War will begin, from a chronological perspective, this century ends in 1900, when, the XXth century begins. This is why, towards the end of 1899 and the beginning of 1900, the civilized world was on the brink of celebration. Of course, around 8 decades later, the Italian cinema industry issues, through the great Bernardo Bertolucci, the famous "1900" movie (produced in 1977), a dramatic and stirring feature, revealing the taking over and current status of many sins of the past – among them intolerance, obscurity, cupidity, lie, social crimes, dictatorship – which was foreseen in the coming century. It was a movie in which, Robert de Niro, Gerrard Depardieu, Donald Sutherland will deliver great performances, first hand. I had the chance of seeing this movie in Leipzig, in the former German Democratic Republic, march 1978 and i can say that it impressed me deeply, deepening my feelings of uncertainty, discomfort, unsafety...But then, in the relative serene world of the year 1900, in that "La belle epoque", people had – as always, actually, ideals, hopes, dreams of the most beautiful kind, without suspecting the quakes that would come. Without suspecting that the transposure of their goals in real life will be lowe, much lower than their previous expectations...

Also in 1900, in Paris, then as well as now, "the City of Lights" of the world, a city in which both my parents, myself and my family feel intimately bound, a great "Universal Fair" will take place. An event which, among others, through its exposes and writings will mark the balance sheet of decades of technological, scientific and economic progress of the world, opening the door towards new horizons. In his opening speech at the "universal Fair", the French Minister of Commerce, Mr. F. Millerand, which would become the President of the Republic, will say: "Science gives people the secret of the material and moral greatness of societies – which can be summed up in one word – "Solidarity"". What had to be said, was said. An idea which, throughout the centuries almost never gained respect, being mostly and wrongfully neglected, "Solidarity", meaning "Economic Solidarity", was reinstated in a position of the utmost importance for the presumptive progress of mankind. But what was solidarity? How does the economic concept reveal itself? Which was and is its evolution? Which were several essential moments within this evolution? These are questions to which we will try to answer in the following paragraphs...

Paying a homage to the greatest professors in the history of economic thought, the French teachers Charles Gide and Charles Rist, reveal in their monumental work "The history of economic thinking, from physiocrats until today" which appeared in the first years of the XXth century, with a beautiful translation in Romanian attributed to the attorney and economist George Alexianu, that from an ethimological perspective, the meaning of the word solidarity come from "solidum", a word which for ancient Roman attorneys represented "the obligation which pressured debtors when they were accounted for everything". Later on, "solidum" evolved towards "solidarity", a term used within the French justice system particularly after 1870, reflecting bonds of unity. From here on, "solidarity", a word used, in the mentioned sense, by the editors of

the French Civil Code. A meaning which did not modify until today: all people form a whole, like the members of the same body, and they must work, in an articulate fashion, and help each other. "Solidarity" became a closing word of more and more official speeches, of social conferences, of "calls to unleash strikes and open bags of money". "Solidarity" became a chapter title in all treaties of morals and teaching and, ergo, also concerning treaties of economic doctrines, more and more of them comprising of chapters with references to "solidarians"...Even in ancient times, as Gide and Rist write, Saint Paul and Marcus Aurelius, not to mention Menenius Agrippa, refer to solidarity in this way, which gives it an experience of circa 2000 years of usage, activating and even enflaming people, increasing their belief in the support of their kinsmen – a mutual support – and giving life to hope when things were looking their darkest...

"Solidarity, write Gide and Rist, was affirmed...not only in the philosophic state or dogmatic state; rather it was realized through deeds, made good through laws, religion, customs, and even more rigorously than today". And I recall, as an example, within criminal law, collective responsibility for the crime goes to all the members of a family which, we add, survived until today; so goes the corsican "vendetta" and many of the mafia contracts. Coming back to the direct plan of economics, as the two writers mention, "even labor division is a source of solidarity". This means that, the imperative for one man is to count on the other to fulfill his needs. Economic thinking within ancient Greece signals, far before labor division occurred, that labor division must be studied from the perspective of solidarity, and would later be astonishingly analyzed by Adam Smith.

In fact, we can state that solidarity, even when it is not defined with this term, was well known under all its forms: biological, sociological, moral, religious, juridical, economic. Often we have isolated approaches, without presenting the needed reports between some and the others. A largely systemic approach began towards the middle of the XIXth century. Disciples of Charles Fourier and Bastiat, but also Pierre Leroux and mostly the great philosopher Auguste Comte were among the first who regarded things in such way. For example, in his works, Auguste Comte wrote, concerning this "capital and modern conception": "The general framework of the new philosophy reveals the connection between the individual and the rest of men under a series of different appearances, so that it makes for the familiar feeling of social solidarity, widespread in all times and locations". The curtain behind which many of such aspects were hidden, not yet rightly defined, would be lifted, the modern development of the world and economic and social solidarity could begin and could be fully developed, with the needed acclaims and in front of life's most powerful spotlights.

Actually, towards the end of the XIXth century, even the theoretical basis of a certain social and economic and biological doctrine would be laid, among other authors we have the German Schaeffle, the French Worms and Lilienfeld, then Friedrich Passy, Claudio Jannet, F.Marion, and especially Leon Bourgeois, and others. One could mention in this way that "solidarity, understanding through this the mutual dependancy of all the parts of the same body, is characteristic to life". That "it lacks from organic bodies which are mere aggregates of parts, independent from one another". That "death is precisely the dissolution of mysterious bonds which link the parts of the being which was living before, letting it to become a corpse, meaning elements which become indifferent one from the other." Whereas economics can be fully understood as an organism, a living, biological organism...

After that, solidarity was revealed so perfect and intense, as the being became superior on a biological scale, a thing worth remembering for economics as well, but also for individuals, institutions and their systems. Solidarity is also, concerned with the differentiation of parts. Where they are homogenous, each "can have for himself" but where they are different, each completes the others, and can not work isolated." A representative thing for the economy, as a complex organism, where a crisis in New York, for example, generates effects within the entire economy of the world and where a certain modification of the food consumption pattern in India and China can determine great pressure on the world food industry, changes in prices, strategies, etc.

And further still. Solidarity, economic for example, manifested itself throughout time, sometimes decisive, within production and often, although less intense, concerning distribution and consumption, excluding, of course, charity acts. The laws of markets are undoubtable, a role which must not be exaggerated as compared to a decent social role. Of course, production creates resources for social progress, but it can influence in an essential positive way.

Referring only to the modern period, we have the physiocrats, with their famous "laissez faire, laissez passer, le monde va de lui meme", proposing though, even institutional involvements. Later, Adam Smith with his "il mondo va da se" and even with the "call" of the institution of the state to regulate and manage activities within education, police, justice, national security. Last, but by no means least,



marginalists like Carl Menger, with the theory of marginal utility, meaning the value of goods is given by their utility for others. After that, J.M. Keynes, with his model of economic growth and development, revealing as an element of optimization the degree of labor force occupation. Every man for himself but for others as well. Finally, but by no means least, the Romanian Mihai Manoilescu, with his new theory of international commerce, which promotes a sui generis protectionism, from a national and social perspective. Then the growing force of syndicates on a national, european and global scale, minimum guaranteed wage, systems of social protection, etc. The concepts of durable and sustainable development, the ones concerning externalities, bio-economics, acting for social advantage, etc. If within economics, searching for good is the general rule, and the social reflex is sometimes marginalized – which was not and is not good – concerning the pollution of public space must always seek to relax environment pressures, or concerning the overheating of Earth. Harming others means that, in the end you are harming yourself and viceversa. Actually, partners should be parthers within an environment with equal rights. These are just a few examples which illustrate that economic solidarity we mentioned, unfortunately, sometimes in a mechanic mean, by doctrinarians and its supporters within labor division...

Actually, each of these examples, cases, situations, processes, elaborated, can be approached both as principles as well as detailed, to the largest number of details. And the array of expressing ones self and the variation of solidarity, of economic solidarity is huge, imposing several analysis of space and time, in a distinct way. Moreover, one must mention the distinction between "charity" and "solidarity". "We do not wish to do charity, rather solidarity. Charity degrades, solidarity upgrades", said solidaritarians at the begining of the XXth century. We will make reference on the example of the United States, as they became independent from the English metropolis... April 19th, 1775, the battle of Lexington, is considered the start of America`s war for independence; at that time, it was a British colony. The illustrious Sorbona teacher Andre Kaspi, a brilliant historian of the United States, asked himself: "what determined the English colonists of North America, the essential promotors of the conflict, to give up the blessings of the Empire? Of course, they left the British isles to make a fortune on the other side of the Atlantic and/or to escape discrimination which they had to endure, as religious dissidents. But, from Georgia to Massachusetts, passing through Virginia and New York (only at the beginning of the XIXth century the colonial French empire will be over in America – n.n.) the colonies did not belong to a unique and sole society". In fact, plantation owners in the South, which lived off cultivating tobacco, indiggo and more and more cotton, "were amateurs of fine wine and galant celebrations". The Anglicans, those obedient to the moral and religious authority of the King of England, "were unsensitive to the salvation of their souls". Merchants from the north, which traded with Europe and the Antilles, thought of themselves – and actually were – "the descendants of proud purists, poor purists, those loyal beyond doubt, enclosed in severe work ethics". In the West, between the ocean and the Indians, "lumberjacks faced the "indian peril" and hated the refined lords and the capitalists of the other territories" which lived in a milder standard. However, all of these English-born colonists still had a sentimental attachment towards England. Even German, Dutch, Swedish, French born people which established themselves within America believed they are protected by the British Empire. "At the middle of the XVIIIth century – Americans considered themselves, mostly, as Englishmen from America", concludes Andre Kaspi. A very solidarian feeling to say the least.

...And still, vexing economic measures, which did not favor Americans, and destroyed almost any possibility to produce, in turn amplifying their taxes paid to the metropolis, weakened and even broke this solidarity with England. On one side, the Crown and Parliament took land from the colonists and gave it to indians, the ancient owners. Moreover, taxes for using beetroot, textiles, coffee, indiggo, non-British products, were doubled, a fact which filled the royal chests. Also, a stamp tax of 3 pence had to be paid, without indulgence, for each piece of paper within the pockets of the colonists, which consisted of a statement, a request, an objection, any kind of plea. Once again, the pockets of the colonist were droughted, due to the English administration.

Last, but not least – the absolute right of the London Parliament, where American colonists were not even represented – to ban the colonists from voting any law, decision, ruling which would increase fiscal measures more and more, new taxes, etc. As an addition to those already existing within the famous "Stamp Act" even if it was cancelled in march 1766. A still rebellion will break out, which will transform in several violent local clashes, finally evolving into total war. The solidarian and sentimental status of "American Englishmen", colonists which wanted to conservate the belonging to the metropolis, will vanish like smoke, turning into hate towards the British which enslaved the locals, with the desire to become rich, even with prices paid in blood. Independance from England meant a new solidarity, this time only between colonists,

towards their present and future. This solidarity would be called more and more often as patriotism, with reference to the homeland, America...

The significant document becomes thus "The Declaration of Independence" which is written by the second American Continental Congress, which has given this task to a committee which included John Adams, Roger Sherman, Benjamin Franklin, Robert Livingstone and Thomas Jefferson. In the draft, 27 serious accusations are made towards king George the IIIrd who violated the principles of colonial government. As an example: "The history of the actual king of Great Britain is the history of a series of injustices and repeated usurpings which, as a sum, have had as a purpose the instalment of absolute tyranny within the colony". It is very interesting and significant, in pointing out the economic solidarity of the colonists, the way in which Thomas Jefferson, the editor of the draft, mentioned the natural rights of men and the role of authority, of government to respect them: " We consider as obvious the following truths: all men are created equal; they are gifted by the Creator with inalienable rights; among these rights one can mention life, freedom and the right for each of us to seek its own happiness. Governments are constituted among and for people to ensure these rights, and their just power derives from the consent of the governors. Any form of government which becomes destructive towards this goal is rightfully changeable by the people. The people have the right to abolish this form and to establish a new form of government, basing it on the mentioned principles and organizing the form in which they see fit in order to provide safety and happiness." Actually, as professor Kaspi concludes: „this was an English style revolution. The Americans remained, in fact, English. They protected English liberties as they understood them. In their eyes, England stopped from respecting its own principles". And once gained, independence will allow them to be maintained on the other side of the Atlantic: „Fighters saved the soul, the spirit of England, by separating themselves from the metropolis".

...These are arguments to prove, beyond a doubt, through the relevant example of the creation of the United States, that the great geographical discoveries made by Europe and the creation, within the newly found territories, of institutional formations, regardless of their name, copying European civilization and culture, approaching economics with the same European terms – initiative, enterprise, production, profit, expense, budget, productivity, exchange, advantage, etc. – constituted and constitute still a fundamental stage of today's globalization process. A globalization which would generate advantages for all, based on economic and social solidarity...In fact, for "solidarity", we have almost infinite shades. We shall make reference to them as follows.

...In 1899, as Gide and Rist reveal, "Solidarity" was proclaimed as the motto of a "new Economic School". These ideas will be issued within a volume "Quatre Écoles d'Économie Sociale" (1890, Geneva), being revealed in this manner: „L'École libérale", under the signature of Frederic Passy, „L'École catholique", under the signature of Claudio Jannet, L'École socialiste", under the signature of E. Stiegler and „L'École Nouvelle", under the signature of Charles Gide. "If you ask of me to define...this "New School", with a single word, I will say it is the "Solidarity school". Solidarity is not like freedom, equality or even fraternity, a sound word or a pure ideal. It is a fact, one of the best established facts of science and history, the most important discovery of our time. And this fact of "solidarity" becomes more and more of an accolade, every day". It is true, however, that "Solidarity" was claimed as a component of different and even opposite schools, meaning those of Biologic Naturalism, of Christianity, of Anarchism or the one of State Socialism. But within this framework, we underline the fact that it was taken out of its general economic framework which gave it substance and added as a distinctive side within another perspective rather than an economic one, the essentially economic perspective, of some economic thoughts which became schools, thus approaching, from various angles, other issues than just economic ones, problems of human evolution per se. In fact, one can become solidary with something and constructing a goal. It is true as well that such research can not literally be separated from economic Solidarity, offering new perspectives to economic Solidary itself...

Leon Bourgeois will be the researcher which will distinguish the study and research methods for economic Solidarity, obviously, by taking a series of ideas from his predecessors and peers, among which Auguste Comte, but also from the less known like Charles Secretan, Charles Bois, etc. One can mention that economic Solidarity was "exposed under all aspects" in a series of conferences by various authors, held at the „L'École de Hautes Études Sociales" in Paris, under the presidency of Leon Bourgeois and brought together in a volume under the same coordination, with the title „Essai d'une philosophie de la Solidarité", Paris, 1902. The guidelines of this doctrine are based on several important ideas. Ergo, economic solidarity does not constitute an expansion or transposition of "natural solidarity", in moral and social order. On the contrary, its supporters claim, "it represents a drive towards high and righteousness. Because natural

Solidarity is most times not fair or at least "unfit", in the way that some cannot benefit from the advantages that they never deserved in the first place, and others suffer prejudice which they did not deserve". One must intervene, but legally, so that those who benefited from the "fatalities" of the solidarity to acquit themselves from those who suffered "without a cause". Justice, and in its broader sense, Righteousness, has an important part in making fair order where "its blind sister gave too much to some", thus giving too much to "all those who had claim".

It is not about nationalization, requisitioning, confiscating or any other similar processes. Nor is it about charity. Rather it is about creating those conditions, that economic and social context so that each individual, even though initially stripped of an inheritance, by birth or otherwise, can benefit of the rights people have on this Earth. "Solidarity – in fact, Solidarity-duty", because we must not mistake one for the other...But it is paramount to see the first to observe the need for the second", wrote Leon Bourgeois. "We are born full of obligations towards society", wrote Auguste Comte. But, often, these obligations are regarded in a broad sense, as "moral obligations", of duty, as we often say, of the "noblesse oblige" or "richesse oblige" kind, the payment of such duties being left at anyone's conscience. Rather, write Gide and Rist, it is about taking it seriously and offering true meaning, juridical prowess to this word, "duty", transforming it into "obligation", and if it will not be paid for willingly, to be given a legal sanction. There are duties which are constituted, basically, without conventions, which are born without a contract, meaning without the will of the parties". They are called "quasi-contracts".

As Leon Bourgeois showed, "all characteristic circumstances of the quasi-contract are found within human societies". "The enrichment of someone at the expense of someone else, by acquiring unlawful values...what a great source of inequality". Its like Bourgeois lives in our time. He also mentions: if we would consider society as a whole, this society appears "as the result not as Rousseau foresaw it, as the result of a willingly adopted original contract, rather of a quasi-contract which, although does not involve the conscient adhesion of the parties involved, must have the same effects as if it were real." In other words, issues need fixing, meaning there are "duties which we do not know of and yet we must pay" and "there are rights where we believe there is only moral and debt where we believe we find only sacrifice".

The question rises: if each man owes another, is it necessary that these debts are paid. Who pays them however? "All those who benefited from natural solidarity, all those who made a fortune and whose fortunes could not have been made unless thousands of anonymous collaborators worked on that, past and present. All of them gained more than their share, so they have debit. They are forced to pay. And if they do that willingly, let them know that they are not committing charity!...No, they only pay what they owe...they will never consider themselves free of debt, while having their free goods, only if their debt is paid for. Then, and only then, the owner can say: my good does not owe nothing to nobody, it is only mine. Thus, individual propriety, in this doctrine, will be free and respected, but only after the payment of social debts. Until the sums are paid for...it is mortgaged" – write Gide and Rist concerning the manner in which this essential issue of economic solidarity is solved. Gide and Rist also mention: "To whom do we pay? To all those – as revealed in the doctrine, who instead of benefiting from natural solidarity have suffered, to all those who are named rightfully "outcasts". It is precisely these people, which are the conscient creditors, because they did not receive their fair share at the so called table of social cooperation". It is true that these creditors can not be named, but they will be represented by the state and the thousands of named institutions, called a while ago, social institutions, for assistance, today called mutual institution or solidary institutions". "The doctrine of Solidarity is the respect of individual propriety and freedom", concludes Leon Bourgeois.

Of course, numerous aspects require comments. Where is the right of the entrepreneur, of the capitalist, in this framework? Those who, by their own will, advance capital, money to start a business? Must this right be affected or not – and the profit it generates – from the payment of a certain solidarity debt? Those who easily say "yes" raise question marks. Those who say "no" decisively raise question marks themselves because they do not consider the high value of collective labor, which was not reflected as a component of the individual wage received by the worker. The "grenadins" thesis of P.J. Preudhon, but not only his. Afterwards, in present times, when salary is negotiated in most parts of the world, rather accepted between employee and employer, be it private or public, the the idea still stand of supplementary payments from the patron? It would appear not... But this theory of economic Solidarity is clearly not only opposed to the division of few rich and many poor – and not only at a national level – it even tries to prevent. A non-conformed division with labor division and its reward. A division which can generate not only social protests, but also social upturns of amplitude, with essential losses of social substance, few of them beneficial, at a given time, and this only for the rich and privileged. The path of negotiation, of possible compromises both ways, would prove much more efficient. Concerning the evolution of Romanian history of

thinking evolution, I.N. Angelescu dealt, in an admirable fashion, of the concept of economic and social solidarity, the rector, around 1920, of the Academy for High Commercial and Industrial Studies in Bucharest. I.N. Angelescu calls for a solidarity of nations, as well as classes. I was a colleague, at "Sf.Sava" highschool in Bucharest, with his grandson, and, at his home, i admired some of the impressive collection of books which he left for his followers. Stefan Zeletin, the author of the beautiful paper "The Romanian Bourgeoisie" was a solidararian himself, as well as Mihai Manoilescu, of which we already spoke.

Of course, questions and comment could continue, particularly within such a diverse reality, full of dynamic, change, revealing many doubts concerning perspectives. At any rate, it appears direction in this world, a world of staggering inequality are heavily contested, and offer sufficient arguments to take "economic Solidarity" seriously, an intelligent and structured concept – which does not mean that it does not support critics – including from A.Compte and especially Leon Bourgeois. But also by others, such as F.W. Raiffeisen, with his so-called "force of cooperative solidarity" in this world. A world which does not always take kindly to the necessary, yet often ruthless and severe reign, at times even merciless and exclusive reign, of the markets...

This is why we did not understand why in the Larousse dictionaries and even in several German encyclopedias concerning the great men of the world, W.F. Raiffeisen is not remembered. A small glitch, which however reveals a major flaw in the means of evaluation...

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## THE (OWN) INCOME SOURCES OF E.U. BUDGET – HOW SUSTAINABLE CAN THEY BE?

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**Abstract:** *E.U. budget needs to rely on sustainable (own) income sources – even in 2011, a year of – probably – rising expenses; in addition, Japan’s economy is, due to the recent earthquake, nearly on its knees, and, as a result, 2011 may be one of renewed economic difficulties worldwide. On this background, an economic analysis of the economic and financial mechanisms lying behind the main four own income sources of E.U. budget can be conclusive not only for asserting the – possible – present sustainable character of each of these sources, but for outlining possible methods to turn those income sources into sustainable income sources.*

**Key words:** income, tax, growth, crisis, sustainable

**JEL classification:** E01, E27, E62, H68

### 1. Introduction

To find whether the income sources of E.U. budget, especially the *own* income sources are sustainable is something of a grueling task; nonetheless, grueling as it may be, such an investigations must be undertaken, in our days (2011) when *most* of the economies which compound E.U. economy are – or, anyway, so it is said – just emerging out of economic crisis, let’s say from January 1<sup>st</sup> 2011. In these circumstances, the expenses E.U. has to cope with are becoming, in a very material sense, more *expensive*, and, therefore, the incomes on which E.U. budget is bases, if existent, are evermore precious.

In short, from the point of view of a rather gloomy perspective, of continuously rising expenses, E.U. is surely in the position in which its policymakers might, at least, want to assure themselves their income sources – e.g. at the level of E.U. budget – exist and will do so in the long term: which, in other words, means they should want to be sure the own income sources of E.U. budget are indeed *sustainable*.

### 2. Topic

The task of analyzing the incomes, or, to be more specific, the income *sources* of E.U. budget is, not in the least of it, a straightforward one; on the other side, however, as the events of today unfold, in the world economy – in our case, in the E.U. economy – at stupefying speeds, after most European economics have – or, to put it this way, this is what we are told about – just eluded the consequences, or the aftermath, of the latest world economic crisis, we think it is of the outmost importance, not only in our perspective (and in our present paper), but for the very practical purpose of designing a truly *sustainable* – that is, for the long term – E.U. budget to estimate, with a reasonable degree of precision, whether its income sources can be turned into sustainable ‘assets’, so to speak, and, if so, the procedure which will turn this (theoretical) perspective into real fact.

Giving the nature of 2011 as a – in a rather realistic sense – ‘recovery’ year for (almost) all the economies that form the economy of the European Union, we consider it is, at least for this reason alone, most useful to analyze, to start with, the theoretical sustainable feature of each of the main four own income sources E.U. can rely on, so that we will be, afterwards, able to sketch the (contours of the) practical methods which will turn every one of these four income sources into real sustainable sources for E.U. budget.

But, it is not at all feasible to anticipate, at this point, the rest of this paper: instead, our analysis must, as it is reasonable enough to conceive it, focus on these income sources; not only in order to label them but to explicate their respective features – among others, the economic mechanism of each one of these due to which E.U. budget is ‘fueled’ with money.

Firstly, it is perhaps not unnecessary to remind the E.U. budget of today, e.g. the 2011 budget for the European Union, is based on 27 Member States – to be more specific, on 27 economies. These economies provide, directly or indirectly, the revenues constituting the most important, so to speak, *half* of E.U. budget and this is true down to the last eurocent, since E.U. budget makes use not only of its *own* income sources, but also of other revenues: we can name, among many others, revenue accruing from the administrative operation of the institutions, revenue accruing from persons working for the Institutions and other Community organisms, etc.

Now, in the draft budget (DB) 2011, the amount of own resources needed to finance the E.U. budget expenses is as large as 1.03 % of the E.U. gross national income (GNI); furthermore, the global ceiling of own income sources is fixed, in 2011, at 1.23 % of the total GNI of the Member States. This being said, it is appropriate to name here, now, the four main own income sources of E.U. budget, traditionally designed and used as such and thus configured in 2011 nonetheless:

- customs duties
- sugar sector levies (sums paid by sugar producers to finance the **export refunds** for sugar)
- V.A.T. (Value Added Tax)
- G.N.I. (Gross National Income).

The specifics of the amount of € (Euro) each of these own income sources provides E.U. budget with is irrelevant in our paper; there are, however, certain quantitative characteristics of those income sources worthy of being mentioned, and, in the same time, important in order to assess, not their (assumed) sustainable feature, but the method through which that feature may turn real results.

Firstly, it is quite worthy of mentioning the fact the first two above named own income sources of E.U. budget, that is custom duties and sugar sector levies, are relatively *expensive* economic activities: in clearer terms, a 25 % flat-rate deduction is made at source by the Member States to cover their collection costs. This is not a petty amount, but it is important to underline that, expensive as they are, these two income sources display, in this benchmark year of 2011, maybe more intensive than in any other previous years certain features that, at least, prove these sources to be sustainable.

To put it plainly, the *status quo* concerning, on one hand, the sugar sector levies, and, on the other hand, customs duties in 2011 is a vivid illustration of the *fact* E.U. is, theoretically, able to fund its expensive indeed in the long term based on – among others – these two income sources, and especially so for the latter: the amount of money foreseen to be collected, at E.U. level, as sugar sector levies is, in 2011, equal to the sum entered in E.U. coffers in 2011 – viz., in the DAB (draft amending budget) 4/2010. This surely is quite, not a financial performance, but an economic one, if we consider the not – yet – very ‘friendly’ atmosphere found in the food sector of European economies in 2011.

As for the E.U. customs duties, the facts are even more interesting: the sum of the financial funds ‘produced’ by E.U. customs duties is foreseen, e.g. in 2011, to be *larger* than its equivalent in the above named DAB. The reason behind this lies in two important augmentations:

- Increase in the volume of extra E.U. imports;
- Increase in the weighted average tariff.

The weighted average tariff – or, *trade-weighted average tariff* – is the average value of the tariffs (viz., the system of taxes placed by a fiscal organism upon the foreign trade) in use in a given economy, value which is weighted by the value of imports (e.g., total tariff value by total value of imports) (European Commission, 1993). Using simple algebra, it can be seen clearly that, since increase in the volume of extra E.U. imports increased the total value of imports, increase in the weighted average tariff is due to an even larger increase – in the total tariff revenue: in other words, either the volume of imports *entering E.U.* rose in a sensible manner, or these taxes experienced important increases of their respective ratios.

We need not be great economists, nor quote a large number of important economic volumes/papers sqq. to be able to express a conclusion concerning this type of own income resources of E.U. budget, that it is extremely likely to have, indeed, the quality of being *sustainable* provided the premises stated above, and especially the former, are characterized by social and economic (sufficiently) long-live span mechanisms. It is sure the latter is not extensible for too large a time frame, but there is at least a possibility E.U. can hold for quite some time its (or, if this does not exist now, *a*) technological edge over existing, and future, competition, that is not to mention other economic – and social – parameters.

If this is true, it will be quite feasible that E.U. will record a profitable export flow, so profitable, that it could – of course, keeping its standards concerning health protection, pollution effects etc. as high as they are nowadays, or even higher – sustain, for a long period of time, an increasing flow of imports.

V.A.T. is, in itself, a rather sensitive issue to talk about, especially in our time, in E.U., and a not so light economic subject to analyze either. Having put this down, everyone must be conscious, however, indirect taxes – after analyzing, in the precedent paragraphs, customs duties – are (V.A.T. included) a very powerful fiscal tool (Schiller, 2003, p. 241), and not in the least of it a (at least potentially) very important own income source, for E.U. budget. This picture seems clear enough in any circumstance, but this would be true only if, an E.U. level, or, moreover, *for* E.U. budget V.A.T. – including here V.A.T. base(s) – would have an independent existence as a *tool*. In fact, this is not the case.

At least in 2011 – for it is feasible to conceive this year is not in the least an improper ‘example’ – or *sample*, for this latter term seems more proper –, and we say “at least” for the sake of prudence in arguing, the V.A.T. base is, surely for eight states part of E.U., capped in strong relation to their total amount of G.N.I. (Gross National Income); in fact, for those states, it is capped profusely, so to speak, so that it is equal only to half (50%) of the volume of G.N.I. (the values of 2011, naturally).

G.N.I. is equal to G.D.P. from which is subtracted the amount of primary incomes payable to non-residents and to which is added the amount of primary incomes receivable from non-residents (European Commission, 1993); as such, both from an economic point of view and algebraically we can state that (‘ $\square$ ’ meaning ‘asymptotically equal (to)’):

$$G.N.I. \square G.D.P. (1)$$

Added to this, another detail is very helpful in ‘translating’ this ‘half-measure’ of V.A.T. base: in this (quite illustrative) year 2011 both the uncapped and the capped V.A.T. base, in E.U., considered as an entirety, dwindled if compared with 2010 values. This, of course, is attributable, and not without reason, to the respective economic crisis of 2010 – and, e.g. in Romania, of (at least the first two trimesters of 2011) –, but, in the same time, such a visible detail reminds us the fact V.A.T. budgetary tool is not sustainable *in absolutum*: we do not know a certain type of – in our case – own income source of E.U. budget to be like this, but anyway, V.A.T. base clearly is susceptible of being altered, in a bad way, by an economic crisis.

Since most of the states which constitute E.U. left behind economic crisis as of 2011, it is no surprise G.N.I. *base* is in what E.U. is concerned, in 2011, of larger proportions than its 2010 equivalent. An economic crisis ‘produces’ low incomes, and vice versa – fact which leads us, and not only us, to the same conclusion: G.N.I. (base) is equally susceptible from the point of view of a crisis distorting at least *an* economy.

### 3. Conclusions

Maybe the most crucial conclusion this paper reveals is the fact the sustainability of the (own) income sources E.U. budget works with is a function of their inherent economic and financial mechanisms: all these four most important own income sources of this budget, being (economic effects of) the automatic stabilizers especially indirect taxes are on the background of the dynamics of an economy, have relatively, or very little ‘own (e.g. autonomous) power supplies’ (Schiller, 2003, p. 241).

In other words, E.U. is designed so that it will have *a* budget of sorts only if its economy, which, as it is universally known, is not a single – unitary – economy, but (at least partially) a network of economies, runs efficiently, i.e. obtains real and sizable economic growth. Without it, E.U. budget is doomed – in point of fact, its incomes, without which there would be no reason whatsoever for planning how to support even a single E.U. (budgetary) expense.

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## WHICH IS THE CAUSE OF THE CURRENT CRISIS?

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**Abstract:** *The object of the research represents the complex and systematic discussion of the economical vocation and dimension of the Church, both national and European framework, according to the contemporary situation. The research subject concerns the Church's fundamental contribution to the economy, in terms of its influence on the Romanian social life.*

*In the contemporary period, characterized by this state of global crisis, the churches are called to offer, from the deep deposits of their spiritual inspirations and institutions, a substantial spiritual strength, but also a positive guidance.*

**Key words:** crises, economy, sociology, church

**JEL classification:** Z13, Z12

### 2. Introduction

In our days there is no border between economy, culture or sociology, because, in many cases they are confused. For example, the sport is a social factor, but with a very important economical influence. From other perspectives, we can affirm that the values system is changing extremely fast: what seems to work today could not work tomorrow. We live in a fascinating age, but difficult in the same time and differently characterized. The media bring us all over the world, informatics puts us in difficulty and, in many cases we confuse the real with the unreal; in a word, the concept of time and space is permanently changing. It is for the first time when these things have perfectly infiltrated in the humanity's course.

**2. Features for resourceful for economical vocation and dimension of the Church** The values are very diverse and almost every person has the initiative of adapting them, even if many of them are meaningless. This way, a sort of Babel Tower is born and is very difficult to communicate and confront them in the same time.

In the middle of these events continuously changing, the man is disoriented. This way, the economy fits into this framework and the target is to make the man to understand what must be understood. To make this thing possible, the economy uses two instruments: the first one resumes to a range of reference values, because you can not have a normal approach of the life without having some straight principles to guide you, and the second one resumes to knowing the times we live, to have instruments in order to help us to understand our times. It is not enough for you to have just values, it is also necessary to have the capacity of recognize them, a capacity that we can educate along our life. For the Christian man, this thing is very easy and simple; because the Christ message clearly tells us which values we should follow, but we can not stop here without having the capacity of understand them, permanently reflect on them, to react on events, on causes which determine the events and on their consequences.

We live times when the economy seems to have become the most important thing. The media suggests images where the economical aspect dominates the others. The money seems to be the premium value of the man. The rank of involvement of humans is determined by the social status, but this does not mean that the economy it is not useful.

The economy has, first of all the role of giving answers from the financial perspective, however, it must remain an economy inspired by values. So, an economy inspired by Christianity is an anthropological economy. Hence, many questions regarding our way to live can be rise: How are the resources used? Which is the attention given to the job? Which is the concept of the job? Which are the rights of humans that work? How is the wealth distributed? What way does the community perceives the relationship with the money? Which way must we educate our new generations according to the economical speech? How is the gain utilized? How can we overcome the crisis?

We must not fall into a relativistic interpretation, where everything goes well. In the center of our logic should stand the economy of responsibility, that always gains value and that is capable to explain the world of value in a concrete manner.



“Crisis” is a Greek word and it means “judgment”. In the Sacred Scripture, this word is often utilized. The psalmist says: “ For this the unbelievers will not be raised at judgment” (Psalm 1, 5), and in another place “mercy and judgment I shall sing” (Psalm 100, 1). The wise Solomon writes “From the Lord the judgment to the man will be made” (Pilde 29, 27). The Saviour himself said that “The Father gave the entire judgment to the Son” and that “now this world is judgment” (Ioan, 5, 22; 12, 31). And the holy Apostle Petru writes: “the time has come to begin the judgment from God” (Petru, 4, 71).

If we replace the word judgment with the word crisis, we will read: For this the unbelievers will not be raised at crisis, mercy and crisis I shall sing, the entire crisis gave t to the Son, now is the crisis of this world, it is time to begin the crisis of this world.

The European peoples use the word “judgment” instead of crisis, when they confront misfortunes. They have replaced the old word with a new one, the understanding word with the misunderstood word. When they confronted drought, they said “The judgment of God!”, when they confronted flood “The judgment of God!”, or hail, earthquake, “The judgment of God!” and this means: crisis by drought, by flood, by wars etc.

The current economical crisis is regarded by the humans as a God judgment, but it is not named judgment, but crisis. When we say a word like judgment, we also know the cause of the crisis, we know the Judge who has allowed it and the purpose of the crisis. And when we use the word crisis, and misunderstood word, nobody knows to elucidate why, from where and from whom. This is the only difference between the actual crisis and the crisis by drought, floods, was etc.

The cause of these scourges is also the cause of the actual crisis: the apostasy of humans. Through the sin of apostasy, the humans caused this crisis, and God allowed it in order to wake the human’s conscience, to wake their spirit and to turn them back. To modern sins, like drugs, prostitution, magic, etc. – a new term, less known the modern crisis.

It is true that God used modern means to calm the modern humans: He stroked them by banks, finances and stocks. He toppled the exchange money all over the world, resembling to the tables in the Jerusalem Temple. The current crisis caused a general hysteria among the economists, on one side, and on the other side, among bankers. The crisis rises, falls, changes, troubles, panics: makes the arrogant minds of the European and American wise mans to wake up. The humans anchored into the material safety, must remember their soul, to admit their sins and to worship the living God.

How long will the crisis last? As long as the human’s spirit will remain unchanged. As long as humans causing this crisis will not surrender to the Almighty. “As long as humans and peoples will not consider translating the misunderstood word *crisis* on their meaning and cry out sigh and repentance: “The judgment of God!”.

If we analyze this crisis, crossing all over the world, with our own eyes, in a logical-conscious manner, we can understand many things.

The first mistake, the first misunderstood value, was that we have believed that the economical development will go forever, raising this way, in an automatic manner the living standards. Other way speaking, they considered that the wealth could guarantee the happiness of humans, yet nothing was demonstrated in this sense. A large confidence was given to the financial, banking and stocking system. The banks invented systems which mortgage the future of humans: credit cards - you buy today, you pay tomorrow. The system was convinced that the spiritual dimension of human was above the rational dimension. How can we overcome the crisis? What do the Governs say about the ethical approach of the economical life? The only solution is to overcome the old mentality, in order to find another one, healthier. From all these, we must remember one thing: the economy must be in human’s service.

Sobriety is required for humans, meaning to use rational the resources without ignoring the nature, the cosmos, and God’s creation. A responsible behavior based on transparency and correctness is also required to the societies. Regarding the respect for work, ambient, products and services quality, without speculations, this also works for non-profit organizations. Finally, regulations in this direction are asked to the institutions.

The one, who inspires from the Gospel and reads it in the light of our time, can understand the importance of the Church’s role in the social present, during this period of crisis. The Church remained as unique subject of our world, that, everyday, discovers the true values of humans. In the past, the family was concentrating these values, but, unfortunately, today, the family is also in crisis. Not even the school succeeds to give an education regarding these values, precisely because in our days they are very many so-called values, which enforce, and the school is no longer synthesizing them.

Not even the media propose no more values and holds on the economical side. What is left for us to do? Who can help us in this situation? That is way, the Church, who loves the human, does not rest indifferent. The Church does not have solutions, but the Church can make proposals, can open the dialogue to make the human wake and responsible. It is her right to remind that the earth is of all humans and that all humans have the same dignity, that the economy is for human, and not the human for economy. The Church is the one that proposes the real economical and social value.

### **3. Who can save the humanity from crisis?**

What is expected from behalf of the Church? From behalf of the Church spiritual rebirth of human, the salvation in Christ and offering a sense to our life is expected. The most important contribution of the Church is to cultivate the conscience, to form personalities, who enforce the unequal qualitative social system and refreshes it. The most necessary thing for the current age is the people with nature, vision, tenacity and sincere love, who can support the battle against national and racial egocentrism. The pride, the obsession of the power, and the hypocrisy are not the characteristics of the string ones and of the major states, but they are present in our souls, of all humans.

The Church can not belong to the club of the strong and rich ones. The power of the Church is not yet identified, and has not supported on the exercise of the worldly power. The presence of the Church must incessantly prophetic and critical to the address of different phenomenon of insensibility against any form of decadence. The scope of the Church for the human is to help him recover the Holy Spirit. To be in the Church it means to believe, where everything seems to be hopeless, with the guidance and scope of life – the Infinity, the God of Love.

The Church of future centuries seems to be opened to the evolution, to the new circumstances, created by science, art, technology, economy and the humans will have to be ready to understand and use the communication codes of the future.

The place of the Church is not on the edge of the history, but in the center of the social torments, in the progress vanguard, in order to ensure the freedom and uniqueness of the person, and of the integrity of God's creation.

The essential message of the Church regards each human and has universal relevance. The fanaticism and the xenophobia, transforming the ecclesial ethos into ideological constructions, can not work together with the free character of the Church. United with God, into His Church, we overcome our personal and national ego, in order to meet in understanding and love with all humans, and with all peoples, in a firm mission: a world community of love.

### **4. Conclusion**

Today, more than ever, the members of the Church are called to exercise with time and without time their function and purpose in society. The Church has penetrated the army, the schools, the jails, hospitals, asylums, fulfilling the brother's liturgy. That is way, the gifts and donations are used to help the needy ones. The human's finality does not constitute the finality of the Church. The Church does not injure the human's dignity, but lets him free to consent.

The human's responsibility comes out of his vocation, to be servant and emperor of the creation. We live in a society where every person searches for a life sense. The life lived without God is monotone.

The priest's engagement in front of God's ministry is to convince the humans to leave themselves to be wear by God's spirit. The one near us, our brother, the neighbor, must be considered with mercy.

The Greatest Economist, Good, does not saves from His time, but He searches the good deed made by the Christian. The saddest thing is when the world is lethargic. We cry out from deep down our soul to the Almighty God to see this world and to perfect it, introducing Him in our souls.

Jesus Christ, the Eternal Bishop and the World's Saviour revolutionized the economy by counteract the law of the diminishing return, when he fed with two breads and five fishes 5000 mans, beside women and children.

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## COMPARATIVE ANALYSIS FOR ROMANIA AND BULGARIA REGARDING THE ABSORPTION RATE OF EUROPEAN FUNDS FOR AGRICULTURE AND RURAL DEVELOPMENT

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**Abstract.** *This paper presents the degree of accessing European funds for rural development in Romania, compared with the degree of access in Bulgaria. The basis of this comparison is the fact that both Romania and Bulgaria joined the EU in 2007, have natural resources and favorable climate for agricultural sector development. Thus, both Romania and Bulgaria have a real potential to become producers and exporters of agricultural products.*

**Keywords:** agriculture, rural area, rural development.

**JEL classification:** Q10, Q18, Q14,

### 1. Introduction

Romania and Bulgaria have natural resources and a favorable climate for agriculture, and cheap skilled labor which allow us to appreciate that they have the potential to become suitable for agricultural producers and exporters. The fact that these countries have joined the European Union (in 2007) and therefore approached the European market should become a motivating factor in the development and modernization of agriculture and the countryside.

Political regime changes that took place after 1989 have left both in Romania and Bulgaria as a space problem areas, where residents live and work in subsistence farms to generate income for survival and not only have access to services. As a result, the reduction and mitigation opportunities in rural areas as agriculture revenue were to be practiced only as an economic activity of last resort (*The International Bank for Reconstruction and Development / The World Bank, 2009*).

**Table no. 1 Relevant socio-economical indicators for agriculture and rural space from Romania and Bulgaria**

Number	Indicator	Romania	Bulgaria
1.	Total population, from which:	22.215.000 inhabitants	7.204.000 inhabitants
2.	in urban area	54%	71%
3.	in rural area	46%	29%
4.	GDP/inhabitant	7234 \$/inhabitant	6216 \$/inhabitant
5.	Real GDP growth rate	- 6,9 %	- 4,8%
6.	GDP from agriculture	19,93 mld. \$ (12 % din total)	3,36 mld. \$ (8 % din total)
7.	Forța de muncă în agricultură	10%	4,2%

Source: The World FACTBOOK 2009

Disparities between urban and rural areas are very high, both in Romania and Bulgaria, but due to the actual financial crisis and why not food crisis, agriculture and development of alternative activities in rural areas represent an opportunity to become a national and European goal.

In this context, both Romania and Bulgaria are helped by the European Union, using EU funds for agriculture and sustainable development, to modernize its agricultural sector to become competitive on their national, European and international market. On top of that local producers must become flexible to produce according to consumer preferences which are permanently changing and to respect food safety standards. Increasing competition from importers will force, both Romanian farmers and those Bulgarians, to adapt to the market requirements.

Rural development must be seen in terms of overall European space (Radulescu, 2005). In order to prevent the decline of rural areas it is needed to organize this space so as to become less dependent on economic centers. This involves the principles of sustainable rural development (Center for Ecological Consulting, Galati, Romania, 2005):

- prosperous, competitive and efficient rural economy;
- competitive and sustainable agriculture to provide healthy food and cover the needs of consumers;
- diverse and dynamic economy with services and local initiatives that creates jobs;
- covering social needs in terms of health and safety, housing, education, health, trade, communications;
- providing new opportunities for young people (jobs, education, training, etc..) so as to ensure stabilization of the population;
- cultural heritage preservation and transmission;
- promoting ecological land-use practices and rational use of resources (soil, water, energy, ecosystems), particularly at farms;
- conservation of habitats and landscape diversity.

## 2. European funds for agriculture and rural development in Romania and Bulgaria

Through EAFRD was allocated a budget of 96.3 billion Euros (current prices) for the period 2007-2013, or 20% of funds for the Common Agricultural Policy. At the initiative of the Member States, the fund may finance up to 4% of the total amount for each program, measures on the preparation, management, monitoring, evaluation, publicity and control assistance program (European Commission, 2006).

### 2.1 Romania

According to European Commission the Romanian rural area represents about 87% of the territory and 45% of the population (Romanian rural population appears with a population significantly higher than European average).

The agricultural sector is more important than in most other Member States, with 32% of the population work in agriculture and forestry, contributing 12.1% of GDP in 2006 (13.6% of total GVA). However, productivity is very low (an indication of this fact is the ratio of labor used UMA/100 cultivated area of only 63 ha), and the trade deficit in food products continues to grow (1, 3 billion euros in 2005).

Agriculture in Romania is mainly characterized by its dual structure: a small number of legal entities, mostly large and commercial (18 263 such farms, with an average area of 269 ha, accounting for 34.5% of UAA), which means less than 0.5% of farms account for over one third of the UAA and the remaining 99.5% represent two thirds of the OR. Approximately 3 million holdings covering approximately 30% of agricultural land is considered only a practice subsistence agriculture.

Regarding the representation of the Romanian food industry it has over 11 000 companies, accounting for 7% of national GVA and provides jobs for 3.5% of active population. Only 1% of companies have over 250 employees and two thirds are small businesses with less than 9 employees. These units are facing problems, one of which is compliance with EU standards.

Rural areas have significant gaps and are characterized by a scattered population and a very low-quality infrastructure (for example, only 33% of people in rural areas are connected to water supply, only 10% of the sewage system and only 10% of local roads are of adequate quality). The rural economy is largely dependent on agriculture and forestry, with low development of alternative activities and income levels are much lower than in urban areas leading to population migration to the city.

EAFRD funding is an opportunity for Romanian rural area, worth about 8 billion Euros, from 2007 until 2013. Similar to SAPARD, EAFRD co-financing will be based on the principle of private investment projects.

The European funds will be available based on two key documents:

1. National Rural Development Programme 2007-2013
2. National Strategic Plan for Rural Development.

The main institutions involved in implementing the National Rural Development Programme 2007-2013 are:

- MAFRD - Directorate General for Rural Development, which acts as the Managing Authority for the National Rural Development Programme 2007-2013 (RDP) and ensures proper management of Community funds, setting priorities for concrete action and measurements;
- Payments Agency for Rural Development and Fishing (APDRP), the body paying for all measures in the NRDP, except for LFA;
- Agency for Payments and Intervention in Agriculture, the organization also paid for disadvantaged areas.

The program priorities, resulting in four areas (axes) are:

*Axis 1: Improving the competitiveness of agriculture and forestry "- 43.95%*

- Training to develop skills and management capacity by providing consulting services and expansion of farms;
- Improving the competitiveness of the agricultural sector by investing in farms, by supporting semi-subsistence farming to become more commercially viable and improving infrastructure;
- Restructuring and modernization of processing and marketing of agricultural and forestry products.

*Axis 2: Improving the environment and rural areas - 26.05%*

- maintenance of subsistence agriculture in mountain areas and other disadvantaged areas in order to preserve the environment, to avoid land abandonment and resolve problems such as soil erosion;
- maintaining and enhancing environmental benefits created by traditional extensive farming systems in the value of important natural ecosystems and the Carpathian Mountains and Transylvania;
- Protection of threatened bird species and their habitats;
- Forestation of agricultural land.

**Table no.2 Overall budget and share of EU funding for agriculture and rural development in Romania (in EUR)**

Axis	Total public expenditure	Share of EAFRD in Public expenditure in%	EAFRD contribution
Axis 1	3 967 311 581	80,00%	3 173 849 264
Axis 2	2 293 413 375	82,00%	1 880,598 967
Axis 3	2 473 739 880	80,00%	1 978 991 904
LEADER	235 074 871	80,00%	188 059 896
Technical assistance	376 119 793	80,00%	300 895 834
Complements to direct payments*	625 136 100	80,00%	500 108 880
<b>Total</b>	<b>9 970 795 600</b>	<b>80,46%</b>	<b>8 022 504 745</b>

\* Measure from the Treaty of Accession of Bulgaria / Romania in 2007-2009, Source: European Commission

*Axis 3: Quality of life in rural areas and diversification of rural economy - 27.4%*

- Diversification of rural economy and creating jobs by supporting small enterprises will be encouraged and facilities and tourist attractions;
  - Renovation and development of villages;
- Rural Development Programme for Romania encourages communities to propose integrated projects with respect to a wide range of physical and social infrastructure elements to improve rural life.

*Axis 4 LEADER: 2.6%*

- improving local capacity and promoting good local governance;
- 91% of the funds will be used to implement local strategies by local action groups, including cooperation projects with other LEADER groups.

As we see the biggest financial allocation is made for axis 1 (43.95%) followed by axis 3 (27.4%) and axis 2 with 26.05%. With Romania's accession to the European Union, the Romanian village development is supported by the European Community through the *National Rural Development Programme 2007-2013*.

**National Rural Development Program is:**

- a program to develop the Romanian rural area:

- addresses the needs of the rural environment
  - to reduce disparities for the socio-economic development of Romania to the other Member States of the European Union
  - meets the requirements in the context of sustainable rural development
- complementary for operational programs financed from structural funds (Istudor Nicolae, 2006).

Based on the key challenges identified, the Community Strategic Guidelines (CSG) and the Lisbon objectives and Gothenburg, were defined the following global objectives:

- facilitate the transformation and modernization of production and processing sectors of agriculture and forestry, improving competitiveness and ensuring environmental sustainability;
- maintaining and enhancing the rural environment;

- facilitate the movement of labor from agriculture to other sectors and ensuring adequate economic and social conditions for rural population (European Commission 2007).

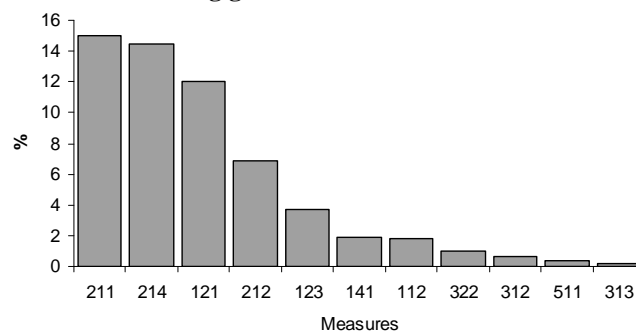
**Table no. 3 The access degree for EAFRD funds for Romania**

Axis	Measure	Description	Realised 2007-2008-2009		Programmed 2007-2013		EAFRD: % on target	Total Public: % on target
			EAFRD	Total Public	EAFRD	Total Public		
	111	Vocational training and information actions	0.00	0.00	95,215,479.00	119,019,348.75	0.0	0.0
	112	Setting up of young farmers	4,864,490.11	6,080,612.63	269,777,187.00	337,221,483.75	1.8	1.8
	113	Early retirement	0.00	0.00	0.00	0.00	0.0	0.0
	114	Use of advisory services	0.00	0.00	0.00	0.00	0.0	0.0
	115	Setting up of management, relief and advisory services	0.00	0.00	0.00	0.00	0.0	0.0
	121	Modernisation of agricultural holdings	97,850,391.48	122,312,989.34	816,404,482.00	1,020,505,602.50	12.0	12.0
	122	Improvement of the economic value of forests	0.00	0.00	158,692,463.00	198,365,578.75	0.0	0.0
	123	Adding value to agricultural and forestry products	32,479,274.95	40,599,093.67	874,145,927.00	1,092,682,408.75	3.7	3.7
	124	Cooperation for development of new products, processes and technologies in the agriculture and food sector and in the forestry sector	0.00	0.00	0.00	0.00	0.0	0.0
	125	Infrastructure related to the development and adaptation of agriculture and forestry	0.00	0.00	386,597,453.00	483,246,816.25	0.0	0.0
	126	Restoring agricultural production potential	0.00	0.00	0.00	0.00	0.0	0.0
	131	Meeting standards based on EU legislation	0.00	0.00	0.00	0.00	0.0	0.0
	132	Participation of farmers in food quality schemes	0.00	0.00	0.00	0.00	0.0	0.0
	133	Information and promotion activities	0.00	0.00	0.00	0.00	0.0	0.0
	141	Semi-subsistence farming	7,365,756.94	9,207,196.17	380,861,912.00	476,077,390.00	1.9	1.9
	142	Producer groups	1,302.41	1,628.01	111,084,724.00	138,855,905.00	0.0	0.0
	143	Providing farm advisory and extension services	0.00	0.00	126,953,970.00	158,692,462.50	0.0	0.0
<b>Tot Axis 1</b>			<b>142,561,215.89</b>	<b>178,201,519.82</b>	<b>3,219,733,597.00</b>	<b>4,024,666,996.25</b>	<b>4.4</b>	<b>4.4</b>
	211	Natural handicap payments to farmers in mountain areas	74,732,908.17	91,137,620.84	498,358,726.00	607,754,543.90	15.0	15.0
	212	Payments to farmers in areas with handicaps, other than mountain areas	28,004,991.45	34,152,428.59	404,328,778.00	493,083,875.61	6.9	6.9
	213	Natura 2000 payments and payments linked to Directive 2000/60/EC	0.00	0.00	0.00	0.00	0.0	0.0
	214	Agri-environment payments	118,384,274.25	144,371,066.17	817,054,711.00	996,408,184.15	14.5	14.5
	215	Animal welfare payments	0.00	0.00	0.00	0.00	0.0	0.0
	216	Non-productive investments	0.00	0.00	0.00	0.00	0.0	0.0
	221	First afforestation of agricultural land	0.00	0.00	188,059,897.00	229,341,337.80	0.0	0.0
	222	First establishment of agroforestry systems on agricultural land	0.00	0.00	0.00	0.00	0.0	0.0
	223	First afforestation of non-agricultural land	0.00	0.00	0.00	0.00	0.0	0.0
	224	Natura 2000 payments	0.00	0.00	0.00	0.00	0.0	0.0
	225	Forest-environment payments	0.00	0.00	0.00	0.00	0.0	0.0
	226	Restoring forestry potential and introducing prevention actions	0.00	0.00	0.00	0.00	0.0	0.0
	227	Non-productive investments	0.00	0.00	0.00	0.00	0.0	0.0
<b>Tot Axis 2</b>			<b>221,122,173.87</b>	<b>269,661,115.60</b>	<b>1,907,802,112.00</b>	<b>2,326,587,941.46</b>	<b>11.6</b>	<b>11.6</b>
	311	Diversification into non-agricultural activities	0.00	0.00	0.00	0.00	0.0	0.0
	312	Support for business creation and development	1,976,457.09	2,470,571.37	316,118,102.00	395,147,627.50	0.6	0.6
	313	Encouragement of tourism activities	672,784.81	840,981.01	435,378,219.00	544,222,773.75	0.2	0.2
	321	Basic services for the economy and rural population	0.00	0.00	0.00	0.00	0.0	0.0
	322	Village renewal and development	13,151,690.16	16,439,612.70	1,256,102,105.00	1,570,127,631.25	1.0	1.0
	323	Conservation and upgrading of the rural heritage	0.00	0.00	0.00	0.00	0.0	0.0
	331	Training and information	0.00	0.00	0.00	0.00	0.0	0.0
	341	Skills-acquisition and animation measure with a view to preparing and implementing a local development strategy	0.00	0.00	0.00	0.00	0.0	0.0
<b>Tot Axis 3</b>			<b>15,800,932.06</b>	<b>19,751,165.08</b>	<b>2,007,598,426.00</b>	<b>2,509,498,032.50</b>	<b>0.8</b>	<b>0.8</b>
	411	Competitiveness	0.00	0.00	46,074,675.00	57,593,343.75	0.0	0.0
	412	Environment/land management	0.00	0.00	17,865,690.00	22,332,112.50	0.0	0.0
	413	Quality of life/diversification	0.00	0.00	73,343,360.00	91,679,200.00	0.0	0.0
	421	Implementing cooperation projects	0.00	0.00	3,761,197.00	4,701,496.25	0.0	0.0
	431	Running the LAG, skills acquisition, animation	0.00	0.00	47,014,974.00	58,768,717.50	0.0	0.0
<b>Tot Axis 4</b>			<b>0.00</b>	<b>0.00</b>	<b>188,059,896.00</b>	<b>235,074,870.00</b>	<b>0.0</b>	<b>0.0</b>
	511	Technical Assistance	1,088,641.00	1,360,801.24	300,895,834.00	376,119,792.50	0.4	0.4
	611	Complimentary direct payments	245,605,623.09	306,991,311.48	500,108,880.00	625,136,100.00	49.1	49.1
<b>Total</b>			<b>626,178,585.91</b>	<b>775,965,913.22</b>	<b>8,124,198,745.00</b>	<b>10,097,083,732.71</b>	<b>7.7</b>	<b>7.7</b>

Sursa: Comisia Europeană, 2011- European Network for Rural Development

The total degree of accessing funds for agriculture and rural development in Romania is 7.7%. Most funds have been accessed on Axis 2 "Improving the environment and rural areas", access to a high of 11.6% total, of which the highest percentage (15%) was found on the Measurement 2.1.1 so far - aid for the farmers in disadvantaged mountain areas, followed by 6.9% the measurement 2.1.2 for payments to farmers in disadvantaged areas other than mountain. The high degree of access to this axis is justified by the fact that mountain areas account for 30% of the country, other disadvantaged areas represent 12% of Romanian territory, including the Danube Delta Biosphere Reserve, and the need to maintain and enhance the environmental benefits created traditional extensive farming systems in the value of important natural ecosystems.

Next Axis 1 "Improving the competitiveness of agriculture and forestry" with a grade of 4.4% of total access to the largest percentage (12%) was accessed for the modernization of agricultural holdings (measure 1.2.1), followed by measure 1.2.3 (adding value to agricultural and forestry by 3.7%) determined by the need for investments due to very low productivity in this sector. With a much smaller proportion, 1.8% for measurement "The establishment of young farmers" is very poorly represented considering the fact that Romania has an aging population in rural areas which short and medium term will seriously affect the national agriculture. The rest accessed on this axis was the extent 1.4.1 (1.9%) for "subsistence farming" (due to the large number of participants).

**Fig no. 1 – The accessing grade of EAFRD on measures in Romania**

Source: calculation based on data from the European Commission (2011), European Network for Rural Development

On the last place is Axis 3 "Life quality in rural areas and diversification of rural economy" of 0.8% which is very poor representation of all that require access to high dependency residents in rural areas due to agriculture which would have led to the development of alternative activities in this area. The greatest degree of access to this axis is 1% for "Renovation and development of villages", followed by Measure 3.1.2 "Support for the creation and development of enterprises" with a degree of access of only 0.6%, and measure 313 "Encouragement for tourism activities" only 0.2%.

## 2.2 Bulgaria

For Bulgaria the countryside is vital if we consider that represents 81% of the territory and it provides work for about 48% of the employed population of the country. After the restitution of land ownership an excessive fragmentation of agricultural land has occurred and this has led to a large number of semi-subsistence and subsistence farms with an average size of 4.4 ha. In total there are 665 500 farms of which 75% have less than 1 ha, while only 0.8% of farms managed more than 50 hectares. In those farms growing cereals, oilseed and others (62% of UAA), vegetables, grapes and raising animals, mostly cattle, sheep, goats and poultry. The food industry contributes with 2.6% of GVA, 3.5% of total employment and 15% of industrial production. The food industry includes 6500 of microenterprises, mostly - bread and bakery products, beverages, meat and milk processing. From the total territory of Bulgaria 48% represents the disadvantaged areas, particularly mountain.

The rural economy is characterized by high dependence on agriculture, high unemployment rate (19%), aging population and migration, poor access to quality basic services (roads, sewers, etc.), but with a good potential for rural tourism development. EAFRD funding is an opportunity for rural Bulgaria, worth about 2.5 billion Euros, from 2007 until 2013. The main institutions involved in implementing the National Rural Development Programme 2007-2013 are:

- Ministry of Agriculture and Food - is the administrative unit serving as the Managing Authority and is the competent authority responsible for granting (retirement) for accreditation of the Paying Agency.
- State Fund for Agriculture - is accredited as a paying agent. The Grant Thornton Ltd. - Bulgaria (representative of Grant Thornton International) is the Certification Body for Payments Agency Bulgarian. The company has a contract with the Ministry of Agriculture and Food for the procedures of the Paying Agency audit for compliance with criteria for accreditation and certification.

After the approval of the European Economic Recovery Plan (PEARS) by the European Council in December 2008, Bulgaria has received additional funds in 2009 and 2010 EAFRD of 33.15 million Euros. Additional resources in the economic recovery package are allocated to strengthen water management actions, renewable energy and dairy products under measures 121 and 123 of Axis 1 and so far 311, 312 and 321 of Axis 3 (Rural Development Programme 2007-2013 Bulgaria, 2010). Based on identified needs and the Community Strategic Guidelines (CSG) were established three general goals for agriculture and rural areas (European Commission, 2011):

- competitive development based on innovation for agriculture, forestry and food processing industry;
- protection of national resources and the environment in rural areas;
- improving quality of life and diversification of employment opportunities in rural areas.

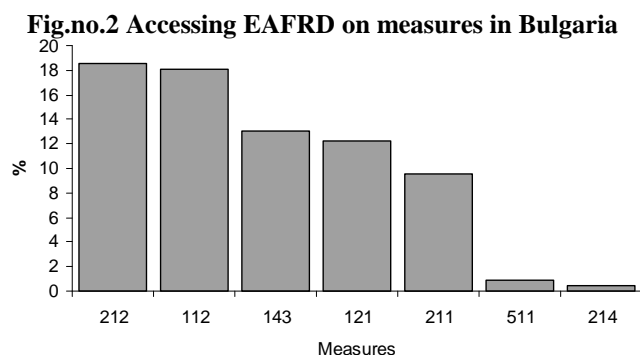
**Table 4 - The total budget and the share of EU funds for agriculture and rural development in Bulgaria**

Axis	Total public expenditure	The share of EAFRD in public expenditure %	EAFRD Contribution
Axis 1	1,204,866 983	80,00%	963,893,586
Axis 2	777,394,110	82,00%	637,463,170
Axis 3	877,666,684	80,00%	702,133,347
LEADER	76,988,306	80,00%	61,590,645
Technical assistance	123,181,289	80,00%	98,545,031
Complements to direct payments *	181,841,021	80,00%	145,472,817
<b>Total</b>	<b>3,241,938,393</b>	<b>80,48%</b>	<b>2,609,098,596</b>

\*Accession Treaty measure for Bulgaria/Romania for 2007-09 period.

Source: European Commission

Axis 1 measures will contribute to growth of the agricultural sector and improve global market access. In particular, measures relating to the modernization of agricultural holdings and adding value to agricultural and forestry products will generate a strong contribution to this growth with over 30% of the total increase expected to be generated by Axis 1. Activities supported under Axis 3 will contribute to creating favorable conditions for socio-economic (especially investment in infrastructure), essential for the competitiveness of local enterprises. The combined impact of measures will accelerate the structural reform in agriculture, improving competitiveness of agriculture and food sectors and promote innovation. It is also expected to have a positive impact on farm income, overall productivity, and introduction of innovative technologies and best practices. As we see the biggest financial allocation is earmarked for axis 1 (41%) followed by axis 3 (29.9%), axis 2 26.5% and 2.6% Leader axis.



Source: based on data from the European Commission (2011), European Network for Rural Development

The total degree of accessing funds for agriculture and rural development in Bulgaria is 7.4%. Most funds have been accessed on axis 1 "Increasing the competitiveness of agriculture and forestry" with a grade of 7.5% of total access, of which the largest percentage (18%) was found on 112 so far - setting young farmers which shows that the Bulgarians have understood the importance of rejuvenation of the rural population and especially the managers of agricultural holdings. With a 13% grade it follows measure 143 "providing consulting and extension services" and by 12.3% since 121 "modernizing agricultural exploitations"

Next, Axis 2 "Improving the environment in rural areas", with a total access of 4%, of which the highest percentage (18.5%) was found for measure 212 payments to farmers in other disadvantaged areas than measure 211 payment for farmers in mountains disadvantaged area with a grade of 9.5%. The interest for these measures is given by the fact that 48% of the territory of Bulgaria represents disadvantaged areas, particularly mountain.



**Table 5 Degree of accessing funds for agriculture and rural development in Bulgaria**

Axis	Measure	Description	Realised 2007-2008-2009		Programmed 2007-2013		D: % on target	EAFR : % on target	Total Public
			EAFR	Total Public	EAFRD	Total Public			
	111	Vocational training and information actions	0.00	0.00	81,930,955.00	102,316,689.25	0.0		0.0
	112	Setting up of young farmers	14,789.10	18,486.37	81,930,955.00	102,316,689.25	18.1		18.1
	113	Early retirement	0.00	0.00	0.00	0.00	0.0		0.0
	114	Use of advisory services	0.00	0.00	0.00	0.00	0.0		0.0
	115	Setting up of management, relief and advisory services	0.00	0.00	0.00	0.00	0.0		0.0
	121	Modernisation of agricultural holdings	57,141.86	71,427.30	464,154,453.00	579,643,517.28	12.3		12.3
	122	Improvement of the economic value of forests	0.00	0.00	19,277,872.00	24,074,515.41	0.0		0.0
	123	Adding value to agricultural and forestry products	0.00	0.00	194,761,217.00	243,220,928.12	0.0		0.0
	124	Cooperation for development of new products, processes and technologies in the agriculture and food sector and in the forestry sector	0.00	0.00	0.00	0.00	0.0		0.0
	125	Infrastructure related to the development and adaptation of agriculture and forestry	0.00	0.00	0.00	0.00	0.0		0.0
	126	Restoring agricultural production potential	0.00	0.00	0.00	0.00	0.0		0.0
	131	Meeting standards based on EU legislation	0.00	0.00	0.00	0.00	0.0		0.0
	132	Participation of farmers in food quality schemes	0.00	0.00	0.00	0.00	0.0		0.0
	133	Information and promotion activities	0.00	0.00	0.00	0.00	0.0		0.0
	141	Semi-subsistence farming	0.00	0.00	115,667,230.00	144,447,089.97	0.0		0.0
	142	Producer groups	0.00	0.00	9,638,936.00	12,037,257.71	0.0		0.0
	143	Providing farm advisory and extension services	624,803.62	781,004.53	4,819,468.00	6,018,628.85	13.0		13.0
<b>Tot Axis</b>			<b>72,555,760.69</b>	<b>90,694,700.86</b>	<b>972,181,086.00</b>	<b>1,214,075,315.83</b>	<b>7.5</b>		<b>7.5</b>
	211	Natural handicap payments to farmers in mountain areas	18,131.18	22,111.19	191,238,951.00	233,218,232.93	9.5		9.5
	212	Payments to farmers in areas with handicaps, other than mountain areas	5,896.76	7,191.17	31,873,159.00	38,869,706.10	18.5		18.5
	213	Natura 2000 payments and payments linked to Directive 2000/60/EC	0.00	0.00	0.00	0.00	0.0		0.0
	214	Agri-environment payments	1,774.77	2,164.36	356,979,375.00	435,340,701.22	0.5		0.5
	215	Animal welfare payments	0.00	0.00	0.00	0.00	0.0		0.0
	216	Non-productive investments	0.00	0.00	0.00	0.00	0.0		0.0
	221	First afforestation of agricultural land	0.00	0.00	0.00	0.00	0.0		0.0
	222	First establishment of agroforestry systems on agricultural land	0.00	0.00	0.00	0.00	0.0		0.0
	223	First afforestation of non-agricultural land	0.00	0.00	33,148,085.00	40,424,493.90	0.0		0.0
	224	Natura 2000 payments	0.00	0.00	0.00	0.00	0.0		0.0
	225	Forest-environment payments	0.00	0.00	0.00	0.00	0.0		0.0
	226	Restoring forestry potential and introducing prevention actions	0.00	0.00	24,223,600.00	29,540,975.61	0.0		0.0
	227	Non-productive investments	0.00	0.00	0.00	0.00	0.0		0.0
<b>Tot Axis 2</b>			<b>25,802,722.45</b>	<b>31,466,734.80</b>	<b>637,463,170.00</b>	<b>777,394,109.76</b>	<b>4.0</b>		<b>4.0</b>
	311	Diversification into non-agricultural activities	0.00	0.00	113,998,836.00	141,957,067.04	0.0		0.0
	312	Support for business creation and development	0.00	0.00	108,439,335.00	135,034,097.61	0.0		0.0
	313	Encouragement of tourism activities	0.00	0.00	24,574,667.00	30,601,607.64	0.0		0.0
	321	Basic services for the economy and rural population	0.00	0.00	346,577,673.00	431,575,897.49	0.0		0.0
	322	Village renewal and development	0.00	0.00	133,405,336.00	166,123,013.97	0.0		0.0
	323	Conservation and upgrading of the rural heritage	0.00	0.00	0.00	0.00	0.0		0.0
	331	Training and information	0.00	0.00	0.00	0.00	0.0		0.0
	341	Skills-acquisition and animation measure with a view to preparing and implementing a local development strategy	0.00	0.00	0.00	0.00	0.0		0.0
<b>Tot Axis 3</b>			<b>0.00</b>	<b>0.00</b>	<b>726,995,847.00</b>	<b>905,291,683.75</b>	<b>0.0</b>		<b>0.0</b>
axis 4	411	Competitiveness	0.00	0.00	15,089,708.00	18,862,135.00	0.0		0.0
	412	Environment/land management	0.00	0.00	2,155,673.00	2,694,591.25	0.0		0.0
	413	Quality of life/diversification	0.00	0.00	25,868,070.00	32,335,087.50	0.0		0.0
	421	Implementing cooperation projects	0.00	0.00	4,106,043.00	5,132,553.75	0.0		0.0
<b>Tot Axis 4</b>			<b>0.00</b>	<b>0.00</b>	<b>61,590,645.00</b>	<b>76,988,306.25</b>	<b>0.0</b>		<b>0.0</b>
	511	Technical assistance	893,127.69	1,116,409.60	98,545,031.00	123,181,288.75	0.9		0.9
	611	Complimentary direct payments	96,821.14	121,026.15	145,472,817.00	181,841,021.25	66.6		66.6
<b>Total</b>			<b>196,072,724.97</b>	<b>244,304,236.41</b>	<b>2,642,248,596.00</b>	<b>3,278,771,725.59</b>	<b>7.4</b>		<b>7.5</b>

Source: European Commission, 2011- European Network for Rural Development

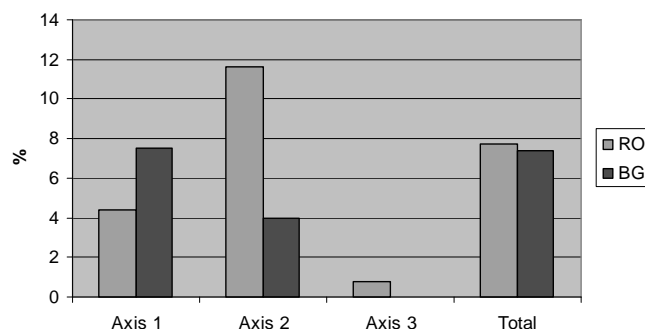
### 3. Conclusions

Romania and Bulgaria are the newest European Union member states that joined together. Therefore, there is justified, to some extent, the perception that these two states are very similar, at least in terms of relevant indicators examined at European level. In this context, the paper sought to highlight that are common elements on the one hand, and on the other hand, differences in relation to an important sector for both countries: agriculture and rural development. The analysis conducted is based on data from European

funds through rural development programs of the two countries. The analysis results show that there are many common elements, as expected, but also many differences.

The common elements are the low level of access, measures affecting disadvantaged areas, and axis 4 - Leader. Thus, both Romania and Bulgaria face real problems in accessing European funds for agriculture and rural development. Among the factors that negatively influenced the degree of access can remember: bureaucracy, low level of involvement of the motivation of farmers and other stakeholders, corruption and, last but not least, the financial crisis facing the two countries. The total degree of access is slightly higher in Romania (7.7% vs. 7.4%). Low percentage of accessing the first half of the funding period entitles us to say that these countries actually subsidize the European Union. In both countries, 211 and 212 measures affecting the most disadvantaged areas have been accessed, if we take into account additional direct payments. The access degree for the two measures is 11.3% and 10.76% in Romania to Bulgaria. In none of the countries have not been yet accessed funds for axis 4 (Leader). The differences are linked with the funds structure given by the priorities of the rural development programmes (fig.nr.3) and the allocation of funds between measures 211 and 212.

**Fig. no. 3 – The accessing degree of EAFDR in Romania and Bulgaria by axis**



Source: calculation based on data from European Commission (2011), European Network for Rural Development

Thus, for axis 1, “*Increase the competitiveness of agriculture and forestry*”, Bulgaria is more advanced than Romania in accessing the European funds, focusing on improving the overall management of the farm to achieve performance improvement impact on the overall results (outputs) holdings, diversification of farms, identify the requirements necessary to comply with EU standards on occupational safety in the workplace and the environment.

With regard to Axis 2, “*Improving the environment and rural areas*”, Romania exceeded Bulgaria, 11.6% of EAFRD, while this axis for Bulgaria was less attractive, accessible only 4.0% of the EAFRD. The difference is due mainly to the situation of measure 214 (agri-environment payments), which Bulgaria accessed only 0.5% comparing with Romania which accessed 14.5%. Although the two countries have a high degree of access to measures affecting disadvantaged areas, they are distinguished by the fact that Romania has a higher degree of access for disadvantaged mountainous areas.

For axis 3 “*Quality of life in rural areas and diversification of rural economy*”, the level of access is higher in Romania, given that in Bulgaria were not accessed at all steps of this axis. Thus, in Romania is given more attention to raising living standards in rural areas by creating and maintaining jobs in rural areas, more added value in non-agricultural activities through creation and diversification of services for rural population provided by micro-enterprises

From these observations, we can say that Romania and Bulgaria are close in terms of utilization of EU financial support for agriculture and rural development and there are more similarities than differences in access EAFRD. On the other hand, the order of priorities is different, in Romania is more interest in linking rural development with environmental protection, while increasing the competitiveness of Bulgarian agriculture and forestry is important. Both Romania and Bulgaria must continue its efforts to access and absorb EU funds for agriculture and rural development to achieve key objectives were proposed as the ultimate goal of reducing disparities between urban and rural areas and nationally and European.

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## ABOUT A LOCAL CRISIS IN A GLOBAL WORLD

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**Abstract:** *Crises come and crises go and during any period of insecurity there are invariably an outcry for “change”, change to the law, the rules, the system, our behaviour etc. It is then, during the crisis when people start asking questions about the causes, the effects and the remedies for the crisis. They usually blame others for what happens to them. Starting from that, our paper aims to emphasize what are the important questions to be answered in a crisis in Romania and to point some real issues concerning our economy.*

**Keywords:** crisis, education, economy, causes

**JEL classification:** A10, I20, I31

### 1. Introduction

Nowadays the global economy is characterized by significant uncertainty. Growth has resumed following important injections, in many countries, of government stimulus spending aimed at counterbalancing a global recession. Yet economies are advancing at different speeds and there is still the risk of a “double dip” in a number of countries (WEF, 2010, p. 3).

Since mid-2008, the world has been hit by a major financial crisis, which quickly translated itself into a global recession. According to the IMF, the world economy shrank by 0.6 percent in 2009 and while the global output is expected to grow by around 4.5 percent in 2010, the recovery is still fragile in many regions of the world, particularly in parts of Western Europe and in the United States (Legatum Prosperity Index, 2010).

Economies still face continuing difficulties such as persisting unemployment, weak demand, and spiralling debt, while still struggling with reforms in the financial and labour markets, among other challenges. Governments try to find the right way to put back on tracks the economies.

Thus, the still-difficult economic environment requires not losing sight of long-term competitiveness fundamentals amid short-term urgencies. Any exit strategies must be complemented by competitiveness-enhancing efforts aimed at improving the potential for growth in the medium to longer run, which will in turn help to eliminate fiscal imbalances.

Europe’s economic crises have left governments with debt levels that are increasingly hard to sustain. This situation is testing the solidarity between the rich and debt-ridden nations within the Eurozone, as the countries with already high levels of debt and poor credit ratings now require additional financial support (ELLI, 2010).

The bailouts from rich countries and the International Monetary Fund require austerity measures that are affecting wages, jobs and educational programs in the receiving countries. In addition, the high-debt countries are losing political and economic sovereignty to international organizations. The obvious example is Greece; however, many Eastern European countries have also had to take this route and have been heavily impacted.

Competitive economies are those that have in place factors driving the productivity enhancements on which their present and future prosperity is built. A competitiveness-supporting economic environment can help national economies to support high incomes and ensure that the mechanisms enabling solid economic performance going into the future are in place (Sala-I-Martin et al., 2010)

Recent concerns about the sustainability of sovereign debt in Europe, and the stability and efficient functioning of financial markets more generally, have added to the list of concerns. The present situation emphasizes the importance of mapping out clear exit strategies to get economies back on a steady footing.

Yet charting out such a process remains elusive in many countries for fear of a “double dip” as well as for political considerations. Policymakers are struggling with ways of managing the present economic challenges while preparing their economies to perform well in a future economic landscape characterized by uncertainty and shifting balances. (Sala-I-Martin et al., 2010)

Every time a crisis such as the current one happens, some of the social capital of society. The instability of the markets, the destruction of wealth, the unfortunate but all too real cases of fraud, abuse and perceived unfairness in organizations seriously undermine the morale of employees, shareholders and investors and their confidence in markets and business firms. And confidence in economic schools is eroded too, not surprisingly. Hence, one major task that confronts even economic schools today consists in weaving the building of trust into economic education (Patry, 2010).

In such a global economic environment, it is more important than ever for countries to put into place the fundamentals underpinning economic growth and development (WEF, 2010).

## 2. A local crisis

One of the affected countries by the global crisis is Romania.

Some twenty years ago, Romanian students learned from their teachers that the crisis was a natural attribute of the capitalist economies. Nobody talked then about the economic crisis (and not only!) of Romania. The lack of absolutely necessary consumer goods such as food was slightly embellished with a rarely used word before: penury. The causes were also equally strong at the media level: the speculators greed wiped out the spectacular results of the socialist economy. Today, when the crisis seems like it has no beginning and no end, its causes are sought and identified to coming from all the others, such as:

- U.S. banks in their search for profit (but in our country no bank has gone bankrupt yet!),
- Crisis of resources, but the energy exports in case of Romania are cheaper than it is sold to population,
- Foreigners in general, from which food imports are cheaper than indigenous products.

The anxiety created by the contradictory effects or poor economic policies of recent years leads many analysts, experts, consultants, to play the role of the government and to propose ad-hoc “anti-crisis” solutions.

In this context what is to understand when the least is understandable?

- To understand that in an economy with an overwhelming state sector (approximately half of the GDP), the one working for the state are financing the crisis?
- To understand that the private sector, for a reason of solidarity, of course, is due to participate in the same way to support the crisis? Or it would be more enlightening to analyze if the characteristics of the governance approach to what is thought to be generally good governance?
- The welfare state is about to become and even to exceed what it was the socialist state?
- The cause or causes of the actual crisis must be sought at others or in Romania and in us?
- Is economics guilty of our incompetence?
- Usually, economists say that they are able to find the right solution in any circumstances, but is this true? We ask ourselves this as we have the opportunity to see every day how the educational system in general and the economic one, in particular, are training specialists which have a clerk mentality.
- Do we face an unprecedented crisis, which affects our economic way of thinking?
- Is the economic science in a crisis or are we running out of ideas?

These are questions to be answered not only in the academic environment, but also in the governmental one and in the society as well.

### 2.1. Education and crisis

Functional education plays a central role in preparing individuals to enter the labour force and in the same time to respect the environment in order to use efficiently the resources. It is said that from immemorial times, education was the one who offered solutions to various problems, but also generated a lot of controversies in the evolution of the world. Thus, in the case of a crisis, the education must be studied from at least two points of view. When speaking about crisis, we first must ask if education is only a victim of the crisis or if it may be a cause or a part of the solution needed to exit from the crisis.

Nowadays we can see that quality higher education and training is crucial for economies that want to move up the value chain beyond simple production processes and products. In particular, today’s globalizing economy requires countries to nurture pools of well-educated workers who are able to adapt rapidly to their changing environment and the evolving needs of the production system. Today’s world asks to well train people which are able to give practical solutions for economic problems. And we ask ourselves: is the educational system ready to provide such a thing? Is it enough to teach students how to memorize a bunch of theories? Is it enough to tell them which are the economic variables and how they evolve?

Thus is why it is particularly important to examine how research can energize and re-engage the brain and the voice of business schools in achieving a more effective strategic positioning in the context of the modern university.

The scientist Andrew Gamble (2009) highlights is that Europe has been one of globalization's major losers. Jobs, manufacturing and political influence have been moving steadily from Europe to emerging markets such as China, India and Brazil. This situation has been exacerbated by Europe's decreasing population and the growing GDPs of the emerging economies (ELLI, 2010).

The combination of these two factors has led the European Union to focus its policy efforts on education and innovation as the key drivers to remaining competitive. With fewer jobs and less money in government coffers to support the public sector, education and welfare, the European Union has launched EU 2020, a political initiative to revitalize Europe. The new initiative states the need for "smart, sustainable and inclusive growth" (European Council 2010).

In a rapidly changing world where private industry and the public sector, schools, universities and the research community are called upon to find new solutions.

The European Commission highlights the role of universities and of science and technology graduates in creating the necessary innovation for continued economic success. In addition, education is also considered to be the policy tool for social inclusion, since the skills that individuals develop allow them to participate meaningfully in economic and social discourse. EU 2020 proposes a benchmark for social inclusion in education and training, establishing that less than 10 % of students should fail to complete their education and that at least 40 % of the younger generation should obtain a degree or diploma (ELLI, 2010).

But, in order to see what the solutions are to improve the educational system, there is necessary to analyze what are the critics brought to it. We are going to focus on the economic education.

The criticisms directed at economic education generally revolve around two claims:

- first, that the crisis was brought about by managers educated in economic schools which do not pay enough attention to social responsibility, ethics and governance;
- second, that some theories or models we teach could be held responsible for the crisis, such as the principal-agent model or the portfolio model in finance (Patry, 2010).

We want to emphasize here the importance of teaching in the economic schools and not only economic doctrines or history of economic thought as it is necessary to know what happened in the past and how ideologies were related to economic variables in order to be able to take the right decision as an economist. Great economists of all times were preoccupied to study first the history of economic thinking and second to take economic decisions.

In what concerns the first claim of the critics of economic education - unethical behaviour of some managers - we can see that today's managers are not, on the whole, more greedy or narrow-minded than their predecessors because of what they learned in business schools. There we can find no evidence to support this view, but think of the landowners in ancient Rome, of the bankers and traders in medieval times, and of the industrial barons of the nineteenth century.

Consequently, if we are to understand human behaviour and influence it, we must recognize self-interest and, unfortunately at times, greed and opportunism. Economists and not only should be asked and strongly encouraged to conform to the highest ethical standards.

Regarding the second claim, it is obvious that critics question theorizing that occurs in business schools. Are the models and representations that we find in business education adequate or lacking? It is well known the fact that all models are essentially lacking and imperfect, as nothing in this world is perfect. We also know that a theory is not rejected because it is faulty; it is rejected when a better one is developed. Thus, we can find one more reason to emphasize the need to introduce in the curricula of all the economic schools objects such as history of economic thought, economic doctrines and epistemology.

Starting from the fact that usually a crisis brings some changes in business schools reflecting this historic economic collapse, we must see it as a window of opportunity for business schools to contribute to the development of better organizations and institutions, and thus to serve society. Furthermore, universities might play a role in restoring the confidence of the public in business in general and in the efficiency of market economies, as well as the confidence of employees in the organizations that hire them - but that this is far from certain.

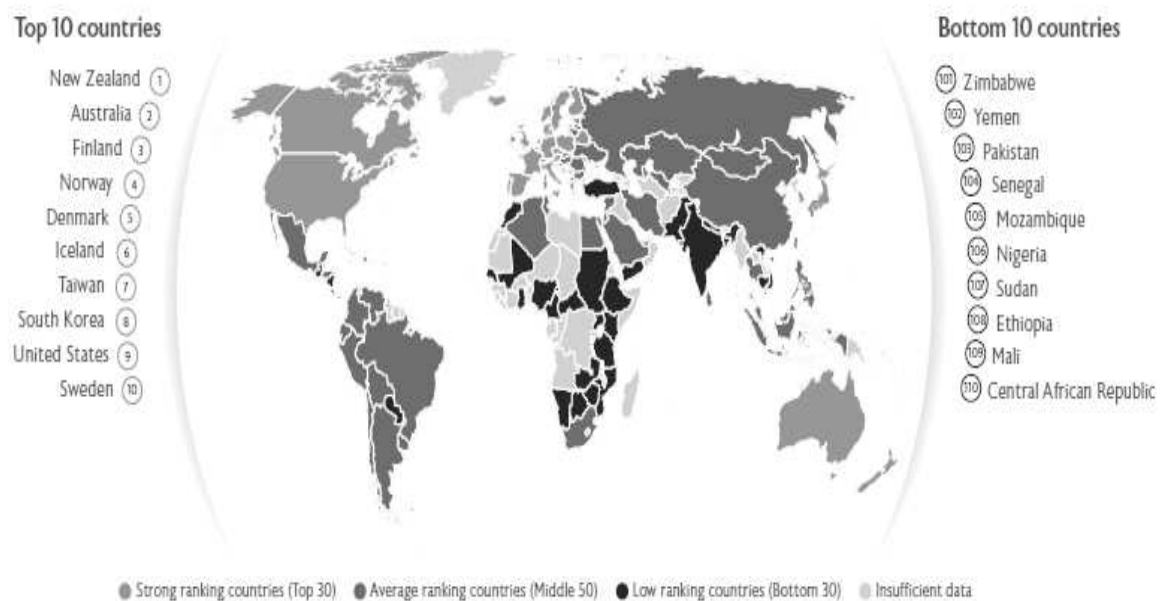
There will be a vast amount of research devoted to diagnosing in great detail what happened. Future dissertations will include questions of diagnosis and prognosis. Moreover, economic schools may be actually part of the solution for future crisis. Research may help explain and prevent future global economic meltdowns (Patry, 2010).

There is some possibility that the need to continue and expand coverage of ethics and social responsibility of business in the curricula to be only apparent. It is obvious that students need to be aware of the consequences of their decisions. Having said this, the role of finance and financial tools will continue to play a major role in our curricula as well, as it should.

Moreover, the need to teach business within a global context will become even more acute. Economic impacts are felt around the world whenever a major economy experiences challenges (Patry, 2010). It is also clear that developing economies need the attention and expertise from economic school educators.

In our country, one may observe that the educational system needs a lot of improvements. As it can be seen in the figure below, unfortunately Romania is not situated in the first ten countries in what concerns the education level. Romania is only on the 43th place in the top realized by The Legatum Institute starting from the education sub-index.

**Figure 1. Top 10 and bottom 10 countries – lifelong learning**



Source: (Legatum Institute (2010), *The Legatum Prosperity Index Report.2010*, London, UK, [www.prosperity.com](http://www.prosperity.com))

Access to education ranks around the international average in Romania. Enrolment rates at primary and secondary level place the country 51st and 53rd in the Index, respectively, and there is gender equality in primary and secondary education. In classrooms, there is a high ratio of 17 primary pupils per teacher (Legatum Institute, 2010).

Access to tertiary education is somewhat better, placing the country 31st overall. Still, Romanians are relatively dissatisfied with the education available to them, placing 69th on this variable. Moreover, the proportion of Romanians who feel that children have the opportunity to learn and grow every day is below the international average, placing the country 74th, overall. The Romanian workforce has solid basic education, with an average of 3.3 years of secondary schooling each, but little specialised knowledge, with just 0.8 years of tertiary education on average (Legatum Institute, 2010).

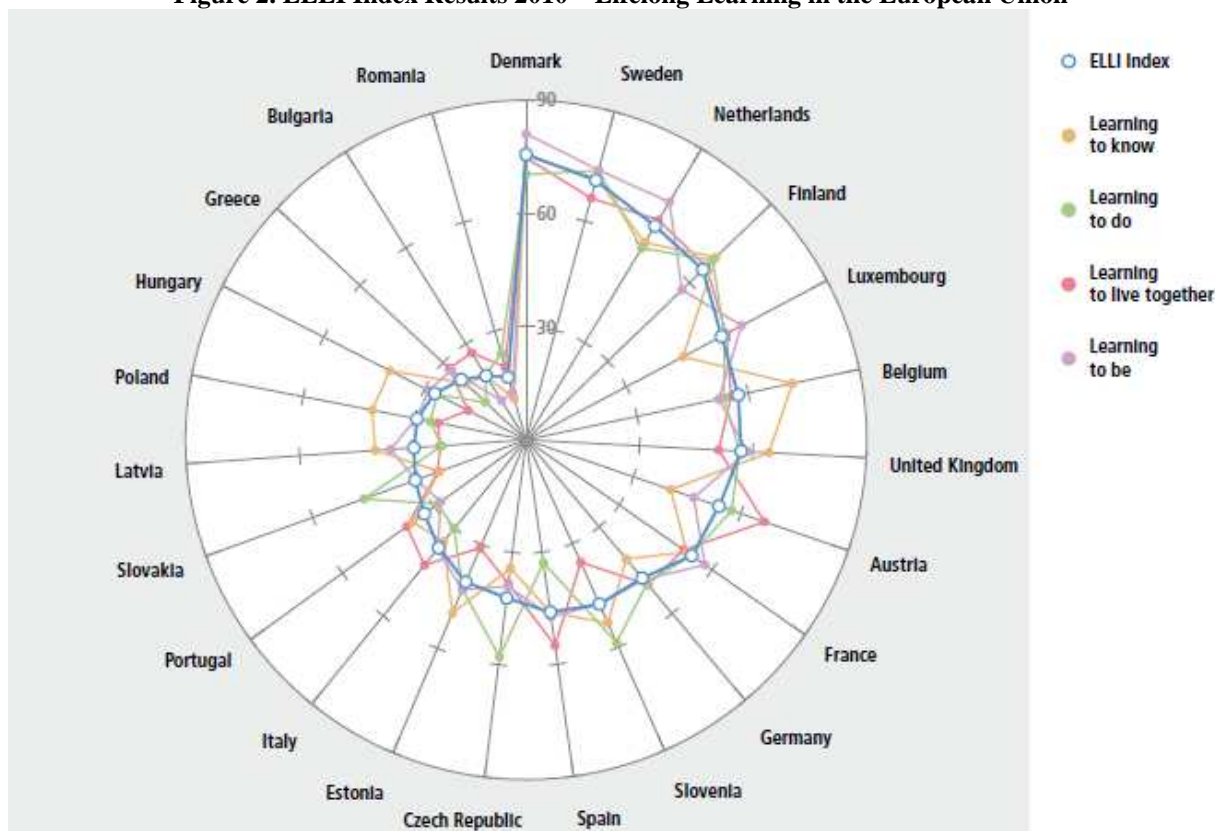
Regarding the lifelong learning, Romania also has some obstacles to pass, as the overall results for the European Lifelong Learning Index show that the lowest performing group of countries is comprised of Southern and Eastern European countries, including Hungary, Greece, Bulgaria and Romania, while the Nordic countries Denmark, Sweden and Finland and, in addition, the Netherlands rank highest. The Nordic countries are followed by a group of countries that consist of mainly Central European and Anglo-Saxon countries (see figure 2). The next group of countries, which are below the EU average, are from Southern and Eastern Europe and range from the Czech Republic to Poland (ELLI, 2010).

The countries that perform less well tend to be poorer, with many of them having higher levels of inequality, such as Greece and Romania. Education systems in the Nordic countries, which perform well, are characterized by the following:

- Comprehensive education (no school selection or setting)

- High levels of school autonomy
- Long tradition of lifelong, non-formal and democratic education (Boli, 1989)
- Free university education (ELLI, 2010)

**Figure 2. ELLI Index Results 2010 – Lifelong Learning in the European Union**



Source: (*European Lifelong Learning Indicators (ELLI). Making Lifelong Learning Tangible!*, Bertelsmann Stiftung, 2010, [www.elli.org](http://www.elli.org))

It is obvious the fact that in order to succeed to conduct to the growth of a country's prosperity, an educational system must not only train future workers for today's environment but also arm them with the tools and resources to continually upgrade their skills. Education is not a one-time event. Life-long learning is a necessity in today's rapidly changing world. That means providing students with both the desire and the tools to continue their education.

Today, as in the past, we need to be forward looking to adapt our educational system to the evolving needs of the economy and our changing society. We must work to provide graduates with the education needed to meet the realities of today's and tomorrow's marketplace (Plosser, 2008).

Those efforts will require the collaboration of policymakers and educators. But if such efforts are successful, we can ensure a more productive, highly skilled, technically trained workforce that will support a vibrant and robust economy in our region and the nation. The responsibility does not rest solely with government and policymakers, who clearly must do their part. It rests mostly on individuals taking the responsibility to engage in life-long learning, making investments that will reward them handsomely.

## 2.2. Economy and crisis

Nowadays we can see that the Romanian economy was affected by the economic crisis. Many economists affirm that this is only the beginning as Romania is to experience a profound economic crisis by 2015, given that starting 2012 the State begins to pay back the loan to the International Monetary Fund (IMF) and to the other international financial institutions, and the budget will be extremely restricted.

The government took a series of measures in order to put back on tracks the Romanian economy. But, the austerity measures undertaken by the government affected, directly or indirectly, the entire population of Romania.

In some areas, low wages and living standards will have long-term repercussions:



- The health system, for example, expects to be hit by a renewed wave of emigration by trained personnel. Immediately after the announcement of the austerity measures there was a dramatic increase in the number of workers approaching recruitment firms hoping to find a job abroad.
- The new system regarding the provision of prescriptions is also a source of broad dissatisfaction. Patients are only to be given a minimal subsidy towards the price of the drugs. The National Health Insurance House (CNAS) has retaliated by making available only the cheapest of drugs. Those who want to retain treatment based on the former health scheme will have to pay for it out of their own pockets. Those most affected by the changes are older people who find they have to choose between buying food and purchasing medicine.
- The education system is also expected to see a further decrease in quality and not only as many of the teachers are leaving the educational system.
- Tough times also await those working in the private sector. VAT has been increased from 19 percent to 24 percent, leading to a dramatic increase in the price of basic goods. The subsequent decline in consumer spending will inevitably lead in turn to the bankruptcy of some firms.

In the same time it is necessary to observe that Romania competitiveness is going down. Romania has dropped by three positions in the competitiveness classification at world level compared to last year, ranking 67th out of 139 countries analysed in the global report of competitiveness 2010-2011, made by the World Economic Forum. Of EU countries ranked on inferior positions there are Bulgaria, Latvia and Greece, the last two being seriously affected by world crisis (WEF, 2010).

The chapter with the weakest position for Romania (137th out of 139) is transparency of government decisions, followed by the quality of infrastructure (136th) and the quality of roads (134th). The size and effect of taxation is also one of the weakest points (131st).

At the opposite pole Romania ranks 4th for commercial taxes. Also the number of procedures and time needed to start a business represent notable competitive advantages (34th) next to a series of other social factors (such as the cost of terrorism, crime, violence and organized crime, the HIV incidence or the rate of joining tertiary education) as well as the size of the market (domestic and foreign).

Thus it is obvious that in our country there must be taken a lot of measures in order to improve the economical indicators and indexes. Measures must be taken in a lot of sectors, but there rises one question about the way and limits of the state actions on the market.

### 3. Instead of conclusions

Many of the economists argue that the bad situation in Romania is going to vanish in 2011. Others affirm that it is going to be longer and that it is going to end in 2015. No matter when it is going to finish, one thing is obvious: many of the causes are not enough analysed and their importance is being diminished. One of these factors is education. Starting from the importance it has for the future of the society, the education may be seen as a cause, but also as a way towards finding the right solution in order to overpass the current situation. It is of a great importance the fact that education is one direct factor which influences the prosperity of a country. But, there remains an open question for all the readers: Is there any possibility to have an efficient and, thus, functional education system in the context in which the teachers are poorly paid? Is there actually a crisis of the system or is it a crisis of ideas? Is there any possibility to create a system that is capable of realising a permanent connexion between the labour market and the educational one? Do we have the strength to create such a system that educates people and not clerks?

There are a lot of questions to be answered and this questions aims to formulate some problems in order to point that the crisis are complex phenomena and that going out of it takes a lot of patient, courage and rationality in applying the right methods in the right time.

#### *Acknowledgments*

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## ECONOMIC GROWTH – A CONSTANT IN HUMAN EVOLUTION

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**Abstract:** *This study aims at making a short revision of the elements that define economic growth, observing the evolution of the phenomenon from some of its milestone to future projections, following the path to emphasizing that economic growth comes into direct connection on a cause and effect basis with the major structural changes in recent economic history, and in the end tries to highlight some of the exquisite opinions about economic growth.*

**Keywords:** *economic growth, emerging economies, welfare, Genuine Progress Indicator*

**Jel classification:** *O40, N10, F43,*

Economic growth as a phenomenon is or better said illustrates of an even and conclusive manner world economic progress, the substantial changes of its structure but also the consistent advance in the quality of life, theorizing this segment being a constant, perpetual mission of modern age economists, their studies focusing on the phenomenon itself or on the sustaining and promoting factors, maybe those leading structural changes. So, David Hume, Adam Smith, David Ricardo or Alfred Marshall become extremely interested in the phenomenon itself but also in the elements that are connexed to it.

Economic growth is an issue that has received new connotations in the last decades, both research directions, theoretic and empirical one have lead the way to new visions, new opinions, new concepts and heterogeneous views of the phenomenon. In theory, such sort of interpretations, the analysis of endogenous growth determined by technological progress in connection with scale economies have offered a better sense of the mechanisms that determine economic growth. Studies like Robert Solow's „A contribution to the theory of economic growth” shapes the importance of capital accumulation and of development of labour force and technical capital under all criteria, then Robert E. Lucas and James Heckman, both winners of the Nobel prize for their contributions to theorizing the concept of economic growth, bring to front through their studies the importance of knowledge spread, diffusion of ideas or technical progress through information spillover. Others link this concept to the existence and usage of technological breakthrough, their incubator being those entities that promote, sustain and encourage the existence of a competitive economic environment in some economies, mainly in the emergent ones. The studies refer to: Douglass North, „Location theory and regional economic growth”, „The economic growth of the United States”, „Structure and change in economic history”, „Institutions and economic growth – a historical introduction” or „Institutions, institutional change and economic performance”, then Daron Acemoglu „Wage and technology dispersion” or „Reversal of fortune- geography and institutions in the making of the modern world income distribution”, etc. ( in Lin Yifu Justin, Monga Celestin, The World Bank Economic Development Series, *The growth report and new structural economics*, Policy research working paper 5336, 2010, there are some references to authors, their various contributions being underlined)

On the other hand, the development of the empirical component is undoubtedly a consequence of the emergence and multiplications, even enhancement of a network of databases that sometimes try to make use of the presence of multinationals in the majority of economies, succeeding this way to overcome obstacles in obtaining some coherent and sufficient information from some areas of the world, some of them being unable to measure own indexes, others being unwilling to share results or figures that would help complete a global picture on this issue. We could mention Penn World Table ([http://pwt.econ.upenn.edu/php\\_site/pwt\\_index.php](http://pwt.econ.upenn.edu/php_site/pwt_index.php)), United Nations Commodity Trade Statistics Database (<http://comtrade.un.org/db/>), Eurostat ([http://epp.eurostat.ac.europa.eu/portal/page/portal/statistics/search\\_database](http://epp.eurostat.ac.europa.eu/portal/page/portal/statistics/search_database)), IMF Data and Statistics (<http://www.imf.org/external/data.htm>) and others. Then, the popularity of this kind of studies and not the least, technical progress in analysing, modeling and interpreting data, these having brought econometry very close to being an independent science.

We consider the modern age being the timespan that followed the industrial revolution, the reasons being especially those that qualify this moment as a starting point for the major, deep structural changes that shaped the contemporary world economy. Because of the reasons invoked we are to concentrate this study on some adjacent aspects of economic growth that we will judge by their becoming but also by prognosis.

The emergence of the modern age, triggered by the 18th century Industrial Revolution in England has probably been the most important event in human history after the taming of animals (McCloskey Deirdre, Johnson Paul, 2004), nothing so important in the economic being of human society has ever happened since (Lucas E. Robert Jr., 2004, vol. 18). In this respect, some statistical elements prove this assertion, highlighting the crucial importance of this event, event that we can consider the most important structural change in economic evolution mainly because of its consequences.

If in 1759, England's<sup>14</sup> nominal per capita GDP was about 11.5 pounds, in 2009 the nominal GDP per capita reached a level of 22600 pounds (Officer H. Lawrence, *What was the UK GDP then? A data study*, GDP per capita 2009 pounds sterling equivalent – current prices), while the real GDP per capita grew from 1560 pounds in 1759 to almost 20000 in 2009. In just 250 years, the relative wealth in England and extrapolating, in the world grew more than 20 times. This, in contrast with what has happened in the interval 1000-1750, a timespan of 750 years in which there were no major changes of the real GDP, the enhancements being a matter of growing population, agricultural development and small industry progress, without noticeable changes in labour productivity or technical breakthrough. Even if there isn't any undoubtable evidence to sustain our idea, historical evidence being scarce, more local notes than well documented monographies, it is easy proving this just by analysing the relatively low progress of life standards, communications, technology, etc.

The important changes in data series are to be visible after 1950 but the trend is an upgoing one, the "zero"<sup>15</sup> moment of the industrial revolution being a visible milestone. The relative advance of population during the same timespan in England is of about 10 (1000%), from a population of 6,500,000 individuals in 1759 to more than 61,000,000 in 2010 (Voth Hans Joachim, 2000 apud Wrigley et al., *English Population History from Family Reconstruction*). So, it is obvious that the relative increment of economic growth, if we assimilate that to real GDP surpasses population growth, the enhancement of wealth, considering this as being quality of life is almost unmeasurable, progress in fields like healthcare, personal hygiene, transportation, communication, being hard to sum, but essential to the society we live in. A clear marker for this is the trend of an average human's lifespan, from figures in the proximity of 41,1 years in 1750 to almost 80 now (Office for national Statistics, Life tables 2009).

Almost as a paradox, the industrial revolution was both the starting point of a global increment in living standards and of widening differences between individuals or even world economies. Now, 5 % of the richest persons on Earth have a wealth estimated being almost a third of world wealth, 10 % of the richest almost half, while the 5 % poorest people only 0.2 % of world wealth, the poorest 10 % only 0.7 %, so, differences are huge, in average, the richest 5 % earn 165 times more than the poorest 5 %, the richest 5 % accumulate in 48 hours as much as the poorest 5 % in a year ((Milanovic Branko, 2006)).

From a historical point of view we could say that in the beginning of the 19th century the average income in wealthier economies did not surpass that in less wealthy economies by more than 3 times, in the beginning of the 20th discrepancies were already 10 times and in the beginning of the new millennium they are almost 6000 %, this being an advocate for our initial assertion, these being effects of the changes in income distribution brought by the industrial revolution in the world economy and in national ones (World Trade Organization, Trade liberalisation statistics, 1999).

If for instance in the 15th century, being an agricultor meant almost the same thing all over the world, having some beasts of burden, some rudimentary farm tools, seeds from the crop of the last year and the hope that seasons would help plants grow, today it may mean the same thing as it did 6 centuries ago in some poor societies but it could mean more, intensive and extensive land working, watering, selected seeds, genetically modified ones for better crops, and so on, in some well developed economies, economies that have grown and developed at a constant rate. Some of the sources could be found in inventing and innovation or implementing these discoveries in everyday life, in industry, agriculture, etc..

More, in 1900 agriculture was the most important activity of individuals, being a trade for almost half of the labour force in Europe and Japan, but in 2000 a job for only about 5 percent of the work-capable individuals (Boltho Andrea, Toniolo Gianni, vol. 15, no.4). So, it is not wrong to say that the main activity of humans, from ancient times have almost vanished in the last 100 years in developed societies because of restrictions in land usage, because of mechanical aid, because of substances that nourish land and genetically modified plants that are more productive and less influenced by climate changes, in other words, because of

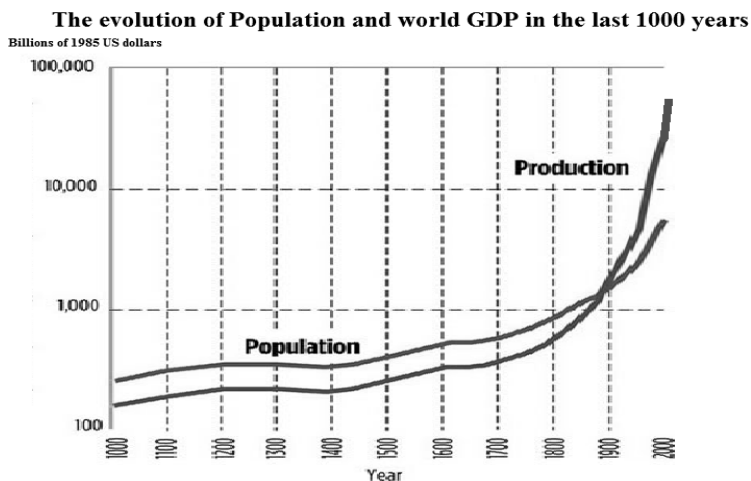
<sup>14</sup> We consider England as reference because of various reasons, some of them accounting for the availability of data, but results can be interpreted as being significant for all economies, as we neglect individual aspects of every economy just to reveal differences of the analysed indexes

<sup>15</sup> Considered being 1784 when James Watt patents an improved version of the steam engine

economic growth. In less developed economies agriculture still counts for a lot of the GDP, but even here, trends are in favor of giving up traditional methods as they are no longer effective.

The next chart illustrates the simultaneous evolution of population and world production of goods and services in the last 1000 years<sup>16</sup>:

Figure no. 1: The evolution of Population and world GDP in the last 1000 years



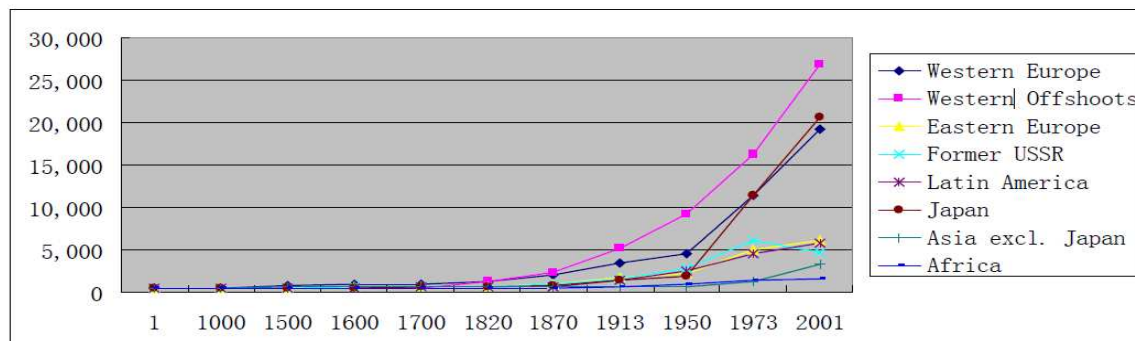
Source: Lucas E. Robert Jr. , *The industrial revolution: past and future*, The Region, 2004, vol. 18 , pag 9

It is remarkable that the evolution of world GDP has a high propensity, almost vertical after 1800, this meaning that those years marked the beginning of sustained growth, a true indicator that the industrial revolution is indeed one of the most important structural changes in world economy, modifying irreversibly the path of human evolution.

For more accuracy, the next chart illustrates of a proper manner the advance in economic growth in various regions of the world since year 1, the GDP being calculated on the grounds of 1990 international Geary-Khamis dollar, also known as the international dollar, used for aggregating purchasing power parity in various economic conditions and from one country to the other, its aim being to ease comparison between countries and distinctive timespans in history. It has a similar propensity to the last chart shown, in addition underlining some interesting patterns for large economies that became emergent and emergent ones that became large.

Figure no. 2: Per capita GDP of various regions, 1-2001 AD

Figure 1: Per capita GDP of various regions, 1–2001 AD



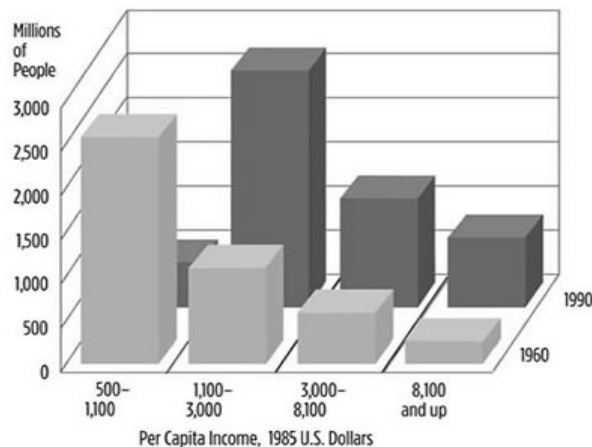
Source: Maddison Angus, *The World economy*, Organisation for Economic Cooperation and Development, Paris, pag. 642 in Lin Yifu Justin, *New Structural Economics, A framework for rethinking development*, pag. 6

<sup>16</sup> “Population” is estimated in millions and “World GDP” in billions of 1985 dollars - PPP

In connection with economic growth, another structural change makes itself visible, the movement of individuals on superior income curves (levels), as shown in the next chart:

Figure no. 3: The comparative income distribution on intervals in 1960 and 1990

The comparative income distribution on intervals in 1960 and 1990



Source: Lucas E. Robert Jr. , *The industrial revolution: past and future*, *The Region*, 2004, vol. 18 , pag 11

The chart reveals the passage of average income from values mostly in the 500-1100 dollars interval in the sixties, towards levels of 1100-3000 dollars a year in the nineties, a substantial change being noticed in all other considered intervals, so, also in the interval above 8000 dollars per year, etc. This cannot mean anything else but the fast emergence, worldwide, but mostly in the developing countries of the middle class, the social group that sustains demand and moves production forward in capitalist economy. We motivate this statement by using quantitative limitation benchmarks, so, no one, regardless of its income will consume over the zero level of marginal utility of every good or service he purchases, in principle, we can assume that consumption is favored by the mass of individuals having average income rather than the smaller number of those having above the average income. Of course, the subject can be submitted to further analysis as a slight increase or decrease in one's average income alters consumer preferences, anyhow, this example is useful for motivating the before statement which can be regarded as a general one. In the end, a large number of individuals with low income means that demand for subsistence goods will become suffocating for the high-end industries, for development. Reaching enhanced levels of income means that high-end industries, the engine of development will be encouraged, so, the society will benefit on its whole.

Now, economic growth and its results are visible worldwide, but their consistency varies, being more consistent in emergent economies. These economies have managed to turn their efforts towards managing rigorously the mechanisms that ensure economic growth. As mentioned before, reference to these mechanisms are diverse, there are numerous opinions and analysing their inner structure would mean changing the mainstream of this paper which is just showing and interpreting the ways in which this phenomenon has manifested over the years.

The emergence and development of the so-called "emergent markets"<sup>17</sup>, economies that were considered being third world ones 2 or 3 decades ago is another great structural change brought by economic growth in the contemporary world economy.

<sup>17</sup> The term has been made popular by Antoine van Agtmael, a World Bank clerk, who, to avoid using terms like "third world country", which was considered being a denigrating term, that made great disservices to economies that fitted in this category, main one being that these economies tended to be avoided by possible investors, the term third world having only bad connotations. So, van Agtmael uses the term "emergent markets" for naming them. Nowadays, World Bank defines economies on their GDP per capita as: a) low income economies, under 995 \$ per year/capita; b) medium low income economies, with a GDP/capita between 996 and 3945 dollars; c) medium-high income countries having between 3946 and 12195 \$ and d) high income economies, producing more than 12195 \$ per year/individual (<http://data.worldbank.org/about/country-classifications>); Another term used to define this category, but mainly the four largest and well developed emergent economies is BRIC which stand for the acronyms of the four countries considered (Brasil, Rusia, India, China), is a term brought into attention by Jim O'Neill, one of the leading economists of

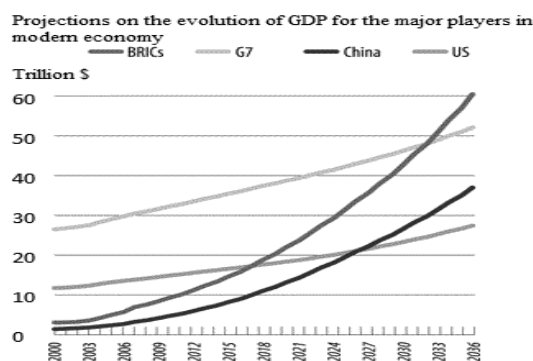
To motivate our choice we could bring to front the fact that UNCTAD estimates Chinese capital reserves being somewhere between 2.5- 2.6 trillion U.S. dollars (UNCTAD 2009), Russian ones close to 482 billion dollars (according to Russian Central Bank, Gold reserves included), those of Brasil over 238 billion (UNCTAD 2009) and India having nothing short of 266 billion U.S. dollars, as for instance, Chinese reserves were only 3 billion in 1980 and only just over 30 billion in 1990. So, funds that could be transformed in potential investments, especially during crisis like the one we just pass through are larger than ever, for these economies, following the classical scheme, a normal investment in times like these could bring unexpected high returns in economic boom, because of the tendency for over-evaluation of assets.

If in 1914 England accounted for almost 45 % of world investments and if in 1967 the U.S.A. had a share of 50 %, the year 2010 finds China in the position of having a share of over 10 %, its state controlled entities being responsible of large transactions on stock-markets (The Economist, *Being eaten by the dragon*, 11 nov. 2010).

India is gaining ground, as it is close as potential to China, both economic and demographic, being the only BRIC country that can match China from this point of view. Forecasts are favourable to India, restrictions imposed in China could mean that on a medium or long run, India could have a much numerous population that China, the most accurate prognosis yet indicating the third decade of this millennium as a probable moment for this to happen (United Nations, World Population Prospects, *The 2008 Revision Population Database*). So, according to the mentioned source, having into consideration a linear and constant expansion at actual rates, China will have 1.449 billion inhabitants in 2030 as India will have about 1.599. A large population becomes probably, but not surely, an element in favor of economic growth, but these relationships become hard to prove, more, the dawn of the upcoming world food crisis, the impossibility to ensure food safety, the social conflicts that are inherent, some of them having a basis of social and ethnical heterogeneity can make a large population an element in favor of economic draw back.

An entire different topic can be extracted from here, as the evolution of the urbanisation and industrialisation degree are very important for defining future development prospects for an economy, and as a paradox, a lower degree could mean better future prospects. Among the issues in favor of the assertion that India has some of the best prospects for economic development on a medium and long run are those that it is hard to find a similar case to China, that has managed to accomodate in its recent built towns more than 200 million people, or that it is due to inhabit at least 500 million until 2016 (Goldman Sachs Global Economic Group, *BRICs and Beyond*).

Figure No. 4: Projections on the evolution of GDP for the major players in modern economy



Source: The Economist, The world in 2011, *The world in 2036*, Jim O'Neill looks at the global economy of 2036, 22 nov. 2010, available at <http://www.economist.com/node/17493408>

Goldman-Sachs, in a recent article in Financial Times, he acknowledges the need for redefining this segment and introducing the term "mature economies" as a substitute for the old "emergent markets" but this term is not supposed to turn these economies into developed ones but to bring them just close to those being considered developed. Anyway, countries like Mexico, South Korea that each count for over 1.5 % of world GDP and Turkey that has a share of over 1.2 % can become part of the emergents acknowledged by the acronym BRIC, O'Neill being convinced that every economy that is large enough to produce at least 1 % of the world total and has great potential of future development can be accounted for from this perspective (from Hughes Jennifer, *Bric creator adds newcomers to list*, Financial Times, 16 ian. 2011, article available on-line at <http://www.ft.com/cms/s/0/f717c8e8-21be-11e0-9e3b-00144feab49a.html#axzz1CYdvutTW>)



For now, India has an urbanisation degree close to 30 % and if it will decide to adopt a program similar to what China has implemented, the figures it will generate are surely going to be close to what China has managed until now.

Moreover, because it has been a part of the British colonial empire, India has the advantage of having citizens which are native English speakers, beside the low cost of labour being the main causes of the increasing development rhythm, their most part being externalized software, public relations, accounting, managing and analysing business.

These phenomena become undoubtedly sources of economic growth and welfare of the society in emergent economies. China started its five year plan in 2011, having more than a trillion dollars planned for infrastructure development, India has run projects of about 500 billion dollars from 2007 until now in the same direction (The Economist, *The world in 2011*), so, in the light of these facts, the next chart emphasizes some projections on the evolution of GDP for the major players in the world economy to 2036.

Then again, the four most populated countries in the world (China, India, Indonesia, Brasil) have gone through serious changes regarding this issue, having in the last decade average yearly growths of about 6 percent, meaning that, for about 40 % of world population the real and nominal terms of their existence have improved a lot (Lin Yifu Justin, Monga Celestin, 2010 ). The same trends can be seen in some other emergent markets as Chile or Peru, Tunisia or Ghana, etc. The number of individuals living in economies that have high or OECD similar income has increased in the last 30 years by a factor of 4, from 1 to 4 billion. Economic growth had a steady pace in the world economy being more visible in the developing countries (World Bank, Commission on Growth and Economic Development, *The growth report – Strategies for sustained growth and inclusive development*, 2008).

Figure no. 4 reveals the fact that many observers are anticipating, overtaking the U.S. economy, the most powerful one now by the Chinese economy, the mentioned source anticipating that in 2027 this would be most likely to happen. Despite this, there are other things to be reckoned, some of them considering Chinese expansion not being a substitute for standards of living, so, as large and consistent as this could be in absolute terms, it becomes relevant when dissipated over population or adjusted for the living standards of that economy, in other words, even if the Chinese economy will surpass U.S. one, there is a long way to matching wealth and standards of living in the two countries. Taking this further we can say that no matter how fast emerging economies will catch up, at least on figures, with developed ones, there is still much to do and accumulate until all standards will match. Anyway, projections are based on some components that could change their shape, direction and value, so that these projections could become irrelevant. Still, projections give a pretty good view of the structural changes that emerge and become in the world economy due to economic growth with the single adnote that this is only viable if no major changes happen on a short and medium run.

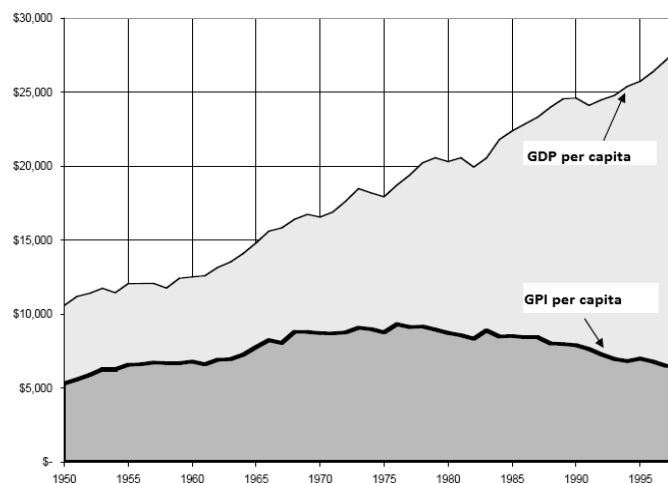
There are some authors that consider the concepts of economic growth and durable development as paradigms that are impossible of being implemented in economic practice, not sustainable, bringing as reasons at least three assertions (Popescu Gheorghe, Filimon Ruben, 2009): they contribute to the widening and deepening of inequity and injustice in the world, increasing differences between the rich and the poor; they create the image of an illusory welfare, in the same time, depriving future generations of the chance to live a better life; the economy of growth does not encourage humanity in preserving and choosing an example for sustainable development but creates a society that becomes ill of its own well being; Indeed, differences between various social classes and between members of different economies tend to become larger, in fact economic growth as a concept should refer to humanity in essence, exclusion of some individuals from this process, their diminishing income, the fact that the phenomenon manifests uneven and disproportionate, being disproportioned is maybe its main attribute, facts proven by figures in above statements, are enough issues as to highlight, at least from one's point of view, the inconsistency and relativity of the concept.

As for the second assertion, we could rely on the same facts for motivating it as Nicholas Georgescu Roegen does, he puts this on the existence and action of decreasing returns to scale as a consequence of the scarcity of natural resources and on increasing externalities of the economic development. This way, containing them gives a good idea of the concept of economic growth, such a sort of index that takes into consideration more than the enhancement of GDP to prove economic growth is a constant of modern society is the GPI, an index Herman Daly proposed and introduced in economic practice. GPI stands for Genuine Progress Indicator, an index being equal with the difference between GDP and the sum of social costs implied, the costs of air, water, soil pollution, etc. The differences between evaluating economic growth through GDP or GPI can be observed in details too, as GDP does not distinguish between production



expenses (new goods and services, meaning progress) and those with externalities. An example of the differences in methodology are represented in the next chart, it shows a comparative evolution of GDP and GPI in the United States between 1950-2000:

Figure no. 5<sup>18</sup>: A comparative evolution of GDP and GPI in the United States between 1950 and 2000



Source: Miller Peter, Westra Laura, Anielski Mark, Soskolne Colin, *Just ecological integrity: the ethics of maintaining planetary life*, Rowman&Littlefield Publishers, Maryland, 2002, pag. 90

It is obvious that measuring economic growth through GPI leads to different results as those obtained through analysis of GDP. Some of the elements that generate such differences of trend could be considered: the rise of energy consumption from about 227.5 BTU<sup>19</sup>/capita to 338.8 BTU/capita from 1950 to 2000 (Glover Carol, Behrens Carl, 2004), being an increment of about 48,9 %, then elements that account for pollution of the aquatic or terrestrial biotope, etc. Events like the stranding of the oil tanker Exxon Valdez have lead to externalities of some billion dollars<sup>20</sup>.

Economic growth is one of the most debated subjects in economic science, having a lot of factors that can boost progress but a lot that can draw it back. In the last decades it seems like the only ones manifesting were those in favor of the phenomenon. A lot of theoretical issues can be dealt with in connection to economic growth, this process being the one that made possible for life standards as we know them today to exist, in just some 200 years the course of life changed dramatically for the human species, this being one of the glorious ages of mankind. Fueled by conventional sources of energy, increasing population and capitalist thinking, world economy has become a wide spread network of connections, today's economy goes beyond borders and nations, turning into a single shape, a homogenous entity going ever further. It is peculiar how some can say that we live bad times, that living standards have diminished, as reference systems have been in a constant change, we tend to be optimistic, thinking only in terms of progress, being ever more pretentious. Comparisons with standards of some 50 years ago, let's say, could easily show that progress has been exponential, and that lamentations are not needed. Maybe it is for us to rethink our reference systems, to think more in terms of sustainability than in terms of figure` growth or maybe, fueled by other energy sources or by other revolutionary systems of thought to go beyond anything we've dreamed of in our continuous quest for perfection and growth.

<sup>18</sup> GDP in 1985 equivalent dollars, PPP

<sup>19</sup> The British thermal unit (BTU) is a traditional unit of [energy](#) equal to about 1 055.05585 [joules](#). It is approximately the amount of energy needed to heat 1 pound (0.454 kg) of water from 39 F (3.9 C) to 40 F (4.4 C)

<sup>20</sup> The costs of greening and of compensations were larger than 3 billion dollars, but the long run effects on fishing industry, tourism, wildlife and plants are incommensurable.

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## THE CRISIS IMPACT ON YOUTH EMPLOYMENT

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**Abstract:** *The paper addresses the impact of the crisis on young men and women. It clarifies the dimensions of the youth unemployment problem by analyzing the unemployment trend and related pattern of labour force. It presents a fuller picture of the youth labour market by examining in a systematic way the three labor market states (i.e. employment, unemployment and not in labour force).*

**Key words:** Youth unemployment, inactivity, long-term youth unemployment, economic crisis

**JEL classification:** J64, J82

### 1. Introduction

In all developing and developed economies, the youth represents the foundations for the economies and societies of today and tomorrow, bringing creativity, talent and energy and, the same time, making their own contribution as productive workers, entrepreneurs and as members of civil society.

In Romania, unemployment is now a widespread phenomenon especially among youth, a phenomenon that has appeared and amplified after the giving the system of government distributions for high school graduates and higher education, after 1989. Without qualifications and experience youth are vulnerable on the labour market, in terms of finding a job that fits their skills and qualifications.

In the context of economic crisis, youth face the increasing uncertainty in finding a job from which to build a better future and they lose the chance of a decent and productive job. The economic crisis strengthened the fragility of youth in the labour market. Clearly, the crisis impact on youth is felt mainly in terms of unemployment and the social hazards associated with joblessness and prolonged inactivity. This clearly represents a vast waste of economic potential...

### 2. Youth unemployment trend in economic crisis

Youth unemployment matters because it creates a sense of vulnerability, uselessness and idleness among young people and can heighten the attraction of engaging in illegal activities. The same time, without a decent income youth cannot support themselves and they have to stay within the family household much longer than the family can afford. This situation decreases the chance of the family to get out of poverty and to afford to sent into education system the younger members of the family which then damages the future prospects of the society as a whole. Many young people from these types of families are often forced by the financial need of the family to enter the labour market at an early age and will typically end up in low-paid, precarious jobs with little prospect of future improvement. The vicious circle is obvious here: people living in chronic poverty will remain poor for much or all of their life and are likely to pass on their poverty to their children.

Employment difficulties experienced by young people also causes psychological problems, even though this issue is not at the core of this paper. They may suffer from reduced self-esteem, discouragement leading to drug and alcohol abuse and related health problems.

Already defined as a group with serious vulnerabilities even at the best of times, youth can become even more vulnerable during times of economic shocks as it is the current economic crisis.

The youth have higher employment mobility than adult population. They accept more easily to change a secure a job with less secure one, but more highly paid and who require the qualification that they acquired in school. Maybe even more: they quit the current job without having another one where they can begin working immediately, but they leave for the desire to have more time to seek a job that meet the requirements to a greater extent. A job search cost is lower compared with persons in other age categories because they enjoy the meal and accommodation from the parents.

Youth unemployment rates typically fluctuate in line with overall unemployment rates, indicating a strong link to general economic trends. Youth unemployment rates are significantly higher than the total unemployment rate in each country. *Youth unemployment rates were on a downward trend prior to the economic crisis but were still nearly three times higher than adults.* Young people, as new workers, have faced an increasing number of challenges associated with the globalization and technological advances.

Table 1: Youth unemployment (15-24 years) and unemployment rate, 2006 to 2010

Country/Year	Youth Unemployment						Total Unemployment					
	2005	2006	2007	2008	2009	2010	2005	2006	2007	2008	2009	2010
European Union	18,4	17,2	15,4	15,5	19,7	20,7	8,9	8,2	7,2	7,0	8,9	9,6
Belgium	21,5	20,5	18,8	18,0	21,9	22,0	8,5	8,3	7,5	7,0	7,9	8,4
Bulgaria	22,3	19,5	15,1	12,7	16,2	22,3	10,1	9,0	6,9	5,6	6,8	9,9
Czech Republic	19,2	17,5	10,7	9,9	16,6	18,7	7,9	7,2	5,3	4,4	6,7	7,4
Denmark	8,6	7,7	7,9	7,6	11,2	13,8	4,8	3,9	3,8	3,3	6,0	7,4
Germany	14,2	12,8	11,1	9,9	10,4	9,1	10,7	9,8	8,4	7,3	7,5	6,8
Estonia	15,9	12,0	10,0	12,0	27,5	32,9	7,9	5,9	4,7	5,5	13,8	16,9
Ireland	8,6	8,6	8,9	13,3	24,4	27,3	4,4	4,5	4,6	6,3	11,9	13,5
Greece	26,0	25,2	22,9	22,1	25,8	:	9,9	8,9	8,3	7,7	9,5	:
Spain	19,7	17,9	18,2	24,6	37,8	41,6	9,2	8,5	8,3	11,3	18,0	20,1
France	21,1	22,1	19,6	19,1	23,5	23,9	9,3	9,2	8,4	7,8	9,5	9,7
Italy	24,0	21,6	20,3	21,3	25,4	:	7,7	6,8	6,1	6,7	7,8	:
Cyprus	13,0	10,5	10,1	8,8	14,0	18,8	5,3	4,6	4,0	3,6	5,3	6,8
Latvia	13,6	12,2	10,7	13,1	33,6	:	8,9	6,8	6,0	7,5	17,1	:
Lithuania	15,7	9,8	8,2	13,4	29,2	35,1	8,3	5,6	4,3	5,8	13,7	17,8
Luxembourg	14,3	15,8	15,6	17,3	16,5	17,0	4,6	4,6	4,2	4,9	5,1	4,7
Hungary	19,4	19,1	18,0	19,9	26,5	27,0	7,2	7,5	7,4	7,8	10,0	11,2
Malta	16,2	16,5	13,8	11,8	14,4	12,7	7,2	7,1	6,4	5,9	7,0	6,7
Netherlands	9,4	7,5	7,0	6,3	7,7	8,7	5,3	4,4	3,6	3,1	3,7	4,5
Austria	10,3	9,1	8,7	8,0	10,0	8,8	5,2	4,8	4,4	3,8	4,8	4,4
Poland	36,9	29,8	21,7	17,3	20,6	23,7	17,8	13,9	9,6	7,1	8,2	9,6
Portugal	16,1	16,3	16,6	16,4	20,0	22,4	7,7	7,8	8,1	7,7	9,6	11,0
<b>Romania</b>	<b>20,2</b>	<b>21,4</b>	<b>20,1</b>	<b>18,6</b>	<b>20,8</b>	<b>:</b>	<b>7,2</b>	<b>7,3</b>	<b>6,4</b>	<b>5,8</b>	<b>6,9</b>	<b>:</b>
Slovenia	15,9	13,9	10,1	10,4	13,6	15,2	6,5	6,0	4,9	4,4	5,9	7,2
Slovakia	30,1	26,6	20,3	19,0	27,3	34,3	16,3	13,4	11,1	9,5	12,0	14,5
Finland	20,1	18,7	16,5	16,5	21,5	21,4	8,4	7,7	6,9	6,4	8,2	8,4
Sweden	22,6	21,5	19,2	20,2	25,0	25,2	7,7	7,1	6,1	6,2	8,3	8,4
United Kingdom	12,8	14,0	14,3	15,0	19,1	:	4,8	5,4	5,3	5,6	7,6	:

Source: Eurostat Statistics, une\_rt\_a : no data available

Youth unemployment has been increasing in the European Union since the first quarter of 2008. The total unemployment had almost the same trend. But the increase has been at a much higher pace for young people. Youth unemployment increased by over than 5 percentage points between 2008 and 2010 in the European Union to reach 19.7 % in 2009 and 20.7% in 2010. The same period, the total rate increased by 2.6 percentage points in European Union reaching level 9.6% in 2010. In Romania the trend was the same in EU, both for youth and global unemployment, but the increase was still lower than in EU.

High rates of youth unemployment have been explained in two quite different ways. The 'traditional' way holds that the problem is one of job availability. A general shortage of openings makes it very difficult for some workers to find jobs. It emphasis the infrequency of job finding and the consequent lengthy duration of unemployment spells. The 'new' way treats the large flow into unemployment rather than the long length of unemployment spells as the crucial symptom of the problem. Martin Feldman has written: 'The picture of a hard core of unemployment persons unable to find jobs is an inaccurate description of our economy... A more accurate description is an active labour market which almost everyone who is out of work can find his usual type of job in a relatively short time... The current structure of unemployment is not compatible with the traditional view of a hard core of unemployment who are unable to find jobs'. This second way focuses on the brevity and frequency of unemployment spells.

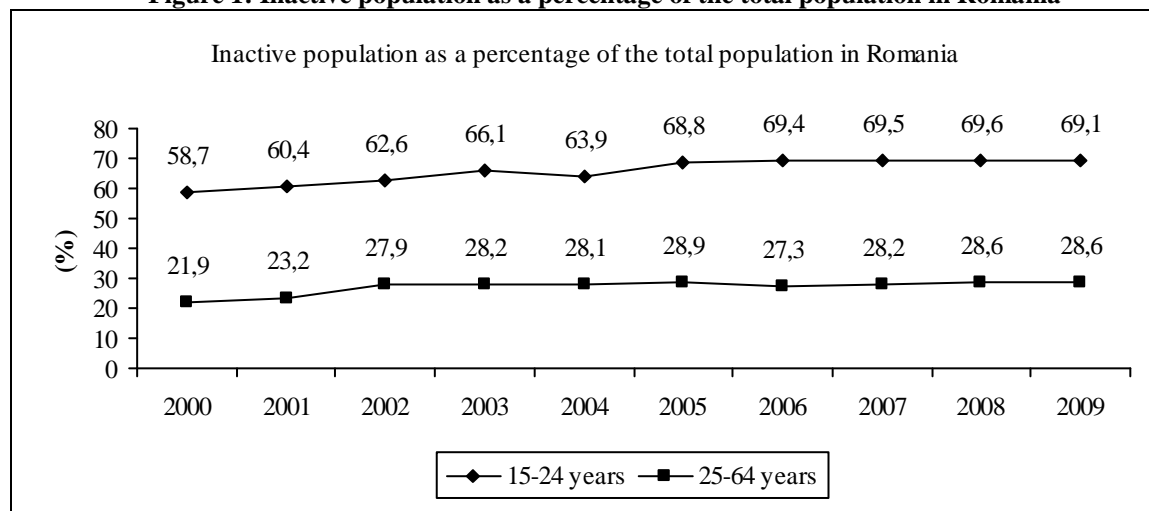
The high youth unemployment rate may have other explanations not related to the impossibility of finding a job:

- The refusal to accept the constraints, the rigor and discipline that involves a socialized work, supported even by the family because the difference between potential wage and unemployment benefit is relatively small to deserve the ‘sacrifice’. It is the case of high school graduates that prepare for university, hoping that the university degree will offer a safer and well paid job. In fact, here it is unemployment delayed, from a level of education to another; For many teenagers, job search is a passive process in which the main activity is waiting for a job opportunity to be presented;
- The possibility to provide income generating activities on the black market while receiving unemployment benefit.

### 3. Youth inactivity and school engagement

It is important to remember that a large share of persons between 15 and 24 are outside the labour market. Unemployment rates are expressed as a percentage of the labour force (employed plus unemployed), not of the population. The difference between youth employment and youth population is reflected in the employment-to-population ratios for youth, which give the proportion of those young people that work amongst all young people. This rate indicates that today less young people are employed compared with their total population size than ten years ago. The distinction between being unemployed (out of work and looking for a job) and being out of the labour force (out of work and not looking for a job) is important. Many youth are on the borderline between seeking work and not seeking work, and switch frequently from one group to other. Some youth who are out of the labour force may in fact desire to work but have simply given up looking. On the other hand, some youths who are classified as unemployed may not be seeking work as actively as unemployed adults. In addition, many youths who are classified as unemployed are also in school full time, an activity that many would consider as productive as work. While for all age groups the difference between unemployment and not-in-labour-force is ambiguous, the ambiguity is especially great for youth, having in mind the frequency of movements between the two states. Most of the newly employed did not search long enough to be recorded as unemployed.

**Figure 1: Inactive population as a percentage of the total population in Romania**



Source: Eurostat Statistics

In the Figure above is presented the trend for inactive population in Romania from 2000 to 2009, both for youth (15-24 years) and total population. Already defined as very difficult to evaluate, the percentage of inactive population for youth is more than two times higher than for adults.

Currently, more young people are engaged in education, improving this way their future employment prospects and extending their stay in education, so in this regard can be viewed as a positive development. Declining labour force participation rates can also be the result of other negative circumstances, because the inactive youth population, the inverse of the youth labour force, consists of persons who neither work nor seek work for a number of reasons:

- the young people can be already married with children and tending the household;
- they might be sick or disabled and unable to work;
- they might be so frustrated with the lack of available prospects that they have given up the job search and are idly waiting for better times - discouraged young workers

Unlike for adult population, the main reason for not seeking employment for youth is the involving in education or training as is shown in table below.

**Table 2: Main reason for not seeking employment for population aged 15-24 years, in Romania**

Main reason for not seeking employment	15 - 24 years					25-64 years				
	005	006	007	008	009	005	006	007	008	009
Awaiting recall to work (on lay-off)	:	:	:	:	:	:	:	:	:	:
Own illness or disability	,7	,4	,3	,2	,4	0,2	7,5	8,1	9,2	8,2
Other family or personal responsibilities	,8	,2	,2	,3	,9	,3	6,0	5,7	6,5	6,5
Looking after children or incapacitated adults	:	,7	,5	,5	,5	:	,4	,4	,1	,2
<b>In education or training</b>	<b>9,2</b>	<b>9,0</b>	<b>8,9</b>	<b>1,3</b>	<b>9,1</b>	,2	,1	,9	,3	,3
Retired	:	:	:	:	:	3,4	1,0	1,6	1,4	1,1
Think no work is available	,6	,8	,1	,6	,3	,2	,7	,9	,7	,0
Other reasons	3,7	3,9	4,0	1,9	2,8	2,7	7,2	5,4	2,7	3,7

Source: Eurostat, lfsa\_igar  
: no data available

Education can be a way to mitigate the phenomenon today, having as a consequence the transfer of unemployment for graduates with higher education. This trend is strongly encouraged by the emergence and expansion of private higher education in our country after 1990. Although better trained, young people will not find work because of the weak structures of higher education oriented towards present and not towards future needs of the economy. On the other hand, they will straighten in the future for higher education institutions, causing the unemployed with higher education that will have to attend courses for retraining. Concluding, this phenomenon derives from two key factors. One is that there is an inappropriate matching of university degrees with demand occupations. Degrees are often conferred in disciplines that are less expensive to teach, such as the social sciences. Instruction and training in areas such as engineering and the physical sciences, which require more sophisticated equipment and technology, are often too costly for many universities in developing countries to provide. As a result, there is an overabundance of students graduating with degrees in such disciplines as political science or education, but there are an insufficient number of jobs available in these areas. Conversely, engineering and high-tech jobs remain unfilled. The second factor is the overall lack of jobs in the formal economy. As most new job growth is in the informal sectors of the economy, there remain few opportunities for young graduates to find work that corresponds to their level of educational attainment.

While a part of young people work less than adults because they are devoting a major part of their time to schooling or to leisure activities, others work less because they have great difficulty obtaining a job or because they are in the midst of switching their primarily activity from schooling to employment, a process that involves considerable searching and job changing before settling into more or less permanent employment.

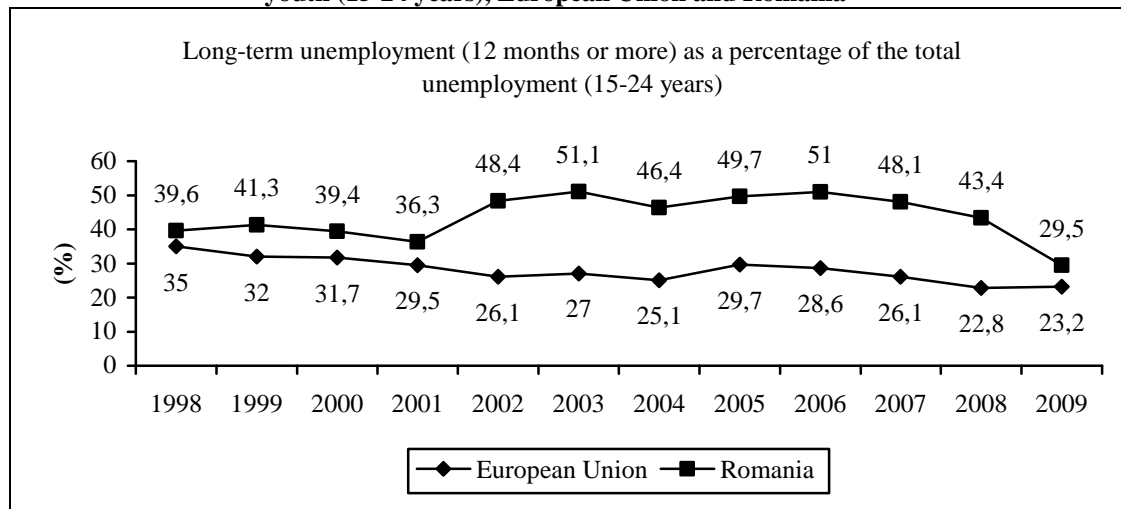
In some developing economies, young poor people in a country with no unemployment benefits or other social provisions for the unemployed cannot afford to either stay in education or be unemployed. They will take up whatever work is available, including precarious and informal economy employment. Only young people with families to support them can afford to be unemployed and search for a suitable or preferred employment opportunity. This, in combination with a scarcity of work requiring high education, results in a situation in which a disproportional share of the young unemployed have higher education and come from higher income households.

#### 4. Long-term youth unemployment

If young people are affected for long periods of unemployment, they will lose the confidence, skills and abilities acquired in educational or vocational courses that have followed, thus producing the damage,

sometimes irreversible, of physical and mental qualities necessary to develop an activity as an employee, even more because they have not had time to consolidate their knowledge and skills well acquired in schools. Deterioration of the qualities needed in the work process with increasing period of inactivity is a phenomenon seen in all categories of population and its severity increase with age.

**Figure 2: Long-term unemployment (12 months or more) as a percentage of the total unemployment for youth (15-24 years), European Union and Romania**



Source: Eurostat Statistics

An individual's previous unemployment experience has been proven to have implications for future employment chances. In both industrialized and developing economies, young people are more likely to have intermittent (temporary, part-time, casual) work and insecure arrangements, oftentimes in the informal economy with limited labour protection. Giving people a chance to achieve decent employment early in their work-life would help to avoid the development of the vicious circle of unemployment, poor working conditions, poverty and frustration which, in turn, damages the future perspectives of whole economies.

Young people are the most vulnerable to layoffs, according to the principle 'last in, first out', often without paying attention to the efficiency criteria and qualifications. It is believed that they can adapt more quickly and perhaps even better at another job and at other relevant requirements, than older people, which increase the risk of being unemployed at least for a short period of time.

The main difficulties in accessing the labour market are:

- a higher chance of losing their jobs during economic downturns ("last in, first out");
- specific barriers to entry, often stemming from lack of experience
- path dependence: early unemployment increases the likelihood of subsequent unemployment.

## 5. Conclusion

Unemployed or underutilized young people incur significant psychological (they may suffer from reduced self-esteem, discouragement leading to drug and alcohol abuse and related health problems) and economic costs as the national workforce is not used or is not used to its full potential. Often more dynamic and having a higher education than their parents, young people opt for migration if they cannot find adequate employment in their own country. They are trying this way to avoid the vicious cycle of intergenerational poverty and social exclusion we have mentioned above.

Job creation process depends primarily on economic growth, which itself depends on investment, but also on the international context. A stable macroeconomic environment is fundamental to the creation of new formal jobs for all groups of workers, but is of particular benefit to young people, who suffer most from economic downturns because of their short job tenure and lack of experience ("last in, first out").

## Acknowledgments

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## THE FISCAL DEBT WITHIN THE CURRENT ECONOMIC-LEGISLATIVE FRAMEWORK

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**Abstract:** *Satisfying the ever-increasing economic and social needs of individuals and legal entities, now, at the beginning of the 21st century, has far exceeded the classical economic framework, which underlined the fact that the level of full satisfaction of an economic, cultural, social ... need depends on the possibilities of a real economy in its dynamism. Engaging money obligations above possibilities, may lead to disturbing social phenomena, with adverse consequences for the economic agents and for the population. The present paper tries to theoretically approach the effects of such consequences, the economic-financial treatment that should be considered.*

**Key words:** claim, fiscal debt and obligation

**JEL classification:** G39

Modern economy admits a certain degree of indebtedness without payment when the property, service or work is purchased, but this must be carefully measured, within a certain limit of supportability, with full coverage within short periods of time. This phenomenon is not new; he has existed ever since antiquity (especially during the Roman Empire), the conditions of that time imposing that through regulations of the legislature (laws of the Senate, the emperor's decrees ...) the debt repayment had a support known both by the debtor and the creditor, the Roman private law being enlightening in this respect.

The debt repayment is governed in our good and old Civil Code, a normative act that regulates the relationships between buyer and seller (creditor/debtor), with correlative rights and obligations of each. Although the above mentioned Code has a relatively limited applicability, due to the special laws that govern the obligations' legal nature, implicitly their repayment, this normative act has represented and will continue to provide support for the legislation on civil procedure, a civil procedure that was the basis of the Code for Tax Procedure (The Government's Ordinance no. 92/2003, as amended) that we use today in financial matter. Before dealing with the issue of debt repayment in the context of the current financial-fiscal legislation, we consider it appropriate to briefly mention some essential aspects of civil matter that are valid for the public-governmental finances and also for the discipline of local public finances.

Therefore, from the civil perspective, the debt is understood as: *the debtor's obligation under a legal relation with the creditor and that requires the compliance by the first of a benefit consisting of giving, doing or not doing something, to the benefit of the second, corresponding to its correlative debt right.* And as a source of the economic debt, there is: the business management (art. 987 – 991 of the Civil Code) and the payment of undue work (art. 992 – 997 of the Civil Code), the repayment of debts being accomplished through specific means (according to art. 1091 and the following from the Civil Code) through payment, novation, voluntary returning, compensation, merger of rights, loss of property, cancellation (termination), through the effect of resolutive condition or regulation.

The period in which the Romanian Civil Code was written, of Belgian and French inspiration, based on the Roman private law, namely the end of the 19<sup>th</sup> century there was the public-state organisation which collected taxes and various other types of monetary obligations, from the economic entities and from the population – this entity being the beneficiary. However, with regard to those taxes and fees, their collection implied a level of complexity that would impose a specific conduct norm aiming the tax payer, on one hand, and, on the other hand, the beneficiary (the state), leading to the situation where specific entities were appointed as collectors (for the post-revolutionary Romania: The National Tax Administration Agency).

Before dealing with the fiscal debt / obligation and how it can be repaid, within the context of legislation, namely of the Code for Fiscal Procedure, we find it appropriate to briefly present the concept of fiscal claim, and then to explain the fiscal obligation, from the perspective of the above mentioned law. Therefore, the fiscal claim, according to point 1, art. 21, is *the patrimonial rights* that, according to the law, results from the legal relations of fiscal matter, determined rights (and measured financially) that require to be met by paying the taxes and fees, implicitly the penalty interests and also other situations specifically

stipulated by the fiscal legislature, explicitly presented at point 2 of the above mentioned article. Still in art.21, but at point 4, the Code for Fiscal Procedure records the state of things that led to the payment to the general consolidated budget of a fiscal claim that did not have legal basis – the one who did the payment is entitled to restitution of that amount. Otherwise said, the tax payer / debtor is entitled to receive the already paid amount to the fiscal institution – if this would not have been mentioned in the that law, the tax payer could have gone for trial, an action of material law in civil matter (e.g. unjust enrichment). In terms of the tax payer's civil procedure rights, he has the right for *in restitution* action, the great inconvenience being: the payment of stamp duty (approximately 7 – 8%) of the claimed amount, but which was paid, the attorneys' fees, not to mention an accounting expertise ordered by the court and long enough hearings, which mean significant costs for that tax payer and the deprivation of the right to ask for interest. Therefore, we can easily notice a first aspect aiming the advantage brought by the specific legislation on fiscal obligations, for an economic agent that pays considerable taxes and fees, for an objective error, and, as an example, we can mention the introduction of the flat-rate tax, at the same time with the introduction of the 16% flat income tax.

In the context mentioned above, we cannot approach the issue of fiscal debts'/obligations' repayment, beginning with the very concept of fiscal obligation in the sense given by art 22 of the Code for Fiscal Procedure – the above mentioned article defines it in 6 different ways, since, according to this legislation, there is not a classic definition (of proximity and specific difference), taking into account the multitude of practical aspects resulting from that financial activity.

Therefore, letter a defines the fiscal obligation as: - the obligation to declare taxable assets and incomes, or, according to the case, the taxes, fees, contributions and other amounts owed to the general consolidated budget. Letter b of article 22 states that the fiscal obligation is: - the obligation to calculate and register in the accounting statements the taxes, fees, contributions and other amounts owed to the general consolidated budget, letter c recording the tax payer's obligation to pay on time those duties. In case of delay in payment, the tax payer has the obligation to pay interests and other penalties for delay, in compliance with letter d of the above mentioned article of law.

Letter e of article 22 gives a sense of the fiscal obligation in that it also falls into the responsibility to calculate, retain and record in the financial and payment statements, within the legal terms, the taxes and contributions that are achieved through withholding tax, letter f also records any other obligation of the tax payer, individuals or legal entities that enforce the fiscal laws. Therefore, the law giver mentions as fiscal obligation a multitude of indebtednesses equally valid for individuals and legal entities that must be understood in their complexity, but more especially in the practical dimension, in the sense that, in order to meet these requirements, the existence of a financial-accounting dimension/division is required, with specialized personnel at the level of significant economic agent, which has to be adequately paid.

Here we refer to letter e of article 22 of the Code for Fiscal Procedure which stipulates the withholding tax, with obligations relating to: the calculation, withholding and recording in its own payment statements, obligations which are not easy, which are not provided by reasonable tax facilities from the state, strictly for the economic, public and private entities, except the activity of the notaries public. We are aware of the fact that without this obligation stipulated by the law giver, leaving it to the employee to pay certain obligations such as the income tax or the health contributions ..., they would not be met on time. However, inflexibility from the state institutions, in the sense of helping economic entities with such an activity: withholding tax (almost free of charge) and without a monetary counterperformance, including the matter of debt repayment from the collecting state institution, does not have a moral and ethical foundation.

We also consider the meaning given by the lawgiver to the notion of fiscal debts' repayment (art. 24 of the Code for Fiscal Procedure): Fiscal claims are repaid by collection, compensation, enforcement, exemption, cancellation, limitation and by other ways stipulated by the law. Therefore, the meaning given by the above mentioned law to the concept of debt / claim repayment is not totally different from the stipulations of article 1091 from the Romanian Civil Code, the only way of debt repayment that makes exception (from our point of view) is the merger of rights, this method remaining valid if a public-governmental entity does not come along in the financial relation, namely only individuals and for those activities, goods, services ... that are not based on the taxation established by the Code for Fiscal Procedure and other tax legislation.

*As a corollary of the conceptual definition and having in view the current financial crisis that strikes both the public finances and the private economic entities, we believe that a series of theoretical notions should be reconsidered regarding the debt/claims' repayment, of their staggering, of the order of the actual*

*payment, having as reference point the practice, namely the Civil Code, and implicitly the Code for Civil Procedure.*

Once established, from the conceptual point of view, the legal-fiscal framework of the notion of fiscal debt/claim, implicitly its repayment, we can notice that art. 11 from Chapter II of the Code for Fiscal Procedure, called Debt repayment order, outlines this issue, and we shall try to make some brief comments on them. First, we underline the fact that this article has undergone a change when the Government's Ordinance no. 47/ 2007 on the regulation of certain financial-fiscal measures entered into force, in that: the name of debt repayment order became, after renumbering, art 15, much more flexible than the specifications of the Government's Ordinance no. 92/2003 of the Code for Fiscal Procedure.

Before moving on to elements of financial analysis, we should mention that the Government's Ordinance no. 47/ 2007 was approved by the legislative bodies and not only by the Romanian Government, becoming Law no. 52/2009, this law having some corrections from the ordinance, but which do not aim the repayment order. We shall also use in the text the name of ordinance for various practical reasons, because for almost two years this normative act has become well-known both to the economic environment and to the fiscal institutions that actually worked with this law.

We notice that point 1 it is recorded that: *if a tax payer owes more types of taxes, fees, contributions and other amounts representing fiscal claims stipulated at art. 21, paragraph 2, letter a (fiscal claims) and the amount paid is not sufficient to settle all debts, then the debt correlative to that primary type of claim that the tax payer establishes are settled or that is distributed, according to the stipulations of article 114, by the competent fiscal body, according to the case, the repayment being made in the following order, described below.* We also mention that this specification, according to art. 114 of the Code for Fiscal Procedure, called: the obligation of banks subject to the special observation regime or fiscal administration, which records the bank's dressing compulsoriness in case of an attachment ordered by a tax institution, this article being completed by the Government's Ordinance no. 47/2007, meaning that the procedure of the National Fiscal Administration Agency was expressly underlined.

Another completion to the above mentioned things, is the introduction in that article of the tax institution called the single account, which means nothing but the usage of a money order for the State Treasury, for the obligations owed to the state budget (e.g. health contributions, flat income tax...) and a money order also for the State Treasury, for the other payment obligations of course. Therefore, the distribution of the amounts from the single account is operated by the fiscal body, priority having the withholding tax contributions and then the other fiscal obligations proportional to the owed obligations.

But even if this order is left to the tax authorities (namely NATA), it is not done randomly, but only in compliance with letter a. and the following from article 115, namely: - first the amounts owed in the rate's account of the current month from the payment chart of the fiscal obligation for which instalments have been approved, as well as the increase for delay owed for the period of the delay, if the term of payment expires in the current month and also the current tax obligations whose payment depends on maintaining the validity of the granted facility.

At this specification from the law, we can notice the law giver's priority given to the payment of outstanding payment obligations, and then to the ones with longer terms, but it must be had in view here the fact that allowing the debts' ordering at terms exceeding 4 years and get close to 5 years may easily lead to the cancellation of the payment obligation: after reaching the years of non-payment of the debt, *the limitation of the payment obligation may occur.* The issue that might come up is related to the fact that elements of fiscal procedure (the single account, the payment chart ...) are plausible for the interruption of the limitation period, and the issue is left for court (if this is used, since the law does not expressly mention such a situation).

The second element of the debts' ordering is the one stipulated at letter b. of the above mentioned article, namely: *the principal or accessory fiscal obligations, in order of age, except the case where the forced execution has begun, when the provisions of article 169 are accordingly applied.* The referred article 169 can be found in the Code for Fiscal Procedure, without changes in meaning of the Government's Ordinance no. 47/2007 and it aims the appeal to the forced execution over movable and immovable assets filed by the fiscal authority against the bad payer debtor. Some reflections should, however, be made in that a judicious assessment in time of the tax payer's debts is required, depending on his future incomes, and also their accurate reflection in the payment chart, so that there is a correlation between the two orderings of payment.

Too much emphasis on letter a., paragraph 1 of article 115 to the detriment of letter b. would lead in time to the impossibility to pay the entire debt and penalties for delay, which are not that easy to bear (0,1%

for each day of delay), in normal economic conditions, not excluding the fact that the financial crisis has not yet ceased its effects, but even more: the liquidity crisis, namely the cash flow. Therefore, *we believe that the payment chart itself needs to be changed and adjusted, a proposal that should come from the tax payer who is in such a situation, but who must be approved by the competent fiscal institution.*

Of special interest in establishing the debts' ordering is letter c., paragraph 1 of the above mentioned article, which provides that: *the amounts owed in the single account of the following rates from the payment chart of the fiscal obligation for which payment in instalments was approved, until the competition with the payment's staggered amount or in competition with the amount paid, according to the case, as well as the delayed amount together with the delaying increases owed for the delay period, according to the case.* From the economy of the above mentioned normative specification, it results that the entire payment chart represents the reference element upon which the third element in the ordering of debts relies, namely after paying the due amounts, implicitly after bearing the penalties and then the age of the principal or accessory fiscal obligations, the remaining amounts after the two debits have been covered are directed towards paying the entire debt to the fiscal authority.

The last element of order in the debt's repayment, provided by the above mentioned financial regulation is actually a future debt, also due in the taxpayer's future, that he requests to be paid, and about which we consider should have been mentioned – a future payment due date of the taxpayer is first subject to the payment of the already existing obligations and are due.

In other words, the legislature gives the taxpayer a protective umbrella, the competent fiscal authority as an intermediary chain, which in time leads to the creation of undesired economic elements, aiming those public entities that must pay a debt for a work or service done by a private agent, but whom they cannot pay integrally, because the whole amount had not been provided in the budget, being convinced that they would cover the financing deficit through divided quotas and amounts. But in the current context, such architectural-financial schemes, based on optimism, cannot surpass the financial projection based on wisely-grounded financial balance.

The ordering of debts' repayment in the sense given by the Government's Ordinance no. 47/2007 is an advantage for the taxpayer, who is not able to pay his obligations on time, and the establishment of a payment chart also requires an objective plausible financial position of that taxpayer, but which must have an economic-financial basis.

Point 2, article 115 of the analysed ordinance does not change the provisions of the Code for Fiscal Procedure, initially approaching the issue regarding the age of the payment obligations, as it follows: the first criterion had in view depends on the due date for the principal fiscal obligations, followed by the debts generated by unpaid on time (accessories), respectively debts resulting from increases from delays, correlating to letter a., point 1 of the ordinance which gives priority to the rates / obligations from the current month, according to the payment chart. Moreover, the second criterion taken into consideration in establishing the age depends on the date of communication, for the differences of principal fiscal obligations established by the competent bodies, as well as for the accessory fiscal obligations.

Regarding the date of communication, we mention the fact that this communication must be made through legal means, that prove this, usually using the mail, courier but also fiscal agents that belong to the competent county / municipality ... financial institution – the signature with acknowledgement of receipt often being required. The last criterion considered by the fiscal legislature in establishing the age of the obligation depends on the date of submission to the fiscal institution of the amended tax returns, for the differences of principal fiscal obligations established by the taxpayers.

Under this aspect, we consider it adequate to make some emphasis, namely that the corrective statements on our main analysis segment aims the ones regarding the valued added tax and the ones on the income tax. These statements aim corrections that need to be recorded after some operations that took place in advance, after the first statement referred to the economic vectors and was submitted within the terms provided in the instructions. If there are some explanations and specifications on the objective reasons regarding the subsequent submission of corrective statements (force majeure, fortuitous event ... economically speaking) that are out of discussion, with regard to the subjective ones (calculation errors of the VAT, delays in invoicing ...), which eventually lead to the increase of debts to the treasury and which do not have monetary coverage, this entire context should be carefully regarded as to not generate violations of the positive order in fiscal matter.

Still on the segment of the ordering of obligations' repayment, the Government's Ordinance no. 47 / 2007 refers to Law no. 85/2006 regarding insolvency, which it accordingly changes, but, as compared to the changes brought by the Code for Fiscal Procedure, where the article that is about to be changed is expressly

mentioned, this does not happen in the correction of the insolvency law. We consider it useful to mention that the above mentioned law on insolvency was amended by the Government's Emergency Ordinance no. 173/2008, a normative act which stipulates that the syndic judge settles the remuneration obligation for the specialised personnel involved in solving the aspects related to the bankruptcy, insolvency procedure or that of reorganisation, priority having the 1,5% assumption from the amounts recovered from the economic entities currently in that situation, amounts that will be included in categories related to the procedure, like the meaning of point 1 of article 1 from the above mentioned emergency ordinance.

The ordering of obligations / claims repayment in bankruptcy is given by art. 123 of Law no. 85/2006 (a law that is not expressly annulled by the Government's Ordinance no. 47/2007 and produces its effects in our opinion), being in number of 9, of which we mention the most important, in their order, namely:

- taxes, postage stamps or any other expenses related to the procedure, including costs necessary for the preservation and administration of goods from the debtor's property, and also the payment of employees
- claims arising from work relations
- claims representing loans, with the relating interests and expenses, granted by credit institutions after the beginning of the procedure, and also claims resulting from the continuation of the debtor's activity to the opening of the procedure
- budgetary claims
- claims representing the amounts owed by the debtor to third parties, based on certain maintenance obligations, allowances for minors or the payment of certain periodical amounts destined to ensure livelihood.

Using the so-called procedure of returning to the argument and coming back to the text of the Government's Ordinance no 47/2007, namely the stipulation that completes the legislation on bankruptcy, the ordering of debts' repayment is the following:

- fiscal obligations with terms of payment after the date of confirmation of the reorganisation plan, in order of seniority,
- amounts owed in the rates' account from the payment programmes of fiscal obligations, included in the confirmed reorganisation plan, as well as accessory obligations owed during reorganisation, if the plan stipulates their calculation and payment,
- fiscal obligations owed and unpaid, with terms of payment between the date of the beginning of insolvency proceedings until the date the reorganisation plan is confirmed, according to seniority, until their integral repayment, other than the ones stipulated in the previous paragraph.

We thus notice that the age of the payment obligation remains a criterion in the establishment of the ordering of payments that have become due, depending on the reorganisation plan of that economic entity and on the payment chart commonly agreed with the competent fiscal authorities. Moreover, the new legal-fiscal regulation also regulates the payment system upon a period of time that can be pretty wide from the moment of establishing the payment programme and the reorganisation plan, taking into consideration the wide perspective objective regarding the integral repayment of the debt, which represents a closure of the entire insolvency, bankruptcy or reorganisation procedure.

Therefore, we can notice the active role of the economic agent in an uneasy financial situation, an active role that can be manifested in outlining the payment chart and the reorganisation, but these somewhat formal aspects can not be successful without a more sustained economic support from the economic agent that would result in sufficient incomes to cover the owed debts.

Point 4 of article 115 from the Government's Ordinance no. 42 / 2007 continues the issue of informational communication, meaning that the fiscal authority must inform the debtor on how the operations of debt repayment were made until the next term of payment in the account of fiscal obligations. This responsibility of that authority comes to support the debtor in that, on one hand, the debtor has updated information, and, on the other hand, its mobilising character, which does not leave the debtor insensitive to the complex procedure of paying the debts.

The last point from the previously mentioned article refers to claims administrated by the local public authorities, meaning that any payment made after the notification of summons within the forced execution procedure will first settle the fiscal obligations included in the enforceable title. This reflects the priority given to the enforceable title, even if the taxpayer wanted to pay another debt and as an example, we can mention the situation in which the company paid relatively recently the tax on land and the tax on buildings was not integrally paid and the enforceable title was issued, the amount thus paid pays integrally

the remaining payment regarding the tax on buildings, and if the amount is not enough, our economic agent will appear in debt for the tax on land.

Making an assessment on the measures imposed by the ordering of debts' repayment provided by the Government's Ordinance no. 47/2007, we notice a concern from the state financial institutions to support the economic agents with economic problems, this aspect being overcome if the debtor wants it. The imposed measures can of course be improved, and we do not doubt that, depending on the extent of the financial crisis phenomenon, more especially of its sore effects, the Romanian law giver will try to dim, as much as possible the economic decline of the private economic agents.

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# THE GLOBAL FINANCIAL CRISIS: JUSTIFYING CROSS-COUNTRY DISCREPANCIES IN THE PRODUCTION IMPACT

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**Abstract:** This paper is trying to explain the differences in the crisis shock crosswise developing countries and emerging markets. Via cross-country regressions I tried to clarify the issues driving growth forecast revisions after the outbreak of the worldwide crisis, I discovered that a small set of variables explain a large share of the variation in growth modifications. Nations with more leveraged household financial systems and more rapid credit expansion leaned to bear larger downward revisions to their growth outlooks. There is as well some weaker proof that countries with a stronger fiscal situation prior to the crisis were hit not as much of severely. I found few indications for the significance of further policy variables.

**Keywords:** global crisis, emerging markets, effects

**JEL Classification:** F41, F42, G01

## 1. ELOQUENT FACTS

This section gives some eloquent, graphical proof on growth adjustments. First we focus on a center example of 43 rising markets for which we have complete data, and examine amendments in *Consensus Forecasts*.

Here the growths estimate revisions range from - 18 percent to - 1.5 percent. We split the model into two groups, according to the rigorousness of the output force, and also plot variations across areas. The typical variation in collision among the more and the less affected countries is substantial: about 5 percentage points. But, the average deviation of the growth modifications for the most affected nations is bigger, with the growth collapse in Eastern European and Central Asian countries standing out in particular. In contrast, the growth force in Latin America (LA) is on regular much more controlled.

Figure 1

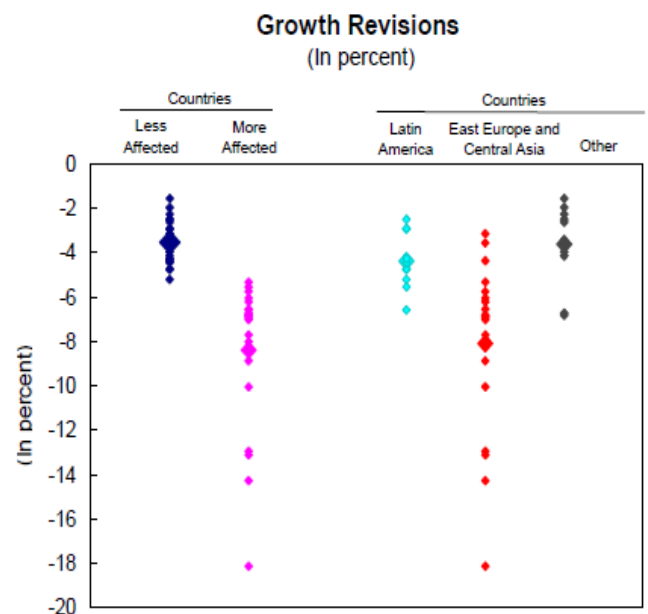
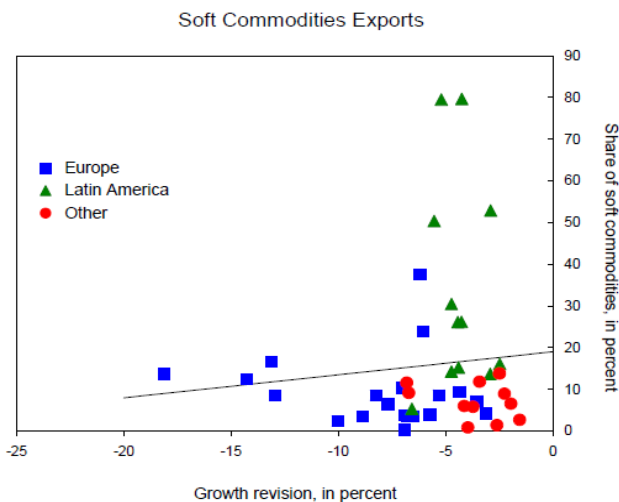


Figure 2 – Soft commodities exports



### 1.1. Trade connections

In this model, there is little association among the share of food supplies or industrialized products in total exports and the growth impact.

But, among emerging market economies, those of Latin America obviously mark higher food product shares in their exports, which at least is in line with the region’s relative flexibility given that the soft goods prices held up moderately well.

**1.2. Financial connections**

Nations that loaned more from highly developed economies were certainly hit harder. As the most affected countries had accountabilities to banks in advanced countries on regular of about 66% of GDP, the less affected countries had liabilities to advanced countries of only 19% of GDP. Dependence on foreign credit was mostly high in the EECA countries, which loaned double of the other regions in 2007.

**1.3. Vulnerabilities**

Both influences and the increasing growth in bank credit in the period 2005–07 are obviously connected with the severity of the increase impact. Between regions, EECA countries displayed higher vulnerabilities in both regards. The average cumulative increase rate in credit in EECA countries was about four times the growth rate in other regions, and Latin America had the lowest rate.

Figure 3 – Lending from advanced economies

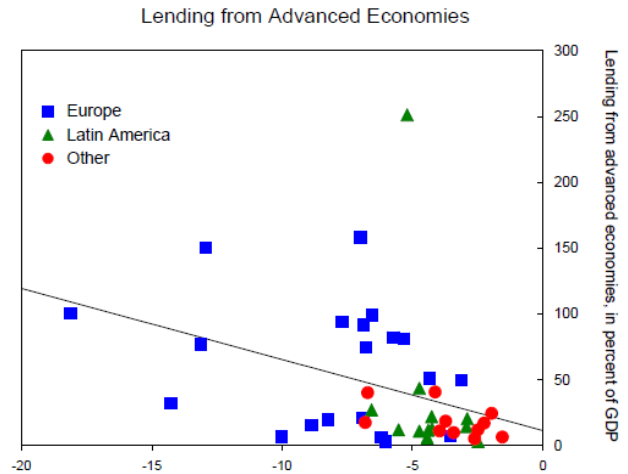


Figure 4 – Growth revision

On the external side, there is also some evidence that lower current account deficits prior to the crisis are associated with a better growth outcome. In particular, the group of less affected countries on average had surpluses. EECA region recorded larger deficit in comparison with the other regions. The data also suggest that countries with higher international reserves tended to experience smaller growth revisions, although this relationship appears weak.

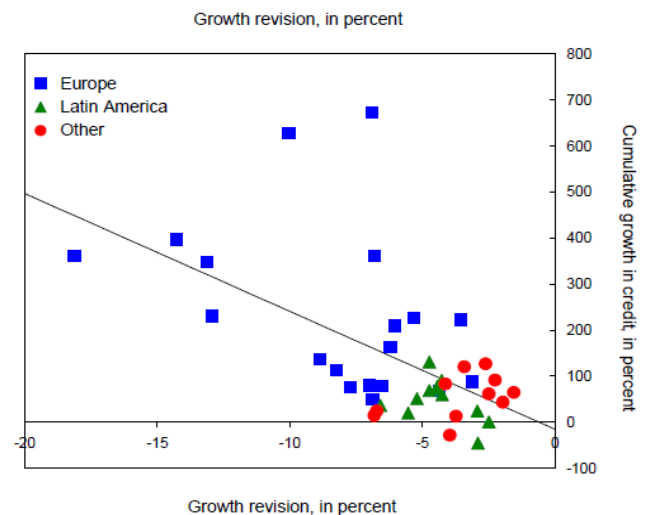
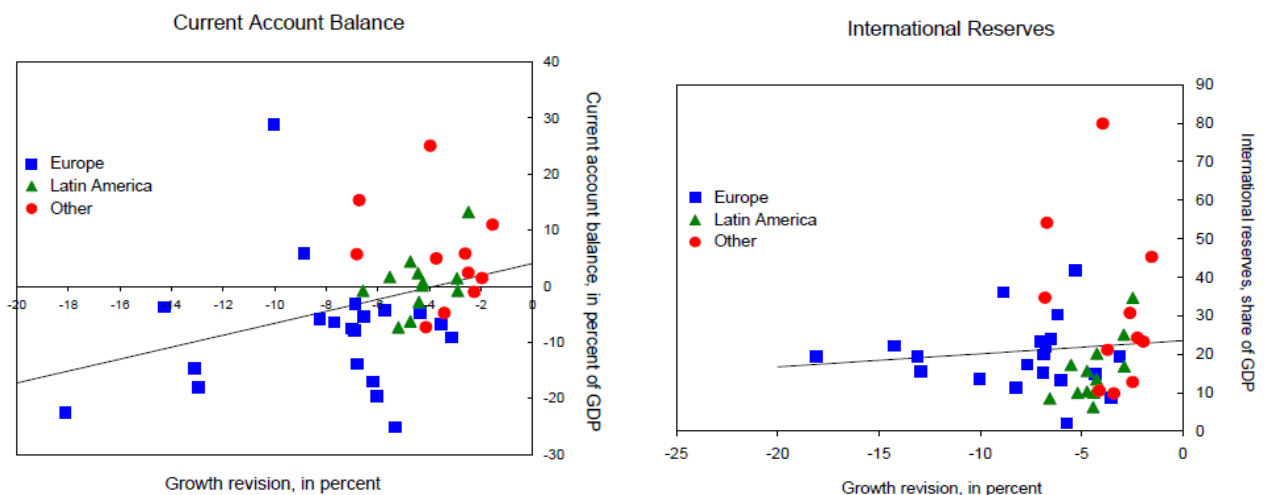


Figure 5 – Current Account Balance and International Reserves

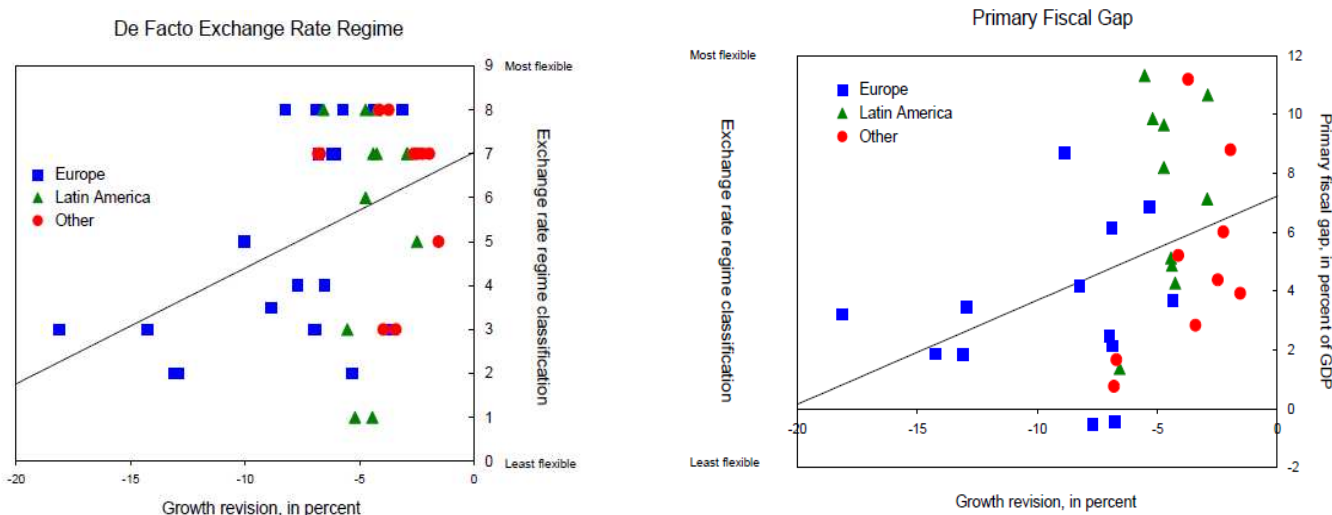




1.4. Policy Frameworks

The spread out scheme strongly supports the notion that more flexible exchange rates helped to absorb the shock. States with pegs were mainly hit; regular, EECA countries had the least flexible exchange-rate systems.

Figure 6 – De facto exchange regime and primary fiscal gap



Countries with significant downward revisions tended to feature weaker fiscal positions, as measured by the primary fiscal gap (the difference between the actual primary balance and the one consistent with constant public debt as a share of GDP). On average, Latin America exhibited the most favorable position, according to this measure. We find little correlation between institutional variables and the size of the output impact<sup>21</sup>.

2. REGRESSION RESULTS

2.1. Baseline Regressions for Emerging Markets

This crisis which emerged in the USA has expanded and has direct and indirect effects on the entire world’s economy, such as: direct effects from banks’ exposure to “toxic assets” and indirect effects caused by changes in the availability of capital and liquidity conditions that involve less external financing.

In this section, is present the relevance of the different factors discussed so far, using cross country regressions. For the baseline regressions I used as the dependent variable the changes in the *Consensus Forecast* for 2009 between the averages of January–June 2009 and January–June 2008 for 40 emerging market countries.

Here are tested all the other variables listed in Table 1, but none of them turned out to be statistically significant on a consistent basis for this sample. Interestingly, institutional variables, including institutional frameworks and much quality of policy measures, did not provide any significant explanatory power.

Table 1. Baseline Regression Results

Specification	(1)	(2)	(3)
Dependent variable: Change in consensus forecast			
Leverage	-0.04*** (0.01)	-0.04*** (0.01)	
Leverage * EU accession dummy			
Exchange rate peg dummy	-1.94** (0.87)	-1.82** (0.81)	-4.27*** (1.05)
Cumulative credit growth	-0.01* (0.00)	-0.00* (0.00)	
EU accession dummy		-2.29** (0.88)	
Primary gap			0.48*** (0.15)
Constant	0.72 (1.30)	0.44 (1.21)	-7.06*** (0.98)
Observations	40	40	32
R-squared	0.574	0.643	0.462

Standard errors in parentheses.  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

<sup>21</sup> There is a significant correlation between indices measuring institutional transparency and the extent to which financial markets were hit in the months of most pronounced global financial turbulence.

## 2.2. Financial Linkages and Vulnerabilities

The regressions corroborate that for emerging markets, financial factors appear to have been key in deciding the size of the growth adjustments. In particular, leverage, measured as the credit to deposit ratio, and cumulative credit growth turn out to be significant explanatory variables across various specifications. Broadly speaking, an increase in leverage of ten percentage points is associated with a reduction in growth forecasts of 0.4 percentage points, while a ten percentage-point-higher credit growth during the 2004–2007 predicts a growth cut of around 0.1 percentage points. If the countries in the most-levered quartile of the sample (with average leverage of 185% of GDP) had had the same leverage ratios as the states in the least-levered quartile (83%), their growth revisions would have been, on average, 4.1 percentage points smaller. The result is only somewhat smaller with credit growth: if the quartile of countries with the fastest cumulative credit growth (with average growth of almost 350 percent) had had the same credit growth as the countries in the slowest credit growth quartile (with average growth of only 14 percent), their growth revisions would have been 3.3 percentage points smaller. EU accession countries appear to have been hit particularly hard, possibly because of their stronger trade and financial linkages with the EU member countries, which were situated at the core of the crisis<sup>22</sup>.

In various terms a currency disparity measure, proxies by foreign assets minus foreign liabilities over GDP, enters considerably and with the correct sign (a larger currency mismatch is associated with a sharper growth revision), but once leverage is controlled for, its statistical significance disappears. Likewise, the share of foreign currency deposits between total deposits is major in some conditions and with the expected negative sign, but the effect is weaker than for the variables above.

A lot of of the countries with credit booms tended to run considerable external current account deficits, and this could explain why the regression analysis did not find evidence of a significant association between growth revisions and the current account balance<sup>23</sup>. Also the current account balance may be heavily predisposed by cyclical issues that would drop out of analysis of revisions to growth forecasts.

## 2.3. Monetary and Fiscal Policy Frameworks

There is stronger proof for the magnitude of exchange rate and monetary policy than for fiscal policy in dampening the impact of the crisis. Among other monetary policy measures, such as a dummy for inflation marketers, inflation levels, and inflation volatility, only exchange rate flexibility seems to matter.

Nations with more flexible exchange rates as measured under the Fund's classification system tended to experience smaller growth revisions<sup>24</sup>. Yet, the benefits of exchange rate flexibility appear limited to moving from a peg toward a more flexible regime; telling apart among edges and drifts does not get better the fit. For these motives, the baseline condition uses a dummy variable for pegged exchange rates. In most regressions, countries with pegged exchange rates experienced, on average, larger downward growth revisions (in excess of two percentage points) compared to countries with more flexible exchange rates<sup>25</sup>.

The stock of international reserves—measured in numerous ways, such as a share of GDP, exports, or short-term debt—did not have a statistically significant effect on the growth revisions, contrary to the pattern suggested by the scatter plot. This result is similar to that found by Blanchard (2009). This result may reflect a nonlinear relationship between international reserves and reduced vulnerabilities. The value of international reserves may diminish sharply once they move above a threshold considered sufficient to guard against risks. In fact, several of the countries that had the largest growth revisions, particularly in Central and Eastern Europe, had levels of international reserve that similar to those prevailing in some of the less-affected countries in Europe or Latin America.

On fiscal policy, in certain terms, the primary fiscal gap is positively linked with better growth performances, in line with the notion that countries with sufficient fiscal space before the crisis were able to adopt more effective countercyclical fiscal policies during the crisis. In fact, the quartile of countries with the

<sup>22</sup> 10 European Accession countries

<sup>23</sup> In fact, excluding two outliers experiencing oil-fueled credit booms, the correlation between credit growth and the current account balance is -67.

<sup>24</sup> See International Monetary Fund *Annual Report on Exchange Arrangements and Exchange Restrictions*.

<sup>25</sup> Exchange rate pegs were defined as AREAER classifications under which the currency is pegged to a specific value rather allowed to fluctuate within a band or floating either under management or freely

largest primary gaps had on average growth revisions that were 4.2 percentage points less negative than the quartile with the smallest primary gaps. Other fiscal variables, such as diverse events of the fiscal balance or the size of the government do not appear to matter once other factors are controlled for. Even though the level of public debt enters appreciably in certain specifications, it has a counterintuitive sign, associating higher debt with better growth performances. In several of the countries hit hardest by the crisis, the effect often came from imbalances in the private sector—not fiscal imbalances and high public debt. Moreover, some of the countries that fared relatively well during the crisis had relatively high levels of public debt - in some cases combined with credible fiscal frameworks and in others with high domestic savings.

This crisis had an indirect impact on Romania. In 2008, we witnessed a limited impact of the credit crunch on Romanian economy. The annual inflation rate (6.3%) has a decreasing trend, but it is maintaining at a high level above the variation interval, the economic growth rate in 2008 was still risen, the current account deficit has significantly risen (13.4% of GDP) and the budget deficit has reached a pick level of 5.4% of GDP. Through administrative and prudential measures, The National Romanian Bank has been taken continuous lines to moderate the degree of increasing the credits given to the private sector and supporting and encouraging credits to be taken in national currency instead of foreign.

Conversely, these days the international financial turmoil is having a more powerful impact on Romanian economy.

And this fact is expressed in terms of: availability and cost constraints of external financing – major impact on the availability of foreign-exchange denominated credit, decline in the volume of FDI inflows, negative impact on foreign demand, affecting Romania's exports, increased exchange rate volatility. There are estimations for the future stating that the economic activity will decelerate, but inflationary pressure will persist, a rise in unemployment will follow, while the fiscal position is likely to deteriorate in the absence of corrective action. In order to counteract these effects, a series of measures would have to be undertaken. It is necessary a macroeconomic accurate diagnosis - an emotional approach of crisis can lead to inadequate measures given the increase of unwarranted stimulus in domestic demand. A coherent policy mix is essential for a smooth restoration of macroeconomic equilibrium, the current account deficit must be brought down through adequate policy measures, and a large budget deficit must be avoided.

Romania needs to maintain its previously announced timetable for euro adoption, indicating that the entry on 1 January 2012 to the exchange rate mechanism ERM-II and during the minimum mandatory two years in this mechanism is subject to that need by 2012, Romania must do many reforms, but adequate and competent ones.

### 3. CONCLUSION

The results of this paper show that a quite small set of variables can explain much of the variation in countries' prospects after the financial crisis deepened in September 2008. A simple specification of leverage, cumulative growth in credit, and controlling for exchange rate pegs alone explains more than half the variation in the growth revisions, an explanatory power which no other policy variable analyzed was able to match. Even though the inherent restrictions of the exercise, these results were strong transversely a wide variety of specifications and country samples. There is also some evidence that trade linkages played a role in the diffusion of the crisis, especially for non-emerging market developing countries.

This early attempt to explain why some developing countries and emerging markets fared better than others suggests drawing some-preliminary-policy lessons:

- Exchange-rate flexibility is crucial to reduce the impact of large shocks;
- Prudential rules and management needs to aim at preventing the types of buildup of vulnerabilities which are mainly associated with credit booms;
- A solid fiscal position during 'good times' creates some buffers to conduct countercyclical fiscal policies during shocks.

Still, as more data become accessible and the global economy enters a recovery, more research will be needed to evaluate in more detail the effect of policy responses and other institutional and structural factors on the duration of recessions in each country and the speed and size of the recovery in growth.

**APPENDIX TABLE**

**COUNTRIES CONSIDERED FOR FORECAST**

Albania	Croatia	Lithuania	Romania
Argentina	Czech Republic	Malaysia	Russia
Azerbaijan, Rep. of	Ecuador	Mexico	Saudi Arabia
Belarus	Egypt	Moldova	Slovak Republic
Bolivia	Estonia	Nigeria	Slovenia
Brazil	Georgia	Pakistan	South Africa
Bulgaria	Hungary	Panama	Thailand
Chile	India	Paraguay	Turkey
China,P.R.: Mainland	Indonesia	Peru	Ukraine
Colombia	Kazakhstan	Philippines	Uruguay
Costa Rica	Latvia	Poland	

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## ACCESS TO CAPITAL: A WAY TO GENERATE COMPETITIVE ADVANTAGE AND PROMOTE ECONOMIC GROWTH

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**Abstract:** *The economic crisis had a very significant impact on corporate financing, so corporations and SMEs had great difficulties in financing their activities. This led to a decrease in foreign trade and economic growth. In this research we showed that the main economies adopted policies to stimulate lending and ease access to capital, in order to stimulate foreign trade and GDP growth. The main goal was to show if access to capital can be considered a valid way to generate or create foundations for the development of competitive advantages and to promote economic growth.*

**Key words:** competitive advantage, foreign trade, access to capital, economic growth.

**JEL classification:** E00, E44, F13, F43

### 1. Introduction

The present economic crisis imposed the adoption of harsh economic measures in order to stabilize markets and to counter the negative effects of recession on the economy. Both Governments and corporations faced difficult challenges in balancing their business and activity so that they can adapt to new market conditions, gain access to capital, stimulate economic activity and foreign trade and so on. In this connection, by far, the most damaged was the financial market. Banks, loan entities, stock markets, bond funds, all had to take extreme measures so that they can survive the recession, but they couldn't cope with these challenges alone, they needed the support of national Governments for financing their own activity so that they can finance further the private sector. However the most important aspect for both Governments and financial institutions is how to stimulate lending and access to capital in order to finance the private sector and generate economic growth. This is because the well-being of the private sector is the only factor that satisfies the interests of both parties: Governments want to increase revenues form taxes, to stimulate labor and economic growth; financial institutions want to increase turnover, profits, to expand their business and gain market advantages.

For this to happen, Governments needed to stimulate lending by injection of capital, refinancing banks, cut interests rates, easing taxation and adopting a more efficient regulatory system for financial markets. On the other side, financial institutions had to take measures to increase lending and financing by cutting interests rates, creating easier credit terms, stimulating corporate bond issues, stimulating IPOs and so on.

In the present research we took into consideration five major economies, The Euro Zone, The US, The Russian Federation, China and Japan and the following factors for each economy: GDP evolution, exports and imports, corporate lending and the evolution of the global value of corporate bonds traded on stock markets in these five economies. This is because the evolution of the global value of corporate lending and bonds shows, in general terms, if it is difficult for companies to access financing; a positive evolution in corporate lending and corporate bond trading means that companies have an increased chance to finance their business. Also we tried to show that in economies were corporate lending and corporate bond issues had a positive evolution, GDP tended to grow, exports and imports have improved, so economic growth was stimulated and in some economies although exports and imports grew, trade balances were improved and production stimulated lending decreased.

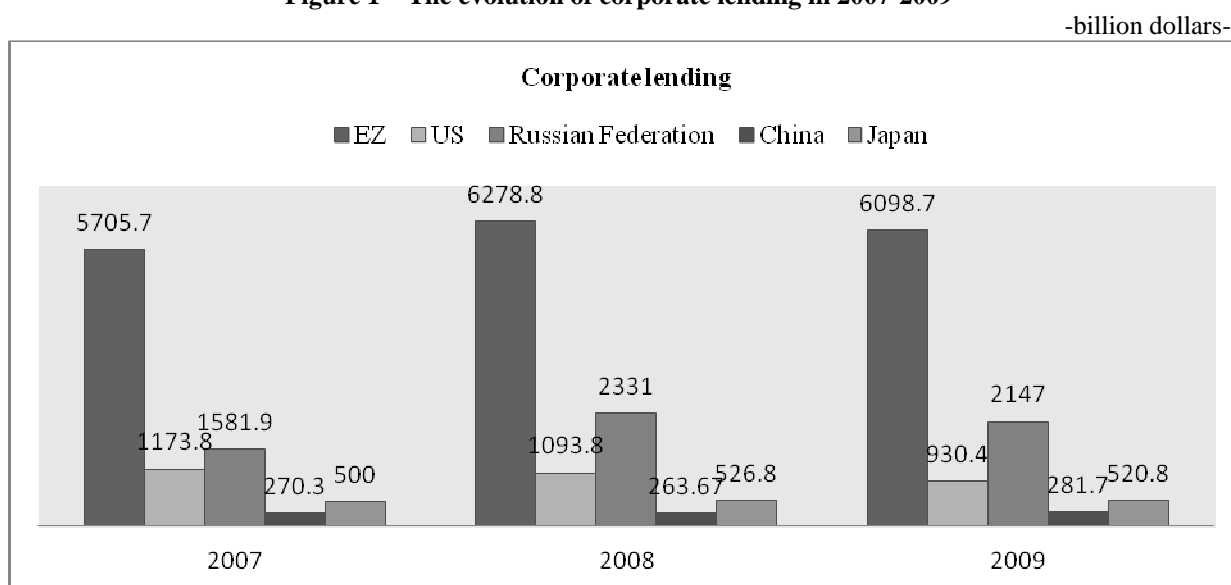
Another aim of this research is to find if we can look at access to capital via corporate loans and bonds issues as a competitive advantage or disadvantage in promoting economic growth in these five economies. We know that authorities and financial institutions took extreme measures to stimulate corporate

lending pumping masses of money into the financial market, we need to see if the effect of these measures was the on they hoped for.

## 2. Comparative evolution of GDP, exports, imports, corporate lending and the global value of corporate bonds traded on stock markets in The Euro Zone, The US, The Russian Federation, China and Japan

Regarding to the evolution of corporate lending and the value of corporate bonds we can stat that the value of corporate lending generally increased in all five economies between 2007 and 2009 (according to Figure 1). Also we can see that the economies with the largest volume of corporate loans are The Euro Zone and The Russian Federation. In The EZ the volume of corporate loans increased by +10.04 % in 2008, decreased by 2.86 % in 2009 and in 2009 compared with 2007 the volume increased by +6.89 %. This is relevant because the most negative effects of the recession were felt in 2008 and 2009, in 2007 in about all countries the GDP was growing, so it is a positive fact that corporate lending continued to increase in the worst years of the recession. This positive evolution is also registered in The Russian Federation (+35.72 % in 2009 compared with 2007), in China the growth was relative small +4.22 %, in Japan was +4.16 %. Very important is the fact that in 2008 the volume in corporate loans decreased in The US and China, and increased in the other three countries. During this period, The US registered a downfall of 20.74 % in corporate lending. These evolutions in the volume of corporate loans between 2007 and 2009 can be attributed to different economic aspects, such as: lending stimulation by the national Governments, injection of capital and recapitalization of different banks by the Monetary Authority, downfall in sales and turnovers registered by companies all over the world, restructuring of companies, etc. Also the high level of corporate loans in The EZ and The Russian Federation suggests two important aspects: their economies are very dependent on loans, companies have great problems regarding their revenues and self-financing capacity, and the fact that authorities injected large amounts of capital in the financial market in order to refinance banks and get them to credit the economy.

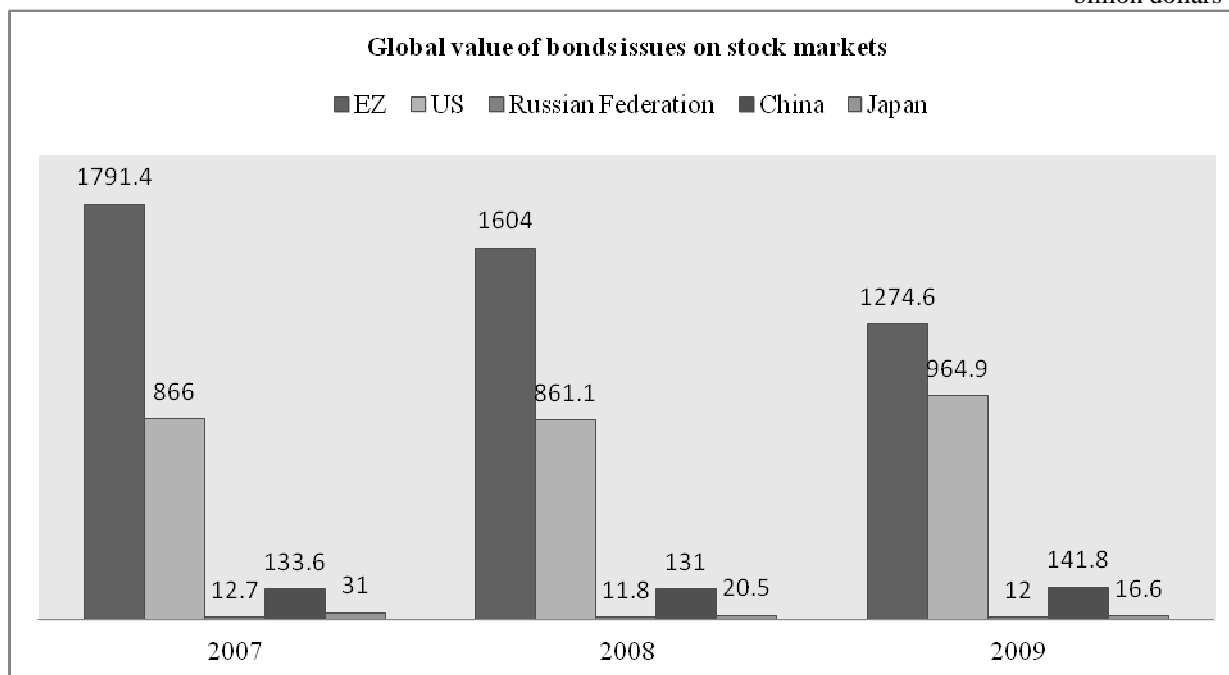
Figure 1 – The evolution of corporate lending in 2007-2009



Source: own processing based on dates available at: European Central Bank, Statistics; Central Bank of the Russian Federation, Bulletin of Banking Statistics, No.12 (187), Moscow, 2008, available at <http://www.cbr.ru/eng/publ/BBS/Bbs0812e.pdf>; Federal Reserve Bank, Federal Reserve Release, Finance Companies, available at <http://www.federalreserve.gov/releases/g20/current/g20.htm>; The People's Bank of China, Survey and Statistics, available at <http://www.pbc.gov.cn/publish/html/2008S02.htm>; Bank Of Japan, Statistics, Outstanding of Deposits and Loans, available at [http://www.stat-search.boj.or.jp/ssi/cgi-bin/famecgi2?cgi=\\$nme\\_a010\\_en&obj\\_name=DL](http://www.stat-search.boj.or.jp/ssi/cgi-bin/famecgi2?cgi=$nme_a010_en&obj_name=DL)

**Figure 2 – Evolution of the global value of bonds issues on stock markets in 2007-2009**

-billion dollars-



Source: own processing based on data available at: Central Bank of the Russian Federation, Statistics, Financial Markets, available at <http://www.cbr.ru/eng/statistics/?Prtid=finr>; Eurostat, Monetary and financial statistics, available at [http://epp.eurostat.ec.europa.eu/portal/page/portal/monetary\\_financial\\_statistics/data/database](http://epp.eurostat.ec.europa.eu/portal/page/portal/monetary_financial_statistics/data/database); Board of Governors of the Federal Reserve System, New Security Issues, U.S. Corporations, available at <http://www.federalreserve.gov/econresdata/releases/corpsecure/current.htm>; The People’s Bank of China, Survey and Statistics, available at <http://www.pbc.gov.cn/publish/html/2008S02.htm>; Bank of Japan, Time Series Data Search, BP Graph, available at [http://www.stat-search.boj.or.jp/index\\_en.html#](http://www.stat-search.boj.or.jp/index_en.html#)

According to data illustrated in Figure 2 in The EZ, The Russian Federation and Japan between 2007 and 2009 the value of bond issues on their main stock markets decreased constantly. In The EZ the value fell by 28.85 %, in The Russian Federation by 5.51 % and in Japan by 46.45 %. During this period in The US the value of bonds issues increased by 11.42 % and in China by 6.14 %. This aspects state that maybe investors gave back a step and waited to see how markets were behaving or they migrated to The US stock markets and the ones in China in order to make better use of their money.

Also if we compare the data in Figure 2 with data form Figure 1 we can see that while the bond market were dropping in The EZ corporate loans increased by 6.89 %, in The Russian Federation loans increased by 35.72 %, in Japan by 4.16 %, in China by 4.22 % and in The US loans decreased by 20.74%. All of these state that between 2007 and 2009 companies and Governments supported corporate lending more that bond issuing in four of the five economies we studied. Only in The US the bond market was preferred over classic lending, probably because of the huge size of The New York Stock Exchange and other US stock markets and the high possibility for a success issue of bonds on US markets. Also only in China both ways of lending increased during this period and this is another fact that shows the progress made by Chinese economy in the last decade.

Another fact that can explain the positive evolution of corporate lending is the fact that in all of these five economies Monetary Authorities cut interest rates to historic low values and in the same time many bank benefited form large sums of money through recapitalization programs and Government stimulus plans.

In Table 1 we showed the value of exports and imports in all five countries between 2007 and 2009 and the evolution of their foreign trade during this period. Also we stated the rank held by these economies in these three years, excepting The EZ which does not figure as one entity on The Leading Exporters Table made by The World Trade Organization.



Table 1- Exports and Imports between 2007 and 2009

-billion dollars-

Year	Country	Exports	Share %	% change p.a.	Rank	Imports	Share %	% change p.a.	Rank
2007	The Russian Federation	355.2	2.5	17	12	223.4	1.6	36	16
-	The US	1162.5	8.3	12	3	2020.4	14.2	5	1
-	China	1217.8	8.7	26	2	956	6.7	21	3
-	Japan	712.8	5.1	10	4	621.1	4.4	7	4
2008	The Russian Federation	471.6	2.9	33	9	291.9	1.8	31	17
-	The US	1286.4	8	12	3	2169.5	13.2	7	1
-	China	1428.3	8.9	17	2	1132.5	6.9	18	3
-	Japan	782	4.9	9	4	762.6	4.6	23	4
2009	The Russian Federation	303	2.4	-36	13	192	1.5	-34	17
-	The US	1056	8.5	-18	3	1605	12.7	-26	1
-	China	1202	9.6	-16	1	1006	7.9	-11	2
-	Japan	581	4.6	-26	4	552	4.4	-28	5

Source: own processing based on statistics from the WTO, International Trade Statistics, Leading Traders section available at: [http://www.wto.org/english/res\\_e/statis\\_e/statis\\_e.htm](http://www.wto.org/english/res_e/statis_e/statis_e.htm)

We can clearly see from data illustrated in Table 1 that in 2007 and 2008 all four countries had increased exports and imports. In 2007 China had the biggest volume of exports, the biggest market share and the biggest growth rate. In 2008 China was still the biggest exporter, The Russian Federation had a very good evolution increasing its exports by 33 %. Also if we take a look at the rank held by these four countries in the top 50 exporters in the world, we can see that China was on the second place as an exporter and the third as an importer in 2007-2008. The same stability in ranking had The US with its third place and Japan with its fourth place. The Russian Federation gain three positions in 2008 as an exporter and lost one as an importer.

Regarding the state of imports in 2007 and 2008 we can say that The US held its top rank as the world biggest importer and all four countries increased their volume of imports. In 2007 The Russian Federation increased its imports with a rate bigger by 19 pp than the growth rate of exports and in 2008 the rate of imports was smaller by 2 pp that the exports rate, but imports still had a higher global rate than exports which had a significant impact on its trade balance. In 2008 China was the only country that decreased its volume of imports and increased its exports, in an effort of stimulating national production and improving trade balance. In term of foreign trade Japan was in a difficult area in 2008, when its imports increased by 23 % (form a rate of 7 % in 2007) while exports increased only by 9 %.

In 2009 in all four countries foreign trade dropped, the higher decrease rate of exports was in Russia (-36%) and in Japan (-26%), and imports decreased with 34 % and 28 % respectively.

When we put in conjunction data form Figures 1 and 2 with data form Table 1 we can notice that in 2007 and 2008 exports increased in all four countries while the volume of corporate loans increased in The Russian Federation and Japan (in The US corporate loans decreased in 2008 by 20.74 % and in China by 2.45 %). During this period of foreign trade growth the volume of bonds issues decreased in all four countries, but the difference in loan capacity was filled by the growth on corporate lending. In 2009 when foreign trade dropped, corporate lending decreased in The US, The Russian Federation and Japan, while in China lending increased by 6.84 %. Regarding the volume of bonds issues, in 2009 it increased in The US by 12.05 %, The Russian Federation by 1.69 % and China by 8.24%. In Japan the volume of bonds decreased by 20.54 % and 19.02 %, respectively. For a better view of these aspects we synthesized them in Table 2.

From data in Table 2 during the expansion of foreign trade in 2008 lending increased in three countries and decreased in two, and bonds issues decreased in all five countries. In 2009 when foreign trade dropped only The US and China increased their lending (The US increased bonds issues and China increased both types of lending).

So in 2007 and 2008 lending generally increased in order to support businesses and to counter the negative effects of the recession. But only two countries increased their lending during a sever downfall in



2009: The US and China. And as results China took the first place as the world biggest exporter and improved its trade balance, and The US cut its imports, improved its trade balance and stimulated national production.

**Table 2 – General evolution of corporate lending, bonds issues, exports and imports in 2008-2009**

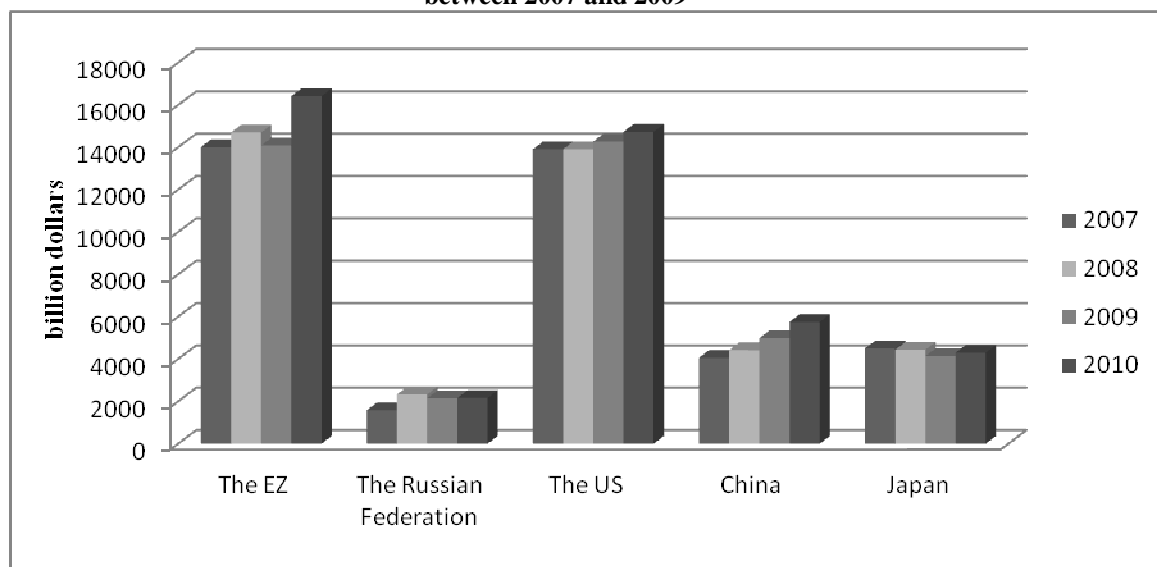
Year	Economy	Exports	Imports	Corporate lending	Bonds issues
2008	The EZ	Increased	Increased	Increased	Decreased
-	The Russian Federation	Increased	Increased	Increased	Decreased
-	The US	Increased	Increased	Decreased	Decreased
-	China	Increased	Increased	Decreased	Decreased
-	Japan	Increased	Increased	Increased	Decreased
2009	The EZ	Decreased	Decreased	Decreased	Decreased
-	The Russian Federation	Decreased	Decreased	Decreased	Decreased
-	The US	Decreased	Decreased	Decreased	Increased
-	China	Decreased	Decreased	Increased	Increased
-	Japan	Decreased	Decreased	Decreased	Decreased

Source: own processing

It is very important to mention that in The EZ exports were 4175,3 billion dollars in 2007, 4087,8 billion in 2008 and 3619 billion in 2009. As we can see exports of The EZ decreased constantly from 2007 to 2009 by 13.32 %. Imports of the EZ were 3958,4 billion dollars in 2007, 4356,3 billion and in 2009 imports were 3427 billion. From this point of view The EZ is the biggest exporter and importer on the global market, also we can see that in 2008 The EZ was a net importer, imports exceed exports by 268,5 billion dollars. In 2008 when trade balance was negative in The EZ corporate loans increased, as a measure to stimulate business and production, and in 2009, when exports exceeded imports by 192 billion dollars lending decreased. But the stimulus worked as exports grew, imports decreased and trade balance of The EZ has turned positive.

In order to understand further how these aspects evolved it is important to make a comparison with the evolution of GDP during this period, as showed in Figure 3.

**Figure 3 – Evolution of GDP in The Euro Zone, The Russian Federation, China, The US, and Japan between 2007 and 2009**



Source: own processing based on data available at:

<http://www.tradingeconomics.com/Economics/GDP.aspx?Symbol=RUB;> Eurostat, <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>; European Union Economy, Wikipedia, [http://en.wikipedia.org/wiki/Economy\\_of\\_the\\_European\\_Union](http://en.wikipedia.org/wiki/Economy_of_the_European_Union); CIA, The World FactBook, available at <https://www.cia.gov/library/publications/the-world-factbook/geos/us.html>; [http://en.wikipedia.org/wiki/Economy\\_of\\_the\\_People's\\_Republic\\_of\\_China](http://en.wikipedia.org/wiki/Economy_of_the_People's_Republic_of_China),

[http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_GDP\\_\(nominal\)](http://en.wikipedia.org/wiki/List_of_countries_by_GDP_(nominal)); CIA, The World FactBook, available at [www.cia.gov/library/publications/the-world-factbook/geos/ja.html](http://www.cia.gov/library/publications/the-world-factbook/geos/ja.html)

Form data in Figure 3 we see that in Japan in 2007, 2008 and 2009 GDP has decreased constantly and in 2010 it increased by 3.9 %. These issues show that Japan's economy was deeply affected by the global recession it managed to get back on economic growth only in 2010. The US stagnated in 2007 and 2008 and then increased its GDP slightly in 2009 and 2010. In The EZ and The Russian Federation the GDP decreased only in 2008, and China was on economic growth during the entire global recession; between 2007 and 2010 its GDP increased by 41.73 % or 1693 billion dollars.

For a larger picture let's put into conjunction data from Figure 3 with data from Figures 1 and 2, so as we can show how lending behaved in comparison with GDP evolution; all of these are synthesized in Table 3.

**Table 3 – Evolution of GDP in comparison with lending in 2008-2009**

Year	Economy	GDP	Corporate lending	Bonds issues
2008	The EZ	Increased	Increased	Decreased
-	The Russian Federation	Increased	Increased	Decreased
-	The US	Stagnated	Decreased	Decreased
-	China	Increased	Decreased	Decreased
-	Japan	Decreased	Increased	Decreased
2009	The EZ	Decreased	Decreased	Decreased
-	The Russian Federation	Decreased	Decreased	Decreased
-	The US	Increased	Decreased	Increased
-	China	Increased	Increased	Increased
-	Japan	Decreased	Decreased	Decreased

Source: own processing

In The EZ GDP evolved in the same way with corporate loans and in the opposite way to bonds issues. Japan struggled to get back on economic growth increasing corporate loans in 2008 but it failed and in 2009 the volume of corporate loans decreased. In The US although general lending decreased in 2008 the economy managed to stay afloat and GDP stagnated. In 2009 only in The US and China lending increased, in The US in the form of bonds issues and in China in both forms. As a result in 2009 in these two countries GDP grew as well as corporate lending.

Also it is very important to state that during 2007-2008 only China managed to obtain economic growth, increase its foreign trade, improve its trade balance and increase its corporate lending. In 2009 although China's exports and imports decreased, its GDP rose by around 11 %.

### 3. Conclusions

Although authorities injected large amounts of money in the financial market, recapitalized banks and improved corporate lending the effect of these actions wasn't in all cases the one expected. In The Euro Zone in 2008 foreign trade grew, GDP and corporate lending increased, but the side effect was a negative trade balance of 268,5 billion dollars with all of its economic consequences. In 2008 The Russian Federation had the same evolution as The EZ with the difference that it registered a positive trade balance. Yet the policy worked and production was stimulated and economic growth was registered. Japan also had the same evolution, but its trade balance was negative and imports grew by 14 pp more than exports and its GDP decreased constantly, so for this case the increase in corporate lending did not bring economic growth and an improved trade balance.

China and The US had increased foreign trade, and improved trade balances but in these cases corporate lending decreased. This shows that in these two economies production was stimulated and economic growth was achieved by other measures than facilitating corporate loans. Studying other aspects of international trade we will probably see that the main factors that stimulated economic growth were the currency exchange rate, the level of prices on the global market and probably some taxation factors that acted as stimulus.

In 2009 the effects of the global recession were spread to most economies and the negative effects were huge and fully felt. Foreign trade decreased in all of these five economies, in The US and Japan exports decreased at a lower rate than imports, which improved their trade balances, and in The Russian Federation, China and The EZ exports decreased at a higher rate than imports, which created difficulties in managing trade balances.

In 2009 only in The US and China corporate lending increased and acted as a stimulus to production and economic growth, and as a result only these two economies recorded GDP growth in 2009. In the same period the other three economies recorded a downturn in GDP.

Although the fully data are not yet available for 2010, we know that in all of these economies authorities support financial institutions in order to increase corporate lending and as a result increased GDP was recorded in all these economies in 2010 compared with 2009.

So based on these data we can say that facilitating access to capital for corporate entities by increasing corporate loans and corporate bond issuance, authorities can establish the premise of developing competitive advantage and promote economic growth, but access to capital is only one aspect that creates competitive advantage and economic growth and it alone will not be able to these things, it requires support from other factors of a fiscal, competitive and regulatory nature.

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## REMEDIES FOR OVERCOMING THE PRESENT FINANCIAL CRISIS

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**Abstract:** *The purpose of the work is to identify several practical remedies for overcoming the crisis in Romania. In this direction, the author looks at the measures taken by the governments of the main western states (USA, Great Britain, Germany, France) and by the emergent economies (China, Poland, Czech Republic and Hungary). As far as the measures taken in Romania are concerned, the author looks at three levels: measures taken by the Government, measures proposed by foreign investors and some measures proposed by the university professor Constantin Roman. As conclusions, the author proposes three measures for overcoming the crisis: "First House", "First Silo" and "First Business".*

**Key words:** *crisis, investors, remedies, solutions*

**JEL classification:** E1

### 1. Introduction

The main reason for the crisis that started in the States and then extended to global level by a contagiousness effect is the excess of financial investments. The main responsible is the banking system from the shadow, which includes hedge funds, structured investment vehicles, non-banking mortgage dealers and all the derivatives associated to these, together with mortgage loans.

Detailing, there are more causes for the economic crisis from Romania, such as:

the much too fast opening of the capital account; the consumerist fever, based on the short-term external financing; the procyclical fiscal and budgetary policy, based on the flat income tax and on the very accentuated growth of the budgetary salaries, under the circumstances when the economy was still expanding; the delay of the structural reforms. Of all these, the fever of the excessive consumerism remains the main cause of the Romanian economic crisis.

The developed countries are able to implement packages of incentive schemes for the value of hundreds of billions of euros, an unaffordable luxury for the emerging economies, due to the difficulties of financing the economic deficit and of the procyclical policies adopted during the period of economic growth. More than that, both the causes of the crisis as well as the "transmitting mechanisms" in the East are different from the Western countries, so that the measures to surpass the crisis should be different.

### 2. Solutions

The first anti-crisis measures were taken in the USA, where it originated. Akerlof and Schiller (apud Voinea, 2009, p.55) place this measures in three categories: the expansionary discount window, direct investment in banks, and use of government sponsored enterprises. The discount window offers secured loans, on competitive basis, to financial institutions which suffer temporary shortages. To save the banks, in a first phase, cost 250 billion dollars. Half the money went to seven banks> Bank of America, Bank of New York Mellon, Citigroup, Goldman Sachs, J. P. Morgan Chase, Morgan Stanley, Well Fargo. To save AIG, the insurance giant, cost a supplementary 85 billion dollars. The rescue of these private financial institutions with public money may appear somehow unfair, because it looks like a compensation for the unrighteous behavior of these banks.

The most liberal economies of the world, the American and the British ones, nationalized numerous financial institutions under the pretence of saving the small business, but in fact covering the huge losses provoked by leaderships of those institutions. We consider that the state should not be merely the fireman on duty, and the losses should not be supported by the wider society. We ask ourselves the following question: can a financial crisis be replaced with a moral one? Is it all right for those responsible for hundred billions of dollars detriments to retire unhindered with hefty allowances and for the population to suffer the costs?

Obama's plan to stimulate the economy sums up to 825 billion dollars, split into two equal installments, in 2009 and 2010. This program comes to continue the Paulson Plan from the end of 2008, so that the American economy will be injected with 1500 billion dollars. Here are a few of the points on the Obama's plan:

- every American who earns below 200000 dollars a year will benefit a tax cut of 500 dollars, and per family the cut will rise up to 1000 dollars;
- other tax cuts estimated to 275 billion dollars are expected to stimulate consumption, which generates two thirds of the GDP;
- 119 billion dollars will be directed to the 50 states of America, especially for health care and administration;
- the most affected social groups - unemployment, social security – will be allotted 106 billion dollars;
- 90 billion dollars will be invested in infrastructure, 54 billion in energy sector and 16 billion dollars will be distributed for research (Mășu, Buneci, Gheorghe, 2009, p. 158).

To these solutions we add the following remedies: to raise the salary taxes for the richest part of the population; to levy taxes for the financial transactions; to reform the financial sector, including the segregation of the commercial banks and the investment banks, so that the commercial banks are limited to grant loans and maintain them in their portfolio; the innovative derivatives should be approved by a regulating body; all the operations produced in the banks should be recorded in the statements; to eliminate the off-balance financial vehicles; to create public rating agencies; a strict control for the shadow banking system; to create a guarantee fund, financed by the financial institutions and to modify the structure of the incentives which award the risky conduct, including the introduction of clauses which stipulate that the managers who are granted awards for performances which prove to be false are bond to return the prizes (Voinea, 2009, pp. 60-61). In what concerns the fist of the remedies, the annual outcome of over 150000 pounds should be taxed by 50%, as opposed to 40% in the present. Thus, the tax modification will get out of the pocket of a banker who earns a billion pounds to take put of his pocket another almost 90000 pounds (L. Gheorghe, Adevarul, 15.01.2010, p. 48).

Further on, we present a set of rules proposed in the specific literature: individual initiative should not be instigated through bonus or incentives pay, not without the implication that if there are losses as a consequence of the risks taken, they should be paid for; (to clean the debts, to cut the debts from taxes and markets organized on derivatives, by imposing high percents of coverage from self financed capital, of about 90%; to eliminate the fiscal paradises; to ban, inside the European zone, the so-called “credit default swap” (CDS) products; to nationalize the stock exchange enterprises; to promote an anti-speculative monetary policy and enhance the application of the prudential regulations; to modify the accounting regulations in a way that allows the enterprises to renounce the actual value and correct the account value according to the impact of the market decrease; to regulate publicly the assessment agencies; to elaborate a deontological code for the multinational companies, in order to implement the social function of the enterprise; to train the financial officers for their role; to reestablish the primary function of the futures market, banning the speculations; to favor the profession of risk management officer; to reform the financial institutions, IMF and World Bank, meaning to reinforce the financial stability and reestablish the credit flux to the member countries (Mășu, Buneci, Gheorghe, 2009, pp. 223-234).

Daniel Dăianu also proposes three solutions which could be counted as learning: understanding of the systemic risks at national level, of the contamination and contagion effects; the need to regulate the financial markets as a whole (including the so-called parallel banking system, of the rating agencies, of the payroll bands, and a process of securitizing the loans) and the need for common accounting standards, regulated globally (Dăianu, 2009, pp. 172-173).

In Great Britain, the government decides the state’s intervention in the banks Northern Rock and Bradford Bingley and injects EUR 44.8 billion in saving, through nationalization, the banks Royal Bank of Scotland, Halifax Bank of Scotland and Lloyd TSB. Therefore, the generalised bankruptcy of the British banking system could be avoided. Gordon Brown develops a relaunch plan of EUR 24.2 billion, that is, % of the GDP, having as a main element cutting the VAT from 17.5% to 15%. (Mășu, 2009, pp 161-162).

On January 12, 2009, the German government announced the guidelines of its economic relaunch plan, worth EUR 31 billion, on a two-year period and continuing another previous program of EUR 31 billion, adopted at the end of 2008:

- investments in infrastructure of EUR 18 billion,
- the decrease of the tax per salary from 15% to 14%,
- the absolute reduction of contributions to insurances and division of the sum between employer and employees.
- a “germanised” version of the “scrap car” program, with each buyer getting EUR 2,500 on buying a new car and scrapping another, which was more than nine years old.

- each child gets 100 euros, payable once.

Therefore, the German government fights the crisis with a program worth EUR 81 billion, which represents 3.2% of the GDP forecasts for 2009-2010. (Mășu, 2009, p171) .

In France, Sarkozy's plan focuses on the public state investments, with EUR 10.5 billion and of the companies with state capital and local communities, with EUR 11.4 billion, with a total cost of the crisis reaching EUR 26 billion. The structure of the program of measures in December 2008 included:

- a program for building 70,000 additional residential units,
- EUR 4bn for equipment and infrastructure in public investments,
- doubling the number of loans with 0 interest,
- exoneration of employers' taxes on hiring employees,
- EUR 1,000 premium for an old scrapped car,
- EUR 300m fund, destined to reorganising the automobile industry.

Moreover, Nicolas Sarkozy resumes the crusade for an "enterprisers' capitalism" and against an "enterprisers' monopole". Heads of state in France, Germany, England and Italy have made five historic decisions, and these are:

- all banks will be supported, and each state is going to adapt to its own situation,
- managers who are responsible will be sanctioned, with reference to the presidents of the banks going through difficult situations, who will be invited to resign,
- states can break the European limits, as far as the public deficit is concerned (The European Commission will allow the state's direct intervention in order to support enterprises),
- all financial market players will be checked up (listing agencies, investment funds and banks will be the object of thorough checkups in order to avoid side-slips,
- appeal for restructuring world finances by organising a summit G-20. (Mășu, 2009, p 164-167).

The developed countries are able to implement fiscal stimulants of hundreds of billions of euros, a forbidden luxury for the emerging countries, due to the difficulties of financing the deficits and of the procyclical policies adopted during the economic growth. To add to these, both the causes of the crisis as well as the conveying mechanisms are different from East to West, so the plans for surpassing the crisis should be different.

Here area few of the austerity measures taken by some of the member states of the EU – the example of the Poland: the cut of the expenses for goods and services; the Czech Republic: dismissals from the budgetary sector; Hungary: the cut of the bonuses for the budgetary sector; the freezing of the salaries in the budgetary sector, of pensions and other social benefits; the cut of subventions for heating and lodging; the cut of the allowances for families, for children, sickness and maternity leave and the rise of the VAT (Voinea, 2009, pp. 155-156). It must be noticed that the anti-crisis plans in the Eastern Europe are focused on the control of the expenditures, a typically orthodox and monetarist approach. This attempt to reduce the expenditures in the budget sector during the recession exemplifies the paradox of saving. The more a country tries to economize, the more the investments and revenues decrease, and, thus, the resources for saving drop as well. In other words, the cut of the expenses will be further seen in the diminishing of the revenue.

The Chinese government was the first to react when conjuncture started deteriorating, ever since 1997, with an impressive two-year plan, worth RMB 4,000 billion, that is, USD 586 billion, the equivalent of 16% of the GDP in 2007. The plan represents only new expenses: 70% is allocated to transports and reconstruction in Sichuan; the construction of social homes got 6%. The plan was completed by a reform of the health system, announced in January 2009, budgeted at RMB 850 billion over three years. The next governmental action stage was stimulating private consumption: reduction of taxes that are not included in the plan package and the VAT reform on fixed capital investments. (Mășu, 2009, p. 189).

Year 2008 didn't close before the anti-crisis reunion at the highest level took place, in Washington, in November 2008, under the form of a Summit G-20. The participating states in G-20 represent 85% of the world economy and the decisions of the leaders of the group with global and planetary span. The world leaders' promises were:

- the reform of international financial institutions, such as the International Monetary Fund and the World Bank,
- closing an agreement on relaxing global trade,
- improvement of the financial market transparency degree,
- control over the risks undertaken by banks and financial institutions,
- drawing up some lists with financial institutions whose bankruptcy would represent a seismic risk,

- strengthening the prerogatives of financial regulatory institutions and revising the norms regarding frauds and market manipulation. ( Mășu, 2009, pp194-195).

### 3. Options and remedies for Romania

The strictly monetarist anti-crisis recipe cannot take the economy out of crisis. It can put it back on the line, but only in time and with significant social price, without establishing any grounds for a proper long and medium term growth. In order to outrun the present economic crisis, a national program of investments and fiscal stimulants is necessary, to favor the consumer and the business with a low credit level.

But, what other course of action could Romania take in order to break through the economic crisis? Three directions were proposed as alternative solution for economic stimulation.

1) The first option is to re-encourage the credits and to stimulate consume. But, as the origin of the Romanian economic crisis was the exceeding consume, it is not normal that the same mechanism which provoked the crisis should be adopted as a solution to outrun it. The cuts of expenses, focused on dismissals and cuts of the salaries, implies a redistribution of wealth, from the workforce to the capital owners and fund holders. The total salary fund of the Romanian economy is larger than the total outcome, and the salary cut is counter-productive inside an economy which is dominated by salaries. The immediate effect would be the drop of consume.

2) The second option is to increase the public investment in infrastructure. But not all the investments are equally efficient or have the same opportunity costs or multiplying effects of conveying economic benefits. The type of investment is very important, that is why the intensive public investment in the workforce should be favored. The public-private partnerships can be a solution for increasing the investments in Romania, without increasing the budget deficit.

3) The third option would be to access structural funds extensively. The average degree of structural funds absorption of the states who became members in 2004 is around 50%, and, as the funds allotted to Romania, which do not exceed 2% of its GDP per year, an average absorption at the economic level of the area would be equivalent to 1% of the GDP. This is not enough to constitute the main economic growth engine (Voinea, 2009, pp. 159-162)

In what concerns the loan from the IMF, the following should be stated: Romania has concluded a loan agreement in May 2009 for 12,9 billion euros, to which are added other loans from the World Bank and the European Union. This loan was more of an emergency measure than a safety measure. Without the money from the IMF, Romania would have faced the real problem of not being able to pay the overhead expenses of the state and the exchange rate would have dropped significantly. But those problems have not been solved, only postponed.

The conditions attached to the IMF Agreement were the following: the law of the single wage grid for the budgetary sector, a new coherent law for pensions, legislation concerning fiscal responsibility, tax administration reforms and institutional reforms for the local authorities, amendments for the bank law and the deposits securitization law.

The main measure against the crisis in 2009 was the "First House" program, to which a budget of 1 million euros was allotted. But this program stimulates exactly the sectors responsible for the burst of the crisis in Romania, that is the loans for population and the construction sector. As we have already seen, the old inhabitations were sold and new apartments were not built. In order to be efficient, the program should be redirected towards building new apartments or the thermal rehabilitation of the buildings. This would also create new jobs.

As for the dismissals from the budgetary sector, we have to say that economic stimulation will be even more difficult in the circumstances of increased unemployment – one hundred thousands of budgeters laid off. We consider that the solution for a healthy economic stimulation in Romania is the increase of the employment. If possibilities would be created for one in four Romanians to find employment, the impact would be huge – one million of four producing added value and paying taxes, consuming and economizing. But where is the money for these measures? It could be found by tax reformation and new favorable of creditation for the small and middle-size business.

Following negotiations with IMF, the Government of Romania adopted a series of austerity measures, meant to limit the effects of the economic crisis and encouraging a possible economic relaunch.

Austerity measures adopted:

A) reduction by 25% of the expenses in the public system starting June 2009,

B) reduction by 15% of pensions starting June 1<sup>st</sup>;

There will be an exception for children's allocations and for salaries under RON 600.



Measures for economic relaunch:

1. the payment of government's debts to companies (EUR 1bn);
2. insuring governmental investment programs:
  - investments in rural economy, support for SMEs in the rural area, rural roads, rural infrastructure (EUR1 billion);
  - investments in environmental infrastructure ( EUR 0.7 billion);
  - continuation of investment programs through relevant companies in the Ministry of Economy (EUR 2bn);
  - 4,000 ANL residential units;
  - 1,000 houses for specialists;
  - rehabilitation of 500 km of county roads;
  - rehabilitation of 400km of national roads;
  - finalization of works on ring roads: Sibiu, Cluj, Oradea, Lugoj, Iași, Constanța;
  - continuation of works on the motorways: Transilvania, Bucharest - Ploiești, Constanța-Cernavodă, Arad-Timișoara;
  - continuation of the programs "Scrap Car", "First Silo", "First House";
  - granting governmental guarantees to companies that got European financing but are not able to insure co-financing;
  - granting further support to companies that hire unemployed people.
3. Program to fight against tax evasion;
4. Limiting public acquisitions: ([www.infomondo.ro/politic](http://www.infomondo.ro/politic))

I have to highlight that the measure to reduce pensions by 15% was declared unconstitutional by the Constitutional Court, and therefore the Government decided to increase the VAT from 19% to 24%.

The imminence of a third year of economic contraction worries foreign investors. Therefore, The Foreign Investors Council (FIC) proposes authorities a set of measures, the following of which are considered a priority:

- 1) Bank for SMEs. This measure would generate a 0.4% rise of the revenues to the state budget and would create 9,000 new jobs.
- 2) Fast privatization of the state companies. FIC proposes a transparent privatization of a share of some state companies, by listing them on the Stock Exchange and through strategic sales, including of the minority stakes. The money thus made should be redirected to agriculture. The estimated impact of this measure would lead to a 2% rise of the GDP.
- 3) Private security companies at the Customs. Businesspeople ask for a simplification of the tax payment methods, simultaneous with focussing checkups on companies that present a high risk rate. In addition, FIC is willing to hire, on its personal expense, a security company to improve customs checkups. By reducing tax evasion, about EUR 460 million would be available every year for investments. FIC estimates the setting up of 46,500 new jobs.
- 4) "Prima Casă" (First House) should be made possible for the second house as well. FIC promotes the setting up of a Registry of Outstanding Debts registered by the state budget. As far as European funds are concerned, the measure suggested is outsourcing or centralising fund access process management, which would lead to a 3.6% increase of the GDP by 2015. At the same time, the bank representatives in the Council claim that the project "Prima casă" has to be continued, but in a different form. They are for extending it for the clients who already own a house, simultaneously with reducing the state guarantees to only 50% of the loan value.
- 5) Hosting the European Football Championship in 2020, chance for infrastructure and tourism. This project, in partnership with Hungary, would have a major financial impact on the economy as there will be new airports, highways, hotels and stadiums.

FIC reunites over 110 companies. Their cumulated investments in Romania exceed EUR 30 billion and represent almost two thirds of the total foreign direct investments made since 1990 so far.

Putting into practice the measures mentioned above would lead to a rise by 11.6% in GDP by 2015. Another more important effect of these measures would be the creation of 250,000 new jobs, all at a cost that does not exceed 0.7% of the GDP. (Ionuț Morariu, "Adevărul", October 8, 2010, p.3).

This shows that, unlike the measures taken by the government so far, which lead to a reduction of the number of jobs, there are measures that can have a positive impact on the economy and jobs.

In an interview taken by editor Ion Longhin Popescu, to the University Professor Constantin Roman from ASE (The Academy of Economic Studies) Bucharest, the latter proposes the following solutions in



order that Romania should exit the crisis. These technical solutions have been verified in Romania's economic past and in other countries' practice:

- a) Additional tax for uncultivated farming lands;
- b) Reimbursement of the excises from diesel oil and electric power price to farmers based on the production made and the surface of exploited land;
- c) Renegotiation of two sectors with IMF: education and health, so that secondary budgets should have deficits higher than 7-8%, so that investments are made possible;
- d) Stopping doctors and IT specialists' haemorrhage to the West, so that the graduates be no longer able to leave abroad unless they pay back the money spent on their education and training to the state;
- e) Organising master courses to train European project developers;
- f) Moving the Court of Accounts under the subordination of the Ministry of Justice, of the Ministry of Finances and Ministry of Interior, so that any tax evasion file should be signed by representatives of the three ministries, thus giving heavy weight to the checkup act;
- g) Reduction of the tax per profit rate from 16% to 5%, with two restrictions: 1 – the money should be deposited to an account open in a bank in the country; 2 – the difference between 16% and 5% should not be spent, but deposited in a development or investment fund;
- h) Establishing a tax that differs according to the salary, encouraging families with more children, who would pay lower incomes, and encouraging birth rates as well;
- i) Reintroduction of the tax payer's diary and the global tax return per family;
- j) Application of the Australian experience in the rural education field, which involves lessons through the radio or the internet;
- k) Turning ministries into cost centres, and businesses to be governed by a professional secretary of state, according to the corporate government law, which says that the management board of each ministry should include an auditor in charge for the entire administration. (Formula AS, no. 930, 931/2010)

#### 4. Conclusions

Within the context of the present economy, the present crisis demands for the reevaluation of the entire body of regulations, so that the systemic risks came out of the less benign financial innovations can be controlled. This enterprise should be undertaken with pragmatism and open-mindedly; it implies for some to get away from the imprisonment of the market fundamentalism. And one more thing should be added to these: it is not the real economy that should serve the financial one, but the other way round. When the financial economy gets to serve for itself, the consequences can be harmful for the economy as a whole... The capitalist economy needs a moral compass and it should guide the conduct of those who manage the private finances. And those who have no respect for decency in business and do not accept the responsibility of their actions should be rightfully penalized, in one form or another (Dăianu, 2009, pp. 144-145).

In what concerns the fiscal reform in Romania, we have two propositions: taxes for property and progressive taxes for outcome.

For the fiscal reformation, a proposition is to levy a tax for property (depending of the number of rooms or real estate properties of an owner) and a progressive tax for salaries, in four steps. These taxes serve the purpose to redistribute the costs of the crisis to those who have bigger financial power. In what concerns the "First House" program, it should be improved and extended to new buildings or towards the rural area. It should be completed with the "First Barn" program, for the young persons who are willing to invest in agriculture. For the young persons under 30s with entrepreneurial spirit, an appropriate program would be the "First Business". It grants a starting capital of 5000 lei, under the condition of employing at least three people, and tax exemption for profit for 3 years. The government should also invest in infrastructure (building of highways, sewage and heating infrastructure, modernization of the railways). Also, an industrial policy for a period of 25 years, with clear stating of the objectives, opportunities and tasks would be needed. Among the envisaged domains should be the car industry, the agricultural building, and factories placed under state management should be built. Another important domain would be the software, produced with well-paid local people in Romanian companies. A group of companies could be placed in Iași, where young professionals from the Republic of Moldova and Ukraine could be also attracted.

In order that Romania should overcome the crisis we propose the following solution:

- 1) Extending the "Scrap car" program for tractors and farming machines;
- 2) Reduction of the flat tax from 16% to 14%;

- 3) Non-taxation of reinvested profit;
- 4) Reduction of the number of ministries to 7 and of the governmental agencies by 60%;
- 5) Introduction of the fast amortization system for all productive investments;
- 6) Cutting budget expenses on public acquisitions;
- 7) The cost of the mobile telephony conversations should be paid by the holder, regardless of the position;
- 8) Reduction by 5% for taxes paid in due time;
- 9) VAT payment on collecting the invoice money;
- 10) Helping young people by reducing tax per salary by 10% on hiring;
- 11) Setting up a wholesale market network to take delivery of fruit and vegetables;
- 12) The unblocking of the armament industry;
- 13) Taxing 30% in units serving fast food products;
- 14) Institutional support for promoting Romanian products for export on other markets than the EU;
- 15) Shift towards non-polluting energies (solar and wind power);
- 16) Stimulating privatization in fields such as education, health, research;
- 17) Decrease of bank interests in order to facilitate crediting;
- 18) Encouraging purchase of domestic products "made in Romania";
- 19) Price cuts for food products made in the country from domestic resources;
- 20) Obliging local authorities, through law, to make investments, firstly in priority fields (water supply, treatment of used waters, sewage, transport, health, education);
- 21) Reduction of the tax per dividends to 5%.

Apart from these measures mentioned above, there have to be added some strong measures to eradicate corruption through:

- attributing state orders through a transparent auction system;
- orienting the state budget towards transparent public policy priorities, in the contributors' interest and not for the politicians' clientele;
- depoliticization of control bodies at all levels;
- complete eradication of pressures from political factors over economic agents, especially for collecting funds for political parties;
- real independence of justice, finalization of corruption cases and drastic sanction of the corrupted;
- directing funds from EU and WB on rational grounds, and not on political grounds to local communities;
- adopting a legislative framework based on EU requirements and strict observance of the juridical regulations regarding: conflicts of interests, publishing dignitaries' wealth, financiering political parties;
- for the institutions financed by the state there should be provided for the possibility to transfer the surplus from a fiscal year to another, in order not to get to the situation where, on closing the fiscal year, the sums should be spent by all means or destination, to avoid the reduction of the allocated budget in the next fiscal year.

At present, we are facing a cluster of crises: the financial, food, global heating, and trust in the political class crises. In order to outrun the crisis, the government should assume the spending of public money in order to re-launch the economic ship, but aimed at those sectors which are able to produce economic growth.

Instability is an internal feature of the free market, which unavoidably leads towards financial and economic disequilibrium. The heterodox theory postulates that disequilibrium leads to crisis, but, after they are corrected, the market does not head towards equilibrium, but towards a new crisis.

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## QUESTIONS THAT HAVE TO BE SOLVED BY ECONOMISTS

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**Abstract:** *In a world that struggle with crisis after crisis under the careful but useless analysis of economic theorist, a fair question arise. What if the fundamentals of economic thinking, the basic methods and concepts that economists use when doing economics, economic analysis, are wrong or ? Crises history give us ineteresting conclusions that can be directed in sustaining issues revealed by Toffler work, fundamentals of economics are changed.*

**Key words:** free-market, state institution, knowledge, scarcity resources.

**JEL classification:** A11, D03, E03, E60

### 1. Introduction

Crises of economics is for now a certitude because few economists saw our current crisis coming. But the lack of predictive ability is not the worst problems of this field. The blindness of economic professional is prove by their incapacity to understand the problems that exist on the real market and their failure to elaborate models that fit with present changes. Present changes happen now and humanity need solution to face the problems that occur. To neglect or ignore issue such the shifting form of propriety or irrational behavior is a problem of „Sleeping Beauty” touch by The Great Moderation.

Causes of crises were find in the impossibility of market to be efficient or in incapacity of state institutions to regulate the challenged markets. But the history of crises (Bordo Michael et Al, 2001) show us these crises occurred in many countries where institutions and factors are vastly different. Much more, the crises appear more frequently in our age. “History thus confirms that there is something different and disturbing about our age” as the above mentioned author wrote as conclusions.

We have structured the discussion into four section covering the main economic theory that governed the world before 2007 crisis, conclusions from crises history, the economic thoughts that become more important and main economic issue that have to become important. .

### 2. Main economic theory before 2007 crises

The main problems of economic thoughts and differences among economists, was before crises, at macroeconomic level and the battle was waged free market supporters on market regulation ones. We refer here at American economic thoughts because they are those strongly involved in present crises.

Between 1985 and 2007 this battle was covered by a false peace. There had not been any real convergence of views between this two fractions, but these were the years of the Great Moderation , a period during which inflation was subdued and recessions were relatively mild. Was the period of financial market deregulation as influences of Chicago school and state institution control (that was Federal Reserve).

*Chicago School of Economics* has a free-market, anti socialist approach and is typified by Milton Friedman. The school became by the 1990s the mainstream of economics worldwide. But although influence and awards are many, nine nobelist (Friedman, Becker, Lucas, Schultz, Ronald Coase, Robert Fogel, George Stigler, and Merton Miller), practical victories have been few. Their admittedly elegant theoretical models have failed when tried or tested in the real world and this is due to their rational approach.

Chicago school is broad tendency of neoclassical economic thought that fights against interventionist, institutional and redistributive economic thought, most especially Keynesianism. This school consistently emphasized two principles: the power of neoclassical price theory to explain observed economic behavior and the efficacy of free markets to best allocate resources and distribute income. The major Chicago school theorists posited a minimal role for the state in the regulation of economic activity and

advocated strict laissez-faire policies. This work has had a lasting impact on economic and social policy in the United States and around the world.

The Chicago school's general model of economic behavior is based on the assumption that, individuals maximize their utility, or well-being, in decisions about the allocation of resources, subject to the constraints of market prices and their disposable means. Much of this work derives from research on rational expectations. But this economic thinking fail to explain recession. Robert Lucas argued that recessions were caused by temporary confusion: workers and companies had trouble distinguishing overall changes in the level of prices because of inflation or deflation from changes in their own particular business situation. And consider that fighting against business cycle would be counterproductive.

Yet by the late 80s, events in the real world had convinced mainstream economists that there were fundamental flaws in the Chicago School's theories. And subsequent advances in liberal economic theory brought Keynes back to life, New Keynesianism is now the dominant theory in academia. They reconcile the Keynesian demand-side view of recessions with neoclassical theory and found the evidence that, recessions are, in fact, demand-driven too compelling to reject. So they were willing to deviate from the assumption of perfect markets or perfect rationality, or both, adding enough imperfections to accommodate a more or less Keynesian view of recessions and active policy to fight recessions remained desirable. But this New Keynesian economists fail to on the altar of rationale individuals and perfect markets. They tried to keep their deviations from neoclassical orthodoxy as limited as possible and so they do not think of the existence of bubbles and banking-system collapse. The fact that such things continued to happen in the real world wasn't reflected in the mainstream of New

Keynesian thinking. The principles of Keynesianism were laid forth in Keynes's *The General Theory of Employment, Interest and Money* ( 1936 ), a work of economic theory that emphasized the interventionist role of the state in stimulating aggregate demand in order to reach a full-employment equilibrium. More generally, Keynes charged the state with responsibility for active management of economic growth, principally through attempts to moderate the swings of business cycles. These priorities reflected a critique of the market/price mechanism as an efficient means of allocating resources. In particular, Keynes argued, there was no automatic tendency toward full employment in a market economy. Unemployment could occur in equilibrium, and the government's job was to correct it. The practical goals of Keynesianism, then, were to develop monetary and fiscal policies (and other tools of macroeconomic management) that would maintain the economy at or near full employment.

Apart from the popular integration with neoclassical economics, Keynes's economics has developed in two additional directions. *Post-Keynesians* like concentrated on deriving theories of income distribution and capital accumulation from the Keynesian framework and studied its effects on national income. Post-Keynesian economics often blends Keynes's models with perspectives from classical political economy, with a focus on market systems in a historic and institutional context.

But as we can see both principal economic thought fails to understand what was happening.

### 3. The economic thoughts that become more important

“It’s much harder to say where the economics profession goes from here. But what’s almost certain is that economists will have to learn to live with messiness. That is, they will have to acknowledge the importance of irrational and often unpredictable behavior, face to the often idiosyncratic imperfections of markets and accept that an elegant economic “theory of everything” is a long way off. In practical terms, this will translates into more cautious policy advice — and a reduced willingness to dismantle economic safeguards in the faith that markets will solve all problems (Krugman, 2009)

While keynesians and Chicago economists dispute the important fiscal policy or monetary policy without changing the assumptions that stood at the base of their theory edification a few economists challenged these assumption, so they questioned about rational behavior and the belief that financial markets can be trusted and pointed to the long history of financial crises that had devastating economic consequences.

The standard economic model of human behavior includes three unrealistic traits—unbounded rationality, unbounded willpower, and unbounded selfishness—all of which behavioral economics modifies.

Nobel Memorial Prize recipient Herbert Simon (Simon, 1955) was an early critic of the idea that people have unlimited information-processing capabilities. He suggested the term “bounded rationality” to describe a more realistic conception of human problem-solving ability. The failure to incorporate bounded rationality into economic models are just bad economics. Due to the limit of brainpower and time, we cannot

be expected to solve difficult problems optimally. It is eminently rational for people to adopt rules of thumb as a way to economize on cognitive faculties. Yet the standard model ignores these bounds.

Departures from rationality emerge both in judgments (beliefs) and in choices. The ways in which judgment diverges from rationality are extensive (Kahneman, 1982). Some illustrative examples include overconfidence, optimism, and extrapolation.

The second vulnerable tenet of standard economics, the assumption of complete self-control is wrong. Humans, even when we know what is best, sometimes lack self-control.

Finally, people are boundedly selfish. Although economic theory does not rule out altruism, as a practical matter economists stress self-interest as people's primary motive. For example, the free-rider problems widely discussed in economics are predicted to occur because individuals cannot be expected to contribute to the public good unless their private welfare is thus improved. But people do, in fact, often act selflessly. People often cooperate in prisoners' dilemma games and turn down unfair offers in "ultimatum" games.

These writings were recognized but it contains only fragmented pieces of a new economic reasoning. Other fragments of the new economics lay in unrecognized works such as these of: Eugen Loeb, Henry K. Woo, Orio Giarini, Walter Weisskopf and others (Toffler, 1991)

Humanizing the economy, Eugen Loeb shows us how to establish a macro-organ and select its policy tools (money supply), oust the consumer unfriendly taxation system ("the orientation of the economy toward the interests of the consumer"), and stabilize the purchasing power of money. (Loeb, 1976). The author claims that the fallacies of market, demand and supply, and diminishing marginal returns ignore that an economy is an integrated system whose life depends on human thinking. Human thinking is a dynamic process so that "in any developed economy, there is not even a tendency toward equilibrium. Disequilibrium is the normal state, equilibrium is the anomaly" Recurrent instability of prices and employment suggests rampant disequilibria. Thus, conventional economics is misdirected in its attempts to build "sophisticated theories and simpler measures"; humanomics is correct in focusing on "simpler theories, and sophisticated measures".

In "The limits to certainty" (Giarini, 1993) Orio Giarini proposes that a new economic growth needed to integrate economic and ecological factors, in practice as well as in theory and therefore revise the notion of economic value. This economic transition developed parallel to a growing movement at a more fundamental philosophical level favoring indeterminism against determinism: the notions of risks and uncertainty are increasingly considered as the realm of the new challenges, as compared to a perception - typical of the deterministic era - according to which risk and uncertainty reflect a level of 'imperfect knowledge' which science would or should eliminate: a positive versus a negative connotation of risk and uncertainty.

#### **4. Conclusions from crises history**

An historical comparison of recent crises (Bordo and Michael, 2001) stress that, crises have been followed by downturns lasting on average 2 to 3 years and costing 5 to 10 per cent of GDP over the last 120 years. The last quarter of the 20th century came with greater frequency of crises. After 1973 crisis frequency was double that of Bretton Woods and the classical gold standard period and matched only by the crisis-ridden 1920s and 1930s. History thus confirms that there is something different and disturbing about our age.

The authors stress that "our age is different in that the financial safety net are more extensive and the political pressure to bail out distressed financial institutions is greater than a century ago. Then, that pressure was more limited if only because the role of central banks in providing liquidity support had not yet been clearly defined. Central banks erred in the direction of recusing themselves, as a result of which liquidity crises sometimes ran out of control. Now the pressures are to err in the other direction. Our results suggest that it is critically important for the authorities to operate their lender-of-last-resort facility so that liquidity support is only provided to solvent institutions for limited periods at penalty rates against collateral (truly as a last resort), ensuring that it cannot be used to support insolvent institutions and delay the recognition of financial distress."

Another fact that is distinctive about our age, are the greater short-term capital flows and this has immediate implications for crisis risk and policy toward it. In the 19th, given the low level of short-term capital flow, such flows could be neglected. But the increasing flow in our day must attach priority to their management. And here the Bordo and Michael sustain avoiding the perverse tax incentives that encourage excessive reliance on short-term obligations. Instead it is important to designing tax policies to minimize

those risks. It means limiting official safety nets and implicit guarantees so that financial institutions have stronger incentives to consider the consequences of their actions. It means adopting a more flexible exchange rate so that financial and nonfinancial corporations are forced to consider the risks of short-term foreign exposures on an everyday basis.

### **5. Main economic issue that have to become very important**

We do not claim that we are above the other economists, what should be a stupidity, but we question ourselves why, no economist, at least that we are aware of, treats, studies or analyses the issues reveals by Alvin Toffler, father of futurist research. This futurist word means a life of research. They do not look in a crystal ball and predict, they live reading and meeting people, so they are always in contact with the seed of what would be.

Toffler looks at the many ways the "Third Wave" is revolutionizing our relationships to three "deep fundamentals" and, therefore, to wealth systems in general: time, space and knowledge.

And we want to review the theories that we have had until the crises and the crises history conclusions.

Let us start with Chicago school with his religion of free-market economies. Free market says that under certain conditions of competition, the law of supply and demand predominates in this ideal free and competitive market, influencing prices toward an equilibrium that balances the demands for the products against the supplies. At these equilibrium prices, the market distributes the products to the purchasers according to each purchaser's preference (or utility) for each product and within the relative limits of each buyer's purchasing power.

Living aside the subject of rational agent we stress that this general equilibrium approach was based on the scarcity resources law. In fact all the economy talk about the scarcity. But what is happened when one deep fundamental, that of availability are being transformed by knowledge. Knowledge is not scarce; knowledge is infinite and exponentiates itself. An economy based on knowledge also defies classical economics due to the non-rival property of knowledge. It tends to leak and is hard to protect. It's non-linear, so that tiny insights can yield huge outputs. Above all, it's intangible. Intangible factors have always been entwined with tangible assets. As Hernando de Soto, for example, points out in "The Mystery of Capital," (Soto, 2000) a piece of land is not "property" in any tangible way unless its ownership is enforced by an "intangible" legal title or by "intangible" social norms that secure its ownership.

Knowledge triggers the decay of technologies, reduce produces life and make market more volatile. Baruch Lev (Lev, 2001) says that the life and death of a company is based on innovation and this means an huge increase of intangible. The tangible product itself is cast off and another incorporating intangible is buy. The tangible product does not worth very much without the knowledge. What is sell is knowlege. And let us review knowledge is non-rival, infinite, exponential etc.

The bank system is based, on collateral that consist more in tangible assets. What will happened if this tangible assetes will worth nothing at the and of the agreement?

What kind of collateral corresponding with the business dimensions, can give a company as Google that has overwhelming intangible. Maybe, this incapacity of business development to stay in short tangible cloths is one of the reasons for such extensive and diversificated collateral.

If we talk about keynesian school we all trust that we need state intervention but stimulating aggregate demand in order to reach a full-employment equilibrium is not possible in an open and knowledge based economy. Money will flow in China or in the other producing country or will buy tagible produce with high intangible value. But the targeted unemployed have to know the requested knowledges to produce them.

So the incurable unemployment is structural.

Another problem in the keynesian theory that came from the deep fundamental of time is the continually increasing amount of changes and synchronization required for businesses and individuals to accumulate wealth. A fair question arise when compare the challenging changes on market with changes made bu state institutions. Toffler imagine a high way and all the economy actors as cars on these high way. The market and the business is the fastest car with 160 km/ora and state institution rule with about 40 km/ora. Even this presentation is not a scientific approach, it raise questions about the manner in which a slow sitem like this can regulate the market.

And the last issue is the unrecognized important field of our live, called as prosum. Prosuming has been with us a long time but what is changed now is that cheap new technologies are shifting activities from the money economy into the non-money economy. More and more companies in the money economy are externalizing labor by requiring customers to perform tasks previously done for them by employees. We use

ATMs and punch in the data ourselves — and tellers get laid off. That is prosuming. All the examples that we can give from our experience is just the beginning. We are going to see an explosion of unpaid work.

What means that for unemployment or social security?

The authors go as far as toying with the idea of a world without money, raising (probably for the first time) a third kind of economic transaction that is neither one-on-one barter nor monetary exchange. In the end, they settle on the idea that the newer non-monetary economy (the one first termed the “prosumer economy” in the 1980 volume) will exist side-by-side with the monetary sector in the near term, though the latter may come to be eclipsed by the former over the long term.

Maybe this „something different and disturbing” about our age confirmed by history is the fact that market and life more generally, following its way is prison of this actual way to be.

## 6. Conclusion

We do not prove anything, but we think that we made a step forward in economic field, challenging to find empiric evidence to sustain or throw the ideas of such dramatic shifting in our economy and society. Some of the theme that should be particularly relevant and promising: intangible in cost structure, pricing intangible, estimation of prosum, companies revenue give by prosum, what and how the company give back to society etc.

Fundamental of today economics is seriously questioned:

- **Scarcity:** Economists study situations where needs or wants exceed means. Therefore, people have to make choices – no more general valid- **we have needs that increased means**
- **Rationality** is assumed to guide people's choices or decisions. They systematically gauge all pros (benefit or "utility") and cons ("cost") of all alternatives or options they are facing when deciding- no more general valid - we have already an important **behavioral economic theory**
- **Preferences:** People are equipped with fixed and given preferences that allow them to assign utilities to all options, and to choose the option that maximizes (net) utility – behavioral economy
- **Restrictions:** People face constrains that they cannot change themselves, and thus have to take as given (such as budgets, input cost etc.). Maximization is always constraint by restrictions – no more general valid- we maximize the needs for scientific work to write this article without constraint.

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## THEORETICAL AND PRACTICAL INTERDEPENDENCE BETWEEN THE LOCAL AND REGIONAL CULTURAL TOURISM ACTIVITY. THE ORGANIZATION OF THE REGIONAL ECOMUSEUM SIBIU – A SPECIFIC FORM OF CULTURAL TOURISM

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**Abstract:** *Along with the scientific and technical progress of human society, especially with the development of urban civilization, many of the preserved cultural values have become places of great interest and knowledge. Cultural objects are not creations belonging to isolated humans; they belong to people integrated in a technically designed society, conceived by both the originality of the coexisting generations and the verticality of the generations that succeeded throughout history. All these aspects can be considered elements and favorable conditions that led to the development of cultural tourism.*

**Key words:** tourism, culture, ecotourism, organization

**JEL classification:** L83

Cultural tourism highlights one of the fundamental motivations of most tourist trips, and explains the need to come into direct contact with the historical, artistic and religious values that can provide an image of what a nation's cultural identity means. Its apparition and existence is based on the historical, social-economical development of a territory by changing the environment according to human needs.

In the early '80s the World Tourism Organization has expressed its concern in defining the „cultural tourism ” concept, recognizing the fact that, unlike leisure tourism, cultural tourism is motivated by the visitors need to enrich their knowledge, to have new and various experiences. Therefore, in 1982 the following definition appeared: “*cultural tourism covers all aspects of travel through which people learn about the mentalities and lifestyles those with whom they come into contact* (Lord B., 1995)”. In 1991, The European Association for Tourism Education (ATLAS) has developed the following definition for cultural tourism:” *the movement of persons to cultural attractions away from their normal place of residence, with the intention to gather new information and experiences to satisfy their cultural needs*”(ATLAS 2001)

Over the years, literature has been enriched by many other definitions, which include the following, published in 1995, capturing the scope of the concept: “*visits by persons from outside the host community motivated wholly or in part by interest in the historical artistic, scientific or lifestyle/heritage offerings of a community, region, group or institution*” (Silberberg, 1995).

Other definitions used by various national and international organizations, focus on demand characteristics.

Increasingly, international bodies see tourism, including cultural tourism, through the idea of sustainability and the system integrated in the national economies, focusing on its role in planning tourism actions (Stănculescu G., 2004). In this regard, cultural tourism is considered to be a form of sustainable tourism, because it can induce positive effects both economically and socially, and as well as in terms of environmental protection (especially if we accept the idea mentioned in the penultimate definition, according to which, tourism in national parks can be considered cultural tourism).

The crystallization of the cultural tourism concept was determined, by the evolution of human culture and civilization, by the emergence of cultural anthropology, and the consolidation of various forms of tourism. At its inception, the cultural heritage was a regular component of a lifestyle which involved participation in the community's life, the preservation of religious faith and traditions. Afterwards it has enriched with new elements and values and has generated the interest for knowledge.

Therefore, based on the affirmation and the development of cultural tourism, as a form of recreation and knowledge, we can find three important requirements:

- *To protect and conserve the entire national and international cultural heritage.*
- *To prepare and provide high quality travel services;*
- *To respect the lifestyle of indigenous people.*

Another approach, focusing on the organization of the cultural tourism product, mentions that in order to include a journey in the scope of cultural tourism, some conditions must be met:

- to be motivated by the desire to gain more knowledge
- people have to consume a touristic product with cultural significance (monument, work of art, performance, etc. )
- to involve the intervention of a mediator – a person, document, audio-visual materials – which highlight the cultural product (Minciu R, 2005).

In this context, some explanations can be made about the interconnections between cultural tourism and other forms of tourism, the presence of cultural reasons in the pursuit of holidays with leisure, recreational, or spa purpose.

According to the World Tourism Organization, cultural tourism includes (Istrate I., Glăvan V., no.5/1994):

- Youth tourism, where the cultural – educational aspect prevails, including study tours for learning a foreign language, international youth camps.
  - Mutual exchanges between artists, writers, and manifestations occasioned by them.
  - Rural tourism holidays spent at families in some regions or countries.
  - Stays in holiday villages integrated in the cultural and local environment.
  - Participation at regional, national and international festivals.
  - Cultural themed tours, including visits to museum, historical sites and participation in various cultural events.
- pilgrimages to places and historical and religious monuments

Here we have a more generous understanding of cultural tourism that includes in this area, unlike other definitions, study tours and rural tourism. We believe that this is a point of view that should be embraced by literature but also by the national tourism authorities, in their development strategies, and they should take into considerations all these aspects.

In comparison to other known tourism forms, cultural tourism has its own characteristics:

- a) cultural tourism is positioned at the intersection between tourism and culture. This fact induces the exchange of characteristics between the two phenomena.
- b) cultural tourism has a complex content. Cultural tourism deals with a complex and diversified market, both in terms of the cultural products offers, as well as the consumers of cultural products.
- c) cultural tourism is targeting a clientele with a certain level of culture and education, or who is in training (pupils, students). In determining the types of clients who choose this form of tourism, a special role has the culture and subculture they belong to.
- d) cultural tourism is generally a more expensive product, but we cannot consider it a luxury one, because it implies certain costs (fees) generated by special services attached: visiting cultural sites, attending cultural events, editing and purchasing some specific products (catalogues, guides).
- e) cultural tourism seasonality is less pronounced. Cultural tourism doesn't depend on climatic factors, or seasonality.

All these features of cultural tourism show that it has to do with the market and social evolution. This form of tourism is actually more stable in the face of some economic and social influences, because it emphasized the possibility to get to know places that are remarkable for features that belong to the material and spiritual culture, and they've had those elements for centuries.

Thus, depending o cultural heritage items, that make the subject of the visits, we can talk about:

1. **archeological tourism**, *focuses on archeological remains of the ancient world*, that can be found in different places around the world.
2. **cultural tourism and religious pilgrimage**, supported by knowledge, visiting cultural sites with religious functions;
3. **tourism in urban centers**, orientated on the old historical neighborhoods, markets, housing estates or commercial units that have been preserved over the centuries since the Middle Ages;

4. **cultural tourism itineraries** that focus on journeys made in several countries or touristic regions of interest involving significant cultural sites.

5. **ethnographic tourism** focuses on those rural areas where customs and traditions have been very well preserved over the centuries. The ethnographic and folk reality differs from one country to another, representing a valuable part of a nation's cultural identity.

6. **tourism for cultural and artistic manifestations, linked directly to a calendar of cultural life.** Each country is identified by a number of artistic, sports and science events, of national and international events.

To determine the theoretical and practical interdependence of cultural tourism activities, we will present the organization of the Regional Ecomuseum Sibiu, a project integrated and realized within the programme "Sibiu European Cultural Capital" (position 50. Regional Ecomuseum in Sibiu).

**1. The need to organize an Ecomuseum in the Sibiu Region.** This project is promoted by the Association "Reuniunea Marginenilor" and aims to open an ecomuseum in the Sibiu region, consisting of a central information office in Sibiu, and four branches located in Biertan, Valea Viilor, Gura-Râului and Săliște, that can become an important cultural site in events organized under aegis of "Sibiu-ECC 2007". In comparison to a traditional museum, the ecomuseum is different because it depends on the following elements: a cultural process, a community, a territory, the use of cultural and natural heritage as a factor of evolution for the local community.

The Ecomuseum is designed as a cultural networks based on a partnership between four communities and cooperation with other project partners. Its main activities will be: circuit - thematic visits, presenting and helping visitors to experience activities that are characteristic for the region workshops, research, information and education, and the sale of traditional and ecotouristic products of the region.

Sibiu Ecomuseum the first of its kind in Romania and among the first in Central and Eastern Europe. Currently there are around three hundred ecomuseums in the world. In Europe, most such ecomuseums are in France, Italy, Germany, Portugal and the Scandinavian countries.

The target audience of the project is the potential users of the ecomuseum, inhabitants, craftsmen and folk artists, who will be integrated into various activities of the ecomuseum, visitors, tourists, students, researchers, etc.

The Ecomuseum promotes the cultural dialog and mutual understanding of cultures, identities and communities in Sibiu, but also all across Europe. Sibiu Ecomuseum is part of a sustainable development perspective, because it promotes a comprehensive approach to protect and enhance the value of the natural and cultural heritage by the revenues it will generate and because it aims for a strong involvement of the local people in this project. (the project's essential resource.) Through its objectives and activities, the Ecomuseum promotes and implements the concept of ecotourism.

One of the ecomuseum's activities will be to create thematic circuits for visiting the museum's area (natural trails, signs, guides, leaflets). Two circuits will be made, that will try to present the identity and the cultural and natural heritage of the Sibiu region, through two axes:

- the Saxon communities from Transylvania
- the communities from Mărginimea Sibiului
- Sibiu Ecomuseum will be an innovative cultural project, whose aim is to develop the following areas:
- the protected property is composed not only of objects and architectural sites, but also the territory with all this components: from landscapes to people, specific architecture, history, agricultural and industrial processes, crafts and traditions.
- This property is not protected outside its context as a traditional museum dedicated to classical traditions and rural life, the protection and presentation of the heritage is made in-situ (in the four locations);
- because it is a result of the history and daily life, this project can be protected and presented only by a strong involvement of the locals.

The itineraries, shown also on the ecomuseum site ([www.ecomuzeulsibiu.ro](http://www.ecomuzeulsibiu.ro)), are structured on two levels

- *a circuit in the Romanian traditional villages from Marginimea Sibiului* – this circuit in the villages is made in order to present the traditional villages, the orthodox churches, the specific architecture, traditional household, small workshops and craftsmen from Săliște and Gura Râului.
- *A circuit in the villages located on Târnavă, that have Saxon architecture* - the Saxon villages, fortified churches, the specific architecture, traditional household, small workshops and villages Biertan, Moșna

și Valea Viilor.

Without being integrated in the Ecomuseum itineraries, two locations have been followed with interest especially because of the value of the built heritage, in precarious situation and recommended for visits made in order to inform de public, are:

1. Săsăuși (Chirpăr village), vernacular architecture is of great value, but is in an advanced state of decay;
2. Avrig, where the summer residence of the Baron Samuel von Brukenthal needs restoration.

The Ecomuseum plays an important role in strengthening the cooperation between Sibiu and its surrounding villages, making it one of the most important cultural objectives from central Romania.

**2. The content of the Sibiu Ecomuseum.** The project was initiated by Gaia Heritage Society, soon joined by Astra National Museum Complex and the Department of Culture Sibiu. For the program “Sibiu Capital of Culture 2007” , the project was proposed by the Association “Reuniunea Mărginenilor” from Săliște, Sibiu, and in July 2006 “The Sibiu Regional Ecomuseum” Association, situated in Sibiu, str. Tribunei, No.6, was founded, and it took all the responsibilities associated with the project.

Gaia Heritage - France - is a consultancy firm in the sustainable management of natural and cultural heritage. Gaia Heritage members and consultants are experienced specialists in economy and culture heritage, site management, museology, tourism and hotels, financial management, urban and regional planning.

The project aimed at opening in 2007 an ecomuseum in Sibiu, consisting of a central - information point in Sibiu and six branches located in the village Biertan, Valea Viilor, Gura-Râului, Săliște, Săsăuși (Chirpăr) and Moșna.

Each individual offer, in terms of cultural tourism, is integrated into the Ecomuseum concept, but individualized for each village, highlighting people's concerns, regardless of nationality, from ancient times until today. In an arbitrary sequence, the individuality of each village is revealed through touristic offers:

- *Biertan* valorization of the activities related to the use of medicinal plants and arranging to visit a pharmacy, specific food products and vine culture, the history of hunting in Biertan or creating a market / natural products market.
- *Valea Viilor*: workshop- production of baskets, viticulture heritage linked to other similar products (apple mash), an event organized highlighting the personality of Martian Negrea and the fortified church organ, creating a green itinerary between Biertan - Moșna – Valea Viilor.
- *Gura Râului*: evidence of a culture, based on the use of water, planning objectives that allow to highlight the role of pre-industrial center (for example hydraulic equipment) wood industry, cultural heritage linked to pastoral activities (sheepfold, gourmet products, habits) integration of specific holidays (Peony Festival) in the Ecomuseum's events calendar.
- *Săliște*: creating an information center which will aim at drawing the historical heritage of “Mărginimea Sibiului”, hats workshop planning, integration of specific holidays (Sf.Ilie, Sanziene, Ispas etc.) in the ecomuseum events calendar, valuing traditions through the choir Reuniunea de cântări”, ecotouristic itineraries.
- *Chirpăr* (village Săsăuși): creating a museum dedicated to religious paintings, to give food a higher value (buffalo milk), integrating an art gallery.
- *Moșna*: an anthropological museum redevelopment, that can be found in the Fortified Evangelical Church, that will aim to trace the history and heritage, mainly of the Transylvanian Saxon community (especially Moșna and its surroundings), highlighting the cultural heritage linked to the vineyard, specific food products (bread, cabbage, etc.) the integration of different local festivals (Harvest day) in the Ecomuseum's events calendar.

**The preparation phase for opening the Ecomuseum took place** from January to June 2007, and assumed a variety of actions, namely:

- *translating into English of the studies made in order to identify the cultural and natural heritage for the six locations mentioned above;*
- *the development and approval of the Ecomuseum concept*

- *Creating the content of the Ecomuseum: itineraries and services offered to tourists.*
- *the elaboration of the Ecomuseum's Charter in order to include the households integrates in its structures with past and present homes, workshops or commercial areas, completing a special form and approval of the General Assembly of the Sibiu Ecomuseum Regional Association, only after the household owner is informed about the legal status of the location, and the rights and obligations.*
- *the creation of the graphics and logo;*
- *Preparation of layouts and print materials for advertising brochures and other materials of the Ecomuseum.*
- *creating the Ecomuseum's website*
- *Implementation of specific development projects: development and installation of information signs and stickers for each objective included in the itinerary.*
- *The creation of information centers for the Ecomuseum (1 info point in Sibiu, and 1 info point in each location.)*
- *A communication campaign to attract tourists started in July 2007 and continues throughout the project.*
- *The estimative costs for the activities undertaken to organize and set the Sibiu Ecomuseum, that were financed by the grant given by the Ministry of Culture and Natural Heritage, are presents in Table 1.1. Of the overall expenditure of 166.220 lei, the structural elements had the following shares: copyright and collaborator payment 66.48%, specific development works 14.44%, establishing the information points for the Ecomuseum 5.00%, launching events 6.35%, and events organized by the Sibiu Ecomuseum 7.73%.*

The opening of the Ecomuseum, was actually the second phase of the project management team, which involved two important moments:

- 11-12 July 2007. A two-day event marked the opening of the Ecomuseum in Săliște, Biertan, Moșna. On the first day, some events took place in Sibiu (11:00) and Săliște (15:00), and on the second day, the villages Biertan (11:00) and Moșna (15:00) have been visited.
- 22 -23 September 2007. A two day event took place in order to mark the opening of the Ecomuseum in Gura Râului, Valea Viilor și Săsăuși. On the first day, activities were conducted in Sibiu (11:00), Gura Râului (15:00). On the second day, activities were held in Valea Viilor (11:00) and Săsăuși (15:00) (appendix 2.5)
- After the official opening, the museum has held specific activities: organizing visits in the Ecomuseum's villages, workshops, exhibitions. Events have been organized in each village included in the project, namely:
  - Săliște - 125 years since the establishment of Craftsmen Meeting. What is the future of rural artisans;
  - Gura Râului - Water Civilization - pre plumbing- hydraulic equipment . Role and current use of traditional – industrial facilities in rural areas.
  - Valea Viilor- „Marțian Negrea” music event
  - Moșna - Green Festival, Goat Festival;
  - Biertan - Recovery of medicinal plants;
  - Săsăuși – buffalo and goat breeding, opportunity to revive animal husbandry in the Hârtibaci Valley.

The cultural and touristic offers of each location belonging to the Ecomuseum's structure, is individualized for each area. They can be attractive for visits on the spot, but also through tour visits. These itineraries, proposed also on the Ecomuseum's site, highlight that the inhabitants in those places have a cultural and touristic personality.

Tabel 1

*Estimating the activities necessary for organizing and launching Sibiu Ecomuseum*

Budget line	Approved budget (lei)
<b>1</b>	<b>2</b>
<b>A. Cheltuieli drepturi de autori și remunerare colaboratori</b> , of which: A. Copyright and the payment for the collaborators:	<b>77.270</b>
Copyright for mr. Frederic Ravatin <ul style="list-style-type: none"> <li>elaboration of the concept and content of the Ecomuseum</li> </ul>	26.000
Contract for services with Gaia Heritage <ul style="list-style-type: none"> <li>development of the Ecomuseum Charter, its aims and graphic Charter</li> <li>permanent technical assistance</li> </ul>	32.420
Contract for service with B&F Bran SRL <ul style="list-style-type: none"> <li>development of models for printed materials</li> </ul>	13.000
Translating materials into English	2.600
Creating the museum's website	3.250
<b>B. Expenditure for specific improvements:</b>	<b>16.800</b>
<ul style="list-style-type: none"> <li>wafer for signaling and information given at every objective included in the itinerary, A5 format engraved on a wooden or plastic frame, 5 wafers in each location = 30 wafers</li> </ul>	<b>3.000</b>
<ul style="list-style-type: none"> <li>exterior panel (A2 format) that contains information about the Ecomuseum's offer, printed on a plastic support, 1 panel in each town = 6 panels.</li> </ul>	1.800
<ul style="list-style-type: none"> <li>signaling panel outside each town, A2 format, metallic stand with concrete foundation, 1 panel in each town = 6 panels.</li> </ul>	12.000
<b>C. Expenditure with creating the info points:</b>	5.750
<ul style="list-style-type: none"> <li>Thematic exhibition and information panels in the information points, A0 panel, plastic substrate, 6 panels / town = 36 panels</li> </ul>	5.400
<ul style="list-style-type: none"> <li>stands for the placement of printed materials, 1 stand for each info point.</li> </ul>	350
<b>D. Expenditure for the Ecomuseum's launching events:</b>	<b>7.400</b>
For the two opening events:	
<ul style="list-style-type: none"> <li>2 permanent exhibitions, inaugurated at the opening of the museum, 20 A0 panels, printed on a plastic wafer</li> </ul>	3.000
<ul style="list-style-type: none"> <li>printings (invitations, maps, other printed materials)</li> </ul>	2.000
<ul style="list-style-type: none"> <li>accommodation</li> </ul>	2.000
<ul style="list-style-type: none"> <li>daily allowance</li> </ul>	400
<b>E. Events organized by the Ecomuseum in all the locations:</b>	9.000
<ul style="list-style-type: none"> <li>printings (invitations, maps, other printed materials)</li> </ul>	9.000
<b>TOTAL</b>	<b>116.220</b>

For example, we can analyze the tour organized in Biertan village

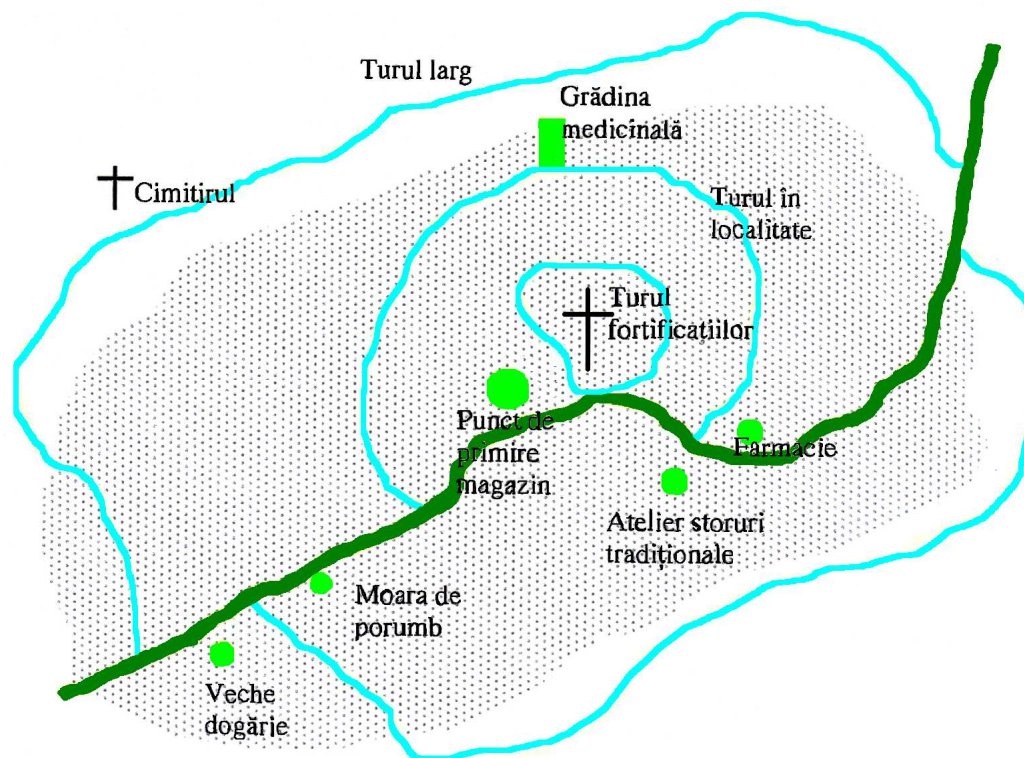
The village is not like the others from the Ecomuseum, it has a different configuration, so it is visited not as a village, rather as a small town. All its streets are interesting, starting with the main street. Thus, you

can create multiple pathways. We propose four, that have in common one visit site, the fortified church that dominated the whole region, classified as World Heritage Site by UNESCO..

This tour of Biertan, with its four proposed pathways could contain:

- A larger tour on the streets of Biertan that includes visiting the church, offering multiple perspectives on the monument.
- A great tour, following the path on the hills that surround the area, with a permanent view of the church and village, which together form a single picture;
- In the main street we can find some interesting workshops, to which we can add oldcoopers workshop. Even though no one works there anymore, the area is kept clean and the authenticity preserved
- visiting the pharmacy, which apparently was the first pharmacy in Transylvania, and herbal products manufacturing, and the fields with herbs.

The circuit could be designed as follows:



To facilitate the organization of such a tour, the local authority (municipality) has taken several actions: cleaning up the rivers, restoring the central market, household and workshops, arranging a reception point, establishing a list of products that can be sold in shops. To all this, hospitality services have been added, provided by multiple quality accommodation and a restaurant opened in the central square.

### 3. Stages in the creation of the “Regional Ecomuseum Sibiu.”

1. Gaia Heritage – Romania branch, through its representative, contacts the Department for Culture and Heritage Sibiu and proposes the initiation of this project, in order to receive funding from the European Commission – Culture 2000 (year 2005)
2. „Reuniunea Mărginenilor” Association proposed the project in order to be included on the list of projects for Sibiu – Capital of Culture 2007. The Association was advised and assisted by Gaia Heritage, because the project was made at least four times before, and new legal and economic conditions have been imposed.
3. In January 2006, Gaia Heritage Romania, the company that initiated this project, launches a series of activities, as follows:

- support the implementation of the ecomuseum concept
  - the issues were raised taking into consideration all major factors.
  - identification of households where traditional crafts are practiced;
  - creation of a database of images with the locations identified;
  - create a database of useful information in order to understand the situation in these villages.
4. From June- August 2006, steps are taken in order to register the *Sibiu Regional Ecomuseum Association*.
  5. In July 2006, the *Sibiu Regional Ecomuseum Association* is founded, and in August 2006, an agreement between *Sibiu Regional Ecomuseum Association* and „*Reuniunea Mărginenilor*” Association is signed, so the second part passes to the first part (as it was stated in the project document approved by the Ministry of Culture) the project “Ecomuseum in the Sibiu Region”. So, *Sibiu Regional Ecomuseum Association* becomes responsible for implementing the approved project. In the next phase, an agreement between *Sibiu Regional Ecomuseum Association* and Gaia Heritage has been signed, so the Association had to transfer the funds that came from “Sibiu ECC-2007” and so Gaia becomes the official correspondent of “Sibiu ECC-2007” and responsible for carrying out activities to be founded for “Sibiu ECC-2007”. In August 2006, Gaia Heritage Association presented for the approval of the *Sibiu Regional Ecomuseum Association* management, the action plan for October 2006-October 2007, the lists of sites included in the Ecomuseum, project proposals in order to obtain financial support from the Sibiu Council and the Central Regional Development Agency.
  6. September 2006, Gaia Heritage has developed the heritage inventory items to be included in the project. A prepared statement was "Elements of the rural heritage."
  7. Between October 2006-June 2007, activities were planned, also the most important objectives of the first phase, the establishment of information centers, itineraries were created an also brochures and other promotional materials, including audio-visual materials, etc.
  8. *Organizing auctions*, for the development of the projects in the areas involved. July – September 2007, the official opening of the Ecomuseum; ensuring its functionality.
  9. September 2007- to date, several events have been conducted: expositions, workshops, themed tours, seminars and debates.
  10. Other important activities: staff selection, staff training and tourism guide, regular meetings with partners, reports, etc.

This project highlights the complexity of organizing and running events in the geographical areas of high interest for cultural tourism, strategies an actions involving moral and financial responsibility. Their purpose leads to increased standards of living of the community members and visitors, tourist, animated by the motivations of cultural tourism.

#### 4. Acknowledgement

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## THE BURDEN OF DEFICITS MAINTAINS ROMANIA IN RECESSION. ANALYSIS AND PERSPECTIVES

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**Abstract:** *The paper submitted for the conference is structured in two parts, the first part being an analysis of the underlying deficits with which Romania entered in the economical crisis which has determined a pro-cyclic action at the level of the political decision. The second part of the paper refers to perspectives and measures suggested by the business environment which are proved by analysis regarding the correlation degree between foreign investments variation and the decrease of the GDP; factors that have contributed to the decrease of the GDP and the correlation degree between these and the GDP dynamic.*

**Key words:** pro-cyclic activity, underlying deficit, recession, foreign investments, current account deficit

**JEL classification:** E27, G28, H12, H63

### 1. Introduction

The paper “**The burden of deficits maintains Romania in recession. Analysis and perspectives**” wants to highlight which were the factors that have influenced the decisions regarding the financial system in Romania and to present possible system improvements.

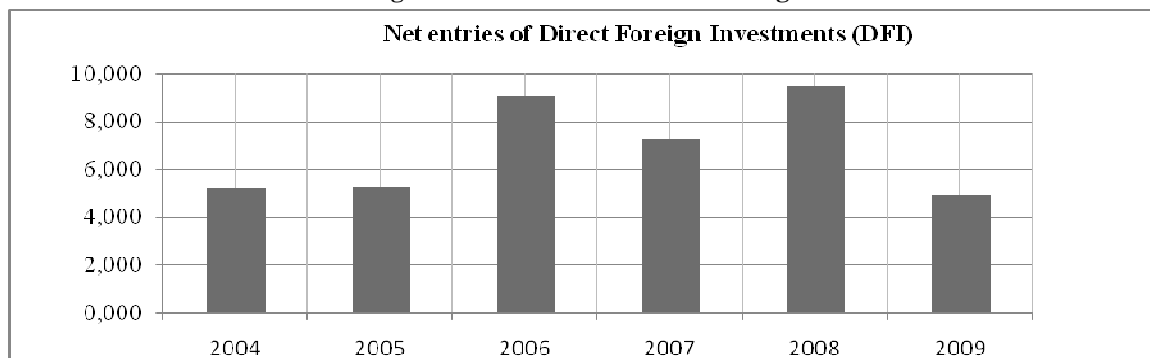
In the first part of the paper we make an introduction regarding what determined a pro-cyclic action at the level of the political decision.

The connection problem between financing and adjusting at a macroeconomic level is reflected in the analysis of the 2 accounts in the payments balance of a country, that is to say: the capital account and the current account. These accounts have different balances from one period to the other being influenced by the international transactions of the countries.

The Governor of the Romanian National Bank in the paper “Financing and adjusting in Romania’s economy” states that the number of crisis is higher at big capital inflows episodes.

The causes for big capital inflows in Romania were: abundant liquidity which being in search for bigger earnings has been directed towards emergent economies, the good economic perspective offered by the adherence to an economic union (the European Union or NAFTA) – situation in which that country receives a trust capital. On the other hand, Reinhart (2008) showed that in the 1980-2008 periods, the maximum duration of the massive capital inflows cycle in 181 countries was of 3 years for more than 50 and of 4 years for more than 30 countries. But for almost 20 countries the duration of the cycle was of 5 years.

**Figure 1: Net entries of Direct Foreign Investments**



(Source: [www.bnro.ro/Pozitia-investitionala-internationala-5752.aspx](http://www.bnro.ro/Pozitia-investitionala-internationala-5752.aspx))

This aspect has been neglected by the political policymakers who believed that the favourable evolution was forever. In this sense, the positive evolutions of the prices have dimmed the real need of structural adjustments that have been delayed. Probably, this was the most important implication for those particular

economies since on a long term, the delay of structural adjustments affects in a negative way the external competitiveness. (Isarescu, 2009)

According to data produced by the Romanian National Bank, processed in the adjoined figure, the foreign capital inflows have escalated since the beginning of 2004, with growths until 2008, 2009 being the year in which foreign capitals have decreased by half.

Still in this context, the current account deficit has grown from 8.4% from the GDP in 2004 to 13.5% in 2007 and 12.3% from the GDP in 2008. The external debt of the private sector has increased from 12% from the GDP in 2004 to 45.6% from the GDP in 2008, meaning almost by 4 times. In face of the big capital inflows, the financial policy has been pro-cyclic, which has amplified the vulnerabilities associated with the current account reversal which appeared in the 2004-2008 periods. The financial policy can diminish some of the unwanted effects of the big capital inflows or it can amplify them. The effects are amplified because the cyclic components of the GDP, big net inflows and the increase in real terms of the budgetary expenses are reciprocal amplified. From this perspective, but also from the perspective that the big capital inflows are associated with financial crisis, the financial policy option in Romania was imprudent between the years 2004-2008. The academic Mugur Isărescu names 2 causes for this imprudence. The first one was that the policymakers believed that the “good times” are here to stay, which meant that the expansion of the expenditures could be permanent, and the second was the electoral year 2008 which has amplified the expenses even more. The lax financial policy of the expenditures set the ground for an involuntary financial downswing in the eventuality of an economical decrease.

At the end of 2008, it was made sure that the economic programme was centred on the external deficit reduction both in the public and in the private sector, on the downgrading of the amplitude of the recession, on the avoidance of an exchange rate crisis and on the moderation of the inflationist pressures.

Reaching these objectives made it necessary for the conception of adjusting measures that would bring the economy on a ramp sustainable in time which minimizes loss, including in the terms of work force occupation.

As the Central Bank officials state, the main challenge of this year was the implementation of adjustments foreseen in the EU and IMF that did not fully materialize according to the agreement. The officials warn that an unsuccessful implementation of the foreseen measures will lead to a loss of credibility bigger than the import of credibility obtained with the signing of these agreements.

## 2. Factors that influenced the GDP

In order to explain what was mentioned above we underline the fact that the real GDP was influenced by three main factors: total final consumption, gross formation of capital, net export, and the evolution of this macroeconomic indicator we have presented in Table 1.

**Table 1. The contribution of the demand components to the GDP dynamic**

Date	Total final consumption	Gross capital formation	Net export	Real GDP %
1Q2008	14.2	1.2	-6.8	8.5
2Q2008	9.5	3.0	-2.9	9.6
3Q2008	13.8	-3.3	-1.1	9.4
4Q2008	-3.2	1.6	4.7	3.1
1Q2009	-8.5	-7.0	9.3	-6.2
2Q2009	-9.8	-8.2	9.2	-8.7
3Q2009	-6.8	-7.6	7.3	-7.1
4Q2009	-3.1	-7.8	4.4	-6.5
1Q2010	-3.7	0.5	0.6	-2.6
2Q2010	-0.6	2.6	-2.6	-0.5

(Source: [www.bnro.ro/Pozitia-investitionala-internationala-5752.aspx](http://www.bnro.ro/Pozitia-investitionala-internationala-5752.aspx))

The current account deficit has been reduced to half from the similar period of last year, in the context in which only Romania and Greece are still in recession in the EU after the publication of the GDP evolution in 3Q from 2010. (ZF, 2010)

Thus, Eurostat compares the GDP in 3Q 2010 to the same period in 2009, and negative evolutions are registered only in the case of Romania -2.3 and in Greece -4.5. With a total of just a little over 2 billions euros cumulated in the January-September period, the direct investments cover only 48% of the current account deficit. The rest remains to be covered by external indebtedness, the funds being now insured especially by the IMF and the European Union, according to the agreement signed in the spring of 2009.

### 3. Measures regarding Tax System

In the second part of the paper we want to present five measures that the business environment finds opportune for the improvement of the financial system in Romania and implicitly for increasing the attractiveness of attracting foreign investments.

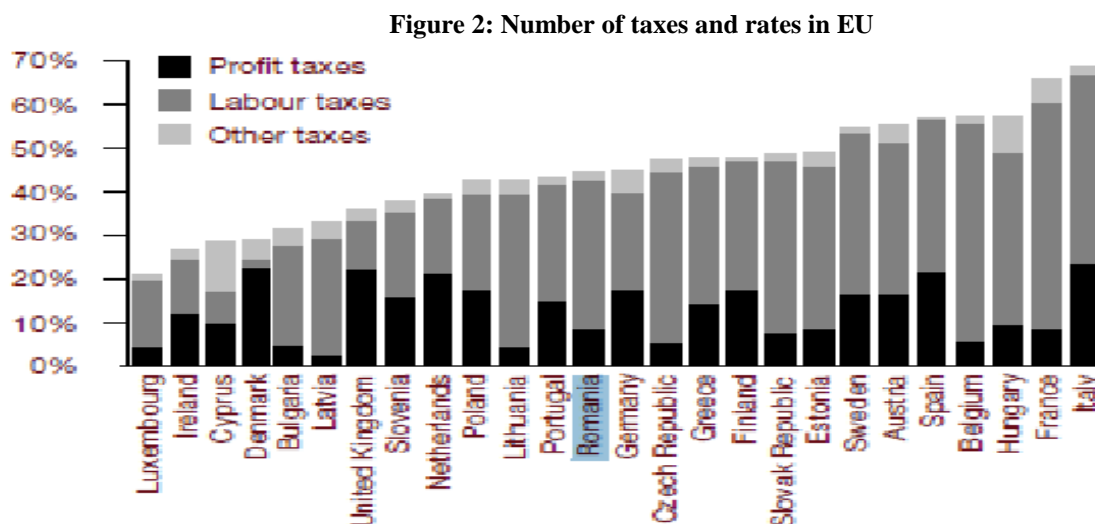
Romania has a relatively high degree of international openness of the economy, which has to be accompanied by the efforts to sustain increasing production and underdeveloped domestic market. For this reason, a program to end the crisis effects on Romania and to re-launch the sustainable growth should be aimed at short and medium-term measures that contribute to strengthening the national sector of the Romanian economy by effectively using the opportunities arising from the global crisis itself through required restructuring that, until now, has induced but disadvantages.(Zamen,2010)

According to the first measure proposed by the PricewaterhouseCoopers Company, Romania should adopt an adequate legislative frame for the development of the holding-type societies, which will attract many foreign companies from countries such as: Cyprus, Holland, Switzerland, Luxemburg etc. A holding-type regime allows *the intra-group resources transfer*, without operational or legal barriers, or additional costs, such as financial costs.

The second measure targets *the financial consolidation of the VAT*, which will lead to the massive improvement of the income flux to the state budget, so that a group of companies, having the same shareholders, to be sole taxpayer for all group companies.

The number of taxes and rates in Romania throw an extra pressure on the business environment and, on the other hand, the authorities spend more money to administer them than they actually gain by practicing them. Thus, a third measure suggests a reduction in number of these taxes and rates. In this sense, Peter de Ruiters gives the example of Sweden where the number of taxes and rates is very low. In Romania, a company pays annually 114 taxes as opposed to only 2 in Sweden.

Taking into consideration the total structure of the taxes practiced by the countries in the European Union, these can be seen as in the figure below (World Bank, 2010):



(Source: "Paying Taxes 2010" Study- published by the World Bank p. 17, 31)

Companies registered in the north-European state pay a “corporatist” tax (that includes profit tax, social contributions, VAT and property taxes) and fuel excise tax, according to the “Paying Taxes 2010” study, published by the World Bank.

The PwC representative also suggested the necessity of capping social contributions, which would have an immediate effect on the economy by *reducing tax evasion*.

A fifth measure targets the increase of transparency in the legislative system.

Thus, the financial system would become more predictable and Romania would re-enter on the priority map of foreign investors.

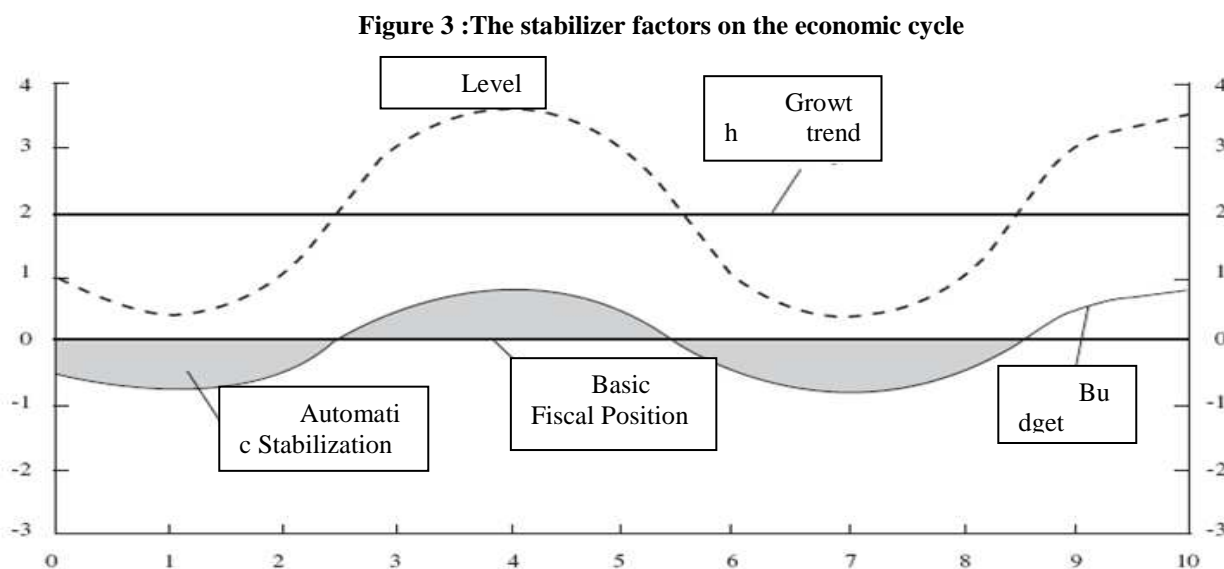
#### 4. Conclusions

Next we will draw up some conclusions regarding this paper as well as suggestions for a normal evolution. (Cibotariu, 2010)

We underline the importance of the financial stabilizers, which according to Albert Hart “automatic stabilizers are recognised after the following criteria:

- lead the budget towards surplus in the economic cycle growing phase and toward deficit in case of recession;
- it diminishes the population’s cash stock in the prosperity period and it increases it in case of recession;
- tend to increase population demand for cash in the prosperity periods and to reduce it in the negative growth periods;
- come in action without waiting for the decisions of the policymakers.”(Vacarel,2008)

The influence of the stabilizer factors on the economic cycle is given in the Figure 3 below:



Source: Cibotariu, I. (2010) *The impact of automatic fiscal stabilizers on fiscal policy*

Regarding foreign investments attraction possible solutions are given by the German Ambassador as well, who explains why Romania missed a Mercedes investment. The main reasons enumerated were the lack of infrastructure in transportation, but also the over 140 million euros debt that the Romanian state has to pay to German companies.

This reproach was made by the German Cancellor Angela Merkel when she visited Romania, in the context in which Germany is Romania’s most important commercial partner and the third investor (after Holland and Austria).

In this sense we believe that in order to come back to economic growth an important factor is to attract foreign capitals that ought to materialise in lasting foreign investments, and the production factors ought to be in a high proportion local production factors.

It is very important to learn the lessons that the crisis has given us to be able to give a viable investment alternative for the funds that are now heading towards Asia and South America.

We subscribe here to the suggestions presented by the business environment regarding the growth of transparency regarding the legislative system and its predictability, as well as restructuring the number of taxes.

These measures are meant to stimulate the economic activity, and the small and medium-seized enterprise sector is the engine of a healthy economy.

We wish to mention here a factor that is very often addressed by the political environment, however, without any concrete results, the attraction of European funds.

Romania has the weakest EU funds absorption amongst the EU10 countries.

At the end of the year 2009 the contracting rate was of 38% from the total of the projects, and the absorption one, 6%.

Recently, the Authority for the coordination of structural instruments published data on the absorption of structural funds in Romania, until 31 January 2011, concluding the work in this field for the first four out of seven years (2007-2013) of the European multi-annual budgetary allocation. Results are modest, especially in areas where the projects are submitted by public entities, but not only there. If we take as an example Operational Sector Programme -Transport we found out to have actually acquired 75 million from a total of 4.5 billion euros, which is about 1.6%.

The Chief Economist at RCB states that we could have an economical growth of up to 4% if the European funds absorption rate would be found somewhere around the value of 60%, statement to which the authors also subscribe.

In conclusion, to end up with the economic crisis and resume to sustainable economic growth we also need <<solidarity at the national level, the integrative level, globally.>> We can speak about "solidarity finance" - in this case putting in relation of those who want to save and invest in important social activities.>>

It is important to find a way to support the "The solidar product" - where someone saves and give a part of its investment income to a project of general interest, NGOs or associations. Surely, without any coincidence, the meeting in Davos is called "Common rules for a new reality" meaning the coordination of economic policies of states towards a sustainable development.(Popescu, 2011)

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## ROMANIAN COMPANIES CONVERGENCE CHALLENGES IN THE PERSPECTIVE OF THE "EUROPE 2020 " AGENDA

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**Abstract:** "Europe 2020" represents the "way ahead", by which the European economy will get out of the deep crisis that affected it and will become stronger both internally and internationally. Implementation of this growth strategy requires on one hand, first and foremost a system of governance, to involve all actors of change in EU member states and, on the other hand, to make the connection between European levels, national, regional and local administration.

Among the actors of change is remarkable the system of companies, therefore, in this paper we propose a detailed analysis of the challenges that companies in Romania has to cope with this strategy of growth.

**Key words:** system of companies, economic recovery, strategy of growth

**Jel classification:** P12, F4, L1

### Introduction

"Europe 2020" represents the "way ahead", by which the European economy will get out of the deep crisis that affected it and will become stronger both internally and internationally. Implementation of this growth strategy requires on one hand, first and foremost a system of governance, to involve all actors of change in EU member states and, on the other hand, to make the connection between European levels, national, regional and local administration.

Among the actors of change is remarkable the system of companies, therefore, in this paper we propose a detailed analysis of the challenges that companies in Romania has to cope with this strategy of growth.

### 1. The convergence of sectoral structure

The crisis that continues to manifest today in the European economy has led to widening disparities in the EU and the U.S. economy in terms of labor productivity. In this context, issues like the prices or competitiveness concerns European economic policy makers today, however, one thing is certain, namely that the solution to these problems is Europe 2020. Fiscal consolidation is an essential precondition for economic growth, but not enough engine for the manifestation of such a process, and in the absence of proactive policies, the potential of growth of the European economy will not be fully exploited in the coming period.

Economic growth will depend, fundamentally, on the environment in which the activities of industry or business operate and, in particular, on the environment in which operates small business sector. Without economic growth, fiscal consolidation will be an even greater challenge for the European economy. For the period ahead, the macroeconomic situation and the labor market reveals that each EU member state must adopt measures to avoid a return in economic growth, which is not accompanied by a dynamic process of creating enough jobs

The challenge for the European economy is to get out of the vicious cycle of unsustainable public debt, of the state of disturbance which characterizes financial markets and of the reduced growth in the number of jobs in some member states.

In this context is required, above all that, each Member State to establish a set of public policies but at the same time, to protect and strengthen policies which enhance economic growth and also meet the needs of the financial system. The second challenge relates to the rapid reduction of unemployment and effective implementation of reforms concerning the labor market, creating more and better jobs. These reforms will be implemented effectively only if they have as effect of improving the functioning in labor market and market goods and services, stimulate innovation and improve the conditions to conduct business in Europe.

Such measures will increase investment in the private sector, which in turn will lead to improvements in the quality of public finances. As for labor market reforms should focus on fighting this market low participation of certain groups of people and poor labor market performance. Such measures will have a positive impact on budgetary consolidation, by generating higher tax revenues and reducing public expenditure on social transfers and will also reduce the risk of future macroeconomic imbalances. Structural reforms can generate significant gains, even in the short term. Production and employment gains are obtained at the same time, the effect of improving the framework conditions, labor market reforms and reforms in goods and services market.

To avoid the growth of significant public expenditure, it is recommended a shift towards a new phase in Single Market by the full potential of the tertiary sector by attracting private capital to thus ensure funding for innovative companies which are growing rapidly through the modernization of standardization and intellectual property methods, but also by creating efficient access to energy companies. In other words, companies which operate in the tertiary sector should be supported to develop, on the one hand, due to the creation of new jobs, and on the other hand, because of giving quality of input that they have to develop other sectors. In other order of ideas, given the importance of services sector by the fact that they are suppliers to other sectors, strengthening the internal market for services is an important engine of growth and job creation.

At the microeconomic level, increasing competition in infrastructure, especially in the transport, and in the energy sector will increase economic efficiency as a result of new market entrants and reduce prices, but also due to a more rational use in labor and capital through innovation. At the macroeconomic level, these measures will result in increased economic activity, since the gains from transport and energy sectors will be felt throughout the economy of the importance of these inputs in the production cost of other activities.

Industry, in particular the manufacturing one, are major sources of innovation, technological progress and exports, as we will see on this paper. Recovery activities taking place in these sectors is essential for economic recovery. At the same time, an effectively functioning single market is the essential condition for the environment in which they are traded goods and services to generate major opportunities for growth, innovation activities and jobs.

*In other order of ideas, romanian system of companies(RSC) challenges, in terms of sectoral structure refers to the adoption of measures to facilitate the development of companies from industry sector and , especially, from manufacturing and tertiary sector because as we shall see the following analysis, industrial companies are interconnected with a significant proportion in the tertiary sector companies, especially those engaged in the business services sector.*

Because the contribution that manufacturing industry companies have in the economy is required, first, an analysis of in roots in key opportunities and constraints which they must face in the coming period.

### **1.1. Opportunities and constraints of romanian companies system from manufacturing**

Globalization and integration of emerging economies in the world economy has provided European industry and thus, the Romanian one, the opportunity of open borders to new markets. In this context, companies from manufacturing industry, which provide the most part of exports, will have to cope with a global market increasingly freer, but also maintain and improve their international competitiveness because only in this way, these companies will benefit from growth in emerging economies, especially of those from Russia, Asia and Latin America.

Globalization has determined the growth of international cooperation and thus reducing transport and communication costs, but also to the transaction costs and of the risks of those which operate across national borders. In the this way, complex industrial activities have been divided into smaller activities, which determined that the final performance of the the manufacturer to depend increasingly more from upstream performance. But what are, in this context, the challenges of the whole system of Romanian companies? First it is necessary for most companies, if not the entire system of companies to benefit from new international market opportunities and respond to increasing global competition. Also, give priority to new technologies and innovations, but also to improve energy efficiency and resources to overcome more easily transition to a low carbon economy. Another challenge is the importance given to suppliers of raw materials, the need to effectively manage the restructuring, and facilitating access to finance. In the the same time, companies must also cope with the lack of appropriate skills among the workforce, but also the

growing role of business services. Finally, the Romanian companies and others must respond to new societal challenges such as demographic changes.

International trade is an important factor of economic growth and competitiveness of manufacturing industry, and beyond. The emergence of global value chains has determined the growth of efficiency and geographical fragmentation of the production process through final product manufacture components in different locations, which involved the transfer of know-how and services in these locations. For this reason, involvement of companies from Romanian system in such internationalized activities represents one of the challenges of the following period, because by the development of companies value chains is to be achieved better integration of developing economies into the global economy through technology transfer, knowledge and capital.

Another growth engine European economy and, in particular, for the Romanian one is the Single Market which allows for companies from the Member States to access and sell the entire EU market, thereby reducing trade costs and stimulating competition. With each enlargement, the single market has increased even more, and this has led to increased competition more and more powerful, which can only cope with only efficient companies. As for the Romanian companies, most of them, the great challenge for the coming period is to significantly improve competitiveness by engaging in the production process of new technologies and measures aiming the growth of innovation activities.

Meanwhile, RSC must face the transition to a low carbon economy. Resumption of economic growth will generate, most likely a price increase of raw materials and energy, hence improving energy efficiency and resource utilization it is another challenge. To increase the competitiveness of Romanian manufacturing industry, will be indispensable to ensure the supply of critical raw materials, energy security, soundness and competitiveness of interconnected energy networks and transport markets.

Improving energy efficiency and the use of resources in production processes as well as the EU's ambitious goals to reduce greenhouse gas emissions are important long term challenges for the entire European industry. Important parts of the EU industry, such as for example the automotive engineering sector, mechanical and electrical or chemical sector, have adapted their production to the new requirements. A considerable part of the manufacturing industry is highly dependent on energy, especially in new EU member states. Energy efficiency and costs are thus crucial for competitiveness of European industry. More progress in improving energy intensity have already been made. Since 1990, the overall intensity of final energy consumption in industry in the EU decreased by about 30%, according to the European Commission. In the Romania, however, final energy consumption do not follow this descendent trend. During 1997-2007, the final energy consumption has increased almost twice and, according to INS, in the year 2010, compared to previous year increased by 3.8%. This upward trend will make it more difficult for companies in Romania the transition to a low carbon economy.

The biggest energy-consuming sectors include iron, steel and nonferrous metals sector, pulp and paper, chemicals sector, mineral products and textiles. Although these sectors have already invested in energy efficiency and have significantly reduced their energy intensity since 1990 to allow further progress on energy efficiency and reduce carbon dioxide emissions sector, companies those which operate in these sectors need to make more and better investment in research and development and innovation.

On the other hand, consume less energy sectors there are several possibilities for improving energy efficiency. The potential role of ICT in reducing energy consumption through better control, a smart metering systems and intelligent network could have a significant positive impact on improving energy efficiency. A major obstacle in making this possible but the reality of budgetary constraints which are now aggravated by the problems of access to funding.

Resource efficiency takes into account both material resources as well as in the natural. The continued growth of international competition on raw materials determined the growth of pressure in the EU caused over their natural resources, which have a bearing on the future competitiveness of European industry. In the this context, it is estimated that investing resources to improve productivity could bring significant cost savings in the industry and beyond. At the same time improving efficiency and resource use will positively influence future research and development and innovation. It is therefore necessary an increase in resource productivity faster than economic growth because only in this way the European economy can become less dependent on international resources and markets, less exposed to changes occurring in these markets.

*From the analysis undertaken so far we can conclude that the system of companies from the manufacturing industry from Romania has to face numerous challenges in the coming period. Among these challenges is to demarcate that which is in better use of resources and, in particular, improving energy*



*efficiency. How can companies cope with this challenge? Only by making investments to improve technologies used in production processes and this process is complicated by the reluctance from banking system across the financing activities in particular of those of small size. In the same time it is not to be neglected neither the opportunity of drawing foreign direct investment but in the long term not in the short or medium term.*

The competitiveness of from Industry depends significantly on the competitiveness from the tertiary sector and is why we further focused on the challenges that these companies must face in the coming period.

## **2. The convergence of business services**

The competitiveness of the industry sector depends very much on the entries of the tertiary sector but offers at the same time advanced technologies and products that are developing new and innovative services such as the communications sector and healthcare.

In this context companies from Industry and a large share of those which operates in the tertiary sector are interconnected. In other words, policies which affect industry will also affect a part of the tertiary sector. In many industrial companies a major share of the revenues of these are coming from providing services but there is little statistical data in this area. Business services consist of several of different activities. These include professional business services such as legal services, consulting services such as management consultancy, technical services such as engineering consulting in the field of accommodates and marketing services such as advertising or market research . Such services are often a source of know-how and innovation which provides businesses with competitive advantages.

In the same time, temporal employment agencies and operational services, such as cleaning and security companies are used extensively by the companies from industry as well as transport services, logistics and ICT. Many developing industrial services such as creative industries tend to focus around other traditional industries and provide new and creative ideas for the new products and services for the European industry. In other order of ideas, economic activity, by the fact that most industrial companies are interconnected with a significant proportion of the tertiary sector companies, tends to organize in clusters, a trend which, in fact, we have noticed it in the previous chapter.

These services in EU may be provided by themselves, but by purchasing them from their service providers (outsourcing), they can focus more on their core activities and they can benefit from the specialization of their providers. Small industrial companies are unable to provide such services themselves and are more dependent than large companies of the business services already available. To this purpose, implementation of the Services Directive will facilitate the purchase of these services in EU and will allow to the companies from industry to better exploit services in EU. At the same time it is required further improvements in the comparability of cross-border services by establishing appropriate quality standards. It should also be monitored and the improved of business productivity.

*In this context, on one hand, the Romanian companies from tertiary sector must take the necessary measures for the implementation of the Services Directive regarding business services, and on the other hand, the companies from industry must consolidate their relationships with suppliers of business services by allocating significant amounts of money to these activities, because their priority should remain improving the core business only. In other words, companies from Romania should exceed the trap of multilateral developed employees. We better be specialize in one activity, which we could turn to a more profitable than to develop several inefficient activities. By encouraging the development of these services in EU it can create new jobs, which will come and the support the employment target set by Europe 2020 strategy.*

It is clear that in the coming period, companies need to face many challenges, but do these challenges come under the structure of companies? At EU level, at least until the end of 2010, it ran the principle "Think Small First". Does Europe 2020 strategy involve a rethinking of this principle or it pursues further measures for the encourage small development?

## **3. The convergence structure of romanian companies system**

Even if companies various sizes companies are distributed unequally among the industry sectors, small companies continue to play a key role for the European industry. No matter their size is, companies face many obstacles including: access to finance, the need of skills, particularly technical and scientific developments as well as the need to improve their R & D and, especially, the access to EU-funded programs. These challenges need to face mostly micro-companies.

In addition to these challenges in the current context, small businesses must meet the following three challenges: subcontracting, internationalization, and access to environmental technologies and markets.

Regarding the EU, according to the European Commission, 17% of small companies are involved in such activities. However, in the new member states there are several subcontractors (20% of all small companies) than there are in the old member states (16% of all small companies). Among the sectors of the European economy, the most involved in the subcontracting is the construction industry, where 36% of small companies are subcontractors. At the same time, there are a large number of small companies involved in outsourcing activities in sectors such as transport, communications and business services. For small companies, who act as subcontractors, we can identify several major problem, such as: the existence of the asymmetries of power in outsourcing customer-supplier relationship, too much dependence on the main contractor, late payments. There are also a number of advantages that a small company can achieve from the status of subcontractor: expanding business opportunities, higher indirect access to markets, access to external knowledge and technology transfer coming from main contractors, a better use of installed capacity, and financial benefits.

The internationalization supports long-term sustainability of business. Internationalized companies get much better performance than non-internationalized with innovation, as they are more competitive. A company whose activity is internationalized it more competitive because at company level the internationalization with innovation, go hand in hand with innovation, one reinforces the other. From here it results one of the objectives that should be pursued in taking up measures which aims the development of the companies system in that the measures taken should aim at both methods of internationalization of national companies as well as those of innovation.

In this context, there is another challenge which counter each small Romanian company which is that it must cope with that is the adoption and implementation of these measures to internationalize their activities. A real help in this process must come from public authorities.

For increasing the small companies the access to environmental technology and to the new markets is essential. In order to successfully overcome the transition of European economy towards a low carbon economy, small companies must exceed the limits, there not at all rare. In any system of companies, employment is a diagnostic variable which aids to appreciate his efficiency or inefficiency. As regards the employment level, as noted in the second chapter, the target set by Europe 2020 is to achieve a level of employment among persons aged 20 and 64 years of 75% by 2020. This level can not be achieved only through a greater participation of young people in employment, of the the elderly, of the people with low skill levels, but also through better integration of legal migrants.

The low participation in the labor market is one of the major long term structural weaknesses, from the European economy. Before the manifestation of the crisis, the employment rate in Europe was a few percentage points lower than the U.S. or Japan, but crisis has impacted negatively and significantly the level of employment in the EU, while demographic changes further reduce available labor force. In this context, labor market participation will have a significant impact on future European economic growth. At EU level, the employment rate of older workers (55-64 years) is very low, only 46.4%, according to the European Commission. This low employment rate among older people is due to the low demand from employers for such individuals, low levels of skills improvement among them, lack of assistance for job search, orientation of these people into early retirement benefits, insufficient programs for the reintegration and retraining, if made redundant. At the same time, it is necessary to adopt measures to ensure the employment rate among women in the labor market which it stood at only 62.4% for women aged 20 and to the 64, according to Eurostat.

But however the prosperity of the European economy depends primarily by young population which now, according to Eurostat it has the level of 20% of the total EU population. Statistics estimates that by 2020 35% of the jobs created will require a high skill level combined with certain capacity for adaptation innovation, unlike the current situation where the share of these jobs is only 29%. In other words by 2020 it is estimated that the EU will create an additional 15 million jobs for highly qualified workforce. Although an increasing number of jobs require high skills the EU economy is defined by a lack of highly skilled practitioners such as for example those in ICT. In another train of thoughts in EU, more than one person in three has higher education degree compared to 40% in the U.S. 50% in Japan. At the same time the EU has lower share of researchers in the labor force than its main competitors. On the other hand, many young people leave school early, increasing the risk of becoming unemployed or inactive persons living in poverty and causing major economic and social costs. Currently 14.4% of young people aged between 18 and 24 years old have not completed high school and are not involved in education

or training. Another problem concerns the high level of illiteracy among children aged 15 years, amounting to 24.1% according to Eurostat.

Not for our country the situation is not the different. In 2010 according to Innovation Union Scoreboard in Romania only 16.9% of young people aged between 30 and 34 years old have completed a university degree or equivalent level and only 78.3% of young people age ranges between 18 and 24 years old have completed secondary education while 21.7% of them have left school. The analysis of those facts and challenges refer also to the labor market in Romania which must face the system companies. EU average in our country the situation is more alarming both because of the large number of young school leavers and young people because of the low number of persons who end university. It is clear that for the period ahead radical measures are needed in education, especially that the challenges the EU aims to significantly increase the number of researchers and, consequently highly skilled population.

*In other words, the system of companies from Romania can not meet the challenge creating jobs that requires high skilled persons if the educational system is not able to create such a young persons.* in what measures should be adopted? First the easiest solution refers to increasing investment allocated to educational system and at the same time, these efforts must be accompanied by the best efficiency of public resources. In another train of thoughts, the present context in each member state in which the priority is to strengthen public finances there is a need to diversify funding sources. In addition, there must be given a special attention to the the quality of vocational and career guidance. It also required a greater involvement of labor market institutions and also measures to support these institutions.

Although national reform plans will appear in the official version in April 2011, in their drafts it can be noted that, there must pay attention to the fact that, as regards Romania, the authorities estimated that by 2020, the level of employment among people aged between 20 and 64 years will increase to 70%, there must be given a although the strategy of growth target is 75%. Besides our country only Malta estimated a lower level (62.9%) and countries such as Austria Denmark Finland and Estonia considers to exceed the target, as seen from the table below:

**Table no.1. Targets forecasted of the employment levels among people aged 20 to 64 years**

Conuntry	Austria	Denmark	Finland	Estonia	Malta	Sweden	Romania	EU
<b>Forecasted target</b>	77-78%	78.5%	78%	76%	62.9%	80%	70%	72.4-72.8%

Source: European Comission

If all Member states would achieve the expected targets, the level of employment in the EU in 2020 would stand at 72.4% and if all countries would achieve higher levels of expected targets, the level of employment in the EU would be 72.8%. In another train of thoughts taking into account those targets expected by each country EU employment levels would fall in 2020 compared of the target of 75% with 2.2-2.6 percentage points. In other words, according to the set of estimations established in present, the target of 75% will not be achieved. EU is far behind the U.S. economy and other advanced economies both in terms of the resources invested in research and development (EU-2% GDP U.S. GDP-2.8% Japan-3.4% GDP) and on the effectiveness of these expenditures. The existence of such a gap negatively influences growth prospects particularly in those sectors where is the greatest growth potential. Europe 2020 also took into consideration reducing the gap. Thus, it is intended that by 2020, at the level of EU, spending on research and development to reach at least 3% of GDP.

Unfortunately, the targets estimated in EU member states today show achievement, in 2020, of a level of only 2.7-2.8% of GDP, level which is below target, but which means a significant effort, more especially in the context of the precarious situation of public finances. While some countries have made significant steps in the growth of public expenditure on research, innovation and education, recognizing the role of the "fuel of the future economic growth, these activities (Austria, Finland, Sweden), other member states estimated cost of these elevated levels, but unrealistic, despite the difficulties encountered in increasing private investment allocated to R & D.

**Table no. 2. The forecasted levels for the targets of R & D**

Conuntry	Austria	Denmark	Finland	Estonia	Malta	Sweden	Romania	EU
<b>Forecasted target</b>	3.76%	3%	4%	3%	0.67%	4%	2%	2.7-2.8%

Source: European Comission

Among the all EU countries, Cyprus has the lowest estimated level of private R & D, only 0.5% of GDP. for Romania, it seems that in the period ahead, the R & D spending will not suffer significant changes, the level of these costs hovering around 2% today. At the level of EU, the investments allocated R & D occupies the largest share of investments for private companies. So, to be achieved of 3% of GDP, is not necessary that investments made by the private companies to increase by at least 150 billion by the year 2020 compared the 2008, according to European Commission statistics. *For the system of companies from Romania, the expenditures allocated to research and development is the greatest challenge on the one hand, because of the fact that, during the period when Romanian economy has registered economic growth , the companies from Romania have made very low investment in this type activities, as we saw in the third chapter of this work, and their currently diminished the prospects of future growth which are not so optimistic, and on the other hand the country's measures taken by the government for fiscal consolidation obstruct the performance of such investments.*

Another matter within the European economic performance in terms of innovation refers to the economic weight of innovative companies that are developing very quickly, or so-called "gazelles" in the European economy. Member states need to center their reforms on removing obstacles to the growth of innovative companies, in particular by improving the framework conditions and access to finance. Lack or limitation of corporate finance is an issue over which we have turned our attention in chapter three of this work. From this point of view, another challenge which Romanian companies system must cope with it refers to venture capital. Compared to its main competitors, the EU has a significant gap in terms of venture capital. For instance, according to the European Commission, the EU invests in venture capital with about 15 billion less than the U.S., in other words, innovative companies seeking to expand into international markets, have limited access to venture capital financing. Most venture capital funds in Europe are too small to support the continued growth of innovative companies and do not have the necessary critical mass needed for specialization and for operating at transnational level . In other order of ideas, the system of Romanian companies must deal with a European developing venture capital markets which should be improved by creating incentives to invest and improve regulation.

Another matters of fact that concerns all the financing companies refers to, whatever size is, both small companies and large ones, have to face a shortage credit risk. What does this mean? Banks face many obstacles in realizing the company's intangible assets, such as for example intellectual property and therefore are not willing to support the development of innovative companies. For an innovator, borrowing becomes indispensable, especially when it is necessary to support large infrastructure projects. Removing these obstacles, and making the EU economy an attractive place for investment in innovation requires intelligent use of public-private partnerships and also needs regulatory changes.

Unique market dimension can become an important growth engine, if it would work effectively. In other words, the size of the single market would attract innovative investments and for the companies, it should the competition for the best innovations and should allow successful entrepreneurs marketing innovations and also needs rapid development of business. But reality proves the opposite. Why? Primarily due to the fragmentation of national markets, a situation that also involves costly needed for specialization and for operating at transnational level procedures. Thus, the European economy, a critical issue for investment in innovation relates to the cost needed for patents and for operating at transnational level . Thus, obtaining a patent protection for all 27 EU Member States is currently at least 15 times more expensive than getting a U.S. patent protection, especially due to taxes. The potential of the single market must be enabled by policies to stimulate demand for innovation, from a policy of effective competition.

Companies can innovate in different ways. While some of them have the object of their R & D and developing new technologies, others rely on existing technologies or developing new business models or services determined by the users or their suppliers or develops new models in the formation of economic type cluster or network. Hence, the need to adopt clear policies to support not only technological innovations but also to support all forms of innovation. Also requires specific measures and innovative services with high growth potential, such as cultural and creative nature. As the problem becomes more complex and increasing costs of innovation activities, companies are increasingly willing to conduct cooperation with other companies. Thus, activities within companies are often filled with activities undertaken by external sources, such as universities or start-up companies. This trend is fueled increasingly more network-type economic formations, and this form for the organization of economic activity has major implications for research in particular. At the same time, these trends of openness and collaborative innovation activity have major political implications. While it is important to strike a balance between facilitating how to disseminate knowledge and provide incentives for innovation, European Commission believes that these trends will

benefit long-term economic and social and should be supported. Open innovation activities requires brokerage methods, intermediaries and networks in which all participants have equal rights. Thus, internationally competitive clusters play a vital role in bringing together, both physically and virtually, to small and large companies, universities, research centers and communities of scientists and practitioners to exchange knowledge and ideas. It is therefore necessary an improved knowledge transfer between universities and systems companies not only domestically but also internationally.

*In this context, another challenge that system companies must face it refers to opening and integration of innovation activities carried out by companies in the European innovation area. In other words, the whole system integration companies in the internationally competitive clusters, because this is one of the most effective solutions to reduction of the innovation gap with the EU average.*

In terms of performance achieved in innovation, according to Innovation Union Scoreboard 2010, our country is part of innovators "modest" category, with countries like Bulgaria, Latvia, Lithuania, the performance of all these countries topping well below the EU27. If we analyze the convergence recorded by each country in innovation, we find that, except for Lithuania, all EU countries have improved their innovation performance, and among innovators "modest" category stands Romania and Bulgaria who have registered an average growth rate performance in innovation in the last five years of 3.3%. Romania's innovation performance is due to increased public expenditure on research and development (18%) and contracted private credit growth (25.8%).

EU member states's experience up to now demonstrates that cohesion policy contributes significantly to the widespread growth and prosperity throughout the Union while reducing economic and social disparities as well as territorial. In this context it is clear that in the period ahead, the policy has a crucial role to ensure an intelligent European economic growth, sustainable and inclusive to the society. Conclusions of the fifth report on economic, social and territorial cohesion demonstrates that the cohesion policy created new jobs, increased human capital, led to the construction of critical infrastructure and improved environmental protection, especially in regions left behind. The correlation between cohesion policy and Europe 2020 offers a real opportunity on the one hand, to further support for the poorer regions of the EU, and secondly, to facilitate coordination between EU policies and to make cohesion policy in a main engine of economic growth.

Effectiveness of cohesion policy depends largely on the economic environment in which it is implemented. As we saw from the analysis undertaken so far, creating jobs, stimulating economic growth, reduction of social exclusion and the introduction of structural changes can not occur in the absence of sound macroeconomic policies, a favorable micro-environment and a strong institutional framework . In other order of ideas, among the actors involved in Europe 2020 stand out as importance the institutions whose role is not to be neglected in the current context, which is a decisive factor in supporting the process of real convergence and, implicitly, of economic growth.

*The challenge that cohesion policy must face it refers to its orientation to a new dimension, namely, the territorial.* As stressed in the first chapter of this work, the economic reality demonstrates a tendency towards divergence between the rich poorer regions, rather than convergence, due to the effects of agglomeration. With this new dimension to focus on the role of cities, the geographical boundaries of the functional, the problem areas facing specific geographic or demographic, but also on macro-regional strategies. As demonstrated by the new economy theories of geography, urban areas can be engines of growth, but also creativity innovation centers. And in this context, economic growth can be improved and also can create new jobs, by creating a critical mass of actors such as companies, universities and researchers.

Indispensable for Europe 2020 goals are structural funds, already provide substantial investment in research innovation. For the period 2007-2014 these funds are allocated according to the European Commission, 86 billion, and so far, much of these funds are still unspent and should be used more efficiently to innovation and to achieve the objectives of Europe 2020.

### **Conclusions**

The analysis undertaken, we can conclude that Europe 2020 goals are too optimistic and the targets of the Member States show this thing. And for the system of Romanian companies, he has to face numerous challenges, especially that in the period ahead, the goal of the European economy is to become an economy that is characterized by smart growth, sustainable and inclusive.

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## THE INTERNATIONAL MONETARY FUND – ROMANIA’S SHADOW GOVERNMENT

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**Abstract:** *The paper raises some questions about the reviewing of the IMF policies and reform after the Fund’s actions at the end of the ‘90s, during the Asian crisis, its behavior in Russia and other countries in the Eastern and Central Europe and Latin America etc., that attracted criticism from economists, opinion leaders and non-governmental organizations and makes a detailed analysis of the IMF implication in the Romanian financial and economic crisis, the solutions agreed by the Government and the results after two years from a comparative perspective.*

**Key words:** International Monetary Fund; crisis, Romania

**JEL classification:** G00, G01, G38

### 1. Introduction

The 50-plus years since the formation of the IMF saw a radical shift in its direction. The institution, established around the idea that, sometimes, markets can malfunction, now defends with ideological fervor the market’s supremacy. Initially, the IMF was to exert international pressure on countries, towards the adoption of more expansionist economic policies. However, presently the IMF will only grant funds for states adhering to restrictive policies - the Fund’s so called “conditionalities”. It’s notorious that, in some situations, the IMF’s recommendations and required policies were proven to impact negatively the economies in question, furthering their crisis.

The IMF was confronted with much financial disequilibrium since its formation. Core vulnerabilities in the financial system and contagion phenomena caused repeated crises since the ‘80s – the so called first generation crises, continuing into the ‘90s with the second and third generations. Their roots are in the modus operandi of the financial system itself, as globalization and risk interdependency governed the crises’ magnitude and duration. The IMF’s response to the manifestation of the various crises changed, starting with the Washington Consensus – agreed between the IMF, the World Bank and the U.S. Treasury – which established the “good” policies (financial liberalization, opening markets to foreign investors, privatization of state enterprises and services, liberalization of fiscal austerity regulations and the fight against inflation), until the institution’s transformation into a financial broker, meant to replace private financing.

The Fund’s actions at the end of the ‘90s, during the Asian crisis, its behavior in Russia and other countries in the Eastern and Central Europe and Latin America etc., attracted criticism from economists, opinion leaders and non-governmental organizations. Harsh criticism was brought against the IMF for exerting pressure towards rapid capital account liberalization, and policies that, at least at first sight, support the cause of grand financiers versus citizens with eroding fundamental rights. Although the world’s big financiers labor to keep in control and promote the IMF as the savior which will help countries out of crisis, the actual facts are often to the contrary. Little attention is given by the IMF to stability and growth policies, and governments are always forced to apply the same “recipes” leading degrading living conditions for the population. It was intensely commented that the IMF functions and acts by the requirements and interests of multi-nationals and Wall Street, imposing a sort of international financial market dictatorship. The adoption of neo-liberal models often drives countries to even deeper crisis conditions, massively spurring speculative waves. Critiques converge especially on the idea that the IMF puts forward the same economic recommendations, and the same structural adjustment plans to countries applying for loans, without profound analysis of each one’s particularities.

It is always the case that the efficiency of foreign aid depends on the process’ credibility. Trust in the institutions and the adopted measure is a first required but insufficient step towards successful treatment. Faced with many and consistent critiques since 2001, but especially after the start of the current financial crisis in 2008, the IMF has shown willingness to review its policies and reform. However, today it must be questioned whether the IMF has acted significantly different in Romania and the other countries asking for

its support, from its previous interventions. Is the institution truly reformed? Has Romania's agreement with the IMF sped its recovery from crisis, or plunged it deeper into it?

A sincere and dispassionate undertaking is required to answer these questions. We must review the economic realities in Romania at the beginning of 2009, the agreement with the IMF, its implementation and the results observed now, at its conclusion. Regardless of this analysis' results, we can put forward a clear conclusion: concurrently with a country's acting government, the IMF is, by virtue of its conditionalities, a shadow government, an authority that imposes without much risk. Measures agreed with the IMF, by a country soliciting its aid, are major features of the governance act, substituting any other previous government programs. If the applied treatment is unsuccessful, the most the IMF will have to deal with is a public image deficit. Even this is not necessarily gravely damaging, since there will always be supporters, partial or not, who will praise the program's "success". The IMF's actions have always split economists into supporters and critics. The responsibility for the eventual failure will lay however with the official governments, and the true consequences will burden the citizens, the taxpayers, those who unfortunately have the least means to act in their own favor. Transparent or otherwise, the "IMF Government" has visible and long lasting effects for the economies of countries where it functions, and these states' citizens are taking most of the risk.

## 2. The Romanian Economy in 2009

3.

Concurrently with the start of the global financial crisis, the global GDP decreased by 0.6%. The European Union registered an over 4% drop in the real gross domestic product, concomitantly with an increase in the average budget deficit, which reached 7% of the GDP, and rising public debt, at 12% of the GDP.

Romania also suffered a major impact of the financial crisis on its economy, but with the positive aspect of lacking "toxic assets", which allowed it to maintain financial stability. The numbers for Romania, however, didn't look great either: fiscal deficit reached 8% of GDP, the GDP decreased by 7.1%, the national currency depreciated to 4.2-4.3 Lei/Euro; the current account deficit plummeted from 12-14% of GDP to 4.5%, but this decrease seriously weakened economic activity.

The Romanian economy was impacted by shrinking export markets for Romanian products, diminishing credit lines from the banks, reversing private capital flows, and foreign investors' increased risk aversion towards emergent markets. Many assets were devalued, especially real estate, which increased the weight of underperforming loans in credit institutions assets.

As financial turbulence persisted globally, it became necessary to gradually rectify the fiscal deficit, especially given the difficulties in its financing. As foreign financiers and investors saw it, Romania was becoming vulnerable due to the level of short term foreign debt (20.6 billion Euros at the end of 2008). Finance operators' lack of confidence manifested in increasing spread for sovereign bond yields, CDS, and pressure on the exchange rate of the Leu, towards its depreciation.

One of Romania's strong points, as the crises unfolded, was that we didn't have to support credit institutions through public funding. The Romanian financial system was robust, which was also confirmed through the stress tests performed by the NBR. No spectacular bankruptcies were registered in the Romanian banking and insurance systems, and the capital markets settled down after the critical moment in the fall of 2008. Another positive aspect was the public debt level, at 23.7% of GDP at the end of 2009, comfortably within the 60% of GDP required by the Maastricht Treaty. Additionally, Romania entered the crisis with a sizable international currency reserve of over 30 billion Euros, which allowed it to act firmly on the market, to defend the exchange rate.

Compared to the other EU members outside the Euro Zone, the Romanian economy registered a strong decrease. The downward trend was common to all countries in the region, but its amplitude varied from one country to another, influenced by economic openness, the structure of commerce, previous position in 2008, foreign financing needs, etc. While the Baltic states were confronted with downright economic collapse (GDPs fell by 14 and 18%), Poland's economy grew by 1.8%. This was accomplished on a background of reduced economic openness, and without major economic disequilibrium. While far from having the weakest indicators in the EU, Romania was seriously shaken, as it stood among the countries with a high inflation (5.6%) and excessive deficit.

Under these conditions, our country had a choice between practicing a fiscally expansionist policy through fiscal stimulus packages, as did Holland, Sweden and Great Britain, a lack of intervention (Czech Republic and Poland) or applying fiscal consolidation measures to avoid damage to its sovereign risk and the



budget deficit financing terms. At first sight, this last option was chosen, but unfortunately for the Romanian economy 2009 was an election year, and political interests came first and manifested fully, massively hindering the adjustment measures needed for the country's recovery. In practice, retrospectively, the government took 'warm' decisions, that neither led to increased fiscal discipline and a clear and quick adjustment of disequilibria, nor have they put the economy on a correct path towards recession attenuation (the much-requested anti-crisis program). Action was late, slow and inefficient. The squandering of budgetary funds continued, 'electoral giveaways' persisted even as Romanian authorities had signed a loan agreement with the IMF, European Union and other international financial institutions, cumulating 19.95 billion Euros. The agreement's purpose was to avoid a sudden and messy adjustment of extant disequilibria, but it's interesting that even given this agreement, with its clear conditionalities, the disequilibria deepened during 2009, right under the IMF's watch.

It's remarkable that the IMF agreement was not singular. It came in a package with another agreement, signed in March 2009 in Vienna, between the NBR and the home offices of the main nine foreign capital credit institutions in Romania, with the IMF's support. Under this gentlemen's agreement, the nine banks agreed to refrain from diminishing their exposure towards Romania for the duration of the stand-by agreement, and to proactively supplement their capitalization in conformance to the NBR's requests.

### **3. The Stand-by Agreement with the IMF; Romania's conditionalities**

The agreement signed by Romania with the IMF was part of a larger financial support program for the Central and Eastern European countries. Thus, Hungary received in October 2008 a total of 20 billion Euros, of which 12 billion from the IMF. In turn, Latvia got 7.5 billion Euros in December 2009, including 1.6 billion from the IMF.

Under its agreement, the government in Budapest undertook to decrease budgetary spending, to reduce the budget deficit to below 3% of the GDP, and implement a series of structural reforms, including a fiscal system reform. Following the agreement, the Hungarian Prime Minister Ferenc Gyurcsany announced a series of measures, including raising the VAT from 20 to 23%, relaxing labor market fiscal policy, pension system reform and the increase of pension age limit, increasing the profit tax from 16 to 19%, concomitantly with eliminating the 'tax on solidarity' introduced in 2006 at 4%.

In Latvia, which had a more difficult economic situation, with a very large downturn, the IMF imposed more drastic measures. It requested cutting the public sector wages by 15%, maintaining a constant exchange rate level, increasing taxes and massive public spending cuts. The government in Riga raised the VAT from 18 to 21%, cut public workers salaries by 15%, and public spending by 1.5 billion Euros. Unfortunately, these measures led to massive street movements and violent confrontations between the authorities and the population.

In the Ukraine and Belarus the IMF money went against market liberalization measures and towards fiscal restrictions. Ukraine closed a two year 11 billion SDR stand-by agreement with the IMF, requiring harsher monetary policies towards a floating exchange rate and supporting central bank independence. Additionally, it required raising the deposit guarantee ceiling from approximately 7000 Euros to 20000, and maintaining inflation below the 17% level. In Belarus, the IMF agreement required a fiscally restrictive policy meant to limit internal demand growth, and austerity policies intended to slowing investment and consumption. Negotiations included salary cuts and public investments.

A quick review of these measure packets reveals the same IMF "good" practices of imposing restrictions and austerity. Not a word can be found on economic growth and active measures for economic dynamization. These programs seem to resemble those previously applied in tens of countries worldwide, and mostly they appear to issue from the same "fundamental" commandments enshrined in the Washington Consensus.

Returning to Romania, the IMF agreement in April 2009 was focused on the following commitments:

- a 3.3% increase in social contributions;
- adjusted property taxes, due to increased valuations;
- significant wage spending in the public sector;
- reduced spending on goods and services;
- reduced subsidies;
- reduced budget deficit, maintaining below 4.6% in 2009 and 3% in 2011;
- reduced employee count in the public sector;

- full payment of 2008 arrears;
- revised Fiscal and Fiscal Procedure Codes;
- tighter controls on public enterprise spending'
- reformed parameters for the pension system, the transition to pension indexing based on consumer price index instead of salary levels, and increased pension age;
- the gradual decrease of the inflation rate towards the 3.5% target;
- maintaining the international reserve from 2009, and increasing it by 3 billion Euros in 2010;
- increased NBR intervention powers to supervise and restructure the banking system;
- modified legislation for deposit guarantees.

The familiar austerity line initially imposed by the IMF can also be observed in our regard, centered on policies for reducing and eliminating some public spending, and bracketing towards strict targets. It is interesting that in Romania almost none of these measures came to fruition in 2009, with or without the IMF's complicity ...

2009 was a forgone year, one of budgetary chaos and excessive public spending, culminating in the unconventional use of a part of the loans from the EU and IMF (2.7 billion Euros) to finance the budget deficit (pensions and wages payments). The extra credibility generated by signing the agreement allowed the Treasury to successfully contract a "club loan" of 1.2 billion Euros, which was also injected into the economy. Besides the funds from the IMF and foreign financing, the government went into massive debt with the banks, to sustain the insufficiently adjusted public spending. Thus, although the Vienna Agreement maintained the exposure in Romania of the main nine banks, this did not come free. Loans granted by credit institutions in 2009 were mainly directed toward the government sector, as state bonds. Public debt grew enormously, increasing its annual speed five-fold and reaching 13.5 billion Euros by the end of 2009. There was no question of matching the targets set in the April stand-by agreement! The money evaporated, and the economy kept drifting.

Allowing the direct use of IMF funds to cover the budget deficit is a more than strange attitude for the institution. Had the IMF political sympathies for Romania? It's difficult to tell, but it would not come as a surprise, when we think of how the financial obligations in Russia came to be and developed under the forgiving eye of the IMF, sometimes even with its funds. The IMF does not seem to always care about generalized corruption and unjustified spending of public money to pursue electoral gains.

Economic recovery and growth was only talked about, as there was no such viable program. Romania continued its economic decline, the budget deficit went up, the same as inflation, unemployment reached 8%, as the GDP contracted. The apparent calm at the end of 2009 and start of 2010 was actually the one before the storm. Suddenly, as if awakened from slumber, the IMF decided to reverse course half into 2010. The other side of the coin became apparent then, the other face of the "IMF Government".

Brusquely, we went from the IMF's 'dutiful students' to 'class failures'. Under IMF pressure or not, willingly or not, the authorities adopted the harshest austerity program in Europe, and one of the most severe worldwide. We were suddenly facing collapse! Confused, we thought "this is the Old IMF Reloaded!"

These were the main provisions in the Supplementary Memorandum Romania and the IMF signed in May 2010:

- a 25% cut in salaries, benefits and other wages for all public employees, starting June 2010;
- the further reduction in public employees count;
- freezing early retirements;
- limiting retirements for disabilities;
- a cut on heating subsidies;
- increased taxes;
- a 39 billion Lei ceiling for public wages, accomplished by reducing public employee counts;
- taxes on food stamps, bank deposit interests, and cutting IT income remissions.

An initial 15% cut for pensions was not allowed by the Constitutional Court. Following this ruling, the VAT was increased from 19 to 24%, one of the highest rates in Europe.

An important point in the Memorandum was the reactivating an aggressive privatization program for several fields: industry, energy, transportation, tourism and agriculture. A supplementary measure was introduced to liquidate the Termoelectrica energy company, by separating its viable assets and closing the rest of the company by middle 2010. The government agreed to concomitantly withdraw coal subsidies.

As for health, it was decided to introduce a copayment system, a turnover tax on medicine commerce, and to cut the number of hospital beds by 9200.

Not all IMF representatives agreed with these measures. Dominique Strauss-Kahn, the IMF director, stated that she opposed the 25% cut in salaries, suggesting instead increased taxes for the wealthy.

Thus, some IMF officials wished to distance themselves from certain decisions taken in Bucharest, underlining that acting authorities have the last word in these matters.

Unfortunately, the austerity measures in the Memorandum did not grant Romania the recovery it sought. Apart for a slight stabilization, no other palpable results can be observed. Romanians went through Purgatory since the half of 2010, without the hope to surpass the difficulties materializing. We reached the end of 2010 with 7.96% inflation, due to the raise in VAT, the GDP continued its plunge, internal demand tanked massively, unemployment maintained at an elevated 7%, wages decreased, foreign investment diminished to a worrisome 2.4 billion Euros at the end of 2010. At the same time, Romania's foreign debt reached 90.76 billion Euros in December 2010, 9.6 billion more than in 2009. An even more somber fact is the dangerous rhythm (21.6%) of short term foreign debt, at 18.74 billion Euros. In other terms, Romania's foreign debt exploded, peaking in 2011 at approximately 82% of the GDP. This is galloping growth, when we consider that at the end of 2008 Romania's foreign debt amounted to 51% of the GDP. We can declare the record 82% a ticking time bomb, given the still stagnating economic growth.

When considering the Romanian economy, even IMF official Jeffrey Franks stated this February that "the Romanian economy is stabilized", but that "Romania is like a patient after a successful operation, who could still die". This statement inflamed spirits in Bucharest, and elsewhere. After a harrowing year, with sacrificed wages and many street movements, Romanians found themselves in the situation many economists had foreseen: the decrease in income led to drastic a slump in internal demand, and entered the economy into a descending spiral impervious even to the rising exports. Romania's economic recovery is still uncertain, whereas most EU countries have come out of the crisis.

#### 4. Conclusions

Resuming our original fundamental question about the IMF reform, we believe some answers can be already sketched. The most frequent accusations against the Fund were those about saving foreign lenders, the inadequacy of proposed "prescriptions" to the economic realities in the countries asking for aid, the furthering crises in many of these states, and the lack of clear programs for economic growth and exiting the crisis. We consider many of these accusations founded, as confirmed by the events of the last two years in Romania. Following the agreement with the IMF, the Romanian state had to procure at its own expense the financing the foreign companies, especially banks, had lost from their own parent companies. Romania consequently became the foreign banks' main debtor. There was and still is pressure to liberalize the natural gas market, which will impact the domestic consumers, but will benefit the foreign companies: OMV, GDI, and EON. Also privatization now of the assets still owned by the state will be done at smaller prices, at Romania's disadvantage and with insignificant resulting income.

It was often claimed that the IMF favors foreign capital and supports the interests of foreign financiers. This accusation could be made in Romania's case, as it is now forced to appeal to international capital markets, generating supplementary profits for foreign financiers. The bottom line also includes lowered living conditions and consumption, the lack of significant investments, higher unemployment and inflation. The structural adjustment we accomplished by the numbers does not allow for an exit from recession. In Jeffrey Frank's words, instead of a "rusted ore tanker we'll have a smaller high performance speed boat", but we don't know if we'll all have room onboard. The patient is stabilized, but let's hope it's not a dead man's stability. Romania lacks something not even the IMF's support and direction couldn't provide: an economic growth model based on investments in production and exports, not on consumption. This was however the authorities and the IMF's least concern. Although Romania would have probably managed very difficultly during this period without the IMF's support, its "green light", the bottom line is far from satisfactory. The treatment we received was not significantly different from those applied in other countries, proof that the IMF has not really reformed much, but just went through cosmetic beautification of its image. This is the root of the nagging sentiment most Romanians have, of deep disappointment and lack of faith in the future. Romanians did not understand why their government settled for importing quasi-generic and painful measures, proven ineffective, instead of imposing its will by an approach consistent with the Romanian realities. Pain is not a guarantee of treatment efficacy!

Given all these conditions, it must not come as a surprise that 60% of Romanians answered the "does Romania still need the IMF" question with "NO". It does however need a credible and efficient government.

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## UNDECLARED WORK BETWEEN THEORY AND REALITY

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**Abstract:** Although the underground economy is a phenomenon challenged and hard measuring, is a reality for Romanian society, taking an increasing role in recent years, becoming a common phenomenon. Confidence of the population in poverty and actions by policymakers, the standard of living is very low, the feeling of injustice, inequality and increase the tax pressure, indifference, lack of education, etc. are all so many causes which encourages practivarea undeclared labour. We must rethink and rebuild our educational, cultural, social, institutional and moral systems so as to hold the negative externalities of some individual or collective behaviours driven by feelings such as egoism, individualism, the tendency to dominate, avarice or other tendencies of human and social misbehaviour under control.

**Key words:** undeclared, informal sector, labour market, state intervention

**JEL classification:** E, E2, E26

The concept of undeclared work (moonlighting, illegal work, unofficial work, clandestine work, parallel work) includes the economical activities and revenues from them, which are deliberately hidden from public authorities for various reasons. The motivation behind practicing moonlighting varies and can be of economical, institutional, psychosocial and moral nature.

The economical aspect most invoked is that that the tax burden can be excessive, and that on one side affects the entrepreneurial spirit of the employer and on the other side causes a decrease of the employees' income causing them to moonlight to avoid extra costs. Another reason for which the economic agents are attracted in the sphere of illegal activity is the legislative pressure: the increasing number of laws, rules and demands for permits; the legislative incoherence; the appearance of legal instruments at the wrong moment which very often lead to the impossibility of applying the law; the sanctions are not hard enough and they do not compensate enough to help prevent the avoidance of the official economy; the lack of better control, of fair and well-intentioned personnel, etc.

From a social point of view, the impact of the underground economy is in close connection with a series of phenomena such as: corruption, blackmail, illegal gambling games, drug consumption, prostitution, organised crime, money laundering, the violation of human rights, pollution, etc.

The most important reasons to participate in the sphere of underground activity are the psychological ones, manifested through behaviour like: an acute sense of property, obtaining easy money, exclusive concurrence, power abuse to benefit of sums used for personal gain, intellectual ambition to avoid the tax system, etc.

Those who are attracted to work without a contract are, as a rule, persons with no qualification, young people which do not realize the importance of the welfare system, students, unemployed people, retired people, those with small salaries, foreign citizens, etc., and those who offer illegal work are: leaders of companies who do not declare the permanent job of their employees, leaders of companies that do not declare all the overtime hours or occasional jobs, private firms that use workers without declaring their work time.

Illicit labor permits those who provide it to increase their financial resources, and those that use it to decrease their spending. Moreover, both of them avoid financial and social spending. This represents a financial attraction: so, on a short term, offers financial advantages to both the employee and the employer because it allows an increase in their gains, but on a long term, the employee's interests are severely affected from a social security's point of view.

Even if some politicians say that illicit labour is a theft done both by the employee and by the employer, the reality is that those who accept doing it expose themselves to some financial and social risks and those who offer it could go to jail according to the new Labour Law.

The one who accepts to work without a labour contract has many disadvantages: does not have the security of his wage, does not have the minimum wage guaranteed, no bonuses, he does not have the right to a paid vacation, has no insurance in case of invalidity or any kind of injury, professional diseases, maternity leave, retirement, death, etc.; does not benefit of unemployment relief, meal tickets, has no legal standing to affiliate to a syndicate and has a limited right to a credit loan, etc.

The employer can be sanctioned as follows: a contraventional fine for violating certain provisions, criminal liability, tort liability for all damage caused workers to third parties, also material liability consisting of calculation and payment of taxes to the state budget with all legal influences (increases of penalties and interest). However the practice of undeclared work has become a practice for the business environment in Romania.

According to a World Bank report, in Romania, 45% of working people have no proof in legal documents that they are working, putting us in front of poorer states, such as Moldova, Armenia, and Ukraine, unlike Poland and the Czech Republic who have 15% and Hungary who has 5% (the Money Channel).

In 2010 a market study was made on 28000 Romanian households and it had been found that 1.6 millions Romanians work without a labour contract, in contrast with 4.5 millions registred. Also, in the same year, the site Jobsinro.ro made a study through those who entered it, coming to the following conclusions: a third of the Romanians earn untaxed money, sums of money which go up to three times the minimum wage; 17 % say that they earn only untaxed money and for 8% the undeclared money are three quarters of their monthly income; 17% receive monthly almost 400 RON besides their wages, for 6% these sums go up to 2000 RON; circa 5 % are getting sums between 400 and 800 RON and over 3 % receive sums between 800 RON and 1500 RON; 67% of those interviewed said that without these money they would not be able to keep going.

What are the result of public efforts, done in 2010, to stop undeclared work?

It was developed a Procedure regarding the repeat of the control act to those who were found to breach the law and GD 1024/2010 for the approval of the National Strategy regarding the reduction of the incidence of undeclared work for 2010-2012 and the National Action Plan for its implementation, published in Monitorul Oficial al Romaniei, part I, nr. 740/ 5.11.2010. Also, national awareness and attitude changing campaigns were organized regarding the illicit work on the Black Sea coast, in constructions, the textile industry, leather industry, footwear industry, bakery and pasta production, in mountain resorts and additionally the campaign „a day a week” had obtained in 2011 the following results: 33.678 checked units, 28.763 sanctions and fines amounting to 23.6 millions RON. In 2010, the Labour Inspectorate has carried out 84.421 checks to identify cases of undeclared work, tracking 9.263 employers who have hired 17.735 undocumented persons, there have been imposed penalties amounting to 50.614.500 RON, two times more than in 2009 and individual labour contracts have been made for 41.6% of those detected doing illicit work (data available online at [www.legislatia.muncii.manager.ro](http://www.legislatia.muncii.manager.ro)).

The underground economy is very difficult to measure, define and analyze. In this sense the data provided, both nationally and internationally, is estimated or based on a series of surveys that are regularly made at a household level. Thus, between September 2007 and February 2009, the Economic Statistics Development Project, in its component C requires completion of the assessment methods to measure the informal sector in Romania. In this respect, three surveys were developed: IEHH (Informal Economy in Households) household survey conducted in May and September, based on two independent samples, IESE (Informal Economy in Small Enterprises) survey conducted in small firms with 0 - 9 employees; IESEFA (informal Economy in Self-Employed and Family Associations) survey on self-employed and family associations. In the development of the three questionnaires were combined indicators from four investigations of National Institute of Statistics (NIS), LFS (Labour Force Survey households), HBS (Household Budget Survey), Structural business survey and Structural survey in agriculture, thus resulting in a new methodology necessary to estimate the contribution of informal sector in Romania's GDP.

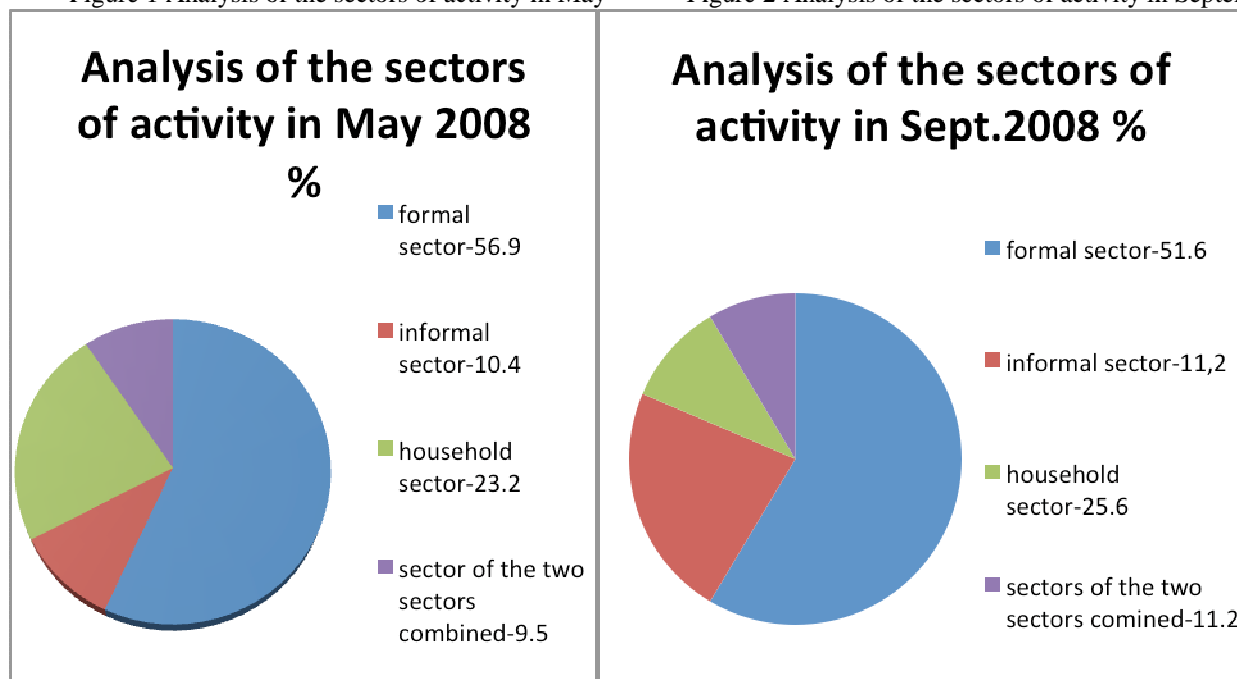
Based on the survey IEHH employed population was grouped into three sectors: formal, informal and household, shown in Figure 1 and Figure 2.

In the first quarter of 2010, INS published the monthly bulletin showing that the number of employees in the economy was only about 4.3 million excluding armed forces (about 230,000 employees), and trimestrial publication "Employment and unemployment in the first quarter of 2010" claims that the

number of employees in Romania is 6.035 million, including armed forces and employees of the underground economy, so that the number of those working in the informal economy and moonlighters was 1.5 million, a figure on the rise by about 200,000 people as opposed to 2008 and the beginning of the crisis.

Figure 1 Analysis of the sectors of activity in May

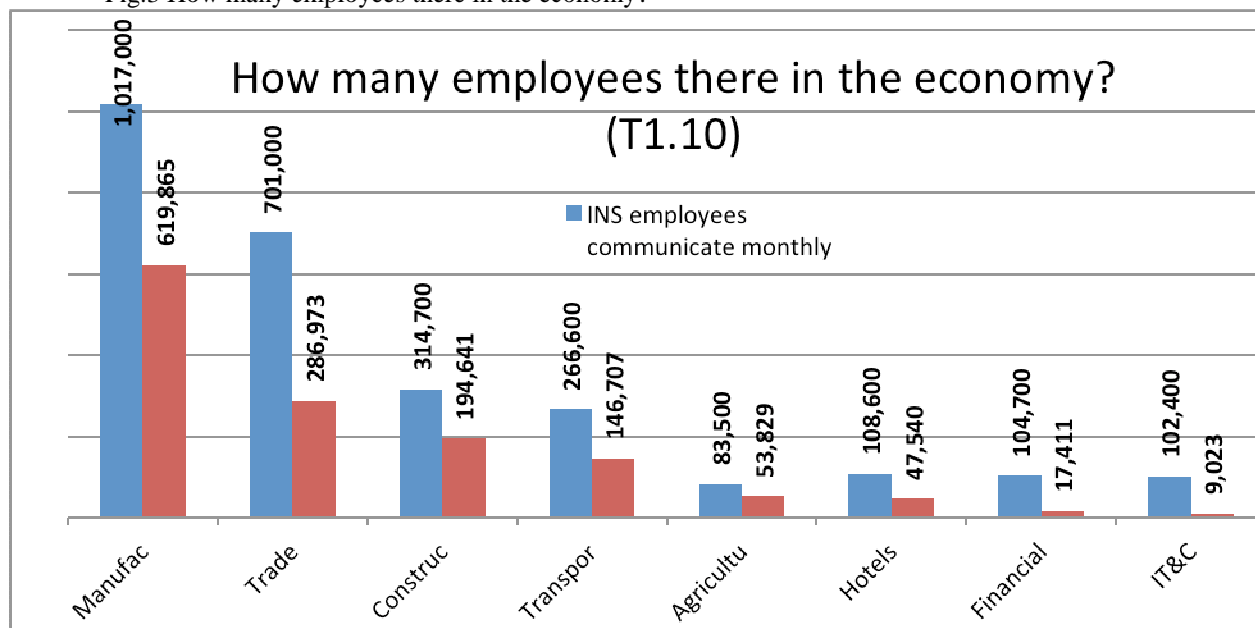
Figure 2 Analysis of the sectors of activity in September



Surse: based on the survey IEHH, 2008

The situation by economic sectors is as shown in fig.4 where we can see the number of employees and number of INS employees who work in the informal economy classified by domain. In construction, the paradise known as the paradise of illicit work, the share of those who work illicitly is 62%, followed closely by the manufacturing and trade industries.

Fig.3 How many employees there in the economy?

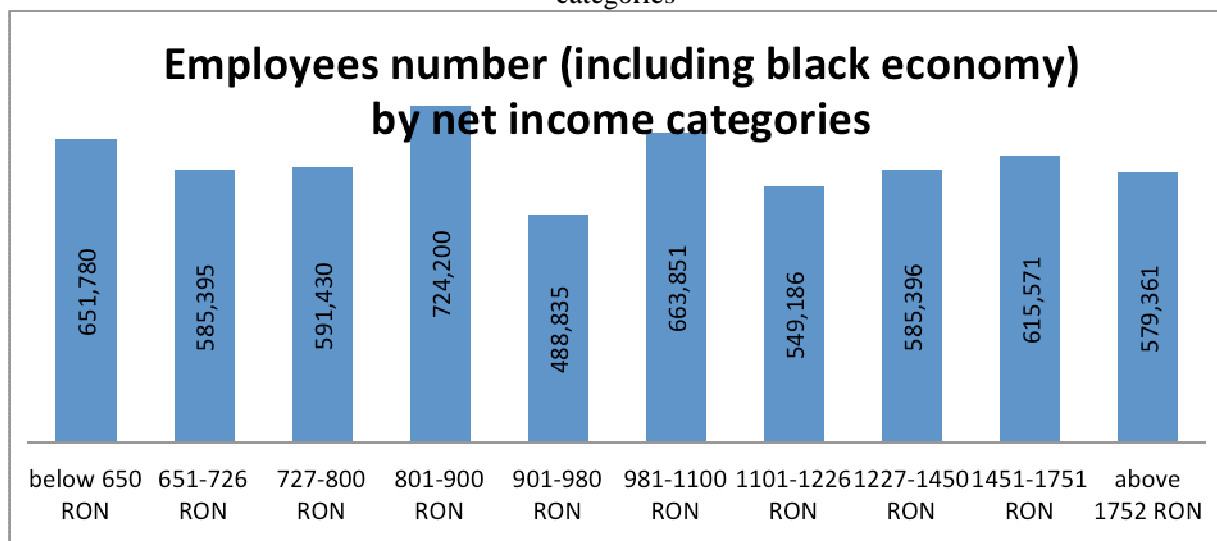


Surse: businessday.ro, 2010

The number of employees registered in the official data and in addition to those the employees working as part of the underground economy which appeared because of the wide gap appeared between the total cost of legal labor and illegal labor, and this difference depends largely on payments to social security

and the overall tax burden. Also, an important cause to this is also the insufficiency of available revenues intended for satisfying decent living needs, compared to the parity of purchasing power. Statistical data shows that 80% of employees (including moonlighters) attain a revenues inferior to the average salary, and 9,6% of the total have a salary higher than 3.000 RON monthly gross payment. As such, 4 of 5 employees have but a revenue which allows subsistence, and a very small number of persons achieve somewhat decent revenues. The absolute poverty rate in the year 2008 had gone to 5,7%, but due to the global economical situation, the absolute poverty rate increased by 1,7% in 2009 (7,4%). The future labor code will also discourage poverty, because those which moonlight avoid paying their social contributions, and if they lose their capacity to work they will come and ask the state for help, and there already are 11 million persons which receive social assistance, meaning that they do not contribute, but instead they receive money enough for living under the minimum of subsistence.

Figure 4 Employees number (including black economy) by net income categories



Source: businessday.ro, 2010

The effects of illicit labour are very controversial, some saying that undeclared work only has positive effects, others also reminding of its negative side. The negative effects come from those unregistered commercial-monetary and non-monetary activities which are illegal: the selling of stolen goods; the production and commercialization of narcotics, blackmail, bureaucracy, corruption, fraud and embezzlement, etc. However, it's the positive effects which around controversy. Those which moonlight will spend their money in the visible economy and this obviously leads to official economical growth, the illegally gained revenues improving the standard of living for 1/3 of the occupied population, and in general it's those very poor which are attracted into moonlighting, which have less time available for other unproductive activities. Illicit labour answers the demands of the economical environment, can contribute to the development of markets, the growth of financial resources, the development of the entrepreneurial spirit and the forming of legal, social and economical institutions needed for accumulation.

A negative aspect for both the state and society itself is the fact that very many entrepreneurs which start up a company try to fool the state by avoiding paying taxes, so as to keep all of the profit. Some have ghost companies which are not registered at the Register of Commerce, but possess founding documents and illegally made stamps and make use of counterfeit financial and tax documents, while others register their company at the Register of Commerce, rent a location as headquarters, open bank accounts, obtain tax documents with special regime after which they periodically hand in the statements required by law, but containing fake information or they accumulate immense debts and assign the company to foreign citizens which cannot be identified and made account for the losses.

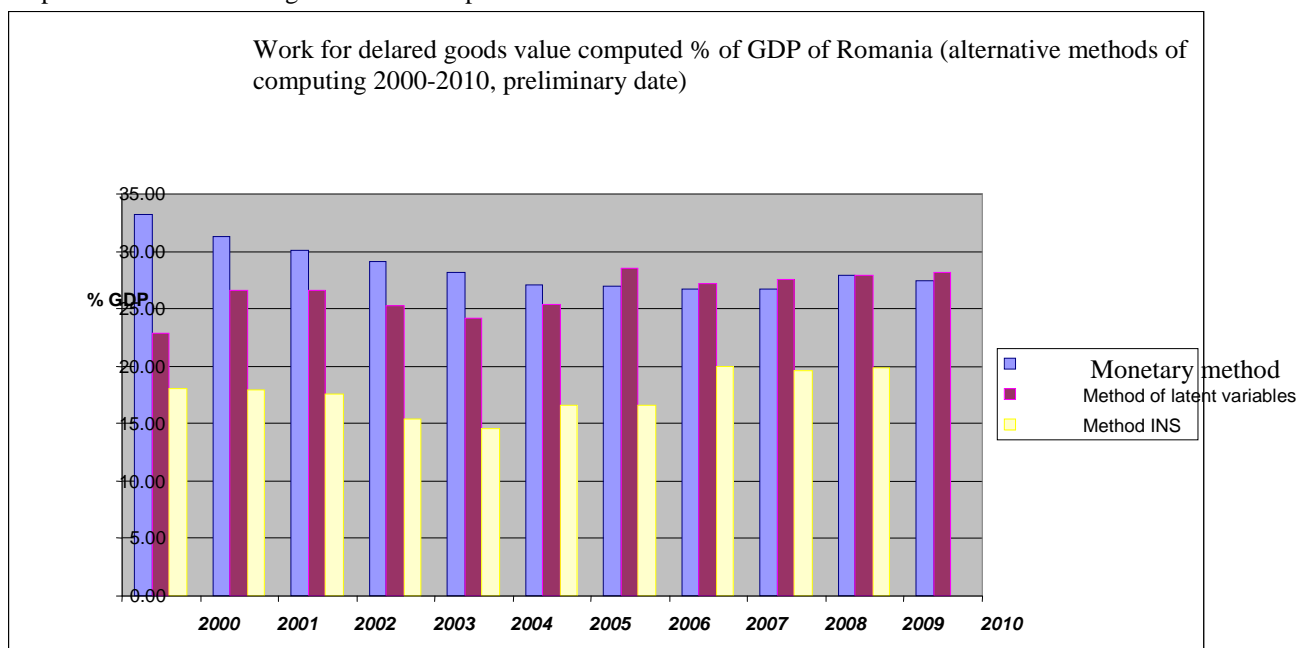
According to the statistical data of the Minister of Public Finance, if we had taxed undeclared work in 2009, the state would have cashed in revenues of 58,116 billion RON, meaning 11,3% of the GDP, while in 2009 we had a budget surplus of 4,1% as opposed to the 7,1% deficit of the GDP. Romania occupies the second place in the European Union in terms of tax evasion (42% of revenue eligible for taxing is not declared), after Italy where tax evasion is estimated at 54,5%, on third place there is Bulgaria (40%),



followed by Estonia (38,2%) and Slovakia (35,4%). The most conscientious Europeans in terms of paying taxes to the state are the Swedish (7,3%), Belgians (10,1%) and the British (11,7%). According to a study done by A.T. Kearney, Romania is located on the fifth spot in terms of how great a percentage of the GDP underground economy takes up. Bruxelles' statistics show that Greece, Italy, Spain and Bulgaria are ahead of us in terms of not paying their contributions to the state, and the level of their underground economy is located inbetween 25% and 40% of their GDP, while for the rest of the EU it stats at 5% and does not go over 15%.

Data supplied by the NSI showed that the underground economy in 2009 was around 19,8% of the GDP. This value, compared to an average for the whole series of values would represent about 108%, meaning 8% more than the average of the series. As opposed to the highest point, which is the starting point of the series, that being 1998, the difference being of 3,7-4 percent, and the lowest value of 14,5% of the GDP was achieved in 2004 (see graph). The start point of the series coincides with the moment when Romania started to register economical growth, fact which lead to the decrease of the underground economy by no less than 38%, which is indeed impressive. From that point on, sizes reenter a process of growth, going back to the starting value of the interval, at a distance of 3 percent in the year 2007, maybe not a coincidence that that year the national coin reached a peak of value compared to the main international currencies, phenomenon which, if generated speculatively – which in good measure was the case for the Romanian economy , can have such a *perverse* economical effect, although one must mention that such documentation is extremely frail in literature. What is noteworthy is how robust the phenomenon of economical evolution, fact also shown by the rather small standard deviation of the series of values.

Graph1. Work for delared goods value computed % of GDP of Romania



Surse: date INS and author Catalin Ghinararu

Although the phenomenon of underground economy is challenged, the state tolerates this phenomenon because it is not capable of adopting measures of social protection or economical relaunching, so as to be able to occupationally and socially reintegrate those social categories which turn to underground economy. In the context of Romanian economy, any attempt to eliminate would produce social unrest and lead to a deepening of the current state of poverty or would accentuate the phenomenon of people migrating towards industrialized areas, there being a chance that this causes imbalance on the labor market.

In Romania, undeclared work is something common because the Romanian people are forced to accept illicit labour for a decent standard of living, no longer patient enough for the promised light at the end of the tunnel, as they see that the actions of the government differ from what they said during elections, and that taxes are burdening, that for those in the ruling parties there is no law and because the commoner simply feels the need to ask himself again and again : How many hundreds of billions of RON collected from us actually go to cover the inefficiency of an economical structure? Is it worth it that I sacrifice myself to support with my money, as little as I have, an incompetent government full of corrupt people? The

populace's trust in an economical system is very important, many times people choosing to participate in the underground economy due to the idea of justice, as they feel wronged when they try to make their own justice without appealing to official authorities because they know that they won't find the needed understand and will never prevail.

From another standpoint, the existence of underground economy can have negative implications on the attitude of the citizen as for what concerns the rules and values of state and even more, those which work in the official economy see the difference and lack of equity, which will further increase the rate of discontent, turning it in a vicious circle from which one may not easily leave.

Underground economy increases the difference between the different social groups, meaning that those which participate in underground activities may gain tremendous and immediate benefits, while those which work fair are met with a worsening of standard of living.

Also, the economical agents working in the official economy complain of an unequal competition with the underground economy, and as such, must cut salaries and reduce the number of work force, leading to a shrinking of the normal economy and sometimes to it closing down.

As such we conclude that we must rethink and rebuild our educational, cultural, social, institutional and moral systems so as to hold the negative externalities of some individual or collective behaviours driven by feelings such as egoism, individualism, the tendency to dominate, avarice or other tendencies of human and social misbehaviour under control.

### Conclusions

The underground economy in Romania is of significant, making up between a minimum of 19,8% and about 28%, compared conventionally to the GDP, which is an important leak of resources which will affect a good deal of the final results of our national economy.

There is, due to the long and heavy years of recession of the last two and a half decades, a phenomenon of a "rooted" underground economy, which gives it unwanted robustness and capacity to take shocks, greatly higher than that of the official economy. This explains the underground economy's capacity to resist the economical crisis and the extremely low variation in its relative size, conventionally expressed as a % of the GDP. According to the most recent estimated which base off on the data provided by the NSI, it may be that there are participating in the underground economy, under its different forms, at least 1,2-1,5 million persons. Between 800,000 and 1,000,000 of these can be statistically recorded as "employees unacknowledged by their patrons/employers" but which declare their salaries when investigated statistically. Noteworthy is that this method of evaluating the degree of occupation of the underground economy is and remains problematic.

Keeping in mind the above said, we must strengthen our implementation of preventive-punitive measures aimed against an this especially strong and robust phenomenon. Still, besides this, we must not forget to attain a relaxation either in the tax balance or the cash balance on the medium term, while keeping the alternative of a quick internal ungrading for the time being closed, so as to produce a stronger uprooting of the phenomenon by making it less attractive and making it looks like a worse economical "safe haven", and even a worse social haven during recession. If for the year 2011 we could take into account, keeping in mind the constraints of proceeding with an economical balancing only the variant of punitive measures, for 2012, of course depending on the macro-economic targets set for 2011, we should take into consideration the addition of a relaxing procedure in the completion of the punitive device aimed at the phenomenon of undeclared work and, in general, towards underground economy.

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## PSYCHOLOGICAL EFFECTS OF THE FINANCIAL CRISIS

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**Abstract:** *The economic, financial crisis affects anybody. This paper will focus on risk perception, and some personal and social factors during financial crisis. It will examine people's behavior in the credit market, and how they make their decisions regarding loans. It will study the motives, attitude, choices, and rejection of people concerning credit under financial crisis.*

**Key words:** financial crisis, risk, credit, psychology

**JEL classification:** D10, D81, E59, G01

### 1. Introduction

"Given the global financial crisis that grips most countries in the world, with the attendant job losses, job insecurities, financial worries, pension deficits and the like, the health and well-being of individuals and families are severely at risk." (C. L. Cooper, 2009)

Psychological factors play a decisive role in the current financial crisis. These factors are considered behavior patterns of people who find themselves in uncertain situations. The financial crisis has its psychological antecedents and also its consequences. One of the major consequences of the financial crisis is that people usually lose their trust in financial institutions. The capacity of the economic actors to make rational judgments and decisions is overrated most of the time. People, households, use certain tactics for adaptation to financial crisis and economic recessions, such as: buying cheaper, higher quality products, less quantity and more durable. One important issue is that people should be prepared to be able to think clearly during a period of crisis. They should be able to reflect and to account for their spending. They need to be taught budgeting and mental accounting. People's knowledge about finances and the financial world differs according to age, gender, level of education, and occupation. (Garling, Kirchler, Lewis, van Raaij, 2009, p. 1-2)

In financial crisis the credit market and the risk perception plays a big role. People, I think, should be careful how they perceive risk, and how they make decisions in risky situations. They should evaluate carefully the conditions offered for receiving credit. Especially in period of financial crisis, when everything is much more insecure, people have to evaluate in general every situation more carefully, before they make any decision.

People are able to borrow money on the credit market, which they will pay off in the future. "Credit use is a process consisting of different stages of decision making, starting with purchasing a product for borrowed money and ending with paying back the borrowed money." (Garling, Kirchler, Lewis, van Raaij, 2009, p. 1)

"...psychological factors always play a role in financial markets. However, psychological factors are not necessarily "irrational"; rather, they represent regularities in how people process information and act upon it. The contribution of psychology is to find these regularities in people's perceptions and decisions—that is, their heuristics and biases—that account for their economic behavior. The late Herbert Simon, a political scientist, professor of psychology at Carnegie-Mellon University, and the 1978 Nobel laureate in economics, argued that people are bounded rational (Simon, 1956, 1982, 1990). They use their resources in sensible ways to adjust to the prevailing situational demands. But some situations exceed people's capacity to judge probabilities and make good decisions. Many contemporary scholars in behavioral finance (e.g., Shefrin, 2000; Shleifer, 2000; Taleb, 2004) believe that in financial markets people are frequently not capable of acting rationally. The late Amos Tversky and Daniel Kahneman, another Nobel laureate in economics, have done more than any other scholars in psychology to show this empirically (Kahneman, 2003a, 2003b; Laibson & Zeckhauser, 1998)." (Garling, Kirchler, Lewis, van Raaij, 2009, p. 2)

Since people's actions, in general, and their decision making is correlated to psychological factors, the study of such factors is necessary to better understand their economic behavior. At the time of financial

crisis, the only way we can make constructive suggestions to improve people's success with their business, is to assist them in gaining a better understanding of the risks they are taking. It is also necessary to make them aware of how to react and behave correctly to survive the economic crisis, with the least possible stress and failure.

## 2. Economic risk

"In financial markets, actors take risks and evaluate future consequences of the risks they take. [...] People take economic risks with personal loans, credits, and mortgages; trade risky equities in the stock market; purchase inefficient or risky products; and accept insecure jobs." (Garling, Kirchler, Lewis, van Raaij, 2009, p. 3)

Risk has been an important research topic since the 1970s, and it is considered an essential factor in the decision making process. The way how the public perceives and reacts to risk depends on the individual lifestyles. The same risk is perceived differently by people according to their circumstances: such as: in what country they live, what social group they belong to, etc. (Sjoberg & Engelberg, 2005, p. 327-328, 333-334)

To better understand financial decision making, we can rely on "expected-utility" theories. In this context, risk is defined as the probability of a decision outcome. A risk event is defined as a low probability of a negative outcome. Risk taking is domain specific and is influenced by personal and situational factors. "Risk taking, economic or otherwise, is mediated by risk perception, risk attitude [...], and risk propensity—that is, the extent to which one is aware of a risk, whether it is judged to be positive (an opportunity to gain) or negative (a threat of losing), and the extent to which one intends to take the risk." (Garling, Kirchler, Lewis, van Raaij, 2009, p. 3)

"Individuals are invited to use their response to the familiar situation as a guide to action in the new one; certainly, it is legitimate to seek consistency in one's actions. However, little follows directly from most comparisons. Risk decisions are not about risks alone. One can accept large risks if they bring large benefits and reject small risks if they bring no good." (Fishhoff, 1995, p. 141)

Risk perception is important and essential to understand decision making. Risk perception is influenced, and affected by certain psychological factors, such as: fear, regret, optimism, or pessimism. People, when they make their choices, will not process all the relevant information. They will make their decisions using their own experience, the judgments of their past, or routines. (Garling, Kirchler, Lewis, van Raaij, 2009, p. 3-4) This might be dangerous because every situation is different, and not being focused on the information that we need to make our best choice, we can easily make a wrong decision, by underestimating the actual risks, and without being aware of possible consequences.

"Risk-avoiding decision makers are more likely than are risk takers to attend to and weigh negative outcomes and thus overestimate the probability of losses relative to the probability of gains. They consequently require a higher probability of gains to tolerate the exposure to failure (Schneider & Lopes, 1986). In contrast, risk-seeking decision makers are more likely to attend to and weigh positive outcomes more highly and overestimate the probability of gains relative to the probability of losses (Brockhaus, 1980; Vlek & Stallen, 1980)." (Garling, Kirchler, Lewis, van Raaij, 2009, p. 4) While some people will take risks, it sounds as a reasonable assumption that, people try to avoid risk situations and risk related decisions, especially in the economic or financial domain. These two types of behavior depend on the individual's personality, social and financial situation, and experience in similar situations. We can say that people, in period of financial crisis, are avoiding risks more often than otherwise, but basically the risk takers remain risk takers, and the risk avoiders will avoid risks regardless.

As I mentioned before, people's personality is a strong factor in financial risk taking. Sensation seeking and extraversion are also such factors. High sensation seekers take more and larger risks, than low sensation seekers. Another factor is the impulsivity of people: they don't have patience to analyze the information, so they make quick decisions. Openness to experiences leads to a high risk taking, and people with bigger conscientiousness usually are low risk takers. An important trait to be considered is anxiety, which may cause risk avoiding. Confidence is yet another important factor. In financial crisis situations, people are less confident, more pessimistic about the future and their own financial well-being. Consequently, they avoid risks and try to make more secure decisions. During economic recessions, people save more, take less credit, and prefer to pay back their loans. Regarding financial behavior, optimistic people will take more risk than the pessimists. (Garling, Kirchler, Lewis, van Raaij, 2009, p. 4-5)

"In expected-utility theory, a choice alternative is evaluated by considering all its exhaustive and mutually exclusive outcomes in the future (also discounting time), then computing the expectation by multiplying the evaluation of each outcome with its probability. The alternative with the highest expected

value is then chosen. The evaluations made in prospect theory are evaluations of the difference between an outcome and a reference point. For instance, if a stock share increases or decreases in price from the purchase price, the change is assumed to be evaluated as a gain or loss, respectively. In expected-utility theory, the current price is added to (or subtracted from) the total wealth. Unless the person is broke, the outcome is therefore always a gain. In experimental studies (e.g., Kahneman & Tversky, 1979), it has been shown that the evaluations of outcomes differ in a systematic way depending on whether they are coded as gains or losses. When coded as gains, less-risky outcomes are preferred to more-risky outcomes (risk aversion), whereas the reverse is true for losses (risk seeking).” (Garling, Kirchler, Lewis, van Raaij, 2009, p. 8)

People usually choose only after having evaluated what outcome each choice would produce. They have to decide which of the outcomes is the closest to the expected one. Garling, Kirchler, Lewis and van Raaij show in their article that the final decision depends on the evaluation of the outcome, whether it is considered a gain or loss.

The risk attitude has an asymmetric behavior, meaning that if the probability of the outcome is large, then risk aversion is preferred for gains, and risk seeking for losses. If the probability of the outcome is small, then this behavior is reversed. “Garling and Romanus (1997) demonstrated an asymmetrical influence such that when future potential losses were evaluated, the prior outcome influenced the reference point by making the evaluation worse if the prior outcome was a loss and better if it was a gain. In contrast, evaluations of gains were not influenced by the prior outcome. [...] Related to the coding of outcomes as gains or losses, Thaler (1980, 1985, 1999) and Tversky and Kahneman (1981) proposed that coding of outcomes is made in mental accounts. The existence of mental accounts violates the basic assumption that money is exchangeable. Tversky and Kahneman (1981) defined a mental account as “an outcome frame which specifies the set of elementary outcomes that are evaluated jointly and the manner in which they are combined, and a reference outcome that is considered neutral or normal” (Garling, Kirchler, Lewis, van Raaij, 2009, p. 9) People dislike losses more than they like gains. For example, people rather prefer a situation of an even chance of winning and losing a small sum of money, than an even chance of winning and losing a big sum of money. (Garling, Kirchler, Lewis, van Raaij, 2009, p. 10)

### 3. Credit Market

Consumers use credit in situations when they need something and do not have the financial means to purchase the product at the time they need it. In this case the credit lending company is ready to offer that money, which must be repaid in an interval of time. People have two choices: to wait until they can afford it outright or use credit. The latter of the two choices carries the risk that the consumer will not be able to make monthly payments. There are a few factors of economic psychology that help to explain why people use credit.

“The first is materialism. In general, the link between wealth and happiness is less strong than you might think, but there are some people who strongly believe that owning more things will enhance their happiness. Such people tend to be less happy than others - they are always on the hunt for more possessions. [...] The second is money. Often thought of as simply a convenient tool for facilitating transactions, it can be argued that, psychologically, money is like a drug, giving pleasure and being sought for its own sake as well as for what it can purchase. One aspect of its drug-like properties is the money illusion: people feel they are better off if the price of their house has doubled, even though, if all house prices have doubled, and they still need somewhere to live, their real wealth is unchanged at exactly one house. Finally, we have the most spectacular deviation from rationality: the massive myopia with which we approach choices between good things that will arrive at different points in the future. Humans are quite hopeless at such "inter-temporal choice", consistently choosing to take small benefits sooner rather than large benefits later.” (Lea Stephen, 2010, p.24-25)

Debt can be associated with high level of psychological distress. People or households with a big debt have lower level of psychological well-being than the people or households without debt. There are a few qualities that play an important role on the decisions people make on using credit. These qualities that play a big role on the ability of people to not use credit are: anticipation, self-control, and self-representation. “Neoclassical economics tries to integrate credit use into standard economic theory (e.g., Brito & Hartley, 1995) by conceptualizing it as maximizing utility by consuming in advance (e.g. Modigliani, 1966, 1986). Neoclassical economics largely ignores the types of credit used, personal characteristics of credit takers, and situational circumstances (Frederick et al., 2002); this is in contrast to the economic-psychological research

(e.g., Hayhoe, Leach, & Turner, 1999; Qi & Yang, 2003; Xiao, Noring, & Anderson, 1995), which has predominantly focused on subjective concepts of credit (e.g., Ranyard & Craig, 1995), individual characteristics of credit users (e.g., Webley & Nyhus, 2001), excessive use of credit (e.g., Lea, Webley, & Levine, 1993), and compulsive buying related to credit use and indebtedness (e.g., Dittmar, 2000; Dittmar & Drury, 2000; Hanley & Wilhelm, 1992).” (Garling, Kirchler, Lewis, van Raaij, 2009, p. 22)

The conceptual framework of individuals taking up credit has three stages. The first is characterized as a period of deciding whether take credit, afterwards comes the actual decision of taking up credit, and at the end, the third stage entails the repayment period. Deciding to take out credit focuses on the motives to obtain credit and looking into the availability of credit, however, even when people decide to take a credit, they might wait for a while. After this first step people can still decide not to accept the loan money possible to wait and save up on their own, or accept the loan after a longer period of time. The individual may want to take a loan after researching about credit and credit alternatives. The third stage starts to come into focus when people need to start paying off the debt in installments. This period may differ from older experience of paying off and can be temporarily difficult. (Garling, Kirchler, Lewis, van Raaij, 2009, p. 22-23)

People have different kind of motives to why they use credit. Sometimes people use credit even if they have the actual liquid money. This may be motivated by the desire to maximize one’s profit. Credit can be used to maintain one’s lifestyle. For example, low-income people need to borrow more money as a complement to their income to maintain their lifestyle, and higher-income groups need less to do this. Keynes had identified six motives for borrowing money, these where the enjoyment, extravagance, short-sightedness, miscalculation, ostentation and generosity (Garling, Kirchler, Lewis, van Raaij, 2009, p. 23). An important role is the social motives of borrowing money, like the social comparison results that people process and want what others have.

Optimistic people are more likely to borrow than pessimistic people. People with positive attitudes use credit much more often and run into debt than people who have negative attitudes about borrowing. An important fact is that people can keep track of their finances by mental accounting. This can be seen as a factor of self-control by constraining the budget for each account. “Although mental accounting may in most cases work as an efficient self-control technique, it may also result in inefficient behavior such as overconsumption, if budgets are set too high (Heath & Soll, 1996), or in self-deception through a decoupling mechanism (Prelec & Loewenstein, 1998).” (Garling, Kirchler, Lewis, van Raaij, 2009, p. 24) The fact of the extreme availability of credit can more easily persuade people use them. If the credit card would not be in a person’s hand then maybe that individual would not use credit so easily.

In many cases people do not contemplate enough before taking up credit, and they decide on impulse, mostly when they use credit cards. The process of deciding to take up credit is complex and it involves risks. It is wise to search and collect information about credit alternatives to choose the best offer. In the case of using credit cards, people do not really think that it is necessary to first obtain information. They use especially personal contacts for their source of information. In most cases people are not collecting enough information because of the costs associated with the search time. They could be somewhat overconfident about their financial possibilities. They are concerned just about the monthly rate. Generally they can underestimate the loan duration, especially for longer period. (Garling, Kirchler, Lewis, van Raaij, 2009, p. 24-25)

“Decisions about taking the burden of a loan, about payback rates, and about the amount of benefit from a desired product that can be purchased with borrowed money are intertemporal choices; people need to consider, on the one hand, the rewards of immediately purchasing and using or consuming the product, and on the other hand, the burden of sequential installments to be paid in the future. At the time of credit take-up, intertemporal choices pertain to the benefit of immediate consumption or, if people are patient, postponement of purchase and consumption in the future. When they are impatient, they need to consider costs of immediate payment or credit use and costs of payments in the future. Research on intertemporal choice has repeatedly and consistently shown pervasive devaluation of the future. Future costs and the value of future benefits are smaller than present costs and the value of present benefits (Ainslie & Haslam, 1992; Frederick et al., 2002). In other words, buying and using or consuming a product immediately rather than at a later point in time, and paying later for it, is most rewarding. This should be especially true for more impatient or impulsive people with less self-control.” (Garling, Kirchler, Lewis, van Raaij, 2009, p. 25) A person’s decision about taking the burden of a loan has to be well considered, they really need the benefit of immediate consumption, or it is better to postpone the consumption in the future, and be patient. In this case they can be saved by the unpleasantly monthly payment. That decision is influenced by the patient and

inpatient character of human beings. Garling, Kirchler, Lewis and van Raaij agree that buying and consuming immediately is much more pleasant than postponing this activity.

In the moment that people take up a credit, borrow money; they take the risk that they will not be able to pay the installments. When they are deciding that they need the credit or not, they have to consider that the repayment procedure carries a risk factor, and can have a negative outcome. In this case people might want to reduce or avoid this risk. "...risk-defusing operators (Huber, 2007; Huber & Huber, 2008), defined as actions intended to be performed in relation to a specific alternative and expected to decrease the associated risk of the negative outcome. People who want to buy an apartment or a car on credit but are uncertain whether they can meet the monthly installments may obtain consumer credit repayment insurance. Risk-defusing operators are quite common in everyday risky decision making. A risk-defusing operator provides the decision maker with at least some control over the risk, and controllable risks are experienced as less serious than uncontrollable risks." (Garling, Kirchler, Lewis, van Raaij, 2009, p. 25-26) It is wise to obtain credit repayment insurance for any case, of course that depends on the size of credit, because in the case of a very small credit risk can be considered almost not existed.

Before taking a loan people consider their experience of the paying back of previous credits. On the other hand they imagine a level of burden they predict, and this predicted experience of the repaying in most cases differs from the actual experience during repayment the loan. Predicted experiences are more positive than the actual experiences of repayment. In this consumption-oriented society people may slide into problem debt, because they are tempted to borrow again and again. Credit encourages people to buy things they actually do not really need. Credit users usually, if they finished paying back the loan; they might reconsider their experience from the period they were actually paying the installments, and conclude that if all ended well than everything is well. In this case this situation may induce people to take up further credits. (Garling, Kirchler, Lewis, van Raaij, 2009, p. 27-28)

People are affected by the financial crisis in several ways, they may lose their income; they can remain without a job. "The present crisis, rooted in the subprime mortgage market, is the result of a number of risky and irrational economic behavior pursued, in time, by financial institutions, public decision makers and individuals, all disregarding the economic consequences of risks' spreading through the open markets. The accumulating tensions spread, by contagion, to the whole world, eventually affect the global economy and the living standards." (Donath, Popescu, 2010, p. 682)

People are influenced by the mass media, and being confronted with these messages, they become pessimistic about the international and national economy and about their own financial situation. Mass media influence the consumer confidence in negative way mostly in international and national perspective. The consumer confidence regarding their personal financial situation is influenced more by their personal experiences such as income changes and job situations. A person's confidence affects their spending and saving. Pessimistic people will spend less and on durables, and they will save more. This behavior will lead to fewer sales for companies and after to a further fall of the economy, and in that way people will become more pessimistic. This circle has to be interrupted by showing positive developments for restoring the consumer confidence. (Garling, Kirchler, Lewis, van Raaij, 2009, p. 28-29) "John Maynard Keynes pointed out the paradox of recession economics: in the long run, people need to save more and borrow less to prevent the crisis recurring. But in the short term, if we all do that, the recession will deepen into a depression." (Lea Stephen, 2010, p.25)

The great majority of people are not really affected, not directly affected by the financial crisis. Some people lose their jobs, or lose their businesses, but the majorities are just marginally affected by the higher taxes, or higher prices on some products, but they are in a way immune to the whole financial crisis. But they can still become pessimistic by the influence of the mass media, and act like they are affected. This kind of affect is indirect, meaning that is mostly psychological, for example the fear from losing the regular income or everyday job. To move away from that pessimism and economic fall circle, people need to recover their confidence in their financial situation. It is important to build realistic confidence among those who can afford to act confidently in period of recession. (Lea Stephen, 2010) "There is no economy without psychology, so there can be no economic recovery without psychological recovery." (Lea Stephen, 2010, p.25) It is important that people, especially in period of financial crisis, to keep their psychological well-being and this can be done if people remain confident, and positive. The economic policy needs to encourage people that they are in that group which can afford to act confidently. They have to be advised how and for what to spend their money. "Recovery will be faster if they spend money on products that have a high multiplier effect - in other words, they keep money in the economy where it will be spent again. That means



spending it on services rather than goods, and spending it disproportionately with those of lower income.” (Lea Stephen, 2010, p.25)

#### 4. Conclusions

Financial decision making is very important, especially in a financial crisis. People need to make the best decision for their financial well-being. This paper discussed the risk taking phenomena, and people's decision about credit taking.

Risk taking is important regarding financial decision making. The components of risk taking are risk perception, risk attitude and risk propensity, and the influential factors of risk taking are socio-demographic, personality and situational factors. Consumers with high confidence in the future take more financial risks than consumers with a lower optimism and confidence.

Credit use is a process starting with the purchase of a product with borrowed money and ending with having paid back the borrowed money. The decision to take a credit to buy a product in this moment, and not later, is a complex process. This consist two interacting choices: first to choose an alternative product available, second to find a method of financing. The decision making process for credit taking may involve spontaneous, habitual decisions. Because credit users may not correctly see their experience of paying back their loan, they need to be informed and taught how to choose a credit, how to collect information, and how to make their best decision for their current and future financial well-being. Credit users should be advised to use risk-diffusing operators such as consumer credit repayment insurance. It is needed an education in financial management and the most effective way of coping would be the lifestyle changes. (Garling, Kirchler, Lewis, van Raaij, 2009, p. 28)

The influence of the mass media about financial and economic crisis may cause some feelings in people, like fear, anxiety, concern or negativity, pessimism regarding their financial situation. In this case individual confidence is lower. If they are not very confident, they will save more, and spend less. However, not everybody is directly affected by the financial crisis; moreover the majority is affected indirectly by stress. These people need to be encouraged to regain their confidence, and start using their capabilities of taking an active part of the economic world, and start consuming. They need to be advised on how to manage their financial situation, and how to spend their money. In this case the money will be reintroduced in the economy and it can be spent again and again, taking the economy out of the crisis.

My opinion is that people have to resist big waves of psychological influence especially in period of financial crisis, but if they are led to be able to evaluate their situations financially then they can live this period much easier and can help in the economic recovery.

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## PEOPLE WITH DISABILITIES AND EMPLOYMENT

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**Abstract:** *People with disabilities represent an important social category inadequate used on the labor market in Romania, which generates losses for both labor market and for these people who are isolated. Many employers are reluctant to hire such a person, even where the law requires it when the employers exceed 50, and prefer to pay the amounts required by the state. Although there is much work for these people, however the number of hiring people with disabilities remains quite small, due to the fact that employers must invest in job accessibility, which means additional costs for the employers.*

**Key words:** disabled person, protected unit, quota system, employment accessibility

**JEL classification:** J14, J64

### 1. Introduction

Disability: the social disadvantage resulting from the loss or limitation of opportunities – because of the existence of an impairment or disability – to take part in the community life in a level equivalent to other members.

The disability comprises a number of functional limitations that may be encountered in any population of any country in the world. Disability describes the interaction between the person with disability and the environment. This term (Standard Rules, 1993) is to focus attention on the shortcomings in the environment and actions organized by the society, such as information, communication and education, which prevents people with disabilities to participate on equal terms. The term disability first appeared in English. Beginnings are identified in the XVI th century, in an equivalent gamble with lottery today. Later the term is used to evaluate differences in racing performance of horses. Conțiu Șoitu apud. Rusu first identifies current uses of the term with meaning at the end of fourth decade of the XX th century in the form of "physical disability".

People with disabilities are considered high risk social categories with multiple social exclusions. Thus the consequences of disability are reflected on several levels: on an individual level by limiting opportunities and social integration of those affected to have access to the resources of society, on the family level by taking care of the family, especially by women in the family by reducing family income, labor market participation, which increases the risk of reaching families in poverty and through the stigma faced by the family of the other, on the community level we are dealing, first with increased risk of poverty in the community and on the other side with possible tensions caused by the stigma associated with disability, and not least the effects are visible in society economically, in the labor market by decreasing the number of persons employed and growth number of those assisted.

In 1993, the United Nations adopted the Standard Rules on the Equalization of Opportunities for Persons with Disabilities, along with an action plan, and recently launched a powerful new legal instrument - the Convention on the Rights of Persons with Disabilities, adopted in 2006. The Convention stipulates the right of persons with disabilities to earn a living through work, which is their choice and freely accepts the principles of equal opportunity, equal treatment and non-discrimination, and ensures this human right by law. At the same time, there is forbidden any discrimination based on disability for any form of employment and provides protection for those who acquire a disability during employment through measures relating to job retention, vocational and professional recovery, where appropriate, return to work. The Council of Europe with the Malaga Declaration in 2003 and the Action Plan 2006-2015 have the same purpose.

In 2005, NAPH has developed a national strategy for protection, integration and social inclusion of persons with disabilities for the period 2006-2013 "Equal opportunities for people with disabilities - towards a society without discrimination." This strategy aims to shift from a passive policy, creating opportunities for the development of an active policy (notably to increase coverage of people with disabilities in educational and training services). An active policy requires rethinking the kinds of institutions and social services through diversification and increased participation of the NGO sector in the provision of complementary services (Preda et al., 2006).

In December 2006 it was promulgated the law 448/2006 on the protection and promotion of the Rights of Persons with Disabilities, which is in agreement with the European documents on the matter. One way that a person can integrate is the social engagement or participation in the labor market. A low degree of engagement of persons with disabilities is recognized both at national and European level (Commission of the European Communities, 2007). Current legislation (Law 448/2006) provides measures to encourage employment of persons with disabilities by establishing a rate of 4% for firms with fewer than 50 employees, tax incentives and protected forms of employment (sheltered workshops, protected units) which also benefit from tax breaks.

## **2. Employment systems for persons with disabilities**

The most common system for the employment of persons with disabilities is the form of quota. The share is the obligation of employers that a certain percentage of staff are persons with disabilities, an obligation imposed on both public sector employers and the private sector, especially those who are over a certain number of employees.

The quota system was developed after First World War, Germany being among the first countries to have introduced such provisions (1922), followed by most European countries. Most often, compliance with those obligations attract financial penalties on employers, and funds raised are used for rehabilitation services or socio-professional reintegration for persons with disabilities. This system is based on the fact that without the obligation prescribed by law for employers, they will not hire people with disabilities because of low productivity and people with disabilities cannot compete with free labor.

These assumptions have been criticized by activist movement of persons with disabilities, and the quota system was considered stigmatized because it focuses on the idea of disability and dependence. Activist movement promoted the concept of civil rights for people with disabilities and non-discrimination policies and structured in the U.S. and later in Britain. This approach considers that people with disabilities can compete equally in the labor market with the condition that the social environment should not create barriers, while rejecting such positive discrimination quota programs.

The quota system was retained in many countries, particularly those such as Germany, where national constitutions emphasize positive rights. OECD (2003) notes that the choice between the anti-discrimination model and the quota model is based on quota rather cultural and attitudinal differences. Thus, in Anglo-Saxon and Scandinavian countries, the obligation bound by the central level (quota system) is not considered suitable or effective, while in continental Europe such policies are well defined. In Romania, the quota system was introduced by the Law nr.57/1992 that requires employers with over 250 employees have at least 3% of disabled staff. If this condition is not fulfilled, the penalty was a minimum gross salary multiplied by the number of unfilled vacancies. Subsequent amendments have expanded the scope of law firms including more than 100 employees, and later with more than 50 employees. Also, the percentage required of employees with disabilities increased from 4%, but sanctions were dropped, now being 50% of national gross minimum wage multiplied by the number of unfilled vacancies. It has been taken into account the possibility of firms to purchase goods or services in the amount due from authorized protected units. If the initial penalties paid by employers were paid into a special fund used to finance various programs to assist people with disabilities, currently they are transferred to the general budget.

In 2000, the EU protected units where worked around 500,000 people with disabilities but there are significant differences between countries in terms of employment in the open market vs. protected units. Sweden and France have chosen to subsidize the employment of persons with disabilities; the Netherlands and Poland are the countries that have developed particular segregated employment programs, protected units employing about 1% of the total working age population. Norway is the only country where the transition rate is significant - over 30%. In Ireland, where the units are an important form of protected employment in number of beneficiaries and the amounts allocated from public funds, efforts were made to improve the rate of transition by imposing maximum period a person can work in a protected unit and to put a greater emphasis on training component. Similarly, in Netherlands it was encouraged the establishment of protected places under ordinary companies. Even so, the rate of transition to the open labor market remains under 10% in Ireland and less than 4% in the Netherlands.

## **3. Integrating people with disabilities in economic and social life**

Current legislation provides that the disabled person can work on the free market in units or sheltered workshops and at home. Supported employment is considered to be (CEC, 2007) an insufficient means used to support the employment of people with disabilities. This involves providing coaching and

workplace adjustments on the open market to meet the needs of the disabled person. In Romania, this form of support was introduced in the new legislation in 2007, being used mainly by NGOs. In 2010, in Romania there were about 400 units protected. However, the number of people with disabilities working in protected units is very small. Thus only 1% of all employees with disabilities work in protected units, the rest of them being employed on the open labor market. In Romania, the unit system has grown weak, being absent significant incentives offered to compensate for any loss of competitiveness. The protected units work, in most cases, only as a secondary labor market. There isn't an obligation for the protected units to develop related training or rehabilitation services; these are offered only by some units which have acquired the protected target voluntarily, especially those affiliated organizations of persons with disabilities.

According to Article 44, the Order 60/2007 - are considered protected units, entities with or without legal personality, under which they operate persons with disabilities, in these conditions in the legal sense:

- economic operators with legal personality, regardless of ownership and organization, with at least 30% of the total number of employed persons with disabilities assigned to individual employment contract;
- sections, workshops or other structures of economic operators, public institutions or nongovernmental organizations, which have their own management and at least 30% of the total number of employees employed and paid by persons with disabilities
- physically disabled person authorized by law to carry out independent economic activities, including familial association with at least a person with disabilities. This includes individuals with disabilities authorized under special laws, operating both individually and in one of the forms of occupation.

Authorized protected units have the following rights: exemption from paying the establishment and renewal authorization, exemption from income tax, provided that at least 75% obtained relief fund to be reinvested for restructuring or for the purchase of technological equipment or creating protected jobs and other rights granted by local authorities financed from their own funds.

Licensing and implicit recognition of protected units began in 2003. Although in recent years their number has even increased by more than 50% in one year (2008 to 2007) they are still very few compared to the number of people with disabilities who could benefit from employment. In comparison, in the U.S., the employment rate of people with disabilities of 16-64 years was around 20% to 65% of the general population and the unemployment rate of 14% compared to 8.7% of the general population (U.S. Bureau of Labor, 2009). The European level shows that women with disabilities participate in the labor market to a lower extent than those without disabilities (CEC, 2007).

**Table 1: Disabled persons employees by degrees of deficiencies, by regions/counties, on September 30, 2010**

Region/county	total	physical	somatic	auditive	visual	mental	psychic	associated	HIV/AIDS	Rare disease	Deafness/blindness
TOTAL	29.16	6.99	11.25	3.45	3.28	902	1.48	1.07	204	450	88
Nord-Est	2.837	600	1.006	451	349	79	130	84	20	118	0
Sud-Est	3.038	799	1.054	287	396	55	97	241	26	5	78
Sud-Muntenia	4.008	909	1.636	560	373	53	252	192	23	10	0
Sud-Vest Oltenia	2.55	607	1.025	248	238	77	112	142	3	98	0
Vest	3.383	872	1.052	461	439	133	190	52	22	161	1
Nord-Vest	3.883	1.17	1.474	437	391	106	186	101	16	6	0
Centru	4.901	1.22	2.019	513	556	277	158	104	41	12	2
București-Ilfov	4.563	815	1.982	492	541	122	359	152	53	40	7

Source: MMFPS disabled Directorate-General Statistics-sept.2010)

In both the European Union and the United States, people with disabilities have a lower employment rate than those without disabilities, but there are wide variations between countries. In the EU, about 50% of people with disabilities have a job. OECD estimates that in the Nordic countries the employment rate reached 52-54% (Sweden, Finland and Switzerland), 50% in Luxembourg and 40-45% in Norway, Britain and the Netherlands. In Ireland less than a third of people with disabilities have a job, while in Poland the percentage is lower than 20%. In France between 50 and 70% of people with disabilities have a job. There, all the companies that have up to 20 employees are required to have 6% of employees with disabilities. In Romania, this binding occurs only at firms with over 50 employees, and the percentage is only 4 people with disabilities.

If they don't meet this requirement, employers are obliged to turn to the budget half of the minimum wage for each position to be filled by a person with disabilities. In Romania, the employment rate of persons with disabilities is significantly lower compared with the general population. Only 12.7% of disabled people aged 18-55 years have a job, while the employment rate in the general population sample of the same age is 70%. Lately, the employment rate of disabled people has doubled in the period 2003- 2009, and in absolute terms the number of people with disabilities who have a job has increased 3 times.

Currently the number of disabled employees is about 29,000 in total, including those working in small firms under 50 employees and in sheltered workshops. If we consider that all these people would be employed in the quota system, which does not conform to reality, it follows a reserved seat-occupancy rate of 15% quota system, however well below other countries with system rate (see Table 1).

However, the employment rate of people with disabilities remains one of the lowest in Europe. The participation of persons with disabilities in society is one of the objectives of the Convention and the European regulations in the field of disability. Accessible access routes in public places, the premises of establishments are a way to facilitate the growth of their social participation. In general, any job can be adapted to the specific needs of persons with disabilities. To streamline this process is desirable to identify the best match between job description and skills requirements of the disabled person.

Recently there were developed standards for airport accessibility for people with disabilities in accordance with Regulation (EC) no. 1107/2006 of the European Parliament and the Council on rights of disabled persons and persons with reduced mobility when traveling by air.

In Romania, by law, employed persons with disabilities (severe and bold) are exempt from income tax. Thus employers can deduct from their taxable profits for the money spent to adapt the job to transport the disabled person at work. Training expenses for the disabled person may be reimbursed in full from the unemployment insurance budget, compared to 50% as it settled for the remaining employees. Also, employers receive a monthly amount of about 115 EUR for each disabled person employed irrespective of the type or degree of disability (employers with more than 50 employees receive this subsidy for people with disabilities employed more than 4% mandatory quota of staff). In case of hiring young graduates with disabilities, the employer generally may receive subsidy for young graduates for a longer period (18 months versus 12 months as it is for those without disabilities).

A person with a disability certificate may cumulate, regardless of the degree of disability, income from salaries monthly allowance (care costs) and additional personal budget. Disability pension is granted if at least 50% loss of working capacity in relation to the requirements of the position held previously. For grades I and II are deemed to have lost all capacity for work, and third degree is granted for the loss of at least 50% of working capacity. Under these conditions only those with a III grade can work without losing pension rights. If before 1990 there were disability specific jobs (e.g., the bookbinders, the packaged products, massage - for the blind - to the achievement of wire brushes etc.), currently these activities are more diverse (e.g., screen printing, web design, tourism, computer, graphics, etc.).

For example, people with locomotors disabilities are suitable for different jobs that involve working in front of a table / desk / work bench, with no movement in other locations. Examples: operators in call centers, telephone operators, telephone operators by sales, help-desk operators, information, public relations, computer operators and other jobs working on the computer: computer operator accounts.

In a publisher people with disabilities can type the manuscript text on computer, corrections, typing on the computer. Many modern magazines on the market come bundled with various promotional items. The packaging activity of these gifts with magazines can be done by persons with disabilities. There are also posts that can easily accommodate people with different skills deficiencies: receptionist goods / services, commission xerox operator, accountant, secretary, treasurer / seller, physiotherapy, massage. In the arts and in particular plastics, people with disabilities may be used in manual finishing operations or to decorate objects made of ceramic, glass, metal, wood, leather, etc., making cards, trinkets, jewelry, small gifts,

candles, handicrafts, especially unique or small series objects. People with low vision can work on the third shift (night) without consuming power for lighting. A blind person receiving the necessary assistive technology - a screen reader to translate the audio information on the desktop - can handle any job that involves working at the computer. People with hearing disabilities can face very noisy environments, which causes great stress on a person without disabilities. Otherwise, these people can cope well in all areas of activity: mechanical, light industry (clothing), wood. People with intellectual disabilities, with careful preparation and a preliminary assessment can successfully perform job tasks that require a long routine, simple repetitive work on the treadmill. Depending on the deficiency of each person can identify the "man in the right place".

#### 4. Conclusions

If in the developed countries people with disabilities are visible to the naked eye, in Romania, many of them prefer to remain isolated or to reduce their interaction with the outside world. Explanatory factors of this situation may be on one hand, coupled with fear of the reaction of others, and on the other hand, the poor accessibility of the social environment.

Legislation drafted in 1999 (GEO 102/1999) provided time to achieve accessibility, but these terms were not met, so that the new law in 2006, abandoned setting time limits. Despite NADP's efforts to monitor public institutions and penalize them the situation is far from being encouraging. Thus, from the institutions evaluated in 2006 and 2007 over 150 were accessible. The media has presented numerous situations in which accessibility was a formal (eg. too high angle ramps).

Romania also faces a number of problems related to poor education that preferred to hide the disabled, and to treat them as if they were unable to fend for themselves. People with disabilities are egocentric. All their lives have been grown in a climate in which the family gave them all the attention and have been assisted. Or when they engage must behave like everyone else and be treated the same. "If you want to be considered like everyone you have to behave like everyone else. Not going to call to say that you do not feel well, that you won't come today because the owner wants to have a profitable business "(Stephane Meuret).

The law 448 stipulates the establishment of Protected Units Authorized, many of them having so-called employees with disabilities just to benefit from tax relief. Such a unit should have 30% of employees with disabilities, and can receive orders and contracts without competition from the state or third parties who may choose to purchase such products from a UPA with the money that they would have given to the state for the unemployed persons with disabilities.

Because these revenues fall in the general budget it is not clear whether this money come back to people with disabilities in the form of labor market integration services, as happens in most countries that have a quota system. Given that the proliferation of special funds within the budget is not a good practice, being discouraged by the external partners that gave assistance to Romania, you can assume as a public policy the allocation of similar amounts to those collected for the employment policies, even without a separate fund.

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