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LEADERSHIP AND THE SOURCES OF POWER

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University of Bucharest

Abstract

The aims of our paper are to demonstrate that power can influence the quality of leadership in a system and, that the leader of an organization can choose to delegate power to the employees, keeping them motivated and improving the overall performance of the organization. The ability to influence others is based on native traits and constitutes a product of personal development. The TeamWork association, comprising students mainly from the Faculty of Administration and Business, University of Bucharest, is a good example of the way in which power and leadership influence each other contributing to the development of a system.

Keywords: leadership, power, team, strategy

JEL classification: M12

1. Introduction

Since the earliest times, the subject of leadership, viewed as both the art and the science of organizing people to achieve a common goal, has been the subject of numerous researches. Philosophers, military, political and economical leaders have all tried to shed light on the specific abilities that allow some people to have significantly better results than others in leading, motivating and influencing people or groups.

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Like any subject that arouses such interest the study of leadership has yielded an extremely large but not always extremely relevant literature. In the rush to identify different points of view, authors have analyzed the styles of different military leaders (from Attila the Hun to Abraham Lincoln), philosophers ("If Aristotle Ran General Motors"), spiritual leaders ("The 25 Most Common Problems in Business: And How Jesus Would Have Solved Them") and even fictional characters („Winnie-the-Pooh on Management") making this ocean of writings extremely difficult, and sometimes even frustrating, to navigate.

Even the seemingly simple task of defining leadership proves to be more complex then would seem at a first glance, because different schools of thought view leadership and the attributes that make it effective from different angles, highlighting some aspects and disregarding others. In short, we think that leadership can be viewed as the ability to organize people and their efforts in a certain direction. In this respect, it is very important the ability to bring different forces together, to motivate them to work together, but above all else the ability to determine and define common goals or ideals.

The aims of our paper are to demonstrate that power can influence the quality of leadership in a system and, that the leader of an organization can choose to delegate power to the employees, keeping them motivated and improving the overall performance of the organization.

2. Leadership Theories

The multitude of theories on leadership makes an exhaustive presentation extremely difficult, however we think that these theories can be grouped in three main categories based on the aspect they find dominant. From these point of view we can identify theories that focus on the leaders' traits, theories that emphasize the leadership style and theories that study the conjuncture in which leadership takes place.

From a historical point of view the first approach considered that leaders owe their success to some innate traits that differentiate them from the rest of the people, this is known as the trait theory of leadership. This school of thought began with the ancient philosophers, especially Plato in *The Republic* and Plutarch in *Parallel Lives* tried to find an answer to the question "What qualities distinguish an individual as a leader?". The same path was followed by Thomas Carlyle who in his *„On Heroes and Hero Worship and*

the Heroic in History”(1841) analyzed the importance that „heroic” leadership had on the evolution of human society.

In his work *Hereditary Genius* (1869) Francis Galton examined the leadership qualities present in the families of powerful man. After having analyzed the number of brilliant persons among the first and second degree relatives of powerful people, and observing a decrease among the latter, he concluded that leader’s abilities are inherited, in other words that leaders are born and not formed.

The biggest drawback that critics of this school of thought have identified is that by focusing on innate abilities leadership becomes the sole attribute of a few “chosen by destiny” and can not be replicated by other people. In analyzing this view we have to take into account, in our opinion, the historical context in which it evolved. In that period very few “commoners” could hope to achieve positions of power in society, so it was easy to consider leadership as the trait of an elite. It is also clear that members of this elite had every reason to portrait themselves as special, “chosen by destiny” and thus justify the privileges they held.

Although this initial theories are now outdated, some aspects of the trait theory of leadership are still relevant, even if they bare little resemblance with the original. Although the idea of innate abilities essential to someone’s success as a leader is a thing of the past, there are a few configurations of traits that seem to be common to a series of top level managers in public and private organizations, among this the most frequently mentioned are: intelligence, initiative, self-confidence and the ability to “see the big picture”. After conducting a study among top-level managers John W. Hunt of the London Business School concluded that some of the factors they consider most important are: the ability to work with different types of people, taking on global responsibility for important tasks, setting high goals for personal development, extensive experience in management positions from early in the career.

An alternative school of thought focuses on the way leaders behave in order to determine individuals and groups to accomplish a certain task.

Leadership styles became a subject of analysis after the publishing, in 1983, of the White and Lippit study in which the authors identify three different styles that can be chosen by a leader, each with its own advantages and disadvantages. The authors identified the autocratic style, in which the leader makes all the decisions, and which they consider functional only if the

leader is always present; the democratic style, in which decisions are taken after consulting all the members, a style they consider most efficient all-round and the laissez-faire style, in which the members of the group work independently, the leader being generally absent, and which they consider efficient only if the tasks and objectives are clear to all the members beforehand.

One very useful model in the leadership style theory is that developed by American psychologists Robert Blake and Jane Mouton. In this model they rank leadership style according to the relative importance they give to two aspects, they consider of paramount importance: focus on production and focus on people. From this point of view focus on production means the importance leaders put on completing the organizational goals and the authors quantify this on a scale from 1 to 9 (1- totally unimportant and 9-totally important), and focus on people means the importance given by leaders to motivating team-members, satisfying there needs and creating a friendly atmosphere, quantified on the same scale.

In this frame of reference the authors identify five basic styles: style 1,9-Country-Club Management (highest interest for people, low interest for production, strong chances of not meeting the goals because of the atmosphere being to friendly), style 9,1- Authority-compliance Management (highest interest for production, low interest for people, likely to generate tensions between group members and the leader), style 1,1- Impoverished Management (low interest for people, low interest for production, total lack of interest from the leader, high chance of inefficiency), style 5,5- Middle of the Road Management (medium interest for people, medium interest for production, an overall balanced style, should aim to become 9,9), style 9,9- Team Management (high interest for people, high interest for production, maximum involvement by leader, is very likely to lead to efficiency).

The leadership style approach offers a more in-depth approach to the study of leadership because, according to this view, a manager can change and improve his leadership abilities, the accent being put not on innate and thus impossible to duplicate abilities, but on the effort made by every leader on personal development and optimal use of the authority of position to influence individuals and groups.

The third school of thought considers leadership as the product of a series of circumstances and, from this point of view, one can not define an ideal style of management, but should struggle to find the best option in every

given situation. This school of thought analyzes leadership at an even deeper level than the leadership style theory because it treats every situation differently and takes into account other variables except the leader's behavior.

The most influential authors that support the conjuncture theory are Robert Tannenbaum and Warren H. Schmidt who, in 1958, developed a model that analyses the connection between the way leaders use their authority and the freedom of choice their followers have. From this point of view a leader starts by holding most of the decision making powers himself, and then begins to gradually delegate them to the members of the group once they start gaining abilities, maturity and involvement. Although the trend is towards delegating, the leader maintains the ability to act in an authoritarian way if the circumstances demand it (for example, if a situation arises in handling which the group members lack experience).

A very important aspect according to this school of thought is that the decisions that a leader makes aren't solely based on his personality (although this remains an important factor) but also on the interactions with his followers (their abilities, attitudes, etc.), the task at hand and the context in which he (and his group) have to function. Seen from this point of view leadership isn't regarded as an individual process anymore, but as a collective one, as we can not analyze a leader in the absence of a team, and we can hardly understand a team disregarding the task or the environment. This approach focuses on the leader's capacity to adapt to the context he has to navigate in and, on the other side, suggests that he might, at some point, create contexts. We can, to some extent, consider that today's virtual context will become tomorrow's reality.

In the contexts he has to act in, or that he creates, the leader has to balance the abilities his team members have and the roles assigned to them, on one side, and the completion of the tasks at hand according to the applicable performance criteria, on the other.

3. Power sources and strategies of influence

Whichever of the models presented in this paper, or for that matter, whichever of the many different models available in the literature we decide to choose, it is clear that we can't analyze leadership in the absence of its main catalyst, and that is power. If we define power as the ability of an individual or a group to influence other persons or groups, the next notion we need to

define is that of influence. Generally influence is viewed as the process through which a person or a group gains the ability to affect what another person or group does or thinks. From this point of view, it is clear that the bear nature of a leader is strictly connected to his ability to hold and use power over the members of his group, to his capacity to influence that group's members and to the way he can gain authority over them.

The power of a person or group is not a inherent trait, rather it is based on a few sources, or basis. The way in which these are held and used in a certain context determines the level of power that the person or group actually holds.

Generally we can differentiate between power based on resources, social power, expertise power, personal power, power based on information and power based on force. At the level of a group or organization some of this sources are considered legitimate, while the use of others (like physical force, for example) is banned.

Power based on resources is based both on the rarity of those resources and on the ability of the holder to use them according to his will. In case this two conditions aren't meet at the same time we can talk about partial power at most. At the same time the value that others place on those resources determines the exact level of power the holder has.

Power of expertise is based on the professional capabilities the holder has and, at the same time, on the value the group members place on that knowledge at a given time. We can differentiate between technical knowledge and process knowledge (the difference between knowing how something can be done and how something should be done).

Personal power is given by the qualities a person has, and is from this point of view, close to expertise power, in some instances the two can overlap. Usually, these qualities are hard to quantify and measure as they also depend on the way a person is viewed by the group members.

Social power depends on the position formally held in a group or organization but also on the more complex social relations a person has developed, both formally and informally, with the stakeholders of that group or organization, the latter being usually the most important.

Power based on information gained a paramount importance in today's context when, although the access to information is easier than ever, the importance they hold in any organization is unparalleled.

The way in which a leader uses the sources of power available to him, as well as the way he employs strategies to influence the behavior of the group members determines how successful he is, and more often than not, how efficiently the objectives of the group or organization he is part of are met. Generally we can differentiate between “push” strategies, “pull” strategies, persuasion, preparation and prevention strategies.

“Push” strategies are based on attaching a cost to the behavior of a person or group that is in contradiction to the requirements set by the leader. These kinds of strategies rely heavily on a person’s power to enforce sanctions and may lead to tensions because of “forced compliance” by the people they are used on.

“Pull” strategies rely on offering an incentive when a behavior according to the leader’s demands accrue being, from this point of view, the total opposite of “push” strategies, as they represent the “carrot” while the former represent the “stick”. These kinds of strategies rely both on the leader’s power to offer rewards and on the importance placed on them by group members. An usual form of “pull” strategy is offering praises, professional recognition and respect when a person shows a desirable conduct. Offering material rewards tends to be efficient mostly in short term because, once the reward is given, the receiver tends to consider “the deal” done, and further motivation requires more rewards.

Persuasion strategies focus on giving arguments and, generally, appealing to reason, on reaching consensus on a giving subject. Because of this, this strategy relies heavily on the expertise and personal powers of the leader, as well as on a very good knowledge of the people on which it is applied.

Preparation strategies focus on insuring the optimal conditions for future persuasion efforts, they rely on the personal and, usually, social powers of the leader, on ensuring good relations with the person or group in question or, in a larger picture, with the stakeholders of the organization.

Prevention strategies are aimed at avoiding undesirable situations, either by defusing them or by blocking them, or the people that might conduct them, before they have a chance to occur. The degree to which this kind of strategies are allowed depends on every particular group or organization, in many cases there use being unadvised.

It has to be said that the existence of the various, and sometimes even conflicting, theories about leadership, the acknowledgment of power bases and

influence strategies available to leaders, as well as the various models that facilitates there understanding, are just useful tools and can not guaranty the efficiency of a person as a leader, being in no way a substitute for experience. Usually a person can become a proficient leader only thru practice, by analyzing the problems he faces, and the less then optimal decisions he took in the past. From this point of view leadership is not a subject that can be mastered exclusively at a theoretical level.

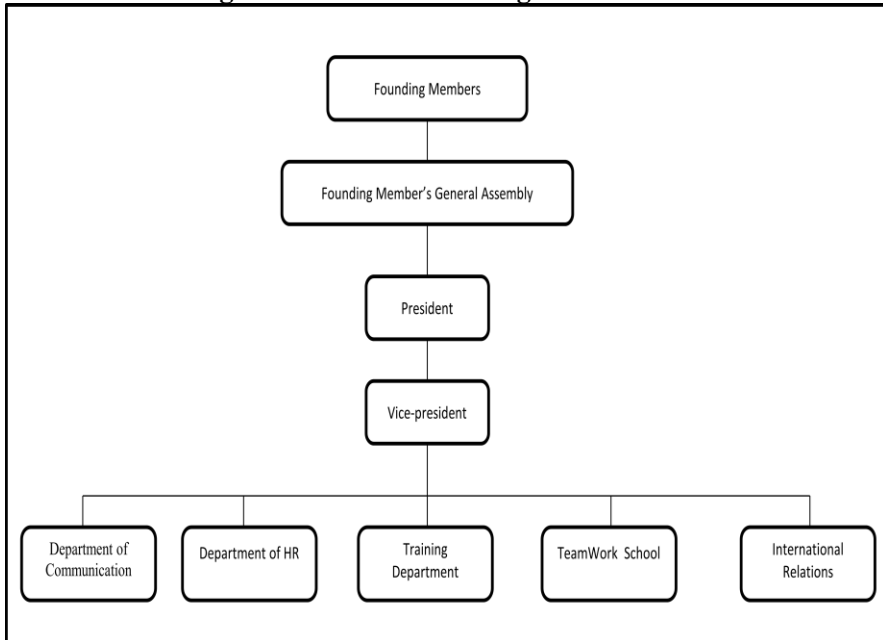
4. The TeamWork association: a case study

Understanding the relationship between leadership and power, viewed both as a means of influence and an action, is made easier by analyzing organizational dynamics. To highlight both the visible and the hidden links between the various organizational leadership components, we considered it useful to present the way they occur in the case of the TeamWork association.

To aid students in developing leadership skills, in spirit of what we mentioned above, the TeamWork association functions in the Faculty for Administration and Business since 2002. It is a non-governmental, non-profit organization for young people focused on learning thru project management; it is structured on departments, comprised of and managed by young people, replicating the structure of a company. The organization also has an important civic orientation, aiming to offer its members, and youth in general, contexts in which they can grow as people and as professionals. This department based structure also offers members the opportunity to gain useful leadership capabilities regardless of the place they hold in the organization or of the activities that they feel close to.

Below we offer a brief presentation of the structure of TeamWork along with its main projects as presented on its website (<http://www.teamwork.org.ro>). The following organization chart can help us better envision the importance of leadership at the level of a system and the correlation it has with the optimal distribution of power throughout a network.

Figure 1: TeamWork's organizational chart



Department of Communication

The Department's of Communication activity follows two major directions: internal and external. Internally it's objective is to insure the flow of information to and from members of every department, while externally it has the role of maintaining proper ties with other organizations (NGOs, advertising and PR agencies, mass-media, sponsors, etc.) and promote TeamWork among students and youth in general.

The members of this department aim to find original and creative ideas for implementing new projects that are both meaningful and visible without generating high costs. To this end the members try to adjust to the use of new-media, each project being mostly promoted on-line. The efficiency of this department is reflected by the number of successful project it implemented (Botanic Garden- my city's Garden, the Open Amphitheatre, 2% for TeamWork, TAC- Think-Act-Change, etc.).

Department of HR

While documents, achieves, data bases, contracts, signatures, questionnaires would be the terms that best describes this department's activity in short, it also has the very important task of identifying suitable candidates and volunteers for TeamWork and insuring that they integrate smoothly in it's the organizational culture.

Training Department

This department has a key role inside TeamWork, as one of the main objectives of the organization is to prepare students for entering the labor market, an thus combat the widespread opinion that, upon graduation, students have theoretical knowledge but lack practical, applicable skills. To this end the department holds various training programs aimed to help students acquire useful new skills, especially soft skills, in an informal atmosphere in keeping with the concept of permanent learning.

TeamWork School

The mission of this department can be summarized best by it's motto "Learn by teaching others". It's purpose is to facilitate, through voluntary work, the integration of young people from disadvantaged backgrounds in society. To this end the department has initiated various partnerships with foster schools and high schools from impoverished areas and tried to helps as many people as possible gain access to higher education.

International Relations

This department offers members of TeamWork the opportunity to participate in, or even launch, international exchange programs, with a powerful inter-cultural focus. These projects, financed through the Youth in Action program, or by private sources, help the participants better understand and accept cultural differences and allow them to acquire extracurricular knowledge in an informal environment.

Inside TeamWork the democratic leadership style was adopted by which all major decisions were taken after consulting all department coordinators and members, in all the activities of the association a style of management that balances the interest for production and the interest for people (see the Blake Mouton model) was used, that way TeamWork also

became a school of management in which the people in charge tried to give all members the opportunity to hone their leadership skills. We would like to mention that in the last 10 years TeamWork helped over 1000 students many of whom are now Ph.D.s, managers, consultants or professionals in various fields.

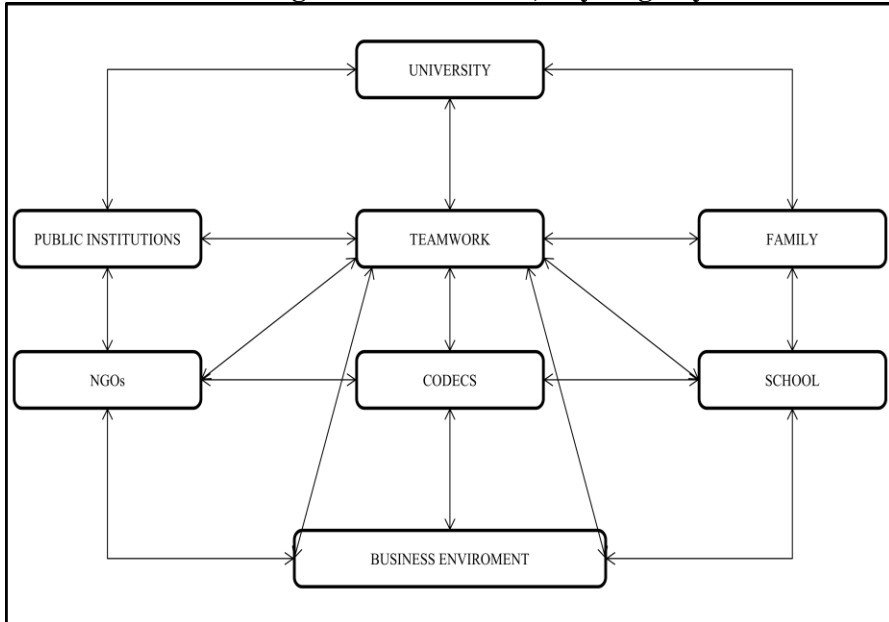
The selection of students to enter TeamWork was done by using criteria similar to those of the business environment, so the organization attracted people with skills regarding working in a team, persistency, the ability to finalize, etc. The personal development of members is a mix of leadership skills and strategies of influencing the behavior of group members. Power was distributed by the management team to each individual member of the organization, with regard to the contexts created and personal merits (Figure 1).

The power of information gained a particularly important place as each member of the association realized that when career is concerned knowledge represents an essential strength. The students who gained experience in top fields (IT, foreign languages, business, etc) discovered that this offered them the invaluable power of expertise. The department coordinators have also obtained the power of position and the power of hierarchy and, to some extent, social power. At the level of the organization we can talk about a meritocracy because the access to the above mentioned sources of power was based solely on personal merit. In the personal development of members all types of influence strategies were used: “push” strategies, “pull” strategies, persuasion, preparation and prevention strategies in connection with the contexts in which the teams had to perform but also with the objectives the association has had during its existence, because of this the members of the organization understood that that you can have the power to influence others, but at the same time you have to use it with regard to morality and ethics both in normal and in special circumstances.

In Figure 2 we suggest the way in which synergy can play an essential role in syncing TeamWork’s activity with that of other socio-economical entities (family, school, NGOs, public institutions, the business environment).

Synergy can become the connector between the complexity of leadership and the force of power distributed along a network because it can assure a multiplying effect based on value generating collaborations. The synergic effect is also based on the thorough knowledge of members in partnerships at both intra-organizational and inter-organizational levels.

Figure 2: TeamWork, a synergic system



Leadership, power and synergy represent concepts which define the realities in which people act, and we can actually talk about today's virtual realities becoming the realities of tomorrow, that is why the ability to influence contexts and people today can be the source of future challenges. Leadership has to make the best use of people but, at the same time, has to help them develop according to carefully chosen value systems, we are talking here about organizational culture that can become a liaison between the members of each group and a force that helps them reach the organizational goals.

Synergy can facilitate the relations between various entities, offering each of them the chance to increase its performance by syncing its activity with that of various stakeholders.

5. Conclusions

In analyzing the leadership of an organization we have to use concepts borrowed from different fields such as management, marketing, psychology,

sociology, anthropology etc. that is why, in this paper, we took the liberty to make short referrals to those fields, which demonstrate once again that leadership represents the capacity to apply a set of principles from various areas in contexts that are often hard to decipher at a first glance. Leadership means training but also diversity in organizational relationships, which are more often than not unstable and which create the need for motivating there members. One form of motivation is the distribution of power along a network (in its ability to influence people and realities) according to each member's merits.

Leadership is the engine of an organization, but one that depends on a "spark", a part of which is power. Different models of leadership and cultural differences lead to an idea that became more and more tangible, which is that of global leaders, leaders who act in inter-cultural environments.

Multi-cultural awareness becomes (along with power) a form of motivating the members of an organization, if it is used as a way that bring different interests and ideals in tune if, however, it is used in the opposite way it can be (as power distributed across a network in a flowed meaner) a cause for organizational meltdown.

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CONTAGION PHENOMENA: OCCURENCE AND TRANSMISSION MECHANISMS

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Abstract

Contagion phenomena are a real challenge for economists and economic theory, and in the same time they induce important policy issues at national and international level. Despite significant progress has been made in recent years, there is still no consensus on their definition. This paper aims to contribute to the contagion literature on two levels: (1) a synthesis of theoretical and empirical contributions to contagion - definition, contagion channels, classes of contagion and transmission mechanisms, the relationship between contagion and crisis; (2) a new definition of contagion.

Key words: *Contagion, globalization, international financial contagion, crises.*

JEL classification: *F01, F40*

1. Introduction

Issues such as globalization, contagion, financial crises are current themes of economic theory, whilst at the same time being acute subjects of economic policies at a national and international level. We can mention that a consensus concerning the definition of globalization, financial crisis or contagion has yet to be met, in spite of a considerable progress which has occurred in recent years. We know that financial crises and contagion are

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bound in an intrinsic manner, and the effects of contagion occur when crises are propagated between countries or markets. The debate concerning contagion and the transmission of economic and financial crises has generated, in recent years, an increased interest towards globalization and its effects, in order to separate it, in a conceptual fashion, from international economic integration or the definition of relations with financial contagion.

In such a context, the paper aims to contribute to the specific literature dedicated to contagion in two ways: it creates a synthesis of theoretical and empirical contributions in the tackling of contagion phenomena; it proposes the definition of the contagion phenomenon by identifying the required and needed specific predicates, which follow from the globalization – contagion relationship. The issue of defining the contagion concept is extremely controversial and there is no single approach within the specialized literature, although efforts are being made in this direction. The synthetic presentation of significant contributions allows for the identification of yet unsolved conceptual issues but also to help summarize formulated theories, their critical evaluation and grouping.

The contagion concept is somewhat new within the economic literature. It appears during the mid 90s, once globalization and the manifestation of economic turbulences of the global environment occur. Pioneer works within this field, ergo financial crises and contagion have been motivated by the attempt to explain the mechanisms of crisis transmission and the need to answer the question of whether or not countries other than those in which the crisis occurred support, in an unjustified manner, the negative effects of events which they did not cause and thus, can not control. Beginning with the middle of 1997, almost all the articles which used the term contagion made reference to the spreading of financial markets turbulences between countries (Claessens & Forbes, 2001).

Theoretical literature concerning contagion begins with the models of currency crises. In general terms, we can mention that there are three generations of models (Marcal, Pereira, Martin, & Nakamura, 2009). The first model was developed by Krugman (Krugman, 1979) and explains the presence of currency crises within the context of the fixed exchange rate regime. The crisis occurs within the balance of payments due to a speculative attack on the fixed currency which leads to a depletion of reserves; the model does not take into account the possibility of apparition of contagion phenomena. Macroeconomic indicators (macroeconomic fundamentals) and

the rationality of economic agents are relevant characteristics of the model. The second generation of models (Flood & Garber, 1984) is based on the existence of multiple equilibria: the hypothesis of economic agents lead by irrelevant variables (*sunspot*) which transform into self-indulged expectations during crises, imply multiple equilibria. The rationality of economic agents and fundamental macroeconomic indicators continue to be fundamental traits of the model, although the possibility of contagion exists. The third generation of models explains currency crises through the existence of speculative bubbles and of moral hazard (Krugman, 1998).

Like any metaphor, the use of contagion within economics has the power to both enlighten as well as creating confusion. To a certain extent, contagion makes us think of an epidemic. Question which ensue are thus invariably linked to its effects as well as to the mechanisms which help o spread it. The negative meaning of the term was reflected within the economic literature particularly through its association with crises. Recent financial crises have lead to a strong contraction when it comes to income and the reduction of the standard of living for numerous individuals which can underline a disease. Contagion however is also linked to the transmission of a disease. It is obvious that it is paramount to understand not only the causes of crises apparition but also their means of transmission, which can be direct or indirect contact. This is also one of the major debate themes concerning the specialized literature. A currency crisis is transmitted through direct economic channels, such as bilateral commercial flows or indirect relations, as well as changes within investor expectations? Having considered all these, to limit contagion only to the transmission of negative phenomena and/or of crises is not justified and reduces the explainable ability of the concept. At least for now, it appears that the tackling of contagion, starting from the initial sense has not yet reached its full potential. In a book published in 2011, named *Financial Contagion: The Viral Threat to the Wealth of Nations* (Kolb, 2011), the dominant themes within contagion theory are found within their whole sense: their analogy to medical aspects, the idea of a threat, the focusing on the financial aspects.

The lack of consensus concerning the definition of contagion or a restrictive definition of contagion has leaded, more than once, to contradictory conclusions within the specialized literature. Ergo, in a paper published in 2006, thus before the crisis of 2007-2009 began, which resuscitated the interest for contagion phenomena, Didier et al. (Didier, Mauro, & Schmukler,

2006) claims that "the decreased level of contagion in the last crises determined several observers to ask themselves whether or not contagion has become somewhat obsolete, with markets which can tell the difference between countries with good and bad macroeconomic characteristics". Only a year later, specialized publications bring forth the problem of contagion and of crises propagation at a global level.

The specialized literature concerning contagion mainly tackles three aspects: the definition of contagion; contagion channels; the identification and measurement of contagion. There are two types of articles: theoretical and empirical, the empirical ones defining contagion in a narrow fashion. Almost all the articles refer to financial contagion and in general, the areas of interest include crises and the propagation of negative phenomena. Considering the mentioned coordinates, the paper aims to tackle these aspects in the following order: the presentation of theoretical and empirical phenomena concerning contagion, which is structured on the following directions – definitions of contagion, channels of contagion, contagion classes and transmission mechanisms; the evaluation of the globalization-contagion relationship and the definition of contagion as a species of the globalization phenomena.

2. Contagion definitions

The specialized literature is plentiful in terms of approaches towards contagion. The starting point in most papers consists of the idea that there is not a generally accepted definition for contagion, a reason for which, taking the objectives of the research into account, the authors choose one of the following categories of definitions:

(1) a general process of transmission of shocks between countries:

Pritsker (Pritsker, 2001) defines contagion as the apparition of a shock in one or several markets, countries or institutions which spreads onto other markets, countries or institutions. This definition of contagion is equivalent to the one of event effects propagation and offers a general landscape on the vulnerability which a country has towards a crisis which has origins outside of that respective country. The author distinguishes between rational and irrational contagion. In the latter, the shock is transmitted between countries as a result of the participants within a market, which follow portfolio strategies which are not rational ex-ante, for example, the agents do not attempt to maximize their utility, given the environment and the behaviour of other

economic agents. The theory of multiple equilibria differs from irrational contagion, as economic agents act rationally in each equilibrium situation, be it good or bad.

Analyzing the relationship between financial globalization and contagion effects, Schmukler et al. (Schmukler, Zoido, & Halac, 2006) define contagion as the propagation of phenomena outside the country of origin.

Pure contagion is also mentioned (Marcal et al., 2009) as a situation in which a crisis in a country generates a crisis in another country, without any connection to the fundamental macroeconomic characteristics of the latter, probably as a function of the changed feeling on a market concerning the evaluation of an existent information. For other authors, contagion refers to the phenomena of transmission of shocks between markets or countries, without taking into account if the transmission phenomena are intense or not. This approach is known under the name of „pure contagion” or „fundamental contagion / contagion based on fundamental prerequisites”.

The contagion effect is defined (Dinga, 2009) as being the behaviour which is not established by a model of economic rationality (and, in general, can not be dynamically modelled), rather, it represents an imitation, both delayed and simultaneous of the behaviour of similar economic entities and with a similar role within the general economic system. Due to this reason, the contagion effect can have a catastrophic dynamic which is difficult to forecast and even more difficult to manage. The contagion effect is extremely powerful within integrated systems, like the banking system.

(2) The **higher than expected** propagation of shocks between two countries:

Contagion is defined as an increase of connections between markets after the apparition of a shock within a country. Not any strong links which exist between countries represent contagion. Numerous economists, and particularly those who analyze contagion effects in an empirical way, prefer a very strict definition of the concept, as being an increase of connections between two countries, during a crisis (Forbes & Rigobon, 2002). To this end, the authors define contagion as an increased probability for the apparition of a crisis within a country, due to the fact that a crisis occurred within another country, eliminating the effects of interdependence and of fundamental indicators, so contagion refers to the residual character of the crisis which affects countries in an unforeseeable fashion. They analyze the impact of crises in Asia and Mexico and of the 1987 New York Stock Exchange crash on capital markets

within developed and developing countries and have reached the conclusion that most changes were due to interdependency and that contagion increased the correlation within price movement during crises propagation.

A variation of the mentioned definition is the one which reveals that contagion is the unanticipated transmission of shocks. When the links between countries are anticipated – for example, through financial and commercial links – or *a priori* links – they represent fundamental links and not contagion. Specialized literature tends to adopt definitions of contagion which are specific to each application, and we can say that given the difficulty of defining appropriate control variables this option can be adequate. As a result, contagion can be a concept defined in relation with a *particular set* of indicators, so the right definition is the correlation of excessive effects from another country, after the identification of the effects of the specified fundamental indicators. Contagion is defined in a relative manner with several identified fundamental indicators (Dungey & Tambakis, 2003).

Contagion can be defined as the transmission of crises between countries beyond what would imply the presence of common shocks (Didier et al., 2006). A necessary but insufficient condition for these channels to operate is of course a substantial level of commercial and international integration. From this point of view, links between countries have deepened substantially during the last two decades, and as a result, the conditions for the manifestation of contagion effects.

- (3) *The modification of transmission mechanisms* which takes place during times of turmoil and can be appreciated through a *significant* increase of market correlations

Another category of definitions is the one in which the contagion term is used to describe a temporary and significant increase of links between markets (Bodart & Candelon, 2009).

In such situations, another method of measuring contagion is proposed, which allows for a clear difference between temporary and permanent modifications within market links: the first case is identified as contagion, where as the second one is simply a measurement of market interdependency.

Significant increase of correlation between markets may appear as a result of psychological reactions of transaction participants. We include, within the category of those who believe that the cause of contagion is psychological reactions and herd behaviour, the paper of Calvo and Mendoza (Calvo & Mendoza, 1999) through which a model of portfolio selection is

proposed, in which financial globalization decreases the motivation to support gathering and processing of information costs which are specific to every country, which leads to an increase of the contagion effect. This happens because: (a) globalization can decrease gains which could result from the payment of fixed costs with information and (b) in the presence of variable costs concerning performance, globalization increases the area of portfolios which investors might copy in order to reach optimum. Numeric simulations have revealed that these two effects can be significant as quantity and can generate important capital flows which are not linked to fundamental indicators specific to each country. The accepted definition for contagion is the situation in which investors follow the maximization of utility which choose not to pay for information which might prove relevant for their portfolio decisions – which makes them become susceptible to react to rumours linked to a country – or choose, in an random way, to copy certain market portfolios.

Dornbush, et al. (Dornbusch, Park, & Claessens, 2000) adopt the definition of contagion as being the dissemination of market perturbations, in most cases with negative effects, from a developing market to another, and can be observed through correlated movement of the exchange rate, of prices, of sovereign risks and of capital flows. In these situations, the measuring of contagion is often realized through cross-referenced coefficient based procedures, techniques which are based on the modification of several co-integration vectors and the direct estimation of specific transmission mechanisms.

Synthetic approaches of contagion appear within the specialized literature, revealing the need of a landscape image concerning the respective phenomena. Pericoli and Sbracia (Pericoli & Sbracia, 2001) mention five definitions of contagion: 1) when the probability of crisis appearance within a country increases due to its presence within another country; 2) when volatility is propagated as a factor of growth of uncertainty from the crisis in one country to the financial markets of another; 3) when there is an increase of correlated movements of prices due to crises on one or more markets; 4) when there is a change within the transmission mechanism or the contagion channel, with its increase after the crisis; 5) when correlation movements occur, which can not be explained through fundamental indicators. These imply two major theoretical groups, different because a structural modification within the markets, due to the crisis. From the empirical perspective, the determination of

this rupture remains a controversy. A synthesis of the theoretical approaches concerning contagion is found at Asongu as well (Asongu, 2011).

The exact definition of contagion remains an open question within the specialized literature. To this end, we can mention that not only there is no consensus in defining contagion, but there is no correct / accepted methodology in order to test the existence of contagion.

3. Contagion channels. Contagion classes and transmission mechanisms

The issue of contagion channels is both theoretically and empirically interesting, but also from the perspective of economic policies. Any possible means of limiting the negative effects generated by contagion phenomena must start from the identification of contagion channels. An event produced within a country can generate effects within the economy of another country when there are commercial flows between the two. In the absence of real connections, countries can be linked via financial flows. These links occur when financial investors extend their global financial portfolios and connect various economies, financially. Countries which have financial assets which are traded globally tend to be a subject of contagion. Banks and institutions can transmit the crisis from a country to another.

The most frequent approach within the literature is formed as a trinity among the real and financial flows, as countries and markets are linked via psychological reactions of participants to transactions. The contagion phenomenon is produced: (1) if there are real connections which are often associated with commercial links (trade links); (2) through financial links which occur when two economies are connected through the international financial system; (3) due to the panic and the herd behavior which is the result of asymmetric information, financial markets should transmit market shocks (Asongu, 2011). In the same direction, Schmukler et al. (Schmukler et al., 2006) identify three main channels of contagion: real connections, financial connections and herd behaviour. Real links / flows explain the transmission of effects through the existence of commerce and of foreign direct investments. When between two countries we have commercial flows or when they compete on a third market, a devaluation of the currency of one of them reduces the competitiveness of the prices of the other country. Ergo, if a country chooses to devalue its own currency, the pressure increases on the

other country with which it has connections (direct or indirect ones) which will determine the devaluation of the currency within the latter country in order to balance things. Recent crises had such spread effects that it is hard to demonstrate that real flows explain the transmission of shocks.

Didier (Didier et al., 2006) identify the two main contagion channels: commerce and finance. Commercial links function through the impact of devaluations associated with crises. They generate two sorts of effects, which can be amplified through credit restrictions: the competitiveness effect (through relative price changes) which affect the ability of a country to compete on external markets) and the income effect (to the extent that crises reduce the income measured in foreign currency, and in doing so they modify the import demand curve). Financial links operate in a typical fashion through the capital account within countries connected to the international financial system. In few cases, crises are transmitted between countries because of direct links between their residents. More frequently, they require the existence of an international investor (common creditor) in financial centres, which transmit the crises between various states in which they have assets. Financial relations can also result from factors dealing with investor behaviour, such as risk aversion, information asymmetry, herd behaviour, the principal – agent issue.

Even if there are no real or financial flows, national and international markets can transmit shocks between countries due to **herd behaviour** or panic. The origins of this behaviour lie within asymmetric information. Information is costly; as a result, investors are often uninformed. They will try to anticipate subsequent modifications of prices on the basis of reactions which are manifested on other markets. The problem of herd behaviour is one of multiple equilibria. In a world of multiple equilibria, external shocks can easily determine a country to switch from a „good” equilibrium to a „bad” equilibrium. When investors come to be concerned about a market, regardless of the motivation, Wall Street and the European markets react. When investors notice a crisis in Thailand, they act thinking about a potential crisis in Indonesia and Malaysia, which creates another crisis. Both the markets of developing countries can be the subject of such behaviour. Due to the fact that investors know very few about developing countries, they are liable to such a behaviour. Uninformed investors are those who consider that modifications on such markets to have a higher informative value.

Real and financial flows aside, other contagion channels are being mentioned, like resemblances between economies, the coordination of policies and geographic proximity (Bodart & Candelon, 2009). Also, if the propagation of other phenomena is being analyzed, such as economic reforms, (Gassebner, Gaston, & Lamla, 2008) the most important channel can differ – in the mentioned case it proved to be geographic and cultural proximity, rather than commercial connections.

Contagion has generally been studied in crises context, but it can equally appear during „good times”. For example, some associate important capital flows towards developing countries (which lead to them being over credited) or the financing of IT firms (which lead to the „asset bubble”) with a certain type of „irrational exuberance” or a contagion phenomenon which appeared at the end of the 90s.

Theoretical instruments used to identify the presence and importance of contagion channels become more complex and refined every day. Kali and Reyes for example (Kali & Reyes, 2010) analyze the patterns of international trade using the network theory. The basis for the empirical analysis consists of three evaluation indicators, concerning the connectivity level of a country with the global system: the importance of the node, the centrality of the node and the maximum flow, which allow for the evaluation of the connection level and through that of the potential of manifestation for contagion phenomena.

The degree of anticipation of crises can influence the occurrence and amplitude of contagion phenomena (Kannan & Kohler-Geib, 2009): a comparative analysis of crises beginning of the 90s reveals that contagion channels which are generally accepted such as the excessive exposure of investment funds, commercial links or common creditors, uncertainty concerning macroeconomic conditions may explain the scale / amplitude of contagion phenomena. The connection between the ability to foresee and the occurrence of contagion has determined several authors to consider the element of surprise as one of the prerequisites for contagion occurrence, together with a sudden change of the direction of capital flows and the existence of a common creditor (Kaminsky, Reinhart, & Vegh, 2003).

In most cases, financial contagion is considered the main form of contagion and the role transmission vehicle is played by the banks. Moreover, it is believed that within the current crisis the contribution of the other forms of contagion was less significant (Kollmann & Malherbe, 2010).

Contagion is not limited to financial markets and crises. If we accept the idea that a contagion phenomenon implies the existence of an event and the propagation of its effects, it is obvious that restricting it to the negative effects of financial crises does not assure a relevant approach. Contagion can be analyzed in relation with the domino theory.

Baldwin and Jaimovich (Baldwin & Jaimovich, 2010) analyze the increase of the number of increased free trade areas as an effect of contagion. They develop the theory concerning the multiplication of trade unions as a result of the domino effect created by Baldwin in 1993 and they extend it to free trade agreements, whose multiplication is explained with the help of the contagion concept. The theoretical model is based on assimilating the domino effect with the contagion effect, through which the signing of a free trade agreement between two countries produces effects on a third country. To measure the intensity of such an effect a contagion index is being proposed, which takes into account the commercial relations which exist between the three countries.

In a more general fashion, models of financial contagion can be classified as being fundamental or behavioral (Dungey & Tambakis, 2003). In the first category, the analysis is based on the event, where the event is usually a financial crisis. On the other hand, behavioral models consider that a change in expectations and herd behaviour determine the transmission of shocks between countries. A useful distinction between biologic and behavioural models refers to the fact that biologic model operate on a time frame, which follows an event, where as fundamental models operate with both time series and with transversal dimensions. Anyway, although „real contagion” – the unanticipated transmission of shocks – is often associated with herd behaviour, this is not a mandatory condition for contagion.

Contagion is often identified as an equilibrium phenomenon. On the other hand, if contagion is due to herd behaviour, it can be seen as a rational response from investors when there are fixed costs for obtaining and processing information concerning a country. On the other hand, macroeconomic models based on rational anticipations generally have simple solutions. The issue of unique equilibrium versus multiple equilibria is bound by the debate between first generation models (which are based on fundamental macroeconomic conditions) and second generation models (which are behavior based) used to explain foreign currency crises.

Numerous papers try to determine the extent to which it is possible to affirm that contagion was generated by financial events which appeared starting from the mid 90s (Bodart & Candelon, 2009). A series of crises occurred due to the synchronization and intensity and we can state that there is rapture between the traditional way of event propagation. Financial globalization is the result of a control reduction and an increase of capital for a group of countries. Financial integration on the other hand is a part of globalization and refers to the insertion of a country / the participation of international capital markets. Globalization has generated the growth of expansion and depth of global commercial flows and of financial flows in different countries, regardless if they have good or bad macroeconomic indicators. Marcal et al. (Marcal et al., 2009) investigates the presence of contagion phenomena and / or interdependency between countries during 1994 – 2003 on the basis of stock market indexes yields, concluding that we can talk about regional contagion in the crises of Latin America and Asia.

The sources of contagion can be pointed out, keeping account of the particularities of the parts involved: 1) when two neighbouring countries have integrated capital markets; 2) when we have significant commercial flows between countries; 3) when major institutional investors are present and give up their positions on emerging markets, with low liquidity, thus determining an important and generalized price decrease; 4) when foreign investors transfer their resources from developing markets to more trustworthy or accessible markets; 5) when technology factors linked with a local industry affect the growth of a country or when there is political instability; 6) when the „alienation” effect occurs, for example when the expectancy of economic agents changes, even if it is not based on the change of fundamental macroeconomic conditions, which determines the grouping or convergence of them towards these expectations.

In conclusion, we accept the idea that there are two types of contagion: fundamental and irrational. Fundamental contagion describes the process through which a crisis can produce effects on the fundamental indicators of an economy. A devaluation of the foreign exchange rate can have consequences on imports and exports, but also on capital flows from the respective country. The other type of contagion, the irrational one, is spread through the fear of foreign investors. When they see major loss on Wall Street they expect things to go worse. Their first reaction is to close their positions as quickly as possible. We can mention, as fundamental causes of contagion and

transmission vectors: 1) those bound by fundamental economic conditions, such as common shocks, commercial relations, alterations of the exchange rate, etc. 2) those who are not bound by economic conditions, which make reference to investor behaviour: restrictions concerning liquidity and issues concerning stimulus, asymmetric information, the existence of multiple equilibria, the changing of the rules of the game.

4. Conclusions

In conclusion we propose the definition of contagion as that *necessary process of shock transmission between the subjects of a system*. Unlike normal, current flows which link the subjects of the system, the identification of contagion implies the existence of an *initial shock* or an *unpredictable event*, which can be generated by an institution, a human factor, a natural one, etc. The necessity takes into account the fact that the existence of connections before the initial shock makes it impossible to stop the propagation of effects, as they become necessary within the logical sense of the term. We consider that irreversibility is not necessary to make a difference between contagion phenomena, and we believe that there are contagion phenomena which have an irreversible character.

Shock transmission mechanisms call for the existence of connections between the subjects of the system. Each subject (country, firm, institution, and individual) is connected to the other subjects of the system via real channels, financial or informational which allow for the formation of flows and transaction participation. Globalization has made these links permanent and has multiplied them, ergo the attempt to stop contagion phenomena can only consider a temporary isolation of affected subjects – quarantine – which can be realized only by the temporary blockage of the channels.

The evaluation of the potential of an event to produce contagion effects can be made considering the intensity of the impulse and the characteristics of the system component on which the initial event was produced (the degree of connection with the other elements of the system, its importance). We believe that this definition of contagion cancels the limitation of the phenomenon to financial markets (contagion which is propagated through flows, markets or financial institutions becomes only a contagion class – financial contagion) and has the potential to allow for the creation of an evaluation system of the intensity of contagion phenomena.

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CONSIDERATIONS ON ECONOMIC INFORMATION SYSTEM OF PROFIT UNITS

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Abstract

The product of the economic information system is being represented by the financial economic information on the basis of which through analysis, diagnostic, management, the corporation's managers can rapidly take quality decisions regarding the necessary patrimonial changes for the economic situations in a continuous change. Taking into consideration the complexity of the information system we considered necessary the implementation of its intimacy so that its projection be made on scientific basis, not chaotically according to the current demands of the activity regarding the entity.

Key words: system, information system, accounting system, audit, internal control

JEL classification: D 83, G 34

1. Introduction

From the very beginning it is necessary to point out that the separation of an objective or subjective reality and its treatment as a system is being done according to rules well and unanimously accepted of the general theory regarding systems.

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Consideration things (objects, phenomena and processes – objective or subjective existences made up) – as systems has a gnoseologic significance and is not determined by the objects, phenomena or processes as such, even if they reflect certain traits and objective characteristics.

2. Economic information system

The system is a concept by which the field in which there is the investigation of the objective or subjective things as concrete, real or abstract forms of existence. In fact, one thing becomes a system only within the process of knowledge. To have a system it is necessary:

- the existence of a thing – designed as a single object (tangible, real, abstract, mental);
- the existence of a researcher;
- the existence of a goal of research.

It is assumed that any definition of a system is arbitrary, considering that the system is a subjective tool for objectives and processes and phenomena.

According to research, the same thing can be defined as a system in the most varied ways.

To study those, things should be separated from other things, individualized, rigorously and unequivocally defined as unique objects.

Only under these circumstances the object becomes a system, namely an objective spatial-temporal field, structural and structuring for research.

The aim of the research determines the boundaries (limits) of work – conceived as a unique object, separated from the outside environment and treated as a system. The object – as a unique object -must be conceived as a set of items (concrete, abstract, real) mutually interrelated when they are treated as a system.

The elements and connections that make up a system are its fundamental components.

The item is a quality, a property, a subdivision of an object regarded as insubordinate part of the analysis by division in subparts. The items are fixing the limits of the infinite within any concrete, so that it could be looked at as a system. Defining the elements as parts of the unique object for research is not steady but is being applied according to the research.

Connections represent a relation between the elements, joining them within the system. The connections can be causal or coordination links,

successions or simultaneous, subordination relations which do not express the causal relationships, etc. Connections reunite elements in a whole as compared to the coming into being and functioning of the system by delimitating it from all the others. The connections establish the limits of the synthesis for certain parts of a thing within the system. The concept emphasizes the connection and interdependence of systems. The evaluation of the parties in characterising the whole suggests the existence of at least two types of relationships within the system configuration:

- a) the relationship of subordination, regarding the relation between the whole and the part, the relation between the system and its components;
- b) coordination relations: the relationships of either the elements that compose the system or only the relationship among systems or among elements of different systems.

Out of the combination of these two types of relationships it goes like: both the relativity of concepts as whole and part (each part being simultaneously a whole in relation to the underlying reference systems, each whole being also part in relation to the overlapping reference systems) and the synthesis of structural relations and functional reports in characterizing the systems. Any part being a whole (due to the subordination of other elements) and any whole being part or in relation of functional relation with other wholes the result is that any other system is opened.

Seen in connection with the environment, any system has: an entry, an exit, a behavior and functions.

A system's entry represents the connections through which the environment acts on the work intended as a system.

A system's exit represents the connections through which the work, conceived as a system, acts on the environment.

The system's behavior is represented by all the actions the system undertakes both on itself, as well as on the environment, as an adapting reaction to the influences of the outside world, dynamic requirement in a continuous movement, transformation, development, change etc.

Furthermore, the non-mechanic systems, which are born, live, grow, die, going through evolutions, revolutions or involutions, have in particular the negative and/or positive feedback processes.

The negative feedback process has the purpose to maintain the balance, alleviating or suppressing change when it threatens to exceed a

certain level which could question the stability of the system, and in extreme cases, even its existence.

At the beginning of the 60's, professor Maruyama notices that too much attention was given to the stability and too little to changing the systems. He pointed out the necessity of a deeper study of the positive feedback, namely the processes which do not suppress change, but amplify it, do not maintain stability, but they put it under demand, and sometimes even break it. As Maruyama emphasized, positive feedback can amplify a small deviation or smudge within the system, transforming it into a seism of proportions which endangers the whole structure.

While the first type of feedback is negative, meaning that it reduces change, the second type is positive because it amplifies change.

Given the fact that positive feedback breaks stability and itself powers, it allows auto stimulating processes to be explained.

Linking negative feedback to the positive one and noticing how varied the both totally different processes combine in complex bodies, from the human brain to the economic systems, we feel that we are being suggested multiple knowledge possibilities still unknown. It has to be admitted that very complex systems – biological organisms, cities from a corner of the world, economic, social and political systems etc. – have inside them amplifiers, as well as change reducers, curls of positive feedback as well as negative feedback existing in interaction, which makes us notice a whole level of complexity, not known until now, in the world we are confronting.

Another important step in the same direction is acknowledging the fact that these reducers and amplifiers of change are not necessarily present from the very beginning in the considered systems. They can miss at the beginning, and then they can appear as a hazard's effect. This way, a random event can trigger a fantastic chain of unexpected effects, hard to control. We now understand why it is frequently hard to find out the trajectory of the evolution of a moving system and, more importantly, to extrapolate the direction, the way of movement; we understand why changes bring us so many surprises. We now understand why a slow and peaceful process can suddenly convert to an explosive change or vice versa. This way we can explain ourselves, furthermore, how you can get to ulterior different results from similar initial conditions. Causality, seen through the prism of future civilization, based on knowledge, shows us a complex universe with interacting and inter-conditioned forces, an amazing world with amplifiers and

reductors of change and with many more unnamed elements, unthinkable until now. Here we are, at crossroads, when the question comes: "Are complex dynamic systems being governed by hazard or necessity?"

Dr. Ilya Prigogine and his team of collaborators from the Bruxelles Free University proved that through the combined action of hazard and necessity the systems' structures they reach higher steps of differentiation and complexity. Prigogine started from an apparent contradiction. On one hand, physicists live with the belief in the entropic principle, which says that the universe decomposes with time, that all organized phenomena degrade themselves sooner or later. On the other hand, biologists live believing in the principle of the evolution of living organisms, which says that life means organization, a continuous production of higher and higher states of organization, and also more and more complex. Entropy indicates a direction in the movement of complex systems, and evolution – the opposite direction.

Prigogine noticed that: regarding any complex system, its parts go through continuous changes. They always fluctuate. The inside of any complex system has a continuous vibration.

In certain cases, when negative feedback occurs, these fluctuations are damped or suppressed, the system maintaining its balance. When this positive feedback occurs, some of these fluctuations are highly amplified and can disrupt the whole system. At this point there might be added certain fluctuations from the external environment, further amplifying this vibration until the entire balance is destroyed and the existing structure would break apart.

Whether it is the result of uncontrolled internal fluctuations or external forces, or both, the disruption of the old balance often entails not chaos or collapse of the system but the creation of a completely new one, a superior. Hence complex systems have to be designed as being structured. These new structures can be more complex and complicated than the old ones, requiring most of the times - to maintain stability - more information, energy and matter, and so, Prigogine named them dissipative structures.

He suggests that evolution itself can be regarded as a process that leads to biological and social organisms that are more complex and diversified, by the emergence of new dissipative structures, at a superior level. Living in phenomenological world of interdependencies, where nothing is the product of a single cause, we must accept the idea that evolution cannot be

planned or predetermined by a mechanistic way, but is subjected to the hazard that dominates the change.

Prigogine is the first to combine within a whole the "hazard" with necessity and gives an explicit formulation of the relationship between them. He believes that just the point where the structure would "jump" to a new level of complexity, in practice, even as a principle, it is impossible to predict what form it takes. But once it stabilizes a particular way and a new structure emerges, the determinism dominates again. Prigogine uses the example of termites, which build their cleverly structured their nest a seemingly unstructured. Termites begin by moving randomly on a piece of land, stopping here and there to deposit small amounts of "goo". These deposits are distributed randomly, but have filed a component chemical substance (feronomi) that attracts termites. Thus deposits of "goo" are beginning to come in some places, gradually forming a column or wall. If these constituents are isolated, the termites stop working. However, if it happened to be side by side, they result in a complex architecture of the nest itself. What began as a random activity ultimately lead to extremely sophisticated structures. Here, Prigogine gives, the example of "spontaneous formation of coherent structures". Order from chaos.

Function – from the theory of the systems - is an essential attribute of any system which performs in its reporting requirements to other systems, serving to integrate (coordinate) elements in it or in its context, expressing actions which are performed by passing from potency to act within structural diachronic. Functions as basic directions of action are components of a system which help to reach its construction as a whole.

Anything considered as a system as compared to itself, has a structure, a state, a calendar, a directory and transformation.

The structure is a relatively stable order, its quality being determined by connections established among system elements. It should not be seen only through terms of law but rather through the forms it can take. (Noica C., 1980, p.119) In the same group of elements there can be different structures and connections, all these being connected to the system. In other words systems can be allotropic. System stability condition is given by connections in a certain time. Connections of a system can change over time and with them the changes and system status. The change reflects the dynamism of possible states whiles the system - essential attribute of all things in a world becoming ever phenomenological.

Transformation - marking system transition from one state to another – it represents the quality moment of a dynamical, complex system. In fact, the universal law of impermanence - under which everything arises as a result of combination elements, necessarily have to disintegrate when there are being expressed some of the different causes that led to the formation of the compound - governing the unfathomable depths of space, life itself or even a particle of dust. Each atom incorporation lives perpetual drama of birth, aging and death. Nobody and nothing can escape perpetual becoming.

The system's repertory consists of all possible states of the system.

The system's calendar is given by the set of moments which corresponds to one state.

If the structure reflects the spatiality and the synchronicity of the system; the transformation, the repertory and the calendar describe the chronology.

The generally accepted conclusion is that: the whole is more genuine than the part, the movement than the state, horizon's depth than the job's security.

In terms of the economic and financial information system of a lucrative company, it is not an exception of the rule and behaves like any known system. The subsystems, part of the informational system are in a dynamic related with interdependency

No natural or social system is possible without an exchange of information, between the components of the system and between the system and others systems from outside.

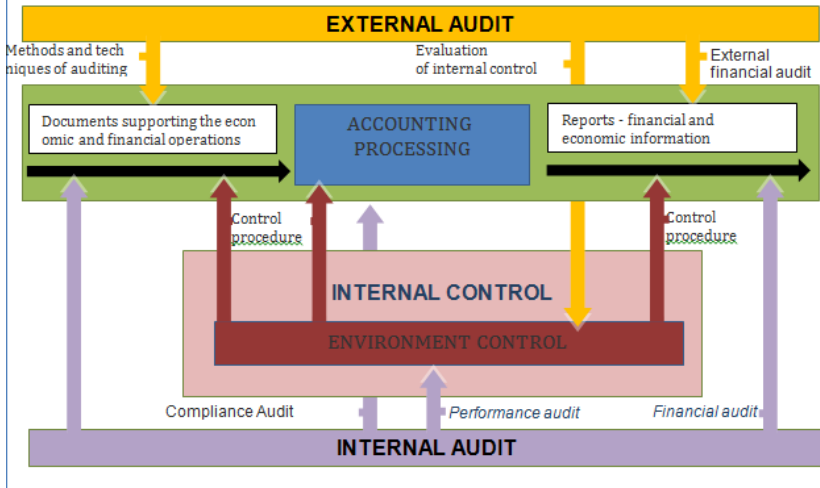
For a system, information is a message whose existence is intrinsically linked to the existence and functionality of that system.

Within the economic-financial mechanism, an important position is being held by the economic informational system, the promotion of modern methods and of modeling techniques of economic and social activities, in order to ensure a dynamic coupling of the two components: leader and led by making all direct and reverse links between them, in condition of maximum efficiency.

The accounting system, as the main component of the economical informational system, is a set of axioms, principles, regulations and rules of assessing a company; through which the financial transactions are processed through an accounting techniques. The accounting system identifies correlates,

calculates, analyses, records and provides all information about transactions or events that occurred within a company during a determined period of time.

Figure 1: Accounting Informational System



Internal control is the system of procedures developed by the administration of a business, in order to insure its objectives regarding the efficiency of its activity, protecting its assets, prevention, discovery and correction of errors, the accuracy and reality of the technical process of accounting, so as the financial information be credible.

Internal control must be developed within companies acting on the two main components, as follows:

A) *inside environment* favorable for internal control given by the general attitude and by the actions lead by management according to the inside control system, with outcomes on control procedures that were applied.

B) *control procedures* conceived and developed by the management in a procedures of intern control manual, in order to achieve the managerial objectives.

Through the proceeded missions in independence and objectivity, **the intern auditing** gives the management and not only the assurance about the level of control about economic and financial operations, guides it in order to improve its activity and contribute to the adding of value. Concerning the mission of intern auditing we find conformity auditing, performance auditing

and financial auditing. Unlike the legal financial auditing, proceeded as a mission by the intern auditing, an entity can ask for a legal financial auditing from outside; in this situation he has to sign a contract with a financial auditing.

Financial auditing is an activity lead by independent professional people in order to verify and examine the accounting informational programs and of controlling a working unit, in order to express a motivated and objective opinion about its financial statement. Financial auditing tries to make accountant information more credible, as one of the main qualitative particularity of this accountant product.

As a main instrument of the management of a working unit, the **economic analysis** represents a set of methods and techniques which controls the economic information in order to give clear solutions about the economic issues that causes problems to the management of the companies.

According to the results of economical and financial analysis one can see the situation of a company at a certain time and also its economic and financial performance.

Economic piloting process has to be one of the main concerns of a working unit in order to obtain efficient decisions. The essential element is the time factor in generating the information in order to allow quick reactions of the management on certain disturbing phenomena before they become irreversible. The lack of it can entail the company problems in taking performing decisions.

Since the complexity of the informational system of any entity, it is imperative that its projection be made on scientific basis not chaotically according to current requirements of the activity.

3. Conclusions

The general theory of systems is applied in order to separate an objective or subjective reality. A system requires an object, a research subject, and a purpose of research. An economic information system must be developed based on scientific principles in compliance with the actual requirements specific to the area of activity.

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EMPLOYMENT TREND AND UNEMPLOYMENT ISSUE IN ROMANIAN ECONOMY

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Abstract

Employment in Romania faces developments, processes and trends that reflect direct and indirect influences of the national economic system, suggesting that the problems of employment are far from being solved quickly and efficiently. The economic situation triggered changes on the labour market, characterised by employment rates lower than European averages, unemployment rates that had entered on a downward trend but that are now back as an extremely serious problem brought by the economic crisis. The social system is mainly affected by the situation on the labour market, reflected by the evolution of indicators regarding the employment rate and the employment structure by age groups, industries, labour productivity indicators, and those who emphasise the concerns of structural unemployment. Overall, prospects outline minimal changes in the living standards, especially in the current economic context.

Key words: *human resources, sustainable development, work force, employment, unemployment.*

JEL classification: *E24*

1. Introduction

Making performance by using labour resources is conditioned by the features of employment pattern, which, as part of the working mechanism of

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the labour market, reflects the relations regarding the allocation, reallocation, remuneration, social protection insurance and labour force reorientation. In Romania, structural changes of the transition period have brought a substantial reduction of labour force and employment on the labour market and also significant adjustments of the economic sectors, regions, property, age and professional status, demographic trends and massive migration also contributing to these changes.

2. Employment dynamics

Active population and employed has decreased until 2005, and then we notice a slightly increasing trend in 2006, in the following years values fluctuating around the same figures. In 2009, the numbers of all indicators on labour force have decreased, as a reflection of the questionable economic situation generated by the crisis. The activity rate and the employment rate have had the same dynamics. The employment rate of the population aged between 20-64 has been of 63,5%, at a distance of 6,5 percentage points from Lisbon objective recommendation (a 70% rate of employment). An analysis of the evolution in time of the labour force structure reveals a clear tendency of shift of employment from urban to rural areas, especially during the first year of transition, when restitution of land stimulated employment in agriculture. This tendency is more obvious in poor regions, where subsistence farming is the only source of income.

Table 1. Evolution of main indicators on employment, 2001-2009

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Active population | 11.15 1 | 10.07 9 | 9.91 5 | 9.95 7 | 9.85 1 | 10.04 1 | 9.99 4 | 9.994 | 9.93 0 |
| Employed population | 10.44 0 | 9.234 | 9.22 3 | 9.15 8 | 9.14 7 | 9.313 | 9.35 3 | 9.369 | 9.09 2 |
| Employees | 4.623 | 4.619 | 4.56 7 | 4.59 0 | 5.92 1 | 6.167 | 6.19 7 | 6.131 7 | 6.07 5 |
| Activity rate | 67,7 | 63,6 | 62,4 | 63,2 | 62,4 | 63,7 | 63 | 62,9 | 62,9 |
| Employment rate | 62,9 | 58,0 | 57,8 | 57,9 | 57,7 | 58,8 | 58,8 | 59 | 57,3 |

Source: National Institute for Statistics, *Labour force indicators (AMIGO data)*, www.insse.ro, supplemented with data from the National Commission for

Prognosis, Projection of main macroeconomic indicators for 2009-2014, 5 November 2009, p 35

The greatest decrease in the employment rate is for the age group 15-24, respectively 55-64. In the first case, the explanation is given by the increase of people attending higher education, while in the second case, the situation occurs as a result of the increased competition on the labour market, older people not being able to adapt to the new requirements imposed by the market economy (knowledge of foreign languages, computer skills). This feature is common to both women and men, but with a significant decrease for women in the age group 55-64. (Zaman C., 2007)

In 2009, the employment rate of working age population (15-64) was 58,6%, down from the previous years. This indicator had, as in previous years, higher values for men (65,2% versus 52,0% for women) and for people in rural areas (60,7% versus 57,1% in urban areas). The employment rate for young people (5-24 years) was 24,5%, while the employment rate for older people (55-64 years) was 42,6%. The highest employment rate for people of working age has been among higher education graduates (84,1%). As the level of education decreases, the level of employment also decreases. Therefore, 62,2% of the people with medium level of education were employed and only 42,0% of those with low level of education. Although lower than the previous year (-104 thousand people), employees have the largest share (67,2%) in total employment. In 2009, self-employed and unpaid family workers represented 31,3% of the employed population. The distribution of occupation groups shows that farmers and skilled workers in agriculture, forestry and fishing accounted for 24,0% of total employment. A significant proportion (15,8%) was held by the categories of craftsmen and skilled workers in trades.

One of the most relevant features of the general employment pattern is employment by sectors, because its analysis may emphasize a number of defining features of the national economy, such as: the historical economic and social development stage of a country, materialised in lower or higher levels of concentration of the population employed in agriculture (primary stage), industry (secondary stage) and services (tertiary stage), as well as the efficiency of using labour force in those three sectors, since it is well known that each sector has a specific productivity, usually lower for the primary sector and higher in the tertiary sector (Răboacă G., 2000).

We are thus witnessing the so-called reorganisation process, under poor efficiency due to changes in the structure of agricultural property and of

the fact that agriculture absorbed people laid off from privatization. Although numbers on employment in agriculture have decreased by approximately 10% and it is projected to have a more pronounced decline in the future, Romania has a different situation from the other member states (EU-15, in 2003, 4% of the employed population worked in agriculture), because of this extremely high percentage of population working in agriculture, which is considered a socio-demographic and economic downfall. The decrease of population employed in agriculture is subject to the time related to the process of giving up subsistence farming.

In the secondary sector, with the highest loss of jobs, the employed population has dropped significantly during the first years of transition, then levelling off at around 24%, the prognosis unrevealing significant changes in the future. From the total of persons employed in industry, almost 90% belong to the manufacturing industry.

In the services sector, although we are witnessing an increase of the percentage of the population employed by approximately 10% and even a more significant increase is expected, the economy does not manage to create but a small number of jobs, and as compared to the situation in Europe, where the percentage of the population employed in services is of approximately 70%, we are still very far. This increase in the number of people employed in services is not the result of job transfer from the two first sectors, but it is the effect of industrial activity decrease. The service sector has not demonstrated its role of jobs' generator and absorber of people released from industry, and agriculture turned into an area of refuge.

The prognosis from the National Prognosis Commission does not reveal a positive outlook for the reduction of disparities from the EU. Therefore, it is predicted that at the end of the time period, 16% of the population is employed in agriculture, 10,8% in constructions, 24,2% in industry and 49% in services. These figures do not take into account the mutations on the labour market, which occur due to the problems generated by the economic crisis. To reduce disparities in the employment rate, employment in the tertiary sector should increase because, currently, employment in the tertiary sector is the most important factor for changing the occupational structure. The main advantage of a majority occupation rate in the tertiary sector is increasing flexibility in the operation of the productive sector and increasing labour force movement.

Changing pattern of employment, no matter how difficult and expensive it may seem, is more than necessary, is even required to move from poverty to economic welfare. We believe that in Romania, both the secondary and tertiary sectors still have great potential to exploit.

Employment by professional status is a criterion for assessing the processes and tendencies in the labour market. Romanian statistics distinguishes the following categories of persons grouped according to the professional status: employee, employer, self-employed, unpaid family worker and member of an agricultural company or a cooperative. The sizes of these categories may characterise the labour force dynamics and the economic-social development.

The employee status belongs to the large industrial and service productions, with protection and special rights, but also with obligations, while the other categories require a high degree of risk and insecurity. We may talk of a “non-remuneration” process of the employment structure, due to the rapid loss of the number of employees, with all its negative effects on work productivity, size and structure of population incomes and on budgetary revenues.

In the distribution of employed population by types of property, we notice progress, namely the reduction of population employed in the majority state sector, at the same time with the increase of people employed in the private sector.

An analysis of the population employed by hours worked shows that in 2009, 90,2% of the persons employed worked full-time, but only 9,8% worked part-time, which reflects the phenomenon of underemployment. The part-time employment rate in Romania is under the level of that registered in the EU (approximately 20%).

In 2009, the average actual working week for the primary activity was 39,4 hours per week; 277 thousand people carried out secondary activities, working on average 14,4 hours a week. The average actual working week in the primary and secondary activity was 39,8 hours a week. There is a greater inclination for the less than 40 hours work in the female employment, as compared to the employed male population, while for the over 40 hours work, the situation is reversed.

There should be mentioned that, usually, the option for a working schedule of over 40 hours is related to the need for survival and success of small businesses, and it does not favour the quality of life, but it even

increases the risk of reducing it. Moreover, the preponderance of women in part-time employment or underemployment is not a matter of preference, but a requirement imposed by family and society.

The increase of employment uncertainty is caused by employment in occasional jobs, with low wages, when there is a parallel labour market, various seasonal activities, substitution of labour contract with civil conventions and the existence of certain atypical types of employment.

Another indicator regarding the labour market reflecting the economic development is the work productivity. On the overall economy, labour productivity has advanced during 2003-2007 with a higher rate than the gross average wage. Labour productivity increased by 30,5% in 2003, by 26,9% in 2004, 18,7% in 2005, 18,9% in 2006 and by 17,8% in 2007, according to the National Institute of Statistics. In 2009, labour productivity has increased in most Romanian economic fields, as related to the previous year, because the number of employees has decreased more than the turnover in that sector.

Labour productivity has not been a major focus of management in the last years, while the domestic market grew by itself, but the crisis may be a good opportunity to reconsider the productivity factor within companies and institutions.

With regard to the average gross wage, it increased by 24,8% in 2003, by 23,3% in 2004, in 2005 it increased by 18,3%, in 2006 by 18,4%, while last year the increase was of 22,6%. Productivity growth was higher than wages until 2006, in 2007 the situation being reversed, a thing expected to happen in 2008, too. For the overall industry, labour productivity increased by 9,9% in 2007.

There are however some doubts regarding these statistics because this labour productivity index globally is somehow an illusion, because if for the denominator there is something objective, namely the number of workers in the economy, the numerator collects value expressions, not only from the actual sector of the economy, but from other sectors that are not sources of productivity, such as many activities in services, including the financial ones. Therefore, the global increases of labour productivity of the last years are positive and not because these are the results of the real economy, but because both the consumption growth without coverage from import and "the achievements" in the financial-speculative areas of the economy are counted.

If we were to examine the productivity of industry, we could also not consider this indicator relevant if we were to consider the place and role of

industry in the economy, and in Romania, industry is a sector that stands on the defensive, in which productivity gains occur not necessarily from production bonuses, but especially on account of restructuring.

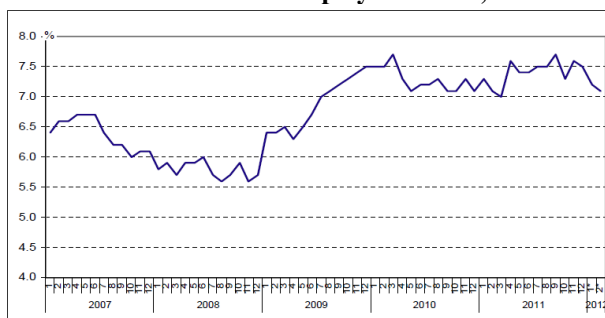
With all these optimistic figures, Romania occupies the last but one place among EU states regarding labour productivity per employee, at approximately half the European average.

3. Unemployment problem

At the end of 2009, the number of unemployed reached 709.383 people, a level unattained since April 2003, which corresponds to an unemployment rate of 7,8%. During the first months of 2010, the unemployment rate was situated at approximately 7,4%.

An analysis of the unemployment structure by sex, age groups and education reveals that at the beginning of the '90s, women had the main share of the unemployed, and then beginning with 1997, it reduced, as a result of collective redundancies in constructions, mining and metallurgy, sectors predominantly with male employees. Another factor that contributed to lower unemployment for women was the increase of clothing and footwear sector where the labour force is mostly made up of women.

Table 2. Evolution of unemployment rate, 2007-2012



Source: National Institute for Statistics, *Labour force indicators (AMIGO data)*, www.insse.ro, supplemented with data from the National Commission for Prognosis, *Projection of main macroeconomic indicators for 2009-2014*, 5 November 2009, p 35

In terms of unemployment structure by age groups, the most affected category was the 15-24 years group, followed by the 25-34 years and that over 50 years. Therefore, the greatest difficulties are for the young and for those close to retirement. The most alarming structural problems are the increase of unemployment for young people, i.e. long-term unemployment. Unemployment rate for the young population is growing, showing the lack of new and attractive jobs for them, considering that the education of new generations and their expectations have increased. Nearly 60% of the Romanian unemployed are under 35 years, a fact with negative economic consequences (the most creative human resources are not being used) and social (their attitude towards work is affected in a negative way) (Vorzsak M., Guț C.; 2008).

With regard to unemployment duration, the long-term one tends to become a serious problem. Long-term unemployment has implications both in terms of professional integration, which is becoming increasingly more difficult as time passes and the antisocial manifestation that this phenomenon generates. (Pirciog S. 1996)

According to the data from the National Institute of Statistics, in 2009, long-term ILO unemployment (unemployed for a year and over) was 2,1%. The incidence of long-term ILO unemployment rate (the percentage of people unemployed for a year and over in the total number of unemployed) was 30,9%. Long-term unemployment was more strongly manifested at men (31,6% as compared to 29,8% in females) and in the urban areas (32,2% as compared to 28,7% in the rural areas). For the youth (15-24 years), long-term unemployment rate (unemployed for six months and over) was 10,3%, and the incidence of long-term unemployment among the youth was 49,5%.

In terms of education, around 70% of unemployed have medium education studies, approximately 24% have elementary education and approximately 6% have higher education. In time, the rate of unemployed with primary and secondary education increased the rate of unemployed with secondary and post-secondary education decreased, while the percentage of those with higher education remained the same. The data from 2009 also certify that unemployment has affected to a greater extent low and medium education graduates for which unemployment rate was 7,5% and 7,2%, much higher than the rate of unemployed with higher education (4,3%).

Therefore, we can state that the most affected categories of the population are the people over 45 years, the youth and people with low levels of education.

A thorough analysis of the unemployment phenomenon should also take into account the masking methods, which have made it that the maximum levels of unemployment are approximately 10% lower than those from the new member states during the transition period. Restructuring of the Romanian economy was partial and delayed, with negative consequences on the economic development.

One way of masking unemployed is as pensioners. Approximately 1/3 of the population has benefited from this status, although only one of three retired persons met the retirement age. As a result of the economic restructuring process, many people who met the seniority requirements, but not those of age have been retired. Between 2002 and 2005, the number of people retired earlier increased by 50%, and for the partial early retirement by 84,1%, such a phenomenon being abnormal.

Also, the activity of subsistence in agriculture disguised many unemployed in farmers. In the mid '90s, a massive flow of migration from urban to rural areas started, those laid off from industry returning to their villages. Thus employment in agriculture has increased substantially, especially until 2000.

Then, another way of masking unemployment was by consistent external migration. We may talk about masking the unemployment methods, while the decrease of unemployment did not correspond to the proportional increase of employment. This suggests that, due to the limited employment opportunities, part of the labour force left the labour market, another focused on agriculture and another on black labour.

To solve these problems, it is necessary to improve access to educational programmes, to secondary and higher education, especially among rural population, to improve access to training programmes for employees and unemployed, to increase active measures for testing and evaluation of changes on the labour market, to provide assistance for people looking for a job, to ensure equal opportunities and promote the active role of social partners. Another important element would be to provide access and participation in life-long learning, providing a correlation between existing skills and market needs, entrepreneurial education for adults and increased number of suppliers

of training programmes. But none of these will work unless the economic situation improves and it is able to provide new jobs.

4. Forecasts for 2013

The National Commission for Prognosis estimates for 2009-2013 period an increase of the active working population by approximately 145 thousand people. The working age employment will increase by approximately 340 000 people, mainly due to the increase of foreign investments, increase of competitiveness and not least, the increase of salaries.

It should also be underlined that the labour resource requirements will be maintained over the possibilities of the working aged population. We are talking about the fact that although the degree of inactivity will reduce, the percentage of those who, for various reasons, do not want to work in the labour market remains high.

In 2009, the active population of working age was 62,4% of the total working age population (9,4 million as compared to 15 million); it is estimated that in 2013 around 400 000 jobs will be covered by other categories of active population, either outside the working age, or from foreign sources.

Due to structural changes, the percentage of employment in agriculture dropped in 2009 compared to 2005 by 4,3 percentage points (from 36,4% to 32,1%) and it increased in services (3,4 percentage points) and constructions (1,0 percentage points).

During 2009-2013, the percentage of the population employed in agriculture will decrease by approximately 16 percentage points, and that of services will notice an increase by 11,5 percentage points. The increase of employed population will be considered as being correlated to the dynamics of economic restructuring, the basic functional and productive structural changes of the economic and social system.

Human resources development, on a global labour force, was an important factor to be taken into consideration when these projections were made. The Romanian population will continue to decrease due to the decrease of birth rates, while active population will increase slightly, and the employment rate will grow to approximately 60% until 2013.

Romania's adhesion to the EU labour market will increase labour force mobility, attracting and losing workers. It is estimated that Romania will have a balanced position in this process. If in 2005 we have witnessed an

accelerated decrease in the activity rate of the working population by 0,8 percentage points as compared to 2004, during 2006-2013 there will be an increase of it from 62,4% in 2005 to 64,3% in 2013, due to the fiscal policies, the creation of new sustainable and competitive jobs and of a balance between occupational flexibility and job security.

The number of employees will show an upward trend mainly due to the effect of the fiscal reform, after a decrease of 1,9% in 2005 compared to 2004. In 2013, the average number of employees is estimated to be at the level of 6085 people, up by 2,8% than in 2005. Significant increases in the number of employees are found in services and constructions and decreases in industry.

Table no 3. Structure of employees by economic sectors, 2002-2013

| | 2002 | 2004 | 2005 | 2013 |
|----------------------|-------------|-------------|-------------|-------------|
| TOTAL | 100 | 100 | 100 | 100 |
| Agriculture | 3,5 | 3,2 | 3 | 3,6 |
| Industry | 39,4 | 38,4 | 37,3 | 35,1 |
| Constructions | 6,3 | 6,6 | 6,9 | 7,6 |
| Services | 50,8 | 51,8 | 52,8 | 53,7 |

Source: National Commission for Prognosis

It is noteworthy that in 2013 the non-wage employment population will be maintained at a constant level, meaning that the reduction of population employed in agriculture (exclusively employees) will be set off by the increase of non-wage employed population, such as employers, self-employed, etc. The phenomenon already exists and it is explained, on one hand, by the fact that agriculture modernization programmes lead to the reduction of population in this sector, and, on the other hand, the economic and social development have stimulated the expansion of liberal professions.

Unemployment rate was and will be one of the main concerns of the Romanian Government. In 2005, unemployment rate was 7,2%, 0,8% percentage points lower than in 2004. This decrease will also manifest in the future, a rate of approximately 6,0% being estimated for 2013. This decrease will be possible due to the more efficient implementation of employment policies.

2. Conclusions

Labour market is characterised by continuously decreasing skilled labour force, as a result of massive migration, employment rates below the European averages, considering that the economy has not generated enough new jobs, and the people laid-off from industry found refuge in agriculture and not in the services sector, as it would be normal, an unemployment level that went on a downward trend towards figures considered acceptable, although largely masked (through early retirement, migration to abroad and agriculture), but which in the current situation is again increasing, due to the fact that many companies restrict or even cease their activity, global economic and financial imbalances which resulted in restricting consumption. Romania has had for a good while the advantage of skilled labour force, but its gradual loss has negative consequences on its development potential.

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PURCHASE STRATEGY – NECESSITY AND CONSTRAINTS

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Abstract

Aiming the insurance of natural resources, the purchase or supply represents one of the essential activities for any company. The operation of a company, as well as the general efficiency of the company relies on the purchase manner. Through its importance and its status of permanent interference with the environment, the purchase is a highly complex and difficult activity, even a high risk activity. This paper attempts to illustrate the actions to be taken, to insure, within the manifestation of an economic and financial crisis from the purchase point of view, the undisturbed operation of a company.

Key words: purchase, company, market, purchase strategy, economic and financial crisis.

JEL classification: M21

1. Introduction

The economic strategy, within which the purchase strategy has an important and well established place, is assessed as a construction which takes into consideration the requirements of the market, the objectives established being mainly economic. In order to fulfill its objectives within efficiency conditions, the economic strategy uses as action manner the same means, namely economic.

Currently, regardless of the level where it is designed and made operational, the economic strategy currently finds itself within an objective

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and significant reconsideration process, in terms of a company, field of activity, area or country.

Even if it takes into consideration the absolute novelties or just modifications, more or less important, currently, but also in the future, the means of approach of the economic strategy is imposed by two causes, which have to be considered at their actual influence power, which is very high.

First of all, we are talking about the actual evolution context of the national economies and of the world economy, evolution within which the negative effects of the financial and economic crisis have not significantly reduced as intensity and influence parameter. Secondly, we are talking about the sustainable development, orientation and option, both, for a long period of time, insistently claimed by the overall human society.

2. Economic strategy and sustainable development

Despite the fact that the reconsideration process of the economic strategy is a general one, where the claimed and foreseen changes will be large and intense, the importance of the economic strategy will not be reduced. On the contrary, the necessity and importance of the economic strategy will increase. And this because, from the point of view of the consequences, the economic strategy conceived from the point of view of the sustainable development will exceed by far and with more implications the economic field and more obviously, by influencing in a determinant way the social life in all its structures.

Significantly advancing the perimeter of certain theoretical debates, becoming a highly complex and important issue for any company, the sustainable development takes into consideration, among others, the adoption of the economic strategies which, through the activities generated, would insure the current satisfaction, both of their personal needs, and the various interests of the entities with which the company develops business relationships or other type of relationships (shareholders, customers, suppliers, credit institutions, local communities, institutions of the local and central power), while they have to insure not only the protection, but also the development and perpetuation of the natural and human resources necessary to the future generations.

Only to the extent where, on one hand, we will think and act within the spirit of the sustainable development, and on the other hand, we objectively

and responsible assess the importance of the material and financial resources consumed within any labor process developed within a company, we will be able to create the premises to avoid both the excessive usage of human resources and a reckless consumption and even a degradation of human resources, which could be not only extremely severe, but also irremediable.

Obviously, the approach from the perspective of sustainable development's necessity and obligation cannot be limited at the level of a company, group of companies, economic field or national economy.

In order not to affect the capacity of the future generations to promote and develop their businesses in view of satisfying their own needs, the sustainable development has to become "*the omnipresent philosophy to which each participant within the world economy (including the consumers and the government) have to subscribe*".

Nowadays, the concern of various companies with national or multinational representation regarding a concrete harmonization between the economic interests, the strategic approach and the environmental protection issue, which includes "*all the spiritual, intellectual and physical activities insuring the perpetuation of the human species, its mental and physical health, respectively a decent life on Earth*", definitely became one of the highest challenges of the human society.

Due to the fact that there still is a significant increase of the material and energy flows, valid not only for the strong economically developed countries, but also for certain emerging countries, the issue which has to be solved, not only fast enough but also in-depth, is to find certain means through which the economic and social progress would not be so strongly conditioned by the significant increase of the consumption of material resources (taken from then nature and which are subsequently more or less processed) and energetic resources.

The importance of this approach and obviously the identification of certain realistic solutions to solve the dependency between the economic development and the natural environment made the object of certain debates which took place in March 2011 within the "*International Resource Panel's*" – IRP, group created in 2007 by UNEP – United Nations Environment Programme.

The declared purpose of the debates was the development of certain holistic approaches related to the management of human resources at worldwide level, launching the idea of a possible "*decoupling of human*

welfare from the consumption of natural resources". This can be achieved by finding and using certain technologies which would require less raw materials originating from the nature, less water and less energy, which would lead to a "cleaner economy", namely an economy where the products and services obtain would not be beneficial only for the human being or for the society, society created and dominated by the human being, but also beneficial for the environment, environment which the human being, as much as he would have liked, he will be never able to completely subordinate. Only by promoting and developing a long term "cleaner economy", we can reach to the aimed and necessary survival and perpetuation of humans and of the overall human civilization. At the same time, along with the insurance of survival and perpetuation of the human civilization at the highest expression parameters, we can create the conditions which would lead to a certain reduction of social inequalities and, throughout time, to eradicate the poverty.

The financial crises whose debut is assessed to be on August 9, 2007, when the French bank BNP Parisbas announced that "*it cannot honor all the payments*" and when "*in the Great Britain, certain financial institutions start to tighten the conditions for credit granting towards the customers considered bad -payers*", strongly affected the production of goods and services, which form the justifiably called real economy.

The economic development up to the appearance and extension of the financial and economic crisis was possible and it was realized through the elaboration and application of certain economic strategies where the continuous and significant usage of the material resources represents an objective which, under no circumstance, does not present the slightest signs of doubt. Subsequently, the consumption of material resources at the level imposed by the economic strategies adopted by the companies, at the fundamental level, cannot be suspected that it did not have an incorrect and unrealistic objective and that it cannot be fulfilled in efficacy and efficiency conditions.

An aspect recognized by all the parties involved in the economic life is that within the conditions of a normal evolution of an economy, both the existing realities and the future forecasts demonstrate the fact that the abundance of material resources makes room for their scarcity. This means the continuous endearment of the material resources, which determines a real difficulty of the companies, not only to acquire them, but also to maintain them, as costs, at a level which would not affect the quality and

competitiveness of the products they obtain or the services they provide. Moreover, within the current conditions of the economic – financial crisis, the overall problem of the material resources becomes an acute, high risky problem. Subsequently, both in present and in the near or far future, it is possible that the shortage of the natural resources necessary for the functioning of the world economy and human society would be a large or very large one.

Under these conditions, another possibility to redistribute the responsibilities regarding the manner in which, through the economic activity, the human needs are going to be satisfied, becomes a concern of the companies, governments and states. This is the reason why another approach has to be established, as radical as possible, for the strategies which aim the economic development and the launch of the economic strategies which would create the obvious welfare and reduction of the current social inequity.

Likewise, it is very important that this new way to approach the economic strategies would take place with the reduction of the destabilization and even destruction risk of the fragile balance still existing in the environment. And we have to mention the fact that the environment continues to be the sole and large supplier of natural resources, resources which, regardless of their nature, non –renewable (minerals and fossil fuels), renewable (water, air and soil) or permanent (solar, geothermal and wind energy) can and are used by the human within the various economic activities which he permanently develops (Ionescu, 2003).

3. Purchase strategy – general considerations

As the operation of a company, and by means of extension of an economy, cannot be conceived without an adequate insurance of material resources, the supply issue cannot be minimized or ignored. Taking into consideration the fact that within the particular current and future conditions, where, due to the economic and financial crisis, the operation of the market mechanisms is different from the known one, new approach means are imposed for the supply of companies with materials.

This means another knowledge, understanding and reaction manner to the effects generated by the evolution of the exterior environment.

As mentioned before, the economic development, registered especially throughout the last decades, was based in a significant and often uncontrolled

manner on a continuous and strong increase of natural resource consumption. Under the conditions of an economic and financial crisis, this issue acquires stronger significances, the environmental deficit and the natural resource deficit can have a negative impact on the development of the entire human society, which is not only strong, but also has a long duration.

This is explained by the fact that, at the well –known and admitted scarcity of material resources we must add the particular sensibility of the prices reported to the malfunctioning occurring within the business environment, sensibility which actually has a single and particularly consequent expression, the price increase. The increasing and justified concerns related to the evolution on long and very long term of the environment, the fragility of ecosystems due to the absence of certain concrete and durable measures regarding the protection of the natural environment, the necessity to promote and support the sustainable development inevitably lead to a radicalization of the environmental policies applied not only by the economically developed countries but also by the developing countries, the later representing an important, and often the only source of raw materials.

Within this context of evolution of the natural environment, both the production of raw materials and their consumption are experiencing a difficult situation. Both the production decrease and the increasingly reduced consumption possibilities of the companies and of the population are strongly perceived in all the structures of the human society, without the possibility of a realistic assessment regarding the duration of these negative manifestations in the economic and social life.

4. Purchase strategy and company macro environment

If a general characterization of the economic environment was attempted within the conditions of the economic and financial crisis, it would definitely include assessments as: fewer and increasingly unconvincing possibilities of the governments to insure the budget balance, situation which is due to the significant decrease of the budget revenues and to the increase of the pressure on the expenses, an actual and profound crisis of sovereign debts, the dramatic decrease of commercial transactions on the market, the accentuation of the problems from the financial – banking market, the strong decrease of profit for most of the companies, regardless of their field of activity, size and importance, the manifestation of certain high imbalances

between the labor demand and offer, which determined an almost generalized increase of unemployment, the continuous decrease of population's trust in its own capacity to satisfy, at a desirable level, the current and future consumption needs, the disappointment and disorientation of investors, the decline risk of the middle class and the transformation, for a certain period of time, in poor class or even in irremediably poor class.

All these have as direct, constant and lasting effect the decrease in actual measures of the general welfare, welfare which, in a certain measure, characterized the evolution in the last decades not only of the strong economically developed states, but also of the emerging states.

In terms of the manner in which the technological environment influences the material entries in a company, at least two essential elements have to be taken into consideration.

First of all, we have to consider the fact that, through the globalization phenomenon, among other important benefits, a continuous and significant increase of the commercial exchanges was registered. This omnipresent phenomenon present at the level of an important part of the world countries allowed that any company, at least theoretically, to have a more free access to the important results of the progress registered by the science and technique. The mention "*at least theoretically*" is necessary, because in order to assimilate what science and technique provide from the point of view of the technological environment, the companies have to demonstrate that they hold a certain economic, technical and financial capacity which would allow them to benefit from such opportunities. Only the companies which hold the previously mentioned potential can purchase more performing technologies and new materials, with a higher quality where the technical progress can be found.

Thus, the premises of an efficacious and efficient activity can be created or, according to Peter Drucker, they are able "*to do the right thing*" (efficacy) and "*to do it right*" (efficiency). (Drucker, 1993).

Secondly, within the initiation and development of an economic crisis, the companies can deal with a certain instability, usually large and very large, of the business market. The economic and financial crisis, along with the environmental crisis, forces the producers to outsource their business towards locations where the costs with the labor force are mainly lower. Thus, the raw material resources market necessary for the companies extends, along with its lack of knowledge, and subsequently, the increase of business risk. In order to

avoid the occurrence of difficulties in the achievement of material resources, the companies will have to perform a series of action which would allow a fairer and opportunistic knowledge of the market, which means large and very large expenses.

In order to avoid the major risks which can occur within the insurance of the material resources necessary to develop their own activity, the companies have to develop certain market studies, even if their result is not always and entirely useful for the company.

In terms of another component of the macro environment, namely the political and legislative environment, it is known that, for many companies, the internal and international policy of a certain state, as well as the legislation promoted and adopted, present a special interest. The sensibility of the companies towards the political and legislative environment is explained by the fact that, through the policy and legislation, a certain state expresses its own attitude towards businesses.

A state, whose political system is democratic, established in time and recognized as such, is able to promote and develop a coherent legislation, friendly for the business environment and significantly stable. Such a political system and such legislation, on one hand, warrant and protect the rights of the investors, thus observing the initial undertakings based on which the investments were performed, and on the other hand, can clearly mention and request the complete observance of the investors' obligations towards the various state bodies.

If we also take into consideration the fact that the political stability decisively influences the current and future behavior of the financial market, the immediate and consistent reactions of the business environment towards the political and legislative system as component of the macro environment are fully justified. Moreover, in the economic and financial crises, the reactions generated by the situation of the political system, by the current legislation and by the eventual amendments to be made to the legislation, are more than obvious, reasonably determining a certain expectation of the investors in the development of their own businesses.

Another component of the macro environment is the international business environment (IBE), which is defined as "*the general conditions how the enterprises are organized in the entire world*" (Journal of Emerging Trend in Economics and Management Sciences (JETEMS) 2 (5), Scholarlink Research Institute Journals, 2011). The globalization phenomenon, the

significant progresses in various field of activity and the unprecedented development of the free trade, determined that the influence of the international business environment on the national economy is not only a permanent one, but also significant an continuously increasing. While the domestic and the foreign investor acts on a market characterized through “*a variety of languages and time zones*” (Scheuing, 1989, p. 7), the investor can no longer report only to the business environment from the country where he acts, but he also has to know and objectively evaluate a series of economic and social aspects of the international business environment, among which the most important aspects are related to: the appearance and development of certain new markets where the competition has expression levels, equally high and different, the free circulation of goods, capital and labor force between certain countries, especially between the strong economically and socially developed countries, the various cultural barriers which still exist between various countries, the different exchange rates of the currencies.

In the current stage of an important part of the world economy, when the effects of the economic and financial crisis, and even the crisis itself did not disappear, the need of a regeneration through modernization of the business environment appears as an absolute necessity.

The modernization of the internal and international environment has to take place within the conditions of a new approach, where the achievement of profit with any costs would not represent the only concern of a business and where, on one hand, the protection of the natural environment would be a permanent and quasi-general obligation, and on the other and, beyond the objectives aimed by the competition and competitiveness, the general strategy of a company has to compulsory include the social, human and moral strategies.

5. Purchase strategy – elaboration and operational particularities

These particularities of the macro environment’s evolution, along with the modification of the behavior expressed by the suppliers and customers, modifications which can be atypical due to the effects of the economic and financial crisis, have to be objectively and responsibly considered when raising the issue regarding the design and elaboration of a purchase strategy, as important component of the general strategy of a company.

Even within the conditions of larger or lower constraints related to the budget assigned for purchase, the general principles which have to orient a purchase strategy do not have to be abandoned.

Beyond the important role to insure the material resources necessary for the development of various activities within any company, the purchase also plays *“a key role in the long term planning system of the objectives of that company”* (Scheuing, 1989, p. 134).

The determining role in the operation and development of a company provides to the purchase the attribute of strategic activity, the purchase strategy being the component of the general strategy of a company. Being defined as *“a group of rules which determine the configuration of the purchase effort of a company throughout time as response to the changes taking place in the environment and within the competition and to allow it to take advantage of the opportunities occurring”* (Scheuing, 1989, p. 40), the purchase strategy will take into consideration, as main objectives: the establishment of sources where the material resources will be purchased, necessary for the development of all the company's activities, the establishment of the optimal moments when orders for the purchase of what was expressed through the necessary items to be supplied are going to be launched, a necessary adaptation of the purchase behavior to the current and future market requirements, requirement supplemented by an accurate assessment of the life cycle stage of the products which make the object of purchase.

According to the quantitative and qualitative history of each of the previously mentioned objectives and according to the options of the company's top management, it is possible for these objectives to be found as variants of the purchase strategy, namely the identification strategy, the coordination strategy and the adaptation strategy.

Regardless if we are talking about the objectives of the purchase strategy or about the objectives of the specific strategies which take into consideration certain components of the complex process of raw material purchase, we will take into consideration the manifestation particularities of the business environment within the conditions of the economic and financial crisis, the particularities which equally aim the macro environment and the microenvironment of a company.

This is especially important because the behavior of the companies can be different or very different. Subsequently, objectively considering the

constraints imposed by the manifestation economic and financial crisis, a very good knowledge of each company is imposed, which will make the object of a possible business which aims the purchase of raw materials and materials.

First of all, we have to take into consideration the indices for the characterization of the economic activity of a company, along with the various social aspects.

The main indices for the characterization of a company, possible future partner in the purchase activity, would be: the level of turnover registered and the evolution tendency of the turnover throughout a certain period from the past, the evolution of sales, the market share and the evolution of the market share, the investments in research – development in view of modernizing the products in manufacturing stage and to launch certain new products on the market, the concerns for the systematical market research, the existence and application of certain programs to reduce the manufacture costs, the price policy practiced and the eventual discounts provided, the potential to create a certain competitive advantage reported to the competitors, the capacity to calm down or even to stop an eventual erosion of the competitive advantage acquired, the services insured in the consumption and usage process of the products sold, the provision of warranties for certain products sold, the management of the relationships with the suppliers, customers, credit institutions and with the state, local and central authorities, the customer satisfaction level, the labor satisfaction level of the employees, the concerns related to the increase of qualifications of the personnel, the functioning of feedback within the business relationships undertaken by the company, the existence of certain environmental protection programs, the capacity of the possible partner company to engage in partnerships.

Obviously, throughout this period when the strictly specific elements are strongly represented, all these extremely important aspects in the company's approach to elaborate a purchase strategy or to correctly and efficiently manage an actual purchase activity have to be approached through the evolution particularities of the environment, namely, both from the perspective of the continued manifestation of the effects of the economic and financial crisis, and from the perspective of another possible recession.

This in the only manner in which the company will be able to prove its organizational and action capacities through which it can deal with the economic and financial crisis, through which it can attenuate or even annihilate the effects of the production cost increase, the increase of crediting

costs, the reduction of consumption expenses, the practice of lower sales prices, the significant reduction of revenues and the often drastic reduction of the innovation activity.

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SEVERAL COORDINATES REGARDING CIVISM TAXATION

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Abstract

A real partnership between the state and taxpayers determine civism taxation development. What is civism taxation? Which are the bases of civism taxation? What is evolution of civism taxation? Are just some of the questions this article may provide answers. Thus, from the definition of civism taxation, we try to offer shares by the tax administration to increase civism taxation, strengthening the role of taxation in the life of any nation.

Key words: *civism taxation, taxpayer behavior, taxpayer assistance, rights, obligations*

JEL classification: *H 20, H 21, H 30*

1. Introduction

Whether we refer generally to taxation, or assessments are made on the fiscal system, or tax policy, or tax administration, in fact, the whole issue grafted around compulsory levies, around taxes and contributions from individuals or legal.

In order to understand the purpose and role of taxation, any required sampling should answer the questions: Why? and For what? In fact, the answers are likely to explain, based of economic theory, the necessity of a tax obligation and how to use the resources obtained from it. In other words, it

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should be noted that through taxes and contributions can ensure economic growth and development, respectively development of the personality of each citizen.

These statements indicate concern for the development of civism taxation. Thus, through this article we present the significance of concept civism taxation, the importance of the activity for guidance and assistance to taxpayers, the relevance of taxpayer charter.

2. The significance of the concept of "civism taxation"

Taxpayer behavior to tax liabilities requires the existence of the notion of civism taxation. The meaning of this concept is fully understood, if is understood the term of civism.

According with the definitions contained in dictionaries, the notion of civism means "attitude, zeal and devotion which demonstrate a good citizen" (DEX, 2009), "patriotism" (DEX, 2009), "deep sense of love and civic commitment" (NODEX, 2002), "political and ethical attitude, zeal which demonstrate a good citizen" (Marcu, 2000), "patriotic devotion" (Marcu and Maneca, 1986).

Thus, civism taxation can be defined as the attitude of a taxpayer to tax obligations, respectively, the voluntary compliance of taxpayers in tax obligations.

Degree of civism taxation largely depends on the sensitivity of the taxpayer's tax and the level of education tax.

A real partnership between taxpayer and tax administration, which must to generate a responsible relationship between citizen and fiscal officer, contribute to development civism taxation (Taxpayer Charter, 2010).

In this respect, clear knowledge of rights and obligations to taxpayers, by establishing a fiscal pressures in terms of rationality, by fair and impartial application of tax laws, can issue claim that the taxes is aimed at shaping civism taxation (Lepădatu, 2007).

Analysis of civism taxation was in the attention of many specialists (Bell, 1899), (St. John, 1899) looking elements that define the term and basic principles. In this respect, studying the taxpayers behavior, has been emitted the principles of civism taxation, still in the early 90 (The Examiner, 1919).

At any institution in charge with the tax is the concern for increase civic taxation, reason why these institutions try through their activities to

demonstrate efficiency and effectiveness. Citizens' perception of the tax authority is an essential condition for increasing civic taxation, and a good and timely informed taxpayer is a national fiscal discipline (Official site of General Directorate of Public Finance Argeş).

Also, external communication as a major element in tax policy, concerns improving civic taxation and establish a common framework of relations between fiscal administration and taxpayers (OPANAF 422/2005).

3. The importance of the activity for guidance and assistance to taxpayers

Activity for guidance and assistance to taxpayers suppose from the tax authority to provide general information about the rights and obligations, in respect of taxes, social contributions and other revenues administered by the National Tax Administration Agency (OPANAF 1338/2008).

The structures of guidance and assistance to taxpayer are found at central level (Department for guidance and assistance to taxpayers in the National Tax Administration Agency) and the territorial level (Services / taxpayer assistance offices in the General Directorate of Public Finance and Public Finance Administrations).

Provide assistance to taxpayers can be: directly to the fiscal unit through specialized staff; in writing, by the requests made by taxpayers; by e-mail; by phone. Regardless of the method used, resolution the fiscal problems in good time is one of the performance indicators of National Tax Administration Agency.

A critical role for guidance and assistance to taxpayers is the presentation of each fiscal institution through the website. Thus, the official site of Romanian National Tax Administration Agency (<http://www.anaf.ro/public/wps/portal>), in the section "taxpayer assistance" includes the following:

- information about the income tax;
- instructions for electronic payment of tax liabilities and tax liabilities list that can be paid with the card;
- form for complaints, in cases of complaints against the conduct of fiscal activity;
- a database of questions frequently asked by taxpayers and their answers;

- information on pollution tax;
- information on value added tax;
- information on excise duties;
- average prices of agricultural products which tax is calculated on the rental income, expressed in nature;
- timing of tax liabilities;
- useful software for declaration of tax liabilities and financial statements;
- form for taxpayer assistance by e-mail;
- tax forms ordered by number with explanations;
- rules of income;
- archive material produced by National Tax Administration Agency;
- catalogs of: liabilities to the state budget; independent activities that can determine the net annual income based on the rules; legal forms; forms of ownership;
- information on the classification of occupations;
- IBAN related income and expense accounts are used by individuals and legal entities;
- National Classification of Economic Activities;
- Exchange Rates;
- list of double taxation agreements concluded by Romania with other states;
- list of phone numbers for taxpayer assistance;
- addresses for the fiscal authorities;
- treasury offices where taxpayers can pay taxes owed to the state;
- other information.

Guidance and assistance to taxpayers activity should have an important role, its work is extended beyond increasing voluntary compliance, so that each taxpayer to understand the purpose of taxation (Tudor, 2011) and to act accordingly to the content of micro and macro fiscal decisions (Brand, 2000).

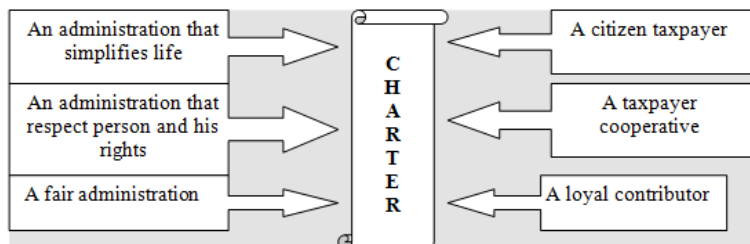
4. The relevance of taxpayer charter

Taxpayer charter presents clearly and synthetic, the rights and obligations of taxpayers to tax administration and tax administration rights and obligations on taxpayers (Taxpayer Charter, 2012).

Taxpayer charter has its source in the constitutional provisions on public contributions through taxes and a fair distribution of tax burdens.

In a symmetrical and balanced, taxpayer charter present:

Figure 1: Defining elements of the taxpayer charter



Source: <http://static.anaf.ro/static/10/Anaf/.../CARTA%20CONTRIBUABILULUI.10.03.2010.pdf>

The fiscal administration is intended to be *an administration that simplifies life taxpayers* through: the existence of available and identify officials; establish commitments to facilitate the declaration and payment of tax; communication made by modern means: listening the taxpayer wishes to correct any errors; provide a fair treatment during the fiscal control, using a language clear and understandable; providing information materials to support the steps taken by the taxpayers; support the establishment of business; support in completing tax returns; providing online services for the declaration and payment; a reasonable application of a sanction.

A *citizen taxpayer* is a taxpayer that: recognizes the legitimacy of the principle of taxation; is aware of the obligations it has; submit tax returns on time limits; pay obligations in legal terms; is reactive; help modernize procedures concerning the relationship with fiscal administration; recognizes the foundation of the fiscal control.

To give respect to the taxpayer and his rights, the tax administration: is presumed that the statements made by contributors are complete and accurate; is assume engagement to acts performed; provides explanation for

the correct application of law; respect taxpayer rights defined and guaranteed by law; facilitate understanding of decisions made; allows the taxpayer contesting decisions made; recognizes the importance of speed and effectiveness of tax administration action; protects the privacy of taxpayers; processing data and information through computer applications respecting the rights of taxpayers.

Cooperating taxpayer is the taxpayer who: manifest fairness and courtesy to tax officials; they behave in a responsible manner with the tax inspector; contribute to the smooth control operations; assumes responsibilities.

Law enforcement with neutrality, development activities with realism and impartiality, respect and understanding of the difficulties taxpayers, develop a clear decision, maintaining the partnership taxpayers - tax administration are the main elements that confer the tax administration, the nature of fair administration.

Loyalty to a taxpayer considers the information contained in tax returns, information which must be sincere, complete and in accordance with reality.

Without taking into account the number of rights and obligations which taxpayer they have, taxpayer charter has a critical role for civism taxation, if tax administration presents clear and concise his structure and responsibilities, vision, mission, core values and services (Bentley, 1995).

5. Effects of civism taxation in Romania

According to data presented by the National Agency for Tax Administration the revenues conducted to general consolidated budget in the year 2010 were in the amount of 141,288.10 million lei, increasing by 5.51% compared with 2009, respectively, with 0.54% compared to the program established by the Ministry of Finance, structure budgets being: state budget - 67% social security budget - 23%, the single national fund of health insurance - 9%, the unemployment insurance - 1% (National Tax Administration Agency, 2010).

In 2011, the structure of revenues earned, on budget components was: the state budget - 68%, social security budget - 22%, the single national fund of health insurance - 9%, the unemployment insurance - 1%., budgetary

revenues being collected in the amount of 37.146.8 million. (National Tax Administration Agency, 2011).

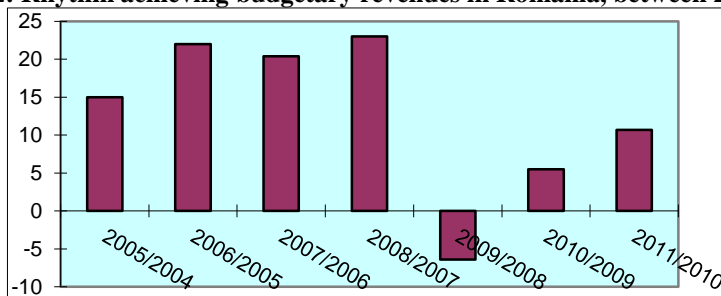
Table 1: Evolution of budgetary revenues in Romania, during 2005-2011

| Year | Budgetary revenues realized (million lei) | Rate over the previous year (%) |
|------|---|---------------------------------|
| 2005 | 79.306 | 15,0 |
| 2006 | 96.671 | 22,0 |
| 2007 | 116.407 | 20,4 |
| 2008 | 143.145 | 23,0 |
| 2009 | 133.915 | -6,4 |
| 2010 | 141.288 | 5,51 |
| 2011 | 157.503 | 10,7 |

Source: Performance Report of National Agency for Tax Administration, 2005-2011

Analyzing budgetary revenues realized in Romania during 2005-2011 (according to data presented in Table 1 and Figure 2) shows a decrease at the level of 2009, when it occurred, on the one hand a comprehensive reform of National Agency for Tax Administration, and on the other hand, there were many businesses in financial difficulty.

Figure 2: Rhythm achieving budgetary revenues in Romania, between 2005-2011



Source: Performance Report of National Agency for Tax Administration, 2005-2011

Based on two fundamental principles (equal to the tax payers and collection efficiency of revenues), the three priority guidelines for the fulfillment of National Agency for Tax Administration are: voluntary compliance, fraud control, efficiency and effectiveness in collecting taxes and contributions (<http://www.anaf.ro/public/wps/portal/ANAF/Prezentare>).

As the degree of voluntary compliance in reporting and payment of individuals and businesses, its evolution in Romania, between 2006 - 2011 (according to data presented in Table 2 and Figure 3) was recorded below of most EU Member States (respectively of 95%).

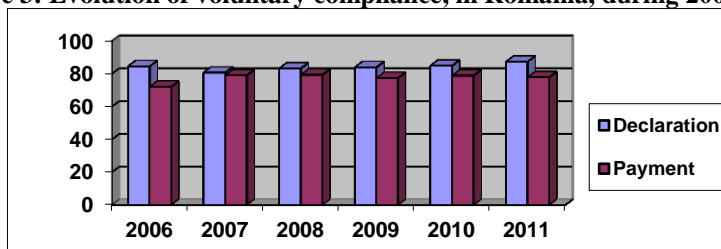
Table 2: Degree of voluntary compliance, in Romania, during 2006-2011

| Year | Voluntary compliance at: | |
|------|--------------------------|--------------------|
| | Declaration | Payment (in value) |
| 2006 | 84,5 | 72,1 |
| 2007 | 80,7 | 79,0 |
| 2008 | 83,2 | 79,4 |
| 2009 | 83,9 | 77,4 |
| 2010 | 84,6 | 78,9 |
| 2011 | 87,3 | 77,9 |

Source: Performance Report of National Agency for Tax Administration, 2006-2011

Although in the period 2006-2011, the degree of voluntary compliance in Romania increased by 2.8 percentage points for declaration and by 5.8 percentage points for payment, the degree of voluntary compliance in payment of tax is 10.77% more lower than the degree of voluntary compliance in tax obligations declaration, in the year 2011.

Figure 3: Evolution of voluntary compliance, in Romania, during 2006-2011



Source: Performance Report of National Agency for Tax Administration, 2006-2011

6. Conclusions

The theoretical and pragmatic coordinates presented in accordance with civism taxation, highlight the need to increase voluntary compliance, so, it must be taken further measures to improve the assistance provided to

taxpayers and to simplify procedures and measures to help financially distressed taxpayers.

Measures taken to improve assistance provided taxpayers should lead to: simplification of declarative system by reducing the number of statements, development information systems in order to increase online filing of statements, the expansion of implementation the National Electronic Payments System on-line, implementation of courses of action contained in the compliance strategy risks.

Measures to be taken to support financially distressed taxpayers are: providing rescheduling, cancellation or reduction of interest on outstanding obligations related delay, change the order of distribution and extinction of tax liability, so that payments made by taxpayers should settle first major tax claims.

Also, for non-paying category taxpayers, fiscal institutions must continue to apply enforcement measures (attachment of cash from bank accounts, attachment of income from third parties, putting liens on movable property, attachment of immovable property).

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THE ROMANIAN VILLAGE IN THE CONTEXT OF ITS TRADITIONAL ISSUES AND OF THE PRESENT GLOBAL CRISIS

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Abstract

It is obvious that nowadays the Romanian village is confronted with major transformations. As a fundamental social and economic entity, it accumulated, over the centuries, a large series of important issues. Especially "the peasant issue", which took shape at the beginning of the XIXth century, is still influencing the evolution of the rural world, being present with both its dimensions. The aim of this paper is to present how the land issue continues to play a crucial role in the non-profitable Romanian agriculture, obstructing the exploitation of its considerable potential. This aspect is far more complex as we are still passing through a difficult economic crisis, not to speak of the world food crisis.

Key words: agriculture, land use, agricultural exploitation

JEL classification: Q 15; R 14; R 52

1. The Law No. 18/1991 on the Land Resources. Premise Shaping the New "Peasant Issue".

In the new context created after 1989, the legal framework favoured the return to a pluralism of forms of property, established when the much-debated Law No. 18/1991 (The Law No. 18/1991, Monitorul Oficial, No. 37 from 20/02/1991) was adopted. Besides other aspects, the aforementioned law brought about the reform of Romanian agriculture by restoring the right to

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private property over land, along with other changes. Thus, based on article 8, the Law on Land Resources stipulated the "establishment of private property right on the land which is in the agricultural production cooperatives' property [...] by reconstituting the property right or by constituting this right" (The Law No. 18/1991, Monitorul Oficial, No. 37 from 20/02/1991).

Besides reconstituting/constituting a fundamental right, the law also contained a limitation of this right, the property title being issued "within the limit of a minimum area of 0.5 ha for each entitled person [...] and a maximum of 10 ha per family, in arable equivalent" (The Law No. 18/1991, Monitorul Oficial, No. 37 from 20/02/1991).

Not only arable lands represented the focus of this law, but also other assets belonging to the former agricultural production cooperatives. Thus, article 28 referred to "the agricultural and zootechnic constructions, small-industry workshops, machines, tools, and other similar fixed assets that belonged to the wound-up agricultural production cooperatives, as well as the underlying ground and the land required for their normal use, vine-growing and fruit-growing plantations, and the animals" (The Law No. 18/1991, Monitorul Oficial, No. 37 from 20/02/1991). All these categories were to become the "property of the members of private type associations with legal personality, if they were set up" (The Law No. 18/1991, Monitorul Oficial, No. 37 from 20/02/1991).

The condition mentioned above becomes even more relevant since the law further stipulated that if no such private type associations were set up, the respective assets were to be sold by public auctions to natural or juristic persons or were to be transferred in the private property of the communes, towns, and municipalities where they were situated falling under the mayoralties' management (provided that they were not sold within a year after the winding-up date of the agricultural production cooperatives).

At first glance, the provisions of article 28 seem innocuous. Nevertheless, they proved detrimental, indicating a profound ignorance and negligence concerning the property of the former agricultural production cooperatives, and representing the starting point for the winding-up/dissolving of the material assets of the entire Romanian agriculture. Therefore, the lack of strict measures regarding the preservation of this considerable capital, accounted for its alienation / liquidation, depriving the new owners of the much needed tools required to work the land they had recently gained.

These are just a few of the elements which turned the Law on the Land Resources into an extremely sensitive and controversial topic. Undoubtedly, the focus of the law was the act of justice. Equally true, though, is the fact that the text of the law, as well as its subsequent amendments, contained numerous inaccuracies, proving a total lack of vision regarding the evolution of the village/agriculture, allowing for a series of interpretations and circumventions, which, amongst others, led to major controversies.

As a matter of fact, the new agrarian law did not contribute to solving the precarious state of the Romanian village, but it revived the former complex "peasant issue" which had a two-fold dimension: agrarian and agricultural. In this respect, the decentralisation of Romanian agriculture and putting entitled persons into possession caused, once more, the parcelling of land resources and consequently made it impossible to have an efficient agriculture. In addition, one must remark the incomplete nature of the law which aimed mainly at retrocession and less at other, equally important, aspects.

Thus, the law made no reference to subsidizing/assisting farmers in order to exploit the land resource; from this point of view, it is perfectly justified to conclude that although the law established the farmers' property right over land, paradoxically, it also intervened in this matter since farmers found themselves deprived of not only technology, financial resources, and a market, but also specialized assistance (Pasti, 1996).

The effects of the 1991 Law soon became apparent, being among the most negative; to mention just a few: the extreme parcelling of agricultural land; the poor utilization of agricultural land owing to the lack of technical means and other resources; the increase in uncultivated land; compromising the system of irrigations; destroying the technical and material assets and in doing so compromising the mechanization of agriculture. In broad terms, this was the context in which, immediately after 1990, an ample process of degradation of agriculture and the rural world in Romania.

2. The Number of Agricultural Exploitations.

The 1991 Law on the Land Resources brought into discussion an extremely sensitive socio-economic issue, namely the issue of property over land. On the one hand, we witnessed a just action: the restitution of formerly collectivized properties. On the other hand, the process of retrocession had negative consequences, reflected mainly in the extreme parcelling of the land

resources. Thus, reconstituting/constituting the property right triggered the fragmentation of land, a tendency illustrated by statistical data.

In fact, with the 1991 Law, Romanian agriculture returned to a pluralism of forms of property, the arable land from our country being part of individual farmsteads, agricultural societies with legal personality, family associations and agricultural joint-stock companies (the former State Agricultural Enterprises).

The absence of certain regulations meant that returning to this pluralism of forms of property, mainly private property, represented the starting point of numerous problems related to the characteristics of land resource distribution.

Concerning the overall situation, analysis indicates that in 2000 (ten years after the law came into action) there was a total of 4,129,958 agricultural units in Romania. As concerns their legal status, one can remark a series of discrepancies related to the distribution of land resources per various categories of agricultural units. Thus, according to the same statistics (2000), at that moment, individual agricultural farmsteads represented the main percentage, the 4,119,631 individual exploitations representing an overwhelming percentage of 99.75% of the total exploitations.

Family associations came next, though far less numerous, with a number of 6,264 exploitations, namely 0.15% of the total. Concerning agricultural societies with legal personality, there were 3,573 such forms of organization of agricultural production, namely 0.09%. The smallest number of agricultural exploitations was represented by the agricultural joint-stock companies; the 490 exploitations belonging to this category represented only 0.01% of the total land resources properties.

The figures above illustrated the supremacy of private property in de-collectivized Romanian agriculture. Individual agricultural exploitations, agricultural societies with legal personality and family associations, all of which constituted the private sector of the Romanian agriculture, represented 78.9% of the total arable land of Romania and 99.9% of the total number of exploitations registered in 1999.

Table 1. Agricultural production according to organization structure (2000).

| Property forms | Number of properties | % from the total of properties | Agricultural surface (thousands ha) | % from the total of the agricultural surface | The average surface |
|---|-----------------------------|---------------------------------------|--|---|----------------------------|
| Individual agricultural farmsteads | 4,119,631 | 99.75 | 9,377,299 | 63.4 | 2,28 |
| Agricultural societies with legal personality | 3,573 | 0.09 | 1,415,539 | 9.6 | 396 |
| Family associations | 6,264 | 0.15 | 868,809 | 5.9 | 139 |
| Agricultural joint-stock companies (former State Agricultural Enterprises) | 490 | 0.01 | 1,658,338 | 11.2 | 3,384 |

Source: Popescu, M. (2001)

Compared with the figures available for 2000, the data from the General Agricultural Census of 2002, as well as those from the Agricultural Structure Surveys for 2005 and 2007 bring a series of necessary additional points. Thus, from the perspective of numbers, compared to 2000, in 2002 there were 4,484,893 agricultural exploitations registered. No substantial changes can be noticed even in the following period, if in 2005 the total number of agricultural units increased to 4,256,152, in 2007 it decreased to 3,931,350 exploitations.

From the perspective of the legal status of agricultural exploitations, one can notice that individual agricultural exploitations are the predominant ones with a number of 4,462,221 which constituted 99.49% of the total exploitations registered in 2002. The same situation is encountered in 2005

and 2007. More precisely, in 2005 the 4,237,889 individual farmsteads constituted 99.57% of the total exploitations whereas in 2007 the 3,913,651 units represented 99.54% of the total.

As regards the agricultural units with legal personality, numbers demonstrate that, at the level of Romanian agriculture, they represent a modest contribution. If in 2002 this category counted 22,672 units which represented 0.51% of the total exploitations, over the next period there was a decreasing trend. Thus, in 2005 their number decreased to 18,263 (0.43% of the total), in 2007 statistical data revealed the existence of 17,699 such units (0.46% of the total).

Among exploitations with legal personality, the predominant ones, numerically, were the joint-stock companies (6,138 in 2002; 4,824 in 2005; 5,147 in 2007, namely 27.07%; 24.41%; 29.08% of the total), but also public administration units (5,698 in 2002; 4,818 in 2005; 4,177 in 2007, namely 25.13%; 26.38%; 26.60%).

Table 2. Classification of agricultural exploitations according to legal status (2002; 2005; 2007).

| The legal status of agricultural exploitations | 2002 | 2005 | 2007 |
|---|------------------|------------------|------------------|
| Individual agricultural exploitations | 4,462,221 | 4,237,889 | 3,913,651 |
| Units with legal personality (among which) | 22,672 | 18,263 | 17,699 |
| Societies / Agricultural associations | 2,261 | 1,630 | 1,475 |
| Joint-stock companies | 6,138 | 4,824 | 5,147 |
| Public administration units | 5,698 | 4,818 | 4,177 |
| Cooperative type units | 87 | 108 | 71 |
| Other types | 8,488 | 6,883 | 6,829 |
| Total | 4,484,893 | 4,256,152 | 3,931,350 |

Source: The Statistic Annuary of Romania, 2008.

Table 3. Agricultural exploitations, arable land used and the average arable land used per agricultural exploitation according to the legal status of agricultural units (2002; 2005; 2007).

| Legal status of the agricultural units | The arable land used (ha) | | | The average arable land used per agricultural exploitation (ha) | | |
|--|---------------------------|-------------------|-------------------|---|------------|------------|
| | 2002 | 2005 | 2007 | 2002 | 2005 | 2007 |
| Individual agricultural exploitations | 7,708,757,6 1 | 9,102,018,2 2 | 8,966,308,5 5 | 1,73 | 2,15 | 2,29 |
| Units with legal personality (among which): | | | | | | |
| | 6,221,952,4 9 | 4,804,683,0 6 | 4,786,737,9 4 | 274,4 3 | 263,0 8 | 270,4 5 |
| Agricultural associations | 975,564,26 | 742,065,39 | 615,896,92 | 431,4 7 | 455,2 5 | 417,5 6 |
| Joint-stock companies | 2,168,792,0 3 | 1,780,787,8 4 | 1,951,114,5 9 | 353,3 4 | 369,1 5 | 379,0 8 |
| Public administrati on units | 2,867,368,4 1 | 2,124,736,6 3 | 1,872,193,7 6 | 503,2 2 | 441,0 0 | 448,2 1 |
| Cooperative type units | 2,365,14 | 3,246,42 | 15,088,11 | 27,19 | 30,06 | 212,5 1 |
| Other types | 207,862,65 | 153,846,78 | 332,444,56 | 24,49 | 22,35 | 48,68 |
| Total | 13,930,710, 10 | 13,906,701, 28 | 13,753,046, 49 | 3,11 | 3,27 | 3,50 |

Source: The Statistic Annuary of Romania, 2008.

3. The size of agricultural exploitations.

The extreme parcelling of the land coupled with the issue of the actual size of the agricultural exploitations. Using 2000 as the reference year, it became apparent that Romanian agriculture was dominated by farmsteads of 1

– 5 ha with 2,037,471 such units, namely 49.32% of the total exploitations. As concerns the area, the 1 – 5 ha exploitations occupied 5,448,334 ha, namely 40.90% of the total area. Equally well represented was the category of agricultural exploitations below 1 ha. In this respect, statistical data reveal a number of 1,619,482 exploitations below 1 ha, namely 39.21% of the total, which exploited 7.23% of the total arable land, more precisely 962,427 ha. The following category includes agricultural units of 5 – 10 ha. Although less numerous, the 448,147 exploitations, 10.86% of the total, exploited a consistent agricultural area, more precisely 2,801,778 ha, 21.03% of the total area.

As concerns average size exploitations, these were almost inexistent. Thus, the 14,970 exploitations of 10 – 50 ha constituted only 0.37% of the total agricultural units. Equally limited was the land exploited by these units, the 183,867 ha represented 1.38% of the agricultural land.

As concerns large exploitations, over 50 ha, they had the weakest representation within the structure of agricultural exploitations. There were approximately 9,886 such units, which meant a modest 0.24% of the total exploitations. Despite this fact, agricultural units over 50 ha exploited a significant part of the arable land, the 3,923,579 ha exploited by large units represented 29.46% of the total, namely a third of the agricultural land.

Equally interesting is the study of the average surface allotted to each category of agricultural exploitations. From this point of view, one can remark the two ends of the cline, on the one hand, exploitations below 1 ha, with an average surface of 0.59 ha, and, on the other hand, exploitations over 50 ha, with an average surface of 396.88 ha. A smaller average surface, of only 2.67 ha can be found in the case of exploitations of 1 – 5 ha. Agricultural units of 5 – 10 ha had a relatively similar situation, the average of such an exploitation being of 6.25 ha. A different situation is encountered in the case of average size exploitations, in their situation, the average was 44.89 ha / exploitation. Taking into consideration all these numbers, one can conclude that, at the end of 1999, in Romanian agriculture, the average surface per agricultural exploitation was of 3.22 ha.

Table 4. Structure of agricultural exploitations according to size group, 2000.

| Group size (ha) | Number of agricultural exploitations | % from the total number of exploitations | Surface (ha) | % from the total of arable land | The average surface (ha) |
|------------------------|---|---|---------------------|--|---------------------------------|
| Sub 1 ha | 1,619,482 | 39.21 | 962,427 | 7.23 | 0,59 |
| 1-5 | 2,037,471 | 49.32 | 5,448,334 | 40.90 | 2,67 |
| 5-10 | 448,147 | 10.86 | 2,801,778 | 21.03 | 6,25 |
| 10-50 | 14,970 | 0.37 | 183,867 | 1.38 | 44,89 |
| Peste 50 | 9,886 | 0.24 | 3,923,579 | 29.46 | 396,88 |
| Total | 4,129,956 | 100.00 | 13,319,985 | 100.00 | 3,22 |

Source: Popescu, M. (2001)

Table 5. Agricultural exploitations according to size of arable land used (2002; 2005; 2007).

| Group size (ha) | Total | | |
|---|--------------|-------------|-------------|
| | 2002 | 2005 | 2007 |
| Under 1 ha | 2,169,257 | 1,851,835 | 1,685,500 |
| 1-5 | 1,850,286 | 1,883,983 | 1,765,660 |
| 5-10 | 218,880 | 289,575 | 299,996 |
| 10-50 | 46,885 | 82,024 | 86,235 |
| 50-100 | 3,850 | 4,939 | 4,791 |
| Peste 100 | 10,203 | 8,891 | 9,608 |
| Agricultural exploitation using arable land (total number) | 4,299,361 | 4,121,247 | 3,851,790 |
| Agricultural exploitations (total number) | 4,484,893 | 4,256,152 | 3,931,350 |

Source: The Statistic Annuary of Romania, 2008.

A relatively similar distribution of the land resource can be encountered in the statistics on agriculture following the year 2000. Both the General Agricultural Census of 2002 and the Structural Enquiries in Agriculture of 2005 and 2007 highlighted, without doubt, the predominance of small property, the gap between this and the rest of the categories being

significant. Small property is the leading category since, out of the total exploitations, the 1 – 10 ha ones, 4,238,423 (2002); 4,040,393 (2005) and 3,751,156 (2007) constituted 94.50% in 2002, 94.93% in 2005, and 95.41% in 2007 of the total exploitations.

Compared with 2000, the same sources indicate a significant increase in importance of average size farmsteads, the number of units of 10 – 50 ha increasing from 14,970 in 2000 to 46,885 (2002), 82,024 (2005), and 86,235 (2007). Despite the ascending trend, relative to the total, average size property continues to remain a modest presence in the Romanian village (1.04% in 2002; 1.92% in 2005, and 2.19% in 2007 of the total agricultural exploitations.

Compared with 2000, the large size land property recorded, in its turn, a series of increases (from 4,886 exploitations in 2000, to 14,053 in 2002, 13,890 in 2005, and 14,399 in 2007). Nevertheless, according to statistical data, large size property has the least representation in Romanian agriculture (0.31% in 2002; 0.32% in 2005, and 0.36 in 2007).

Some conclusions: The 1989 Revolution and the decades after brought forth the opportunity of revival, former traditional rural economic problems, including the "peasant issue", being revived and revealing even today new facets. The land issue and the controversial distribution of rural property caused the fragmentation of agricultural exploitations, the small size of rural property and the extreme parcelling of the land (along with a multitude of other factors) making of the Romanian agriculture not a motor generator of wealth but a perpetual source of crisis.

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CHANGES AND CHALLENGES OF THE CONTEMPORARY KNOWLEDGE BASED ECONOMY

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Abstract

This paper aims to present the knowledge based economy as a pillar of the knowledge society, due to the fact that in the past decades there has been a series of transitions of the global economy from the development based on traditional factors to a knowledge based economy, in which intangible goods are of vital importance.

Key words: *tangible assets, intangible assets, knowledge based economy, innovation, knowledge revolution*

JEL classification: M21

From the oldest times, wealth and power have been associated to owning physical resources. The traditional production factors were predominantly physical. This is why the necessity to have knowledge was limited. However, in the future we witness a slightly different situation. In the society of knowledge. the world of ideas becomes a priority in connection to the world of tangible objects, and the intellectual capital becomes prominent in the context of all other physical forms of capital.

As a confirmation to the famous saying “knowledge means power”, the knowledge society represents the high point of the development of human society, in which knowledge is the central resource of the economy – through its capacity to substitute through some kind of specific “alchemy” the

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materials, transports, energy, time or space, the final and the highest fundamental source of power – succeeding to the other two sources that have marked the development of human society: violence (force) – converted progressively in law, and wealth (money) – transposed, in its turn, into knowledge. (Ogrean, 2007)

Ever since the year 1969, Peter Drucker, the brightest mind in economics, according to specialists, has warned about the emergence of a new economy. In his paper entitled “The Age of Discontinuity” (Drucker 1969), he predicted the coming of the “knowledge worker”. And, while the Industrial Revolution meant a huge increase of productivity by the replacement of the people in the process of goods manufacturing with automated machines, which led to the increase of the quality of life, nowadays, in the 21st century, we are in a full period of knowledge revolution, the result of which is the efficient “knowledge based economy”, where wealth and power come mainly from intangible intellectual resources.

The revolution of knowledge is one of the tendencies of the past decades, revolution which is now only at the beginning. The undisputed existence of a knowledge economy is reflected in the practical approach, but also scientific approach of organizations.

The debates that took place in the World SME Convention WASME which was organized in Bucharest between 15 – 18 May 2005, and had as a central theme the “Internationalization and evolution to the knowledge based economy” have reconfirmed the fact that currently, at a global level, and especially in the developed countries, takes place a knowledge revolution.

In essence, the knowledge revolution refers to the fundamental transition from the economy based mainly on physical resources to the economy based mainly on knowledge. (Bogdan, 2009)

According to the opinion of specialists (Nicolescu, 2003), knowledge revolution leads to essential changes in all fields of economic life. The impact of the knowledge revolution becomes visible in the volatility of the market, the incertitude regarding the direction of economic activity, the instability of work places etc. The result of the knowledge revolution is the knowledge based economy. It is believed that in the first part of the 21st century, the knowledge revolution will be more intense and, as a result, the knowledge economy will spread fast into the developed area of mankind.

The main causes of this process are considered to be the following:

- the complexity of change;

- the multitude and heterogeneity of economies (e.g.: the digital and electronic economy);
- the diversification of economic branches, regions and companies;
- the different degree and nature of the education, information, objectives, resources etc.

At a worldwide level, the stock of knowledge is growing faster than in the past. At the same time, there takes place a reduction of dependence on classical resources, with an increase in importance of knowledge as main capital of the organization. For example, in the USA there has been a decrease by 20% of tangible assets in order to produce sales of one USD, as compared to a quarter of a century ago.

OCDE (OCDE 1996) has formulated, through its specialists, the following definition of the knowledge based economy: the economy based directly on the production, distribution and usage of knowledge and information.

The new economy is an economy which creates, distributes and makes use of knowledge, all these in order to increase its quantity and complexity.

Therefore, in the new context, knowledge has the following economic roles or functions (Nicolescu, 2005): raw material, production factor, finite product, capital, without which the new economy could not work.

- As raw material, knowledge takes part to a large extent to obtaining modern products. It is obvious, for instance, that building a computer does not require only metal, plastic, or other materials, but also much knowledge. Furthermore, in the value of the products, knowledge has the largest share.
- The function of production factor refers to the participation of knowledge together with the other classical production factors to all the stages of production, starting with obtaining raw material, their processing and ending with selling the resulting product.
- However, to the same extent, knowledge represents also a finite, self existing product. The best known forms of knowledge are software, technical projects, patents, quality standards, analyses and studies of management and marketing etc.
- The function of capital resides in the fact that, in modern organizations, knowledge tends to have an increasingly larger share and present value which is expressed financially.

It is well-known the fact that, within the Lisbon Council from March 2000, the EU (CE2005) launched a set of objectives for the following 10 years, which can be reached through implementing the support of structural reforms, involved in accomplishing the general strategic aims: transforming the EU in the most competitive and dynamic economy in the world, based on knowledge, capable of constant economic growth, with better and more numerous work places and a higher social cohesion.

One of the specialists in the field (Ulseem, 2001) has formulated a set of principles referring to the new knowledge based economy, principles that bring extra knowledge and systemisation and which we hereby present:

- The value of the organization is determined mainly by the value of the intangible assets

In other words, value is represented mainly by its knowledge workers, the ideas and information they have, which become the main assets of the company.

- The importance and importance of geographical distance on the localisation and organization of businesses has decreased largely in the past periods.

Currently, the communication of the organization with its clients and suppliers, regardless of their position on the globe, can be done instantaneously. Therefore, the strategic implication of geography in the economic activities has lost its relevance.

- The time periods necessary to innovating and penetrating innovations have contracted considerably

The knowledge based economy places on higher grounds innovation and its process. Innovation represents the process of creating new products, services, technologies and management and marketing processes. As Peter F. Drucker showed: “The strategies of capitalizing on the entrepreneurial spirit are as important as innovation oriented towards a purpose and management based on the entrepreneurial spirit. Together, the three constitute innovation and entrepreneurship”(Drucker, 2000).

Renowned specialists (Kotler, 1997) believe more and more that within the new type of economy, markets are more competitive. The third millennium, from this point of view, faces organization with numerous problems, but very few solutions, which is why the great contemporary scholars draw attention to the fact that the transition through these evolutions can be done only through innovation – through transforming inventions from a

mere idea, to a continuous production of new performances. In the specialized literature (Dinu, 2006) it is considered that a sustained process of economic growth exists only if the number of new and applied ideas is increasing over several periods.

The speed of renewing knowledge, products, technologies etc. has increased considerably. Consequently, innovations take place more rapidly, spread with a higher speed, and the importance of time decreases. For instance, the access to the world wide web of more than half of the global population has required only 5 years.

- Knowledge owners represent the most valuable asset of a country or organization;

In the context of the knowledge based economy, human resources become more and more important and complex than in previous economic systems. The new competitive advantage and the new hurdle for the organizations of the 21st century is represented by the knowledge of the human resources (Chan, 2002). Undoubtedly, as business evolve from the industrial to the informational age, the knowledge and experience of the employees become the most valued advantages of a company. The foundation of success in competitions is not represented by proprieties or products, but mainly of valuable people.

The continuous education and training of the human capital as carrier of knowledge represents a great necessity for the progress of the organization. The manners to do this are varied, adaptable to the benefit and orientation in the HR policy of each organization and materializes in the following: training/education at the work place, resorting to education institutions or specialized training organizations, programs of continuous learning, used for creating specialists or temporary ones, involving clear periods of preparation and the more and more present programs used in the company, which are “on the spot” with a determining role in remodelling the culture of the organization.

- The acceleration of the economic development and increase through using computer networks

Creating networks within the company, which integrate economic agents of various sizes, oriented towards value, generates a fast economic growth. Through these networks, the speed of the technical, human and economic flows, grows immensely, often generating explosive economic effects.

- The value of products increases exponentially with the value of the market segment where the company is active

If recently, the more rare a product was, the higher value it had, nowadays the situation is different, meaning that the volume of certain products is amplified differently: the more they have a larger market share, the higher their value. An example would be in the case of cell phones, the more numerous they are, the higher their value and utility, due to the network effect.

- The importance of the intermediate levels in the economy is greatly amplified

The occurrence of a category of intermediaries is corresponding to the current transition towards the knowledge based economy. They are cold info-intermediaries and they contribute to the transformation of data in useful information and even knowledge. It is obvious that the amplification of the volume and complexity of information and knowledge determines a fast growth of the number of info-intermediaries and their impact on the functionality and performance of the economy.

- Buyers have a greater power, and sellers have new opportunities

With an intelligent software and a simple click, buyers have the possibility to obtain quickly the information regarding the best products, at the most convenient prices. Therefore, they have the possibility to opt for the desired product or service and to obtain it quickly. At the same time, new opportunities are created for the sellers, as they acquire detailed information on the market and know very well at which prices they have to sell.

- The transaction of businesses and services becomes more and more individualized

The fast and cheap access to information regarding the specific requirements of clients is reflected in the fabrication and selling of products according to the express requirements of the clients. This ensures an increased personalization of the offer of products, which leads to a substantial decrease of stocks and stalling times in the economic processes.

- The increase of availability of all products

In the context of the new economy, which requires the operation with new concepts and theories, the development of economic commerce is a reality of the past.

The development of electronic commerce was possible due to a very important aspect in the separation of the traditional commerce from the electronic one, which is the time needed for the commercial transaction.

Electronic commerce reduces the importance of time by shortening the production/selling cycles, allowing companies to have a more efficient operation and consumers to take part in transactions at all times.

Although the benefits of the knowledge based economy are huge, and can lead to the increase of the quality of life, of the living standards, eliminating poverty, reducing the pollution of the environment, and many other, the transition to the knowledge based economy can generate also threats for organisations, as follows (Tîtu, 2009):

- a decrease in the demand for many traditional products and services;
- creating new, very expensive and advanced equipment and technologies, which condition the survival of the companies;
- the acceleration of the rhythm of moral degradation of the equipment used by companies, which makes it necessary to change them after 2-3 years;
- the increase of the necessary financial resources to create and/or modernize companies, especially in the industry, agriculture, construction, transport or services;
- the great competition among transnational companies for most of the products, and of large companies on local and traditional markets;
- the migration of very good specialists from the small companies to the large and transnational ones, which offer them better working conditions and salaries. The capitalization upon the opportunities, and elimination of threats by organizations requires major actions on multiple levels, which require reunited efforts of entrepreneurs and the other organizations of the business persons and national governments, organizations and international authorities.

The state has a major role in the knowledge based economy, which refers to promoting public policies which stimulate investments in the sector of R&D&I, considered the engine of the development of this type of economy.

In the opinion of specialists (Bogdan, 2007), the research activity, in the context of the knowledge based economy, organization and management, becomes decisive, for organizations and for people and individuals alike. It also employs more and greater resources, and especially time. Scientific research must produce effects that compensate these efforts and lead to an increase in value for the organization and for its participants, therefore being stimulatory for all those involved.

Furthermore, on an economic level, productivity and competitiveness will increase based on the level of knowledge. The general reconsideration of

the economic system, through an immense innovative effort leading to the knowledge based economy, is therefore a characteristic of the 21st century.

By launching the National Strategy in the field of Research-Development and Innovation, Romania presents its political decision to create a knowledge based economy, open to value and international competition, which would ensure a harmonious economic and social development. The strategy has as objective the overcoming of the existing gaps with the other European countries, and prepare the RDI system in Romania to identify and consolidate, through international connections, partnership and competition, those areas in which Romania can excel.

The strategy comprises a list of 25 priorities grouped according to 8 domains, described in this document as priorities of the public investment in research (Brătianu ; Curaj, 2007). The basic principles in the field of RDI are:

- evaluation of policies, programs, projects;
- international evaluation of public institutions (universities and research centers);
- the coordination between institutional financing and performance;
- the advancement in the career based on internationally recognized performances;
- supporting the mobility of researchers; attracting young PhD students, post-doctoral students,
as well as experienced, valuable researchers, regardless of nationality;
- the intensification of scientific and collaboration links with the Romanian scientific Diaspora;
- the development of international collaboration and supporting the participation in programs and projects;
- supporting innovation, also through the increase of the public demand for innovation;
- the increase of the state aids for supporting innovation;
- permanent dialogue with society.

We believe that, although the main resource of the new economy is knowledge – intangible resources, the tangible resources, which are limited, should not be overlooked, but, on the contrary, used to identify new manners of protection and conservation of the environmental resources. The new economy, the environmental economy, promotes economic increase in the context of increased protection of the environment, accelerating the reduction

of physical consumption and favouring the usage of information and knowledge, shifting the importance from investment into fixed assets to investment in human capital.

Conclusions

The obvious reality of our days is the coming of a new type of economy, an economy very different from the industrial one or from the post-industrial one, one that already is functioning in the more developed areas of the world economy in the past decades. The world we live in is marked by the fast evolutions of technology and efficiency, is the world in which information means power. Market globalisation, technical and technological revolutions are transforming the contemporary economy into what specialists call knowledge based economy, in which the business world is characterized by new types of organisation, which requires developing competences and generalizing the advanced technologies, thorough knowledge and a higher responsibility. Nowadays, in the context of the knowledge based economy, the competitive edge is obtained through science, through the widespread use of knowledge, through innovation and qualified workforce.

In the future, the differences between rich and less rich countries will not reflect in the owning and using the classical production factors, but will be represented by the production, access to and usage of knowledge. The great scholar, Peter Drucker (1993), claimed that "What we now mean by knowledge is information effective in action, information focused on results. These results are seen outside the person - in society and economy, or in the advancement of knowledge itself."

In the new knowledge economy, the role of the state becomes crucial due to the fact that economic competitiveness cannot be stimulated without investments in research – development – innovation.

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WOODS, THE MOST COMPLEX TERRESTRIAL ECOSISTEM

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Abstract

A forest ecosystem is a terrestrial unit of living organisms (plants, animals and microorganisms), all interacting among themselves and with the environment (soil, climate, water and light) in which they live. The environmental "common denominator" of that forest ecological community is a tree, who most faithfully obeys the ecological cycles of energy, water, carbon and nutrients.

A forest ecosystem would be considered having boundaries and would include a forest of trees out to the limit of tree growth. Remember that forests are not the only ecosystems. There are hundreds of thousands of defined and undefined ecosystems that can cover the broadest to the tiniest of areas. An ecosystem can be as small as a pond or a dead tree, or as large as the Earth itself.

Key words: forest, biodiversity, ecological

JEL classification: Q 19

1. Introduction

Ecological addressed, the main components of the forest (the most complex terrestrial ecosystem) are:

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- forest biocoenosis which is composed of all living organisms (plants and animals) that inhabit the forest, forming with it a whole.
- biota is the limited environment in which living organisms that inhabit the forest inhabit the relatively homogeneous conditions.

2. Body text

Biocoenosis is supraindividual level of organization of living matter and describes all living organisms, vegetable (phytocoenosis) and animals (zoocoenosis) that interact and coexist in a given environment (in the case presented - forest environment), forming with it a whole and is in a dynamic equilibrium dependent on that environment. It is characterized by a certain model structure and operation time of circulation of matter, energy and information.

Biotope covers all abiotic environmental factors in the biocoenosis evolves (grows, it experiences) and which has close links: substrate litho logy, soil, wind, precipitation, humidity, heat, etc.. Biotope includes all the relationships between environmental factors.

Ecosystem is a function and organization unit of the ecosphere, consisting of biota, biocenosis and the relationship between them, capable of biological productivity.

It is estimated that specific forest biocoenosis forests in Romania include over 200 species of woody, herbaceous species around 1000 and many other species of mosses, lichens, fungus, algae, bacteria, parasitic plants and semiparasitic plants, and a countless number of animals (mammals, birds, reptiles, fish, animal organisms) (after Doniță and others 1992).

The biotope of the forest ecosystem, in turn, consists of several components, among which the most important are:

Soil - is the top, loose, land cover, from which plants derive their water and nutrients necessary for physiological processes and the environment in which they landed. The soil is the living environment for some animals. By its structural characteristics (cohesion, compactness, grain size), quantity (depth) and quality (content of water, air, humus, nitrogen, potassium, calcium, etc..) It plays a critical role, existence and evolution of biocenoses and forest ecosystems, and could significantly impact them. (Florescu, 2003)

Atmosphere - is the medium in which plants develop the air and the specific animals inhabit most forest ecosystems (except fish, some organisms, etc.). Role in forest ecosystems atmosphere is significant, it may influence other components there of by: cloudiness, heat, concentrations of chemicals vital as water, oxygen or carbon dioxide and other chemical concentrations (nitrogen compounds, of sulfur and other polluting chemicals, etc.), speed and direction of movement of air masses), the nature and amount of precipitation, etc..

Orographic factors - by components such as altitude, slope, exhibition ground, closely related to geographical location (latitude and longitude marked), can significantly influence the structural and qualitative characteristics of forest biocoenoses both directly and indirectly through their influence on components and characteristics of the biotope. (Pârvu C., 2001)

In the forest ecosystem, its components, although with great heterogeneity belonging to two systems (one organic and one anorganic), however, reacts after a definite order, based on the exchange of matter, energy and information, forming connections during development interspecific complex of great importance for both components and the system's full, which ultimately increases its integrity. Forest ecosystem components interact with other systems in a uniform way, they are subordinated to the whole system and not just an element of the system.

Compared to other terrestrial or aquatic ecosystems, forest ecosystems are able to achieve, overall, superior internal organization, which is reflected by the integrity, ability of self and enhanced regenerative capacity.

The most suggestive that this organization is mirrored forest ecosystem is a complex material flow, and improved circuit formed during the evolution of these ecosystems.

Forestry zoocenosis and the forest

Of all terrestrial forests hosting the rich and varied number of animal species (mammals, birds, reptiles, fish, animal organisms). (Blaj R., 2009)

Analyzing the influence of forest ecosystems on zoocenosis can distinguish several cases:

- For species whose habitats overlap several types of ecosystems (forest, pasture, water, etc.) Forest is a place where they can find a safe shelter,

food and last but not least peace of mind. Populations of these species there is forest, although not mandatory, has a beneficial role.

- For species whose habitats overlap only over forest ecosystems, forest influence is much stronger in this case relations (especially trophic) established among populations and forest animals are much closer, the forest represents a necessary and obligatory the existence and development of these populations.

- For species whose habitats overlap although forest ecosystems, it is bordered by the forest indirectly exercise a positive influence on them. This is manifested either by purifying the air and wind speed reduction, or by modeling the thermal and hydric regime (other terrestrial) or filtration and flow regulation (if aquatic ecosystems).

Regarding the influence of zoocenosis, the forest, since it is characterized by mobility, usually it does not influence the forest ecosystems.

However, the cultivated forest management, should considered several categories of animals that are of particular interest, both in terms of maintaining a good healthy forest vegetation and in the maintenance and development of specific biodiversity.

Thus, forest life xilofagus and defoliator insects can have a major negative impact, so it needs to monitor the evolution of their populations in the forrest. The purpose of monitoring is to limit development beyond certain limits of insect populations, population growth may lead to destabilization of forest ecosystems.

Also, in order to maintain biodiversity, particularly mammals and birds of medium and large size (bear, wolf, fox, deer, red deer, chamois, lynx, rabbit, grouse, etc..).Are monitored to maintain of the actual optimum, ensuring development for populations and species.

Man in forest life

If the early development of the human society, human impact on forest ecosystems was insignificant man like other species consuming, getting most of the food and the protection they needin this ecosystem, with the development of society, its requirements from the wood increased, causing them at the beginning of this millennium, most of the virgin forest character to lose, and under anthropogenic influence to transform the forest crop.(Berca, 2000)

Anthropogenic action on the forest, manifested very aggressive in the last three centuries, has had and continues to have both pros and many negative consequences.

Positive consequences of human activities on forest ecosystems designed in particular to obtain stands to best respond to social and economic goals assigned to it. These will be dealt with separately in the second fourth of the work - silvotetchnick. It should be noted that some forest management activities to management goals proposed at first glance may appear negative in the development of stable forest ecosystems (promotion of tree species, sometimes of a single species, and the decline of other). Must have, in these cases, the account on one hand that planted forest is unable to perform all functions within its self and on the other hand that planted forests, as opposed to virgin or cvasivirgin, were assigned to multiple functions depending protection and timber production, the technically superior.

Also, man has made, especially in the last century, shares the installation / reinstallation of degraded or unproductive forest land (both forest land and agricultural land), complex works being carried out in this privilege of some branch of forestry that are dealing with planting trees of degraded or unproductive and maintenance pending massive state -forests, improve their characteristics through the forest - forest amelioration, etc..

It should be noted that, in time, man has had and continues to have many activities that have been negative on this ecosystem, of which some are mentioned below:

- wood mass-exploitation, activity in Europe has reached maximum values 300 to 400 years ago, leading to reduced surface area covered by these ecosystems.

- grazing in forests, activity with negative impact on seedlings, but also on soil compaction and dismantle it, changes that have major impact on the existence and especially phytocoenoses forest regeneration, and the number of species richness in zoocenosis forest population.

- air pollution, water and soil if it exceeds some critical value can cause major instability of these ecosystems.

- can be remembered some silvicultural mistakes in forest management, the most popular being able to include:

- promotion monocultures in decline of mixtures of species in stand composition, activity on the one hand led to the creation of trees more unstable factors in the environment and on the other resulted in

discontinuation of food chains followed by a decrease in this specific variety, can lead to endangering the existence of a population or even species.

- promotion of some species (especially pine) outside their ecological area, activity appeared in the economically well-founded, but green was not sufficiently substantiated, were seen during the development of these stands are numerous obstacles: stands had instability enhanced the biotic and abiotic factors (insects and phytopathogenic fungus, wind, snow, etc..), wood product they no longer present the same physical and mechanical properties are more porous due to faster growth, any breakdown in the food chains the forest degradation (lowering the pH), etc..

- the use inside a forest and its surrounding areas of insecticides and fungicides nonspecific, especially the so called persistent organic products - toxic chemicals that uncharacterized by high chemical stability, with effect for long periods, accumulate in animal tissues and are transmitted through food chains of prey in predator body, causing ecological imbalances (perhaps the most publicized case is that of DDT's (dimethyl - tri -toluene, which widely used as insecticide in the 70s-'80 resulted in the death of many natural predators of insect).

- a forest resort promotion that doesn't require vegetative propagation (sprouts, suckers) in declinental multiplication of seed activity led to the development of economically valuable trees less unstable and sometimes even destabilizing the environmental factors.

- the use of seeds without taking count of its origin, as reported in the qualitative characteristics of trees from which it derives, as reported in the area and region of origin, activity monitored badly, visible only after long periods of establishment culture.

- promotion of artificial regeneration to the decline of natural on economic considerations, even if natural stand is best suited to specific environmental conditions, showing the highest stability to it.

- insufficient promotion of a species with high economic value and ecological composition of stands consisting of mixtures of several species.

- exploitation of forest areas regenerated without their surrounding areas, do not stand on flat surfaces causing loss of that specific microclimate of the forest, providing better conditions for growing new generation.

Both human activities that support the forest ecosystems and those who had a negative role on them are also of interest in forestry practice, addressing specific issues among this sector and also drawing attention to the

harmful effects of human actions insufficient based economic and ecological especially, in a way to stop promoting them in the future.

3. Conclusions

A forest ecosystem is one major ecologic unit that exists as "home" for a community of both native or introduced, classified organisms. The forest ecosystem is just one of a number of unique ecosystems including prairies, deserts, polar regions and great oceans, smaller lakes and rivers. A forest ecosystem typically is associated with land masses covered in trees and those trees are often classified by foresters into [forest cover types](#).

The word "ecology" comes from the Greek "oikos, meaning "household" or "place to live". These ecosystems or communities are usually self sustaining. I say "usually" because some of these communities can become unbalanced very quickly when detrimental factors occur. Some ecosystems, like tundra, coral reefs, wetlands and grasslands are very fragile and very small changes can effect their health. Larger ecosystems with wide diversity are much more stable and somewhat resistant to harmful changes.

A forest ecosystem community is directly related to species diversity. Generally, you can assume that the more complex the structure, the greater is its species diversity. You should remember that a forest community is much more than just the sum of its trees. A forest is a system that supports interacting units including trees, soil, insects, animals, and man.

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THE LIVING LOGICAL SYSTEM PARADIGM – ON THE KNOWLEDGE OF THE ECONOMIC PROCESS

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Abstract

The paradigm of the Living Logical System puts into discussion the logical and ontological bases of orthodox economic models concerning the knowledge of the economic processes. The economic process can be known by the economic phenomenon, as it represents the measured form of the economic process. Through the LLS we increase the comprehensibility of the economic phenomenon, and through the economic phenomenon we gain knowledge of the economic process. The current paper intends to approach the knowledge of the economic process from two points of view, as follows: from the perspective of the principle of sufficient reason of the economic or of the economic process, and from the perspective of the LLS respectively.

Key words: living logical system, economic process, economic phenomenon.

JEL Classification: B41, B52

Introduction

This study is a continuation of our research within the paradigmatic framework of the Living Logical System.

The knowledge of the economic process is, in our opinion, creatable considering two main directions of research, as follows:

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- A direction of research which has as foundation the principle of sufficient reason of the economic;
- A direction of research which has as foundation the economic phenomenon.

Concerning the first approach, we believe that the establishment of a basic principle of the sufficient reason of the economic is necessary, because such a principle represents the grounds for the knowledge of the economic process.

Concerning the second approach, we mention that the economic phenomenon is the measured form of the economic process, and through the economic phenomenon we can know and comprehend the economic process.

The concept of Living Logical System, introduced by Professor Emil Dinga, was defined with the purpose of reputing into discussion the logical and ontological basis of the orthodox economic models concerning the knowledge of economic process.

This concept creates an increase of the comprehensibility of the economic process, and through the economic phenomenon we can gain knowledge of the economic process.

In the following, we will try to establish:

- The form of the principle of sufficient reason of the economic or the economic process;
- The restraining of the concept of Living Logical System to the level of the economic organization.

The used method in our research is the *specification method* which implies the fact that from a generic concept, which is very comprehensive, one can subtract various species which are contained by it, and the varieties of such entities must not be uselessly diminished.

In one of our previous papers, concerning the economic living logical system, as a species of the living logical system, the starting point which we established was a premise which became the principle of sufficient reason for social sciences, whose component is economics, and from here, each knowledge would ensue. In this paper we bring several logical clarifications which we believe have not been sufficiently expressed in the previous paper.

On the principle of sufficient reason

The principle of sufficient reason is given to us by Leibniz and is the principle of any explanation, meaning to explain something reduces its existence to a random hypothesis of the principle of sufficient reason, according to which that something must be the way it is.

In fact, establishing a principle of sufficient reason in science has, in our opinion, an important methodological importance, as any explanation must be founded on something.

The methodological consequence of the existence of a principle of sufficient reason in science makes that processes become known to us by the law that governs them.

In other words, the principle of sufficient reason is knowledge foundation, because something should rather be than not be.

One must distinguish between the difference between basis of knowledge and basis. The principle of sufficient reason is the one that contains the basis (cause) for something else. The basis (cause) initiates a real process, whereas the principle of sufficient reason, as knowledge basis, is used to fundament judgment.

On the principle of sufficient reason of action

We consider that the principle of sufficient reason of action is the principle of sufficient reason to which we must make reference in order to know economic processes.

The principle of sufficient reason of action is given to Schopenhauer and is debated in his paper entitled "*On the square root of the principle of sufficient reason*" (Schopenhauer, 2008).

This principle, according to Schopenhauer, *acts on the class of objects given by the faculty of representation of the internal sense*, which are generated by motivations and which is an expression of will determining the sufficient reason of every action.

The restraining of the sufficient reason of action

Several statements:

- *Concerning the act and the human process:*

Concerning the logical perspective, between act and human process there is not a qualitative difference. The act and the human process are equivalent (the same author mentions).

- Concerning the social act and social process

From the logical perspective, between the social act and social process there is not a qualitative difference. The social act and the social process are equivalent (the same author mentions).

- Concerning the economic act and economic process

From the logical perspective, between the economic act and economic process there is not a qualitative difference. The economic act and the economic process are equivalent (the same author mentions (Dinga, 2009)).

- Concerning the act of the economic organization

From the logical perspective, between the economic organization act and economic organization process there is not qualitative difference. The social act and the social process are equivalent (the same author mentions, (Dinga, 2009)).

- Concerning the proximal genre of the social act or social process

The proximal genre of the social act or the social process is the act.

- Concerning the proximal genre of the economic act or economic process

The proximal genre of the economic act or the economic process is the social act.

- Concerning the proximal genre of the economic organization act or the economic organization process

The proximal genre of the economic organization act or the economic organization process is the economic act.

- Concerning the human action

The human action refers to any act (or activity, defined as a convergent ensemble of acts), which have as a subject the human subject (Dinga, 2009).

- Concerning the social action

The social action refers to any social act (or activity, defined as a convergent ensemble of social acts), which have as a subject the social subject.

- Concerning the economic action

The economic action refers to any economic act (or economic activity, defined as a convergent ensemble of acts), which have as a subject the economic subject.

- *Concerning the economic organization action*

The economic organization action refers to any act of the economic organization (or activity of the economic organization, defined as a convergent ensemble of acts of the economic organization), which have as a subject the institutionalized subject.

- *Concerning the human subject*

The human subject is a cultural subject.

Through cultural subject we understand a subject which has a conscience, meaning a subject which shows that he knows.

- *Concerning the social subject*

The social subject is a multiple or composite cultural subject.

Through cultural subject we understand a subject which has a conscience, meaning a subject which shows that he knows.

- *Concerning the economic subject*

The economic subject is a practical cultural subject, non-specialized and contingent (non-necessary).

- *Concerning the institutionalized subject*

The institutionalized subject is an economic subject, normatively regulated.

- *Concerning the act and causality*

- 1. The human act gains the expression of the exteriorization of the intentionality of the human subject. The causality of the human act is one interior to the human subject under the form of the motivation of its will, determining the sufficient reason of every action.*
- 2. The social act gains the expression of the exteriorization of the intentionality of the social subject. The causality of the social act is one interior to the social subject under the form of its motivation as an expression of its will, determining the sufficient reason of any action.*
- 3. The economic act gains the expression of the exteriorization of the intentionality of the social subject. The causality of the economic act is one interior to the social subject under the form of its motivation as*

an expression of its will, determining the sufficient reason of any action.

4. *The economic organization act gains the expression of the exteriorization of the intentionality of the institutionalized subject. The causality of the act of the economic organization is one interior to the social subject under the form of its motivation as an expression of its will, determining the sufficient reason of any action.*

The principle of sufficient reason – genre and species

Statement 1

The principle of sufficient human reason is the sufficient principle reason of the human action.

Statement 2

Social is a species of the humane.

Consequence:

The principle of sufficient reason of the social is the principle of the sufficient reason of the social action.

Statement 3

The principle of sufficient social reason is the principle of sufficient reason of the social action.

Statement 4

Economics is a social species.

Consequence:

The principle of sufficient reason of the economic is the principle of sufficient reason of the economic action.

Statement 5

The principle of the sufficient reason of economics is the principle of sufficient reason of the economic action.

Statement 6

The economic organization is a species of the economic.

Consequence:

The principle of sufficient reason of the economic organization is the principle of the sufficient reason of the action of the economic organization.

On the knowledge of the human process

In our opinion, *from the logical point of view, a human process or act* can be known using the principle of sufficient reason of action or by using the systems theory.

Concerning the usage of the principle of sufficient reason of action in gaining knowledge of the human process we notice great difficulty, meaning to what extent can we, using this principle, to know the human process as we do not know the motivation of the human subject. On this matter we cannot yet pronounce ourselves, but research will follow.

What we do know however is that the phenomenon is the measured expression (thus, quantified in an interpersonal communicative manner) of a process (Dinga, 2009).

In order to increase the comprehensibility of phenomena, we use the systems theory which has the finality of the process as object of research.

To this means, we will continue to refer to the concept of LLS and we attempt to restrain this concept to the level of the economic organization.

Restrain of the concept Living Logical System

We propose the following scheme:



- **The concept of Living Logical System (LLS) – sufficient and necessary attributes**

Sufficient attributes, which are independent and consistent, for the living logical system (LLS) (Dinga, 2009), are:

1. **It is a system (S);**
2. **Has a dissipative character,** meaning an evolution far from equilibrium, meaning it maintains and even lowers its entropy from within the membrane at the price of accelerating the entropy of its surrounding environment;

On the basis of things mentioned above, we can conclude on the *Living Logical System* as follows:

The Living Logical System (LLS) represents that real system which verifies the sufficient attributes above.

The sufficient attributes, which are independent and consistent (and which will be necessary attributes), once verified, generate three other new predicates:

- **Has an self regulatory capacity,** meaning the capacity to heal itself, to generate itself, to self organize, to auto-reproduce);
- **Complex system** (which is characterized by non-linear dynamics), meaning that it does not allow predictions, only the movement of uncertainty concerning the future;
- **Total complexity invariance,** meaning the maintenance of invariance, with a permanent character of the logical sum from the internal complexity of the LLS and its external complexity (also called ecological complexity, expressing the degree of metabolism with its environment)

Observations:

- Sufficient system predicates (S) (Dinga, 2009) are:
1. **To establish the distinction between the environment which finances something and that something. In other words, the system has a membrane which established the difference between the carving in cause and its environment;**
 2. **To contain a lot (numerable or not) of composing elements (discernible or not);**
 3. **To establish a lot of connection (material, substantial or energetic, entropic, informational, etc) between the composing elements as well as between them and the environment.**

These sufficient attributes of the system, which are independent and consistent (which will obviously be necessary attributes), once verified, generate two other new necessary attributes:

1. *Has a metabolism (reactions);*
 2. *Has a qualitative identity*, meaning that it contains a set of invariants which are reproduced as a result of metabolism and which ensure the logical continuity of the system.
- The self regulatory capacity in biology, which combines the defining elements of life, meaning the physical border and the metabolic relation, with the purpose of maintaining the same ensemble structure of the organism in spite of a continuous flow and of changing components. Of course, this matter less because the biologic living logical system must also be a species of the living logical system.
- **The concept of Human Living Logical System (HLLS) – sufficient and necessary attributes**

In the following we attempt a restraining of the concept of living logical system (LLS) to the human level, with the purpose of increasing the understanding of human phenomena.

Sufficient attributes, which must be independent and consistent, for the Human Living Logical System (HLLS), are:

1. *It is a living logical system (LLS).*
2. *It involves the cultural subject.*
3. *Purpose.*

Sufficient attributes, which are independent and consistent, will be necessary predicates. On the basis of the above, we believe that we can conclude on the Human Living Logical System as follows:

The Human Living Logical System (HLLS) represents that real system which verifies the sufficient predicates mentioned above.

- **The concept of Social Living Logical System (SLLS) – sufficient and necessary attributes**

In the following we attempt a restraining of the concept of human living logical system (HLLS) to the social level, with the purpose of increasing the understanding of social phenomena.

Sufficient attributes, which must be independent and consistent, for the Social Living Logical System (SLLS), are:

1. **It is a human living logical system (HLLS).**
2. **It involves the social subject.**
3. **Social purpose.**

Sufficient attributes, which are independent and consistent, will be necessary predicates. On the basis of the above, we believe that we can conclude on the *Social Living Logical System as follows:*

The Social Living Logical System (SLLS) represents that real system which verifies the sufficient predicates mentioned above.

- **The concept of Economic Living Logical System (ELLS) – sufficient and necessary attributes**

In the following we attempt a restraining of the concept of living logical system (SLLS) to the economic level, with the purpose of increasing the understanding of economic phenomena.

Sufficient attributes, which must be independent and consistent, for the Economic Living Logical System (ELLS), are:

1. **It is a social living logical system (SLLS).**
2. **It involves the economic subject.**
3. **Economic purpose.**

Observation:

- ***the subject economic has as purpose the entropic changes with nature – economic purpose***

Sufficient attributes, which are independent and consistent, will be necessary predicates. On the basis of the above, we believe that we can conclude on the *Economic Living Logical System as follows:*

The Economic Living Logical System (ELLS) represents that real system which verifies the sufficient predicates mentioned above.

- **The concept of Economic Organization Living Logical System (EOLLS) – sufficient and necessary attributes**

In the following we attempt a restraining of the concept of economic living logical system (ELLS) to the economic organization level, with the purpose of increasing the understanding of economic organization phenomena.

Sufficient attributes, which must be independent and consistent, for the Economic Organization Living Logical System (EOLLS), are:

1. **It is an economic living logical system (ELLS).**
2. **It involves the institutionalized subject.**
3. **Organizational purpose.**

Sufficient attributes, which are independent and consistent, will be necessary predicates. On the basis of the above, we believe that we can conclude on the Economic Organization Living Logical System as follows:

The Economic Organization Living Logical System (EOLLS) represents that real system which verifies the sufficient predicates mentioned above.

Conclusions

- Concerning the existence of a principle of sufficient reason in the knowledge of the process (the act), we must mention the fact that it is paramount. Such a principle says that nothing is groundless, for which something should rather be, than not be.
- The principle of sufficient reason used in knowing the actual economic process seems to be the principle of becoming (*in the Schopenhauer sense*), which governs the class of objects of empirical representations and takes the form of causality: any status is preceded by another one which results with necessity.
- In our opinion, the principle of sufficient reason used in knowing the economic must be the principle of sufficient reason of the economic action.
- The proximal genre of the principle of sufficient economic reason, meaning of the economic process, is, in our opinion, the principle of sufficient reason of the social action.

- Concerning the necessity of the concept of living logical system, we state that this is a good logical instrument through which we can increase the comprehensibility of the economic phenomena, and through them we can know economic processes.

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OPTIMAL FISCAL SYSTEM AND PUBLIC FINANCE SUSTAINABILITY INDICATORS IN EAST EUROPEAN COUNTRIES WITHIN THE EU27

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Abstract

The aim of the paper is to outline the characteristics that an optimal fiscal system has to fulfill. Starting from the hypothesis that high-debt EU countries may be suffering from higher tax induced distortions to their economy whereas the lower-debt counterparts will not, we expect taxes to influence public deficit rate and study its influence on the level of public debt ratio and determine the regression equations. Further, we discovered using SAS software that the influence is stronger on individual countries studied than on European level. Findings are a signal to be considered by policymakers when setting the automatic stabilizers.

Key words: optimal fiscal system, public debt, public deficit, tax-to-GDP ratio

JEL classification: C 32, C 53, E 63

1. Optimal fiscal system

Generally, a tax system promotes optimum performance, when dealing with the 4E, which are: equity (balancing social distribution of income in society and stimulate employment and entrepreneurship); efficacy (avoidance of taxes that produce distortions of the economy); economy (referring to possible cost reduction in government revenue collection and payment of costs of tax); -efficiency (promoted by a tax system optimal that

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maximizes government revenue generated). (Bailey, 2004). Besides the 4E's the characteristics of optimal tax system are divided into four categories, according to a classification proposed by PricewaterhouseCoopers (Commision, 2010):

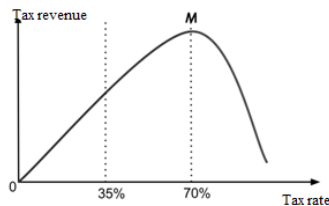
Table 1: -Some possible hallmarks of a good tax system

| Clear purpose | Coherent și efficient |
|---|---|
| <ul style="list-style-type: none"> -Raises revenues to fund public expenditure -Balances the budget (over a period of time) -Meets social objectives -Improves human development | <ul style="list-style-type: none"> -Minimises the administrative burden -Clear and understandable rules -Consistent with wider (non tax) law and international principles - Consultation on policy and administration |
| Strategic | Fair and transparent |
| <ul style="list-style-type: none"> -Stable and consistent, enabling long-term business investment -A fair value for natural resources -Encourages international trade -Encourages change in behaviour which society has agreed on | <ul style="list-style-type: none"> - Based on law rather than the practice of tax authorities - Consistently enforced -Independent and effective route for resolving disputes with the tax authority |

Source: Doing Business, 2010

According to recent studies, the Laffer curve is not perfectly symmetric, but asymmetric, with a maximum noted in the chart with M, around a rate of 70%. The study estimates that the point M, corresponding to a maximum tax rate would be between 60-70%, this rate being variable according to countries, type of tax analyzed and circumstances considered. (Trabandt and Uhlig, 2009).

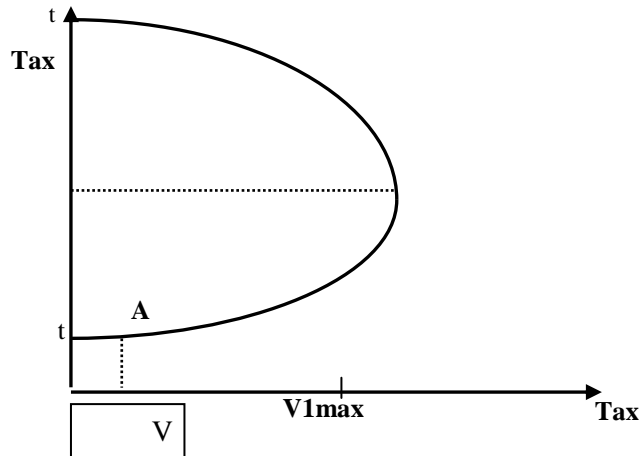
Figure 1: Laffer's curve revisited



Source: Trabandt and Uhlig, M. H. (2009).

As for the figure presented below the minimum tax rate t_{\min} is appropriate a minimum operating budget to ensure minimum bureaucracy of a state with maximum efficiency (for an ultra-liberal state in which the state's role is reduced to a few vital functions, namely: defense, diplomacy, public policy).

Figure 2- Laffer's curve
100%



Source: Trabandt and Uhlig, M. H. (2009)

The optimal tax rate, noted t_0 , is the rate which provides the state, the largest amount of tax revenues. All rates possible between points A and M on the graph are the tax rates that may be used in an efficient state in economic activity. Maximum tax rate marked on the graph t_{\max} , tends to 100%, but will never reach this amount. When the tax rate rises above the optimum, t_0 , the tax yield will decline due to reduced tax base.

Studies are broadly divided into theoretical and empirical ones. The former are mostly econometrical in nature and are carried out through formal growth models. This offers a quantitative measurement of the effects of tax policy changes. Empirical studies typically compare cross-country and time-series data to estimate whether there is a link between taxes imposed and economic growth rates observed. The results differ between them depending on the parameters chosen.

However, over time the results have become more pronounced in the sense that taxes indeed affect economic growth. (Vermeend W., 2008)

In this sense, we present in the table below the link between taxation and fiscal implications of policy decisions on the development of a state with the models studied.

Table 2: Studies on taxation and economic growth

| | | |
|-------------------------------------|--|---|
| Engen and Skinner (1992) | 107 countries over 1970-1985 | Holding average tax rates constant, a decrease in marginal tax rates of 10%-points, increases per capita income by 7.4% |
| Cashin (1995) | 23 OECD countries over 1971-1988 | 1%-point of GDP increase in taxation reduces output per worker by 2% |
| Leibfritz et al. (1997) | OECD countries, 1965-1995 | 10% - point of GDP increase in tax to GDP ratio reduces growth by 0.5-1%-point |
| Mendoza et al. (1997) | Theoretical and empirical framework | 10% tax cut increases investment by 0.5-2%, negligible effect on growth |
| European Commission (2000a) | Model simulations by QUEST model | 1% of GDP reduction of taxes increases GDP between 0.5 and 0.8% |
| Fölster and Henrekson | Sample of 29 rich OECD and non-OECD countries over 1970-1995 | 10%-point increase in tax to GDP ratio reduces GDP growth by 1%-point |
| Bassanini et al. (2001) | 21 OECD countries over 1971-1998 | 1%-point increase in tax to GDP ratio reduces per capita output by 0.3-0.6% |
| Barton and Hawksworth (2003) | 18 OECD countries over 1970-1999 | 1% of GDP increase in distortionary taxation reduces GDP growth by 0,2-0,4% points |
| Lee and Gordon (2005) | 70 countries over 1970-1997 | 10%-point corporate tax cut increases growth by 1-2%-points |

Source: Vermeend W., Rick van der Ploeg, Timmer W.- Taxes and the economy: a survey on the impact of taxes on growth, employment, investment, consumption and the environment, Edgar, 2008, p. 47

According to the economic literature a sustainable tax system is linked to a sustainable public debt and deficit and sustainable economic growth.

2. Tax-to-GDP ratio within the EU27

The overall tax-to-GDP ratio of Romania was at 27.0 % in 2009, nine percentage points lower than the EU27 average (35.8%). The level of taxation in Romania is the lowest in the EU apart from Latvia, but comparable to the level of taxation in Slovakia (28.8%) and Bulgaria (28.9 %). When sorting the public debt ratio from smallest to largest, Romania occupies the forth place among the EU27 countries with 23.6% in 2009 and 31% in 2010 and it is thought to stabilize as 40% but with the condition of having economic growth of about 2% considering an analyze from ZF. (Medrega, 2012) Still, the budget deficit in Romania was high, in 2009 being of -9 (place 8 among EU27 sorting descendent from the biggest to the lowest) and -6.9 in 2010 (place 11 in EU27).

In this context we tried to find the correlations, if any, between the total tax to GDP ratio, the budgetary deficit in GDP ratio and public debt as percentage of GDP. First, we have presented in the following table, the evolution of total taxes starting from 1995 till 2009, when we found comparable date on EUROSTAT databases, ordered from the biggest to the lowest rates considering the year 2009.

Table 3: Evolution of total taxes (including the SSC) as a % of GDP in UE27 , between 1995-2009

| Ranking 2009 | Countries | 1995 | 2000 | 2009 | Difference(in p.p) | | Revenue (Mil. Euro) |
|-----------------|-------------|------|------|------|---------------------|--------------|---------------------|
| | | | | | 1995 to 2009 | 2000 to 2009 | 2009 |
| 1 | Denmark | 48.8 | 49.4 | 48.1 | -0.7 | -1.3 | 106,958 |
| 2 | Sweden | 47.9 | 51.5 | 46.9 | -1.1 | -4.6 | 136,381 |
| 3 | Belgium | 43.9 | 45.2 | 43.5 | -0.5 | -1.7 | 147,417 |
| 4 | Italy | 40.1 | 41.8 | 43.1 | 3.1 | 1.4 | 656,168 |
| 5 | Finland | 45.7 | 47.2 | 43.1 | -2.6 | -4.1 | 73,838 |
| 6 | Austria | 41.4 | 43.2 | 42.7 | 1.3 | -0.6 | 117,059 |
| 7 | France | 42.7 | 44.1 | 41.6 | -1.1 | -2.5 | 792,984 |
| 8 | Germany | 39.8 | 41.9 | 39.7 | -0.1 | -2.1 | 952,050 |
| 9 | Hungary | 40.8 | 39 | 39.5 | -1.4 | 0.5 | 36,673 |
| 10 | Netherlands | 40.2 | 39.9 | 38.2 | -2 | -1.7 | 218,380 |

| | | | | | | | |
|----|-----------------------|------|------|------|-------|------|---------|
| 11 | Slovenia | 39.2 | 37.5 | 37.6 | -1.6 | 0.1 | 13,308 |
| 12 | Luxembourg | 37.1 | 39.1 | 37.1 | 0 | -2.1 | 14,098 |
| 13 | Estonia | 34.8 | 31 | 35.9 | 1.1 | 4.9 | 4,969 |
| 14 | Cyprus | 26.7 | 30 | 35.1 | 8.4 | 5.2 | 5,955 |
| 15 | United Kingdom | 34.7 | 36.7 | 34.9 | 0.2 | -1.8 | 546,075 |
| 16 | Czech Republic | 36.2 | 33.8 | 34.5 | -1.7 | 0.6 | 47,265 |
| 17 | Malta | 26.8 | 28.2 | 34.2 | 7.5 | 6 | 1,995 |
| 18 | Poland | 37.1 | 32.6 | 31.8 | -5.3 | -0.8 | 98,727 |
| 19 | Portugal | 29.5 | 31.1 | 31 | 1.5 | -0.1 | 52,089 |
| 20 | Spain | 32.7 | 33.9 | 30.4 | -2.3 | -3.5 | 320,764 |
| 21 | Greece | 29.1 | 34.6 | 30.3 | 1.2 | -4.3 | 70,704 |
| 22 | Lithuania | 27.5 | 30.1 | 29.3 | 1.8 | -0.8 | 7,778 |
| 23 | Bulgaria | 30.8 | 31.5 | 28.9 | -2 | -2.7 | 10,121 |
| 24 | Slovakia | 40.3 | 34.1 | 28.8 | -11.5 | -5.3 | 18,135 |
| 25 | Ireland | 33.1 | 31.5 | 28.2 | -4.9 | -3.3 | 45,056 |
| 26 | Romania | 27.5 | 30.2 | 27 | -0.5 | -3.3 | 31,658 |
| 27 | Latvia | 33.2 | 29.5 | 26.6 | -6.5 | -2.9 | 4,938 |
| - | EU27 weighted average | 39.4 | 40.5 | 38.4 | -1 | -2 | - |

Source: Commission services , 2011

Considering the member states of the European Union, Romania is ranked on the 26th place after Latvia. In comparison with the states that have attended the European Union in 2004, Romania had in 2009 the lowest level, 27% , a level closed to the level in Slovak Republic, 4.8 p.p lower than in Poland, 10.6p.p lower than in Slovenia, 12.5 p.p lower than in Hungary, 8.9 p.p lower than in Estonia and 7.5 p.p lower than in Cech Republic.

2.1. Evolution of public finance sustainability rates in Eastern European Countries between 1995 and 2009

We have chosen to study the evolution on one hand in Cech Republic, Estonia, Hungary, Poland, Slovenia, Slovakia and the other in Romania. The six countries proposed had joint the European Union in 2004, one period before Romania and Bulgaria had became members. We have chosen the first two indicators because of the limits imposed by the Fiscal Treaty that almost all the states asumed (60% maximum public debt and 3% budget deficit).

Table 4: Evolution of budget deficit/GDP, public debt/GDP ratios

| Budget deficit/ GDP | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Czech Republic | -12.8 | -3.1 | -3.6 | -4.8 | -3.6 | -3.6 | -5.6 | -6.5 |
| Estonia | 1.1 | -0.3 | 2.2 | -0.7 | -3.5 | -0.2 | -0.1 | 0.3 |
| Hungary | -8.8 | -4.4 | -6 | -8 | -5.5 | -3 | -4.1 | -9 |
| Poland | -4.4 | -4.9 | -4.6 | -4.3 | -2.3 | -3 | -5.3 | -5 |
| Romania | -2 | -3.6 | -4.4 | -3.2 | -4.4 | -4.7 | -3.5 | -2 |
| Slovenia | -8.3 | -1.1 | -2.3 | -2.4 | -3 | -3.7 | -4 | -2.4 |
| Slovakia | -3.4 | -9.9 | -6.3 | -5.3 | -7.4 | -12.3 | -6.5 | -8.2 |
| EU 27 w. a | . | . | -2.7 | -1.9 | -1 | 0.6 | -1.5 | -2.6 |
| Budget deficit/ GDP | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | |
| Czech Republic | -6.7 | -2.8 | -3.2 | -2.4 | -0.7 | -2.2 | -5.8 | |
| Estonia | 1.7 | 1.6 | 1.6 | 2.5 | 2.4 | -2.9 | -2 | |
| Hungary | -7.3 | -6.5 | -7.9 | -9.3 | -5.1 | -3.7 | -4.6 | |
| Poland | -6.2 | -5.4 | -4.1 | -3.6 | -1.9 | -3.7 | -7.3 | |
| Romania | -1.5 | -1.2 | -1.2 | -2.2 | -2.9 | -5.7 | -9 | |
| Slovenia | -2.7 | -2.3 | -1.5 | -1.4 | 0 | -1.9 | -6.1 | |
| Slovakia | -2.8 | -2.4 | -2.8 | -3.2 | -1.8 | -2.1 | -8 | |
| EU 27 w. a | -3.2 | -2.9 | -2.4 | -1.5 | -0.9 | -2.4 | -6.9 | |
| Public debt/GDP | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
| Czech Republic | 14 | 11.9 | 12.6 | 14.5 | 15.8 | 17.8 | 23.9 | 27.1 |
| Estonia | 8.2 | 7.6 | 7 | 6 | 6.5 | 5.1 | 4.8 | 5.7 |
| Hungary | 85.6 | 72.4 | 62.9 | 60.9 | 60.8 | 56.1 | 52.7 | 55.9 |
| Poland | 49 | 43.4 | 42.9 | 38.9 | 39.6 | 36.8 | 37.6 | 42.2 |
| Romania | 6.6 | 10.6 | 15 | 16.8 | 21.7 | 22.5 | 25.7 | 24.9 |
| Slovenia | 18.6 | 21.9 | 22.4 | 23.1 | 24.1 | 26.3 | 26.5 | 27.8 |
| Slovakia | 22.1 | 31.1 | 33.7 | 34.5 | 47.8 | 50.3 | 48.9 | 43.4 |
| EU 27 w.a | . | 69.9 | 68.3 | 66.4 | 65.7 | 61.9 | 61 | 60.4 |
| Public debt/GDP | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | |
| Czech Republic | 28.6 | 28.9 | 28.4 | 28.3 | 27.9 | 28.7 | 34.4 | |
| Estonia | 5.6 | 5 | 4.6 | 4.4 | 3.7 | 4.5 | 7.2 | |

| | | | | | | | | |
|------------------|------|------|------|------|------|------|------|--|
| Hungary | 58.6 | 59.5 | 61.7 | 65.9 | 67 | 72.9 | 79.7 | |
| Poland | 47.1 | 45.7 | 47.1 | 47.7 | 45 | 47.1 | 50.9 | |
| Romania | 21.5 | 18.7 | 15.8 | 12.4 | 12.8 | 13.4 | 23.6 | |
| Slovenia | 27.2 | 27.3 | 26.7 | 26.4 | 23.1 | 21.9 | 35.3 | |
| Slovakia | 42.4 | 41.5 | 34.2 | 30.5 | 29.6 | 27.8 | 35.5 | |
| EU 27 w.a | 61.9 | 62.3 | 62.8 | 61.5 | 59 | 62.5 | 74.7 | |

Source: author's compilation after Taxation Trends database

Because the level of public debt reported to GDP is an important indicator regarding the sustainability of public finance together with structural gaps, we have to refer to the evolution of public debt, as well.

Public debt was found to lead to asymmetries in the levels of taxes and primary expenditures across EU countries, with high debt countries having smaller public sectors and higher taxes, at least in the short run, than low debt countries, all else equal. Moreover, the data used in the cited study did not reject the hypotheses that capital mobility may increase these asymmetries while also triggering cross-country asymmetries in the tax mix of EU countries. Thus, when capital mobility increases, the tax increases made necessary by higher debt-service obligations may fall mostly on labour income and consumption rather than on capital. But these findings have several implications like, high-debt EU countries may be suffering from higher tax induced distortions to their economy whereas the lower-debt counterparts will not. (Krogstrup, 2002)

Table 5: Evolution of the tax-to-GDP ratio

| Total taxes (incl. SSC) as a percentage of GDP | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Czech Republic | 36.2 | 34.7 | 35 | 33.3 | 34 | 33.8 | 34 | 34.8 |
| Estonia | 34.8 | 33.5 | 34.4 | 34.3 | 32.5 | 31 | 30.2 | 31 |
| Hungary | 40.8 | 39.3 | 37.8 | 37.6 | 38.3 | 39 | 38.2 | 37.8 |
| Poland | 37.1 | 37.2 | 36.5 | 35.4 | 34.9 | 32.6 | 32.2 | 32.7 |
| Romania | 27.5 | 25.9 | 26.4 | 29 | 31 | 30.2 | 28.6 | 28.1 |
| Slovenia | 39.2 | 38.1 | 37 | 37.8 | 38.2 | 37.5 | 37.7 | 38 |
| Slovakia | 40.3 | 39.4 | 37.3 | 36.7 | 35.4 | 34.1 | 33.1 | 33 |
| EU 27 w.a | 39.4 | 40.1 | 40.3 | 40.3 | 40.8 | 40.5 | 39.6 | 39 |
| Total taxes | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | |

| (incl. SSC) as a percentage of GDP | | | | | | | | |
|---|------|------|------|------|------|------|------|--|
| Czech Republic | 35.7 | 37.4 | 37.1 | 36.7 | 37.2 | 35.5 | 34.5 | |
| Estonia | 30.8 | 30.6 | 30.6 | 30.7 | 31.9 | 32.1 | 35.9 | |
| Hungary | 37.8 | 37.4 | 37.5 | 37.3 | 39.9 | 40 | 39.5 | |
| Poland | 32.2 | 31.5 | 32.8 | 33.8 | 34.8 | 34.3 | 31.8 | |
| Romania | 27.7 | 27.2 | 27.8 | 28.5 | 29 | 28 | 27 | |
| Slovenia | 38.2 | 38.3 | 38.6 | 38.3 | 37.8 | 37.2 | 37.6 | |
| Slovakia | 32.9 | 31.5 | 31.3 | 29.2 | 29.3 | 29.2 | 28.8 | |
| EU 27 w.a | 39 | 38.8 | 39.1 | 39.6 | 39.6 | 39.3 | 38.4 | |

Source: author's compilation after Taxation Trends database

However, we consider that governments are not paying enough attention on “negative” taxes (for example, activities in connection with goods and services consumption which are polluting the environment), but tend to have high rates for taxes on consumption (which in fact generates work places), maybe to high in relation with direct taxes and social contributions.

The tax structure of Romania stood out in several respects in 2009. Romania has the ninth highest reliance on indirect taxes in the EU. Indirect taxes supply 40.9 % of total tax revenue compared to a 37.7 % EU-27 average, while the share of social contributions accounts for 35 % (EU-27 31.4 %) and direct taxes only for 24.2 % (EU-27 31.1 %). The share of VAT on total tax revenue in 2009 (24.8 %) was the fifth highest in the Union. The low level of direct taxes is mainly due to low personal income taxes (merely 3.5 % of GDP), while the EU-27 average is 8%.

Central government revenue forms more than half of the total (61 %), while local government revenues are marginal, consisting of only 3.5 %. The revenue shares received by the social security funds account for 35 %, almost four percentage points above the EU-27 average (31.4%). In per cent of GDP, however, the revenues of the social security funds are 1.4 percentage points below the EU average, which means that social contributions do not fulfill all the 4E. The tax-to-GDP ratio declined noticeably between 2000 and 2004 (see Table 4), then picked up until 2007 as GDP growth accelerated.

In the subsequent two years the tax ratio fell by two points due mainly to a sharp drop in VAT revenue. In 2009 the short term economic outlook for Romania was worse than expected with a huge GDP drop of 7.1 percentage

points (annual average) compared to 2008. Inflation remained elevated, having been pushed up by increases in tobacco excise duties and the VAT rate (from 19 to 24%) and higher fuel prices. Financial market conditions in Romania remained fragile.

Romania has received financial assistance (through a borrowing mechanism) from the EU in 2009 and 2010 in exchange for a package of fiscal measures such as adoption of a draft pension reform, adoption of a comprehensive Fiscal Responsibility Law, full implementation of fiscal consolidation measures. A number of minor measures were agreed on the revenue side, including the broadening of the personal income tax base to lunch vouchers, incomes from capital gains, interests on bank deposits and severance payments as well as the broadening of the tax base for social security contributions to intellectual property rights. (Services, 2012)

2.2 Simulations between tax-to-GDP ratio, public debt ratio and budget deficit ratio with SAS programme

We have used ESA95 classification due to a widely Eurostat database compared with National Institute of Statistic which assured the comparison between european member states.

The purpose of the modelling done in SAS programme is to highlight the connexion between the variables when setting the automatic stabilizers (on one hand the rate of budget deficit as percent of GDP, the rate of public debt as percent of GDP and on the other hand total tax ratio as percentage of GDP).

Generally, the fiscal policy influences the macroeconomic sustainability throw three different channels: the effect of distortionary taxes, the pro-cycled public expenditures, and the effect of automatic stabizators. The European Commission show that the majority of fiscal policies within the EU are discretionary. (Dinga, 2010)

We have used the EUROSTAT database for the mentioned variables. In order to be comparable we have chosen beside Romania the six member states that have became European Union members in 2004 namely, Cech Republic, Estonia, Hungary, Poland, Slovenia and Slovak Republic. We have also compared the results with the EU27 weighted average.

The influence of tax-to-GDP ratio on public debt ratio on the european level. In order to process this simulation we have used EU27 weighted average regarding the total tax-to-GDP ratio and the general government gross debt. The conclusions were:

- the probabilistic value according to Fischer-Sneddecor calculated was 0.9476
- the same weak influence is revealed when calculating the value for Student distribution equal with 0.07 (when the value is close to 0 it means the influence is weak)

For the general form of the regression equation, which is: **Equation**

(1) $Y=a+b \cdot X$,

the values for a and b are the following: $a=59.49842$ [corresponding to a $T=0.86$ and $p(t)=0.41$], and the value for the regression coefficient is $b=0.11782$ ($T=0.07$, iar $p(t)=0.9476$). Thus, the regression equation becomes: **Equation (2)** $Y=59.49842+0.11782 \cdot UE27_{PF}$ For example, if the tax-to-GDP ratio in 2009 was 38.45 then the public debt to GDP considering the european level becomes: **Equation (3)** $59.49842 + 0.11782 \cdot 38.45 = 64.029$

In order to study the correlation coefficient, according to Pearson, SAS programme use the following formula (Dootz, 2000)

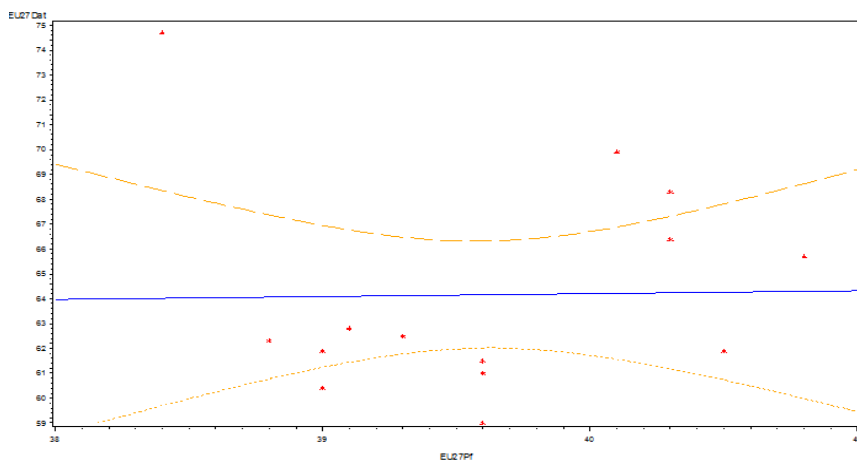
$$\text{Equation (4) CORREL (X,Y)} = \frac{\sum x_i \cdot y_i - n \cdot \bar{x} \cdot \bar{y}}{\sqrt{(\sum x_i^2 - n \cdot \bar{x}^2) \cdot (\sum y_i^2 - n \cdot \bar{y}^2)}}$$

The correlation coefficient can take any value between $[-1,1]$. When the values are closer to 1, that means a tight relationship.

After, analysing the correlation coefficient between the two variables and the result was 0.019 which means a weak relationship between the variables according to EUROSTAT databases.

The influence between public debt-to-GDP on tax-to-GDP ratios at european level. The regression equation becomes of the two variables becomes: **Equation (5)** $R_{presfiscscale/PIB} = 39.39 + 0.00319 \cdot R_{datorieiepublice/PIB}$ The values taken for variable a is $t=12.91$, and $p(t)=0.0001$, and for the regression coefficient b we obtain $t=0.07$, iar $p(t)=0.9476$ The correlation indicator does not change for the same variables even if we change the influences. In the graph below we present the relationship between the 2 variables:

Figure 1: The relationship between tax-to-GDP ratio and public debt-to-GDP at the European level



Source: Author's compilation using SAS software

The graphic has been generated with the GPLOT procedure in SAS programme and outlines the linear relationship between the variables analyzed, having set the trust limits to 90% probability.

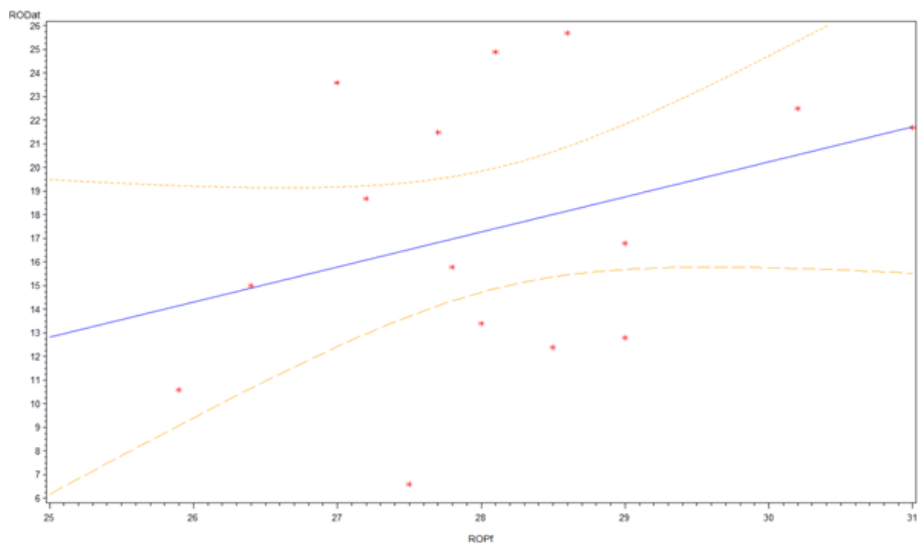
The influence of tax-to-GDP ratio on public debt-to GDP ratio in Romania. Considering the same databases, and having tax-to-GDP as independent variable, the regression equation becomes:

$$\text{Equation (6)} \quad R_{\text{DATpb/PIB}} = 26.707 + 0.081 \times R_{\text{pres.fiscale/PIB}}$$

For example, if we will have an increase of 10 p.p of tax-to-GDP ratio in Romania, the public debt ratio in GDP will rise with 0.81 p.p. The regression coefficient ($R=0.34$) means that the relationship is not at all strong, but stronger as it is on the EU level.

The influence of public debt-to-GDP ratio on tax-to-GDP ratio in Romania. In this case the regression equation becomes: **Equation (7)**
 $R_{\text{pres.fiscale/PIB}} = -24.253 + 1.48 \times R_{\text{datpb/PIB}}$ Considering Romania, an increase by 10 p.p of the public debt-to-GDP generates an increase by 14.8 of tax-to-GDP ratio.

Figure 2: The relationship between public debt-to-GDP ratio and tax-to-GDP in Romania



Source: Author's compilation using SAS software

Comparing the two figures (the EU level and Romania), we came to the conclusion that in the case of Romania the increase of tax-to-GDP determined an increase of public debt, which on the EU level we couldn't mention.

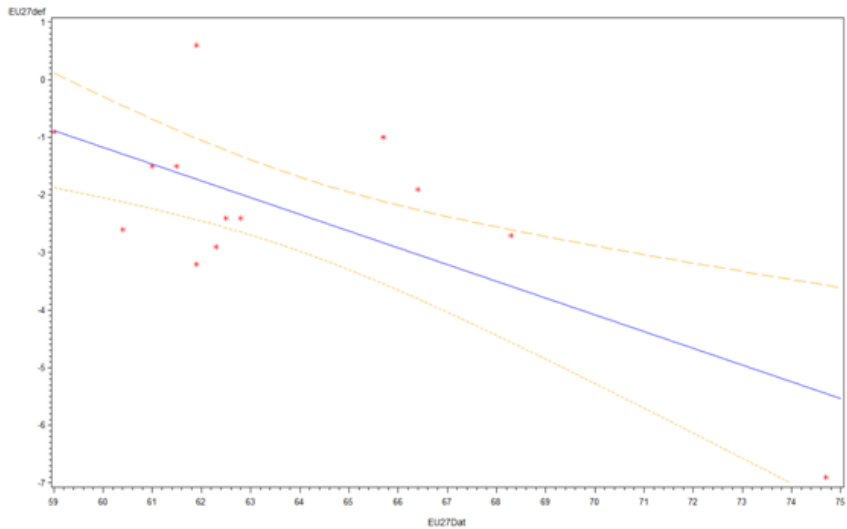
The influence of public deficit –to-GDP ratio on public debt-to-GDP ratio on EU level. In this case the regression equation becomes:
Equation (8) $R_{\text{datpb}/\text{PIB}} = 59.221 + (-1.68444) * R_{\text{defpb}/\text{PIB}}$

The values corresponding to variable a are $t=41.24$, and $p(t)=0.0001$, and for the regression coefficient b we have $t=-3.25$ și $p(t)=0.0077$. The correlation coefficient $R=-0.7002$ means a strong but negative relationship. If the public deficit-to-GDP increases, it will also increase the public debt-to-GDP ratio, an answer we expected.

The influence of public debt-to-GDP ratio and public deficit-to-GDP ratio on EU level. In this case the regression equation becomes:
Equation (9) $R_{\text{defpb}/\text{PIB}} = 16.27255 + (-0.02907) * R_{\text{datpb}/\text{PIB}}$

The values corresponding to variable a are $t=2.85$ și $p(t)=0.0158$, and for b are $t=-3.25$ și $p(t)=0.0077$; the correlation coefficient being the same.

Figure 3- The relationship between public deficit-to-GDP and public debt-to-GDP on EU level



Source: Author's compilation using SAS software

The relationship between public deficit-to-GDP ratio on public debt-to-GDP ratio in Romania. In this case the regression equation becomes: **Equation (10) $R_{\text{datpb}/\text{PIB}} = 15.19 + (-0.66) * R_{\text{defbug}/\text{PIB}}$**

The values corresponding to variable a are $t=5.10$, and $p(t)=0.002$, and the values for the regression coefficient b are $t=-0.89$ și $p(t)=0.3921$.

The relationship between public debt-to-GDP ratio and public deficit-to-GDP ratio in Romania. In this case the regression equation becomes: **Equation (11) $R_{\text{defbug}/\text{PIB}} = -1.94 + (-0.09) * R_{\text{datpb}/\text{PIB}}$**

The values corresponding to variable a are $t=-1.09$, and $p(t)=0.2939$, and the value for the regression coefficient b are $t=-0.89$ și $p(t)=0.3921$.

Some future research theoretical and empirical studies are necessary in order to come up with precise conclusions about the influence of each type of tax on the revenue collection and if they determine variations on public deficit ratio as a percentage of GDP and public debt-to- GDP ratio.

3. Conclusions

Starting from the characteristic of an optimal fiscal system, where apply four main principles (equity, efficacy, economy and efficiency) , we have presented some implications of the tax-to-GDP ratio within the EU27.

Referring to the overall tax-to-GDP ratio of Romania, which is being the lowest in the EU apart from Latvia but having almost the same level like Slovakia and Bulgaria, with a public debt still at a reasonable level but continuously rising and a high public deficit considering the other european states (ranking on the 8th place in 2009 and 11th in 2010 sorting from the biggest to the lowest), we wonder whether the fiscal system is sustainable on medium and long term or not?

Considering the economic crises when the public revenues collection declined more than the public expenditure we have focused on finding the relationship that may occur between tax-to-GDP ratio, public deficit and public debt. Analysing data from the EU level, using SAS programme, we couldnot find a relationship between tax-to-GDP ratio and public debt due to the large differences between countries on many levels.

Although, we could find analyzing the correlation indicator at the EU level that budget deficit ratio as a percentage of GDP have an intense, but negative relationship with public debt ratio to GDP ratio. However, if we analyze the east European countries in particular the relationship can be strong or weak depending on the country(for example, on Poland, Slovak Republic, Slovenia the relationship is weak and on Hungary, Romania and Estonia) the relationship is strong.

Comparing the generated results (from EU level and Romania), we came to the conclusion that in the case of Romania the increase of tax-to-GDP determined an increase of public debt during 1995-2009 , which on the EU level we couldn't mention (considering other variables nule).

The conclusions that can be drawn by this study is that the political decision making should consider the corellation between the other variables,too, when the tax-to-GDP modifies and when setting parameters for automatic stabilizators. Also, it has to consider the specific of the country in order to respect the carachteristic of an optimal fiscal system because a wrong decision will have a high influence on public finance sustainability in a context that already affects all the european countries but not only them. We

consider Romania has to take some decisions but very well fundamented in order to strength the public finance sustainability.

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EVOLUTION OF INCOME DISPARITIES AND MIGRATION WITHIN ROMANIA: BRAIN DRAIN OR BRAIN GAIN ?

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Abstract

This paper carries out an internal analysis of convergence and migration in Romania at county level over the period 1995-2008. The econometric technique applied is the two-way fixed effects panel data model which controls for spatial dependence between neighboring counties.

The main results show that migration was oscillatory, sigma-divergence was accompanied by beta-convergence, and the country was submitted to a brain gain phenomenon in which lagging counties were favored by migration and increased their growth at the expense of leading counties which slow down growth. This brain gain effect is associated with positive migration effect and rising beta-convergence, meaning that migrants were mainly heterogeneous

Key words: *income convergence, internal migration, spatial fixed effects models, brain gain, Romania*

JEL classification: *R11, R23*

1. Introduction

According to the Eurostat NUTS classification, Romania is divided into 8 regions of development (NUTS 2 level) and 42 counties including the capital Bucharest (NUTS 3 level). The NUTS 2 classification was carried out in 1998 (Law no. 151/1998) at the request of the European Union while the NUTS3 units date from 1392, were later abandoned in 1948 by the communist

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regime and revalidated again in 1968.

According to the Romanian National Institute of Statistics (INS), the average land area of a county in Romania is 5,809 km², with the county of Timis (8,697 km²) the largest one and the county of Ilfov (1,583 km²) the smallest one. As for the population density (nationally, 90.1 inhabitants/km²), the most densely populated are Bucharest (8,169 inhabitants/km²) and Ilfov (197.3 inhabitants/km²) while the least densely is Tulcea (29.1 inhabitants /km²) in 2009.

The present research is performed at NUTS 3 or county level because of its higher relevance and covers the period 1995-2008. Its main structure is the following: section 2 offers a theoretical background of convergence and migration, section 3 presents the evolution of internal disparities of income distribution, migration and education in Romania, section 4 investigates on the nature of sigma- and beta-convergence and other interesting features of the beta phenomenon, and finally, section 5 offers some insights on future work. To my knowledge, there is no other study that analyzed convergence and migration using the present methodology for Romania; a similar technique was applied by Arbia, Basile and Piras for Italy in 2005.

2. Theoretical background of convergence and migration

2.1. Implications of convergence

Nowadays there are numerous studies about income convergence with contradictory results. The focus is more on regional convergence within EU than on regional convergence within a singular country. The issue of convergence is problematic starting with the conflict of arguments belonging to the two main economic growth theories, neoclassical and endogenous growth. This is why today we are talking about unconditional, conditional, stochastic, club and other types of convergence. Besides this typology concern, another point of interest rest on the general impact of migration, the type of migration (net or gross) one should consider, and on the human capital structure of migrants (homogenous or heterogeneous).

Regional convergence is crucial for the European Union integration and, in general, for getting political support for any economic integration. As the integration process became deeper and wider, the issue of regional economic disparities both within-country and between-country grew in

intensity, especially if we refer to the desire of new Eastern EU members to catch up with the core EU members.

Regional convergence within one country is also important because one cannot talk about international integration as long as internal disparities persist and thus slow down the catching-up process. One important mechanism that contributes to dilute internal disparities could be migration.

2.2. Main types of convergence

The neoclassical growth model predicts that the income growth rate of a region is positively related to the distance that separates it from its steady-state (Dall'erba and Le Gallo, 2004). Bernard and Durlauf (1996) define convergence as a process by which each region moves from disequilibrium to equilibrium and distinguishes between global convergence (difficult to reach) and local convergence (more plausible).

Convergence should be interpreted in two different ways (Fischer and Stirböck, 2005):

- **convergence in terms of income level:** regions similar in technology, preferences, legal system, etc. tend to reach the same steady-state income level in the long run;
- **convergence in terms of income growth:** all regions will reach the same steady-state growth rate if technology is a public good.

Convergence can be divided mainly in sigma-convergence and beta-convergence, each with its functions (Barro and Sala-i-Martin (further BSiM), 1992; Marques and Soukiazis, 1998):

- **sigma-convergence** (traditional type developed by Baumol, 1986): measures the temporal dispersion of real output across regions using the standard deviation or the coefficient of variation; convergence is when the dispersion falls over time, otherwise there is divergence;
- **beta-convergence** (neoclassical type developed by Barro et al., 1991): measures the relationship between the previous per capita income and current income growth rate using the long-run regression:

$$\log\left(\frac{\text{gdp}_{iT}}{\text{gdp}_{i,t}}\right) \Big/ T = \alpha - \frac{(1-e^{-\beta T})}{T} * \log(\text{gdp}_{it}) + \delta * X_{iT} + \varepsilon_{iT},$$

(1)

where gdp_{iT} and gdp_{it} are the per capita income in the final year T and t, T the length of time, α the autonomous or steady-state growth rate, β the convergence rate, X_{iT} a vector of structural exogenous variables influencing growth, and ε the idiosyncratic error. *A positive convergence rate reflects convergence.*

Furthermore, both can be unconditional and/or conditional. **Absolute (unconditional or strong) beta-convergence** is when homogenous regions (in technology, preferences, institutions, language, etc., or in initial conditions) tend to reach the same steady state in time, i.e. beta is obtained without introducing any structural variable X, while **relative (conditional or weak) beta-convergence** is when heterogeneous regions (although with similar initial conditions) tend to reach their own steady-state levels, i.e. beta is obtained including some structural variables X. *While sigma-convergence tests the evolution over time of the distribution of per capita income, beta-convergence tests the mobility of per capita income within the same distribution.* Therefore, **beta-convergence is a necessary but not a sufficient condition for sigma-convergence** (stronger); thus, these two concepts are more complementary than substitutable (Sala-i-Martin, 1995). Or, the “beta” concept examines how fast poor regions become richer and rich regions become poorer; instead, the “sigma” concept examines whether regional incomes become more similar (Magrini, 2007).

Maurer (1995) explains the statistical relation between the two concepts of convergence in six lemmas based on Cauchy-Schwarz inequality: 1st σ -convergence implies necessarily β -convergence, 2nd β -divergence implies necessarily σ -divergence, 3rd β -convergence syncs with σ -convergence or σ -divergence, 4th σ -divergence syncs with β -divergence or β -convergence, 5th β -constancy syncs with σ -convergence or σ -constancy, and 6th σ -constancy syncs with β -convergence or β -constancy.

Although sigma- and beta-convergence are the most debated in the convergence literature and practice, Baumol et al. (1994) identified a total of seven types of convergence:

- *homogenization or sigma-convergence*: reduced variance (dispersion) of per capita income over time;
- *catch up*: narrowing gap between leading region and lagging regions;
- *gross or unconditional convergence*: poorer regions grow faster than wealthier regions without controlling for any conditioning variables;
- *explained or conditional convergence*: poorer regions grow faster than

- wealthier regions after controlling for relevant conditioning variables;
- *residual convergence*: after conditioning for relevant variables, the unexplained part of per capita variance tends to decrease over time;
- *asymptotically perfect convergence*: due to no change in technology, which is a perfect good, all regions converge to the same income level or steady state;
- *bounded convergence*: if the time paths of the per capita income are heading to destination points not necessarily identical but close enough according to some predetermined criteria.

2.3. How important is migration for convergence?

Usually, migrants move from regions with low incomes and high unemployment to regions with higher incomes and better employment opportunities. This contributes to the adjustment to asymmetric shocks. But if labor is rigid, the regional disequilibria will persist unless other mechanisms intervene (Fidrmuc, 2004).

Standard growth models assume that migration adds to convergence and explain its impact on the convergence process by the mobility of labor from capital-poor regions to capital-wealthier regions until wages equalize, thus, all regions will tend to reach their steady-state equilibrium with the same capital-labor ratio and income (Faini, 2003).

Empirical convergence across countries and regions has started with the work of Barro et al. in 1991. Afterwards, an extensive number of studies flourished. The majority of them were based on the neoclassical growth theory. According to this, in time, poorer regions (with a lower capital intensity or ratio capital/labor) catch up richer regions (higher capital intensity) in their GDP/capita level due to decreasing returns to capital. Moreover, allowing for mobility (people/labor) across regions would speed the rate of convergence only if migrants are homogenous in their human capital content. Within developed countries, migration is expected to have a rather small impact on convergence (BSiM, 2004), whereas within developing countries its impact is expected to be higher as migrants are in general low skilled and move from poor agricultural regions to wealthier urban ones (Kirdar and Saracoğlu, 2007).

Net migration or gross migration? The impact of migration should be assessed considering both net and gross migration. Using gross (arrivals and departures) and net migration (balances) could yield different results

because *in- and out-migration may not work symmetrically* in the growth rate equation and, hence, should not be treated as such. It is possible that even when net migration is null, gross migration may conduct to important regional redistributions of human capital and, in turn, regional traits may reflect differently on gross flows. Another way put, a subtle variation in net migration rate can be accompanied by large variations in both in- and out- migration rates. Therefore, *using only net migration instead of both net and gross migration could be misleading*. According to the neoclassical approach, in-migration should negatively impact on convergence while out-migration positively (Østbye and Westerlund, 2007; Etzo, 2008).

Are migrants homogenous in their level of skills? As mentioned before, *migration should impact negatively on growth and add to convergence if migrants possess similar human capital* (i.e. are homogenous) by increasing the capital intensity in regions with net migration outflows and lowering it in regions with net inflows. But if migrants do not have the same human capital content, the net effect (favorable or not) depends on the following two situations (Østbye and Westerlund, 2007):

- if migration leads to an increase in human capital in the lagging regions and to a decrease in the leading regions or, simpler, lagging regions are favored by migration, we say that the quantity (negative) effect is dominated by the composition (positive) effect, which is called in the literature **brain gain**;
- if migration boosts human capital in the already leading regions and diminishes it in the lagging regions or, simpler, leading regions are the net gainers from migration, we say that the quantity effect is stronger, phenomenon called **brain drain**.

In the case of brain drain, migration impacts negatively on economic growth and beta-convergence decreases, whilst in the case of brain gain, migration impacts positively on an increasing beta-convergence.

Therefore, when controlling for the human capital endowment, i.e. taking account of heterogeneity among migrants, migration could act as a favorable or unfavorable tool for income convergence. Østbye and Westerlund (2007) states that *if out-migrants are more skilled than non-migrants this could lead to (negative) out-migration slowing down growth* because the loss in human capital per head may exceed the gain in physical capital per head. Additionally, *if in-migrants are more productive than host inhabitants this could lead to (positive) in-migration raising growth* because the gain in

human capital may exceed the loss in physical capital.

But what is the implication of higher skills? According to the exogenous theory, a higher education generates a higher productivity and thus a higher level of output (Etzo, 2008).

2.4. Some previous empirical results

Rey and Montouri (1999) employed a spatial econometric perspective in analyzing the dynamics of regional income convergence patterns in the US over the period 1929-1994 and using cross-sectional data. Their results revealed the existence of spatial correlation in growth rates. Because regions cannot be treated as “isolated islands” (Quah, 1996), convergence studies should consider the spatial dependence of regional growth, i.e. one region is also dependent of other regions growth due to various interactions (trade, labor markets, information, knowledge, etc.).

BSiM (2004) estimated convergence in per capita personal income across 48 states of USA over 1920-1990 using cross-sectional data and found significant but different conditional convergence rates for each decade. They used as control variables the population density (and its square value) and the heating degree days. Also, they estimated convergence for Japanese prefectures over 1955-1990 and also found significant but different rates of conditional convergence. The conditioning variables used were the extreme temperature, each prefecture’s own population density and of its neighbors’. They employed a Two-Stage Least Square (2SLS) method of estimation.

Arbia et al. (2005) used spatial fixed-effects panel data in modeling regional convergence and growth within Italian provinces over 1951-2000. The motivation for using both fixed-effects panel data and spatial econometrics is to separate the individual effects of spatial dependence and spatial heterogeneity/omitted variables. When testing for conditional convergence using cross-sectional data they obtained convergence for the whole period and both sub-periods (1951-1970, 1970-2000). When estimating a fixed-effects spatial lag model, all beta coefficients fall although remain robust, adjusted R² rose, the spatially lagged term of growth rate turned positive and significant, thus confirming the positive effect of technological spillovers, factor mobility and trade on convergence. Afterwards, when estimating a fixed-effects spatial error model, the authors obtained significant spatial autocorrelation coefficients and similar beta coefficients as those obtained using the standard fixed-effects model. Hence, it results that SER

was more suitable.

Kirdar and Saracoğlu (2007) analyzed internal convergence across 67 Turkish provinces for the period 1975-2000. They used panel data, employed also 2SLS method and controlled for provincial fixed effects. The variables used were real gross provincial product per capita, net internal migration rates, provincial population densities and state of emergency status. Their results showed a strong negative impact of migration on provincial convergence because of two main reasons: first, most Turkish migrants were low skilled workers leaving rural areas for urban ones and, secondly, migration within Turkey reached high levels.

Østbye and Westerlund (2007) made a convergence analysis across Swedish and Norwegian counties during the period 1980-2000. Apart from the standard variables, real GDP per capita and migration (net and gross), the authors also used: the share of population with a college degree as proxy for the educational attainment, the share of the employed in the working age population as proxy for employment opportunities, the share of real added value from primary production as proxy for different industry structures, climate and population density measures (each different by country) as proxies for regional amenities. The method of estimation employed was the Generalized Method of Moments. The two researchers employed two versions for each country: without human capital and with human capital. Within each version, migration was first excluded and after included in its both forms (net, and after, in and out) from/in the convergence equation. The results of the most advanced estimation (human capital with net migration) pointed out at migration being an imbalance factor for Norwegian convergence (brain drain) and an equilibrating one for Swedish convergence (brain gain). Moreover, for Norway, net migration turned negative while in- and out-migration acted quite symmetrically although with the correct signs according to the neoclassical theory. For Sweden, net migration turned positive while in- and out-migration also returned opposite signs.

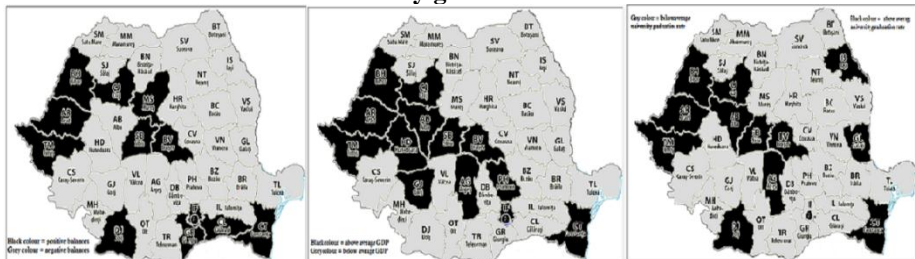
3. Income, migration and education disparities within Romania

Data. This article uses the following indicators: nominal GDP per inhabitant, level and growth (no price index available by county), net and gross migration rates and the university graduation rates. Data were obtained from the Romanian National Institute of Statistics (INS) database and processed by

me.

Figure 1 reflects the county maps of relative values (to national means) of indicators such as per capita income level, net migration and university graduation rates (all averages 1995-2008). One can observe that the leading counties are situated in the regions Bucharest-Ilfov, Centre and West and recorded values above the averages. Also, the figure shows that Timis, Arad, Constanta, Cluj, Sibiu, Bucharest, Bihor and Brasov had all positive average balances, and above average GDPs per capita and higher education during 1995-2008. 14 counties had GDPs above the average, 13 counties recorded net inflows of migration and also above average education rates.

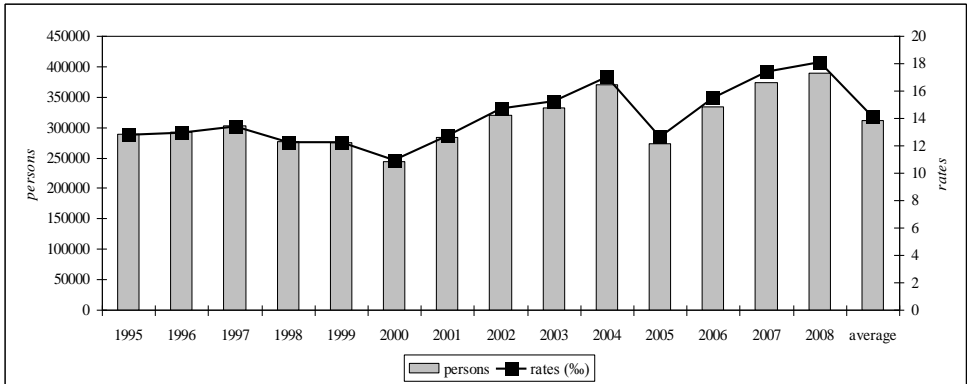
Figure 1: County map of (a) per capita GDP; (b) migration balances and (c) university graduation rate



Source: Own elaboration based on INS data

Figure 2 displays the year-by-year evolution of internal migration, both numbers and rates of migrants. The lowest values was registered in 2000 (both absolute-244,507 persons and relative-10.89‰) and the highest ones (389,254 persons and 18.08‰) in 2008. The means for the whole period were 311,300 persons and 14.11‰, with a breakpoint in 2001. One can see over the sub-period 1995-2001 migration recorded relatively lower levels and rates compared with those corresponding to 2002-2008. Another distinctive fact is the presence of two time spans with continuous migration growth, i.e. 2001-2004 and 2006-2008.

Figure 2: Numbers and rates of internal migrants in Romania, 1995-2008



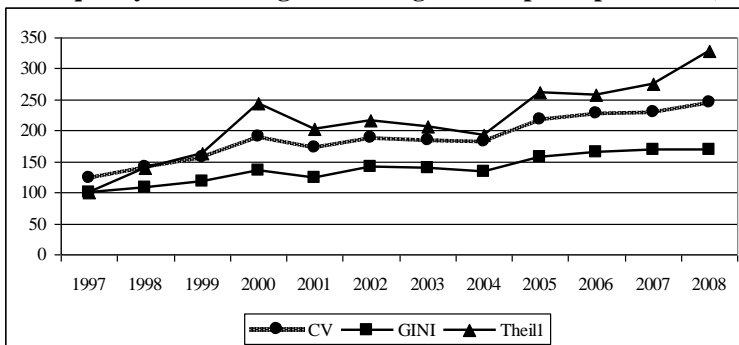
Source: Own elaboration based on INS data

4. Statistical and econometric testing of Romanian income convergence

4.1. Sigma-convergence

In order to assess sigma-convergence, I compute the following three indexes of inequality: the coefficient of variation, the Gini index and the Theil index. Figure 3 is representative: all indicators reflect a similar general upward trend in income levels although with ups and downs. Therefore, I can conclude that Romania witnessed a sigma-divergence process.

Figure 3: Inequality indexes / sigma-convergence for per capita GDP (1995=100)



Source: Own elaboration based on INS data

4.2. Beta-convergence

In this sub-section, I analyze conditional beta-convergence and try to identify if a brain drain or brain gain process took place using the variables described in table 1. The dependent variable is the GDP per capita growth rate whereas the independent variables are the GDP per capita level, net migration and gross migration rates, and the percentage of higher education graduates. Covariates are lagged one year, data are used in panel form and the number of observations is 546 throughout the analysis.

Table 1: Descriptive statistics of the model variables

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|----------------------------------|-----|---------|-----------|----------------------------|-----------------------------|
| Growth rate (log) | 546 | 0.024 | 0.013 | -0.0087 (Calarasi 2005) | 0.075 (Bucharest 1997) |
| GDP/capita (GDP) | 586 | 7343.27 | 7457.68 | 214.528 (Vaslui 1995) | 60334.9 (Bucharest 2008) |
| Net migration rate (NET) | 586 | -0.079 | 2.716 | -7.716 (Hunedoara 1997) | 32.14 (Ilfov 2008) |
| In-migration rate (INM) | 586 | 13.75 | 3.806 | 5.46 (Maramures 2000) | 47.825 (Ilfov 2008) |
| Out-migration rate (OUTM) | 586 | 13.83 | 3.168 | 6.43 (Satu Mare 2000) | 26.5 (Bucharest 2008) |
| Education rate (EDU) | 586 | 3.19 | 5.041 | 0 (many) | 47.34 (Bucharest 2007) |

Source: Own elaboration based on STATA 9/S.E results.

NB: *Net migration rate* is computed as the ratio between the difference of in-migrants and out-migrants in/from a province at the end of period t , and the province's population at the beginning of period t .

The methodology employed tests for spatial dependence in the form of **spatial Durbin model** (implies introducing the spatial lags of both regressant and regressors in the right-hand side equation), **spatial lag model** (implies introducing only the spatial lag of the regressant) or **spatial error model** (using the spatial lag of the error term). If none results to be an optimal feasible option, I will use a **non-spatial panel data** version. All regressions include both county- and period-specific effects, i.e. models are two-way fixed effects, in order to control for omitted, time invariant variables (county effects) and common shocks to all counties (time effects). For more details on spatial econometrics, see Anselin (2010) and Elhorst (2010b).

Elhorst (2010a) applies two approaches in order to establish which model best describes the data, spatial Durbin model (SDM), spatial lag model (SAR) or spatial error model (SEM). The first, called the *specific-to-general approach*, implies the estimation of the non-spatial model and tests it against SAR and/or SEM. The corresponding tests are the classic and robust LM tests which work under the null hypothesis of no spatial lag or no spatial error. The second, the *general-to-specific approach* implies the estimation of SDM if the non-spatial model is to be rejected and tests if this last model can be simplified to SAR or SEM. If both approaches point to the use of SAR or SEM, one should use the right one; but if the non-spatial model is rejected in favor of SAR or SEM while SDM is not, one should use SDM. The corresponding tests are the Wald and LR tests, both working under the null hypotheses that SDM should be simplified to SAR or SEM. If both hypotheses are rejected, then one should use SDM. But if one of them cannot be rejected, e.g. SAR, then one should use SAR only if the (robust) LM tests also point to this model. Moreover, if the (robust) LM tests point to another model than the Wald/LR tests, then SDM should be applied.

From table 2, I can observe that only the classic LM tests turned significant values at 1% threshold level; thus, I cannot totally reject the spatial lag or the spatial error. Instead, the Wald and LR tests strongly reject the SDM in favor of SAR or SEM. In consequence, *I prefer to test both SAR and SEM* in order to see which returns the best results according to estimates and the Akaike and Bayesian information criteria (AIC and BIC). Hence, my regressions take the following two forms:

$$\log Y_{it} = \alpha + \eta_i + \nu_t - b * \log X_{i,t-1} + (I - \lambda W)^{-1} \varepsilon_{i,t} \quad - \text{the spatial error}$$

model (SEM),

(3)

where η_i and ν_t are the fixed effects, ρ captures the strength of cross-county spillovers, λ captures the spatial correlation of any omitted variables, and W is a predetermined matrix of exogenous weights and, in my case, is the contiguity matrix which takes values of 1 if two counties share the same boundaries and 0 otherwise.

The results from tables 2 and 3 can be summarized the in the following points below:

- Beta-convergence rate varies within the range [2.99-3.25%] in the non-spatial model and [2.92-3.16%] in the spatial models; also, beta is relatively higher in the non-spatial model, no matter the inclusion of net or gross migration, or education; instead, when estimating SAR and SEM, I obtain almost the same beta rates, smaller than those obtained with the non-spatial lag model;
- When controlling for education, beta increases, no matter the type of migration; but when replacing net with gross flows, beta decreases, no matter the inclusion of the education rate;
- The half life, i.e. the number of years necessary to cover half the distance from the steady-state level, rounds the interval [26-28];
- Net migration turns positive and significant values in all cases, while in- and out-migration estimates turned opposite signs (i.e. worked symmetrically), also significant;
- Net migration's impact is smaller in SEM than in SAR and the non-spatial model. When introducing education, its impact increases in all cases; the same things hold for in-migration, but not for out-migration whose impact on SEM is superior than on SAR and inferior than on the non-spatial model;
- The education rate is throughout positive but only robust when controlling for the net migration rate (in both non-spatial and SAR models);
- The goodness-of-fit measures, R^2 (highest), log-likelihood (highest) and AIC and BIC (smallest), indicate that the model which best describes the data is *SAR with gross migration and education rate*.
- The positive and robust in-migration rate coefficient means that in-migrants were more skilled than host inhabitants, or the gain in human

capital per head overhauled the loss in physical capital, thus boosting economic growth. Instead, the negative and robust out-migration coefficient means that out-migrants were more skilled than non-migrants, or the loss in human capital per lead exceeded the gain in physical capital per head, thus slowing down growth (interpretation offered by Østbye and Westerlund, 2007);

- The spatially lagged growth rate and the spatial autocorrelation component both show significant estimates, thus confirming the correctness of using SAR and SEM;
- After controlling for education endowment, net migration increases its favorable impact on income convergence whose rate also steps-up, thus pointing to the existence of a **brain gain effect** (dominant composition effect over the quantity one), i.e. migration favored lagging regions at the expense of leading regions;
- The combination of sigma-divergence and beta-convergence is compatible with the Cauchy-Schwartz inequality and, especially, with Maurer's (1995) 3rd lemma mentioned earlier.

Table 2: Non-spatial model estimations, 1995-2008

| Non-spatial model | Net migration | | Gross migration | |
|--------------------------|---------------|----------------|-----------------|----------------|
| | no education | education | no education | Education |
| GDP | -0.0251*** | - 0.0265*** | -0.0248*** | - 0.0258*** |
| Beta (%) | 3.04 | 3.25 | 2.99 | 3.14 |
| Half life (years) | 27.3 | 25.8 | 27.6 | 26.5 |
| NET (%) | 0.077*** | 0.081*** | - | - |
| INM (%) | - | - | 1.35*** | 1.39*** |
| OUTM (%) | - | - | -1.21*** | -1.30*** |
| EDU (%) | - | 0.068** | - | 0.057 |
| R2 | 0.895 | 0.895 | 0.896 | 0.896 |
| Log Likelihood | 2173.4 | 2175.5 | 2176.6 | 2178.1 |
| AIC | -4342.8 | -4345 | -4347.2 | -4348.2 |
| BIC | -4341.3 | -4342.8 | -4345 | -4345.2 |

| | | | | |
|---|-----------|-----------|-----------|-----------|
| LM test SAR | 9.88*** | 9.97*** | 10.01*** | 10.05*** |
| Robust LM test SAR | 1.94 | 3.42 | 3.01 | 4.04** |
| LM test no SEM | 8.05*** | 7.24*** | 7.48*** | 6.99*** |
| Robust LM test SEM | 0.12 | 0.68 | 0.48 | 0.98 |
| LR test - no spatial fixed effects | 143.11*** | 139.10*** | 145.83*** | 141.32*** |
| LR test - no time fixed effects | 762.20*** | 761.81*** | 765.35*** | 761.96*** |

*** Significant at 1% threshold level; ** Significant at 5% threshold level

Table 3: Spatial lag model and spatial error model estimations, 1995-2008

| Non-spatial model | Net migration | | | | Gross migration | | | |
|--------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|
| | No education | | Education | | No education | | Education | |
| | SAR | SEM | SAR | SEM | SAR | SEM | SAR | SEM |
| GDP | - 0.0245 *** | - 0.0246 *** | - 0.0259 *** | - 0.0259 *** | - 0.0243 *** | - 0.0243 *** | - 0.0254 *** | - 0.025 *** |
| Beta (%) | 2.95 | 2.96 | 3.16 | 3.16 | 2.92 | 2.92 | 3.08 | 3.05 |
| Half-life (years) | 27.9 | 27.8 | 26.4 | 26.4 | 28.2 | 28.2 | 26.9 | 27.2 |
| NET (%) | 0.074* ** | 0.072* ** | 0.078* ** | 0.076* ** | - | - | - | - |
| INM (%) | - | - | - | - | 1.30** * | 1.26** * | 1.34** * | 1.30* ** |
| OUTM (%) | - | - | - | - | - 1.12** * | - 1.14** * | - 1.21** * | - 1.23* ** |
| EDU (%) | - | - | 0.069* * | 0.062 | - | - | 0.057 | 0.052 |
| Rho | 0.237* ** | - | 0.236* ** | - | 0.244* ** | - | 0.238* ** | - |

| | | | | | | | | |
|-----------------------|-------------|-------------|-------------|--------------|--------|--------------|-------------|-------------|
| Lambda | - | 0.19** * | - | 0.172* ** | - | 0.173* ** | - | 0.168 |
| R2 | 0.897 | 0.894 | 0.898 | 0.895 | 0.899 | 0.896 | 0.899 | 0.896 |
| Log Likelihood | 2178.2 | 2177.4 | 2180.3 | 2179.1 | 2181.5 | 2180.3 | 2182.9 | 2181.6 |
| AIC | - 4350.4 | - 4350.8 | - 4352.6 | - 4352.2 | -4355 | - 4354.6 | - 4355.8 | - 4355.2 |
| BIC | - 4348.2 | - 4349.3 | - 4349.6 | - -4350 | -4352 | - 4352.4 | - 4352.1 | - 4352.2 |

*** Significant at 1% threshold level; ** Significant at 5% threshold level

5. Future research

In a future article I intend to employ a dynamic spatial panel data model to assess convergence and migration to overcome the possible drawbacks of the static model used here. Also, I plan to analyze convergence through the distribution dynamic approach.

6. Acknowledgement

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A MULTIREGIONAL ANALYSIS OF THE ENTREPRENEURSHIP IN ROMANIA'S RURAL AREAS IN THE CONTEXT OF EUROPEAN FUNDING OPPORTUNITIES

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Abstract

One way to overcome the economic crisis is that of taking advantage of the business opportunities and financing within the regional development. The aim of the present paper is to underline the importance of being informed about the business opportunities and analyze the results of a research related to the cooperation between parties interested in local and regional development. A set of two hypothesis has been tested using information from a survey questionnaire based. The results of our research underline that the relationship established between the business environment and public local authorities, ownership associations are influenced by the access to information on financing opportunities and obtaining European funds.

Keywords: *entrepreneurs, potential entrepreneurs, public administration, European funds, regional development* 10 **Bold Italic**

JEL classification: *M13; R58; O18; P25*

1. Introduction

The importance of entrepreneurship for the development of national and regional economies has been widely recognized in the business literature (Tamasy, 2006). Entrepreneurship represents a possible lever both for regional growth and national development in Europe, and has a great impact upon human life (Braun, Diensberg, 2007). In essence, regional success is the result

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of the regional capacity to exploit the local resources (e.g., financial resources, natural resources, social and human capital) by using institutional capacities, community participation and intangible aspects (e.g., entrepreneurship, cultural identity) and facilitating local and foreign direct investments (Pezzini, 2003).

Particularly in the rural regions, there is typically little business activities to provide enough opportunities for the residents (e.g., jobs), and only “a proactive stance towards entrepreneurship can dramatically increase the number of businesses that start up and expand” (Holley, 2005, p. 7). From this point of view Romania constitutes a valuable example because approximately 45 % of the total population lives in the rural regions. Romania provides in the rural areas a wide range of attractive natural and cultural opportunities in order to be exploited by entrepreneurs (Nemirschi, Craciun, 2010). That is why the interest for rural entrepreneurship in Romania has been enhanced especially in the last decade by the specific programs implemented by the European Union for the development of remote areas (Gurau, 2009). In spite of the fact that in Romania the rural entrepreneurial activity is rather low and the rural areas are rather characterized by high conservatism (Tudor, 2008), there is a huge potential for its development in these areas. In this respect the project “Rural Entrepreneur”, 2010-2012, run by the National Foundation of Young Managers (FNTM) co-financed from the European Social Fund, has been a trigger for the development of rural entrepreneurship in Romania.

Having as a starting point the above statements, some questions arise about information related to business and financing opportunities and business environment in rural areas, also about how the interested parties collaborate on local and regional development. The questions are:

- Is there any information deficit among rural entrepreneurs on business opportunities?
- To what extent have European funds been used by rural entrepreneurs?
- Which is the collaboration level of the parties interested in local and regional development?

In order to have the answers a methodological approach has been used based on a sociological survey (Rotaru și Ilut, 2006).

The first part of the paper deals in detail with the research methodology. The results are analyzed and interpreted in the second part

which deals with the main questions from the questionnaire. The final conclusions follow.

2. Research methodology

The aim of the paper is the assessment of cooperation between the palyers interested in rural development in the targeted regions. The objectives are:

O1. Identify the information level of the entrepreneurs and potential entrepreneurs related to business opportunities in rural areas;

O2. Identify to what extent the European rural funding opportunities are used by the rural business environment;

O3. Measure the cooperation degree of the players involved in rural development;

Having the objectives clearly stated, the following hypothesis have been formulated:

- The better the entrepreneurs and potential entrepreneurs are informed about business opportunities, the more enhanced is the cooperation with the relevant players involved in regional development;

- If the economic players have used European funding, the cooperation with the parties interested in regional development is greater;

The study involved carrying out a questionnaire on four distinct development regions: South-Muntenia, South-West, North-West and West. The number of respondents: 1,448 aged 18 and over. Table 1 shows the distribution of respondents sample.

Tabel 1: Distribution of respondents according to region and their entrepreneurship status

| Development region | Entrepreneurship status | | Calculation basic number |
|--------------------------|-------------------------|------------------------|--------------------------|
| | Owner / self employed | potential entrepreneur | |
| South-Muntenia | 24.5% | 75.5% | 554 |
| South-West | 17.6% | 82.4% | 279 |
| North-West | 19.9% | 80.1% | 337 |
| West | 25.9% | 74.1% | 278 |
| Average on the 4 regions | 22.4% | 77.6% | 1448 |

| | | | |
|--------------------------|-----|------|------|
| Calculation basic number | 324 | 1124 | 1448 |
|--------------------------|-----|------|------|

The sample size of the survey consisted of people interested in using European funds and who attended the Young Managers National Foundation Conference held in February – April 2011. The YMNf Conferences were advertised in the local and national media and benefited from the support of a national network of consultants who informed about the venues of the conferences in the 4 regions. Public local authorities also supported the organization of the conferences.

The sample size was picked at random. The selection process of the respondents was achieved through a statistic stance from the conference participants. Thus the sample is representative for the entrepreneurs and potential entrepreneurs who are interested in European funding opportunities of the 4 development regions and the margin of error is $\pm 2.6\%$ at a reliable level of 95%.

The interviews were *face-to-face* and were carried out in an environment specially equipped to enable confidentiality. The survey was carried out by the author of the paper. It also had the support of professors Dumitru Sandu and Sorin-George Toma from the University of Bucharest, specialists in regional development and entrepreneurship. The questionnaires have been stored in a data base and syntax of answers variables and codes labeling has been created. Information has been processed using Statistical Package for Social Sciences (SPSS). 12.0. Figures and graphs are in Microsoft Excel.

2. Results of research

2.1. The first tested hypothesis refers to the correlation between the information degree about business opportunities and cooperation with the players relevant to the regional development. The access to information affects the collaboration with the people involved in local and regional development. The rural owners deem themselves less informed about business opportunities than those from urban environment (71%). 18.1% consider they are just rightly informed and only 1.7 % consider they are better informed than their urban peers. Apart from the people from the West development region, at a greater extent the owners consider themselves less informed than those who say they want to start a business (see Table 2).

Table 2: Perception of the rural entrepreneurs and potential entrepreneurs regarding business opportunities in the area (%)

| Development region | South-Muntenia | | South-West | |
|--|------------------------------|-------------------------------|------------------------------|-------------------------------|
| Entrepreneurship statute | Owner / self employed | potential entrepreneur | Owner / self employed | potential entrepreneur |
| Better informed than those from urban areas | 2.2 | 2.4 | 0.0 | 1.3 |
| Just rightly informed as those from urban areas | 18.4 | 21.1 | 14.3 | 15.7 |
| Less informed | 73.5 | 68.4 | 77.6 | 73.9 |
| Do not know | 5.9 | 8.1 | 8.2 | 9.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Calculation base | 136 | 418 | 49 | 230 |
| Development region | North-West | | West | |
| Entrepreneurship statute | owner / self employed | potential entrepreneur | owner /self employed | Potential entrepreneur |
| Better informed than those from urban areas | 1.5 | 0.7 | 0.0 | 2.4 |
| Just rightly informed as those from urban areas | 19.4 | 13.3 | 23.6 | 19.4 |

| | | | | |
|-------------------------|-------|-------|-------|-------|
| Less informed | 71.6 | 74.4 | 65.3 | 67.0 |
| Do not know | 7.5 | 11.5 | 11.1 | 11.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Calculation base | 67 | 270 | 72 | 206 |

Those who consider themselves just rightly informed are very pleased with the APL collaboration, ownership associations and central public authorities (see Table 3).

Entrepreneurs and potential entrepreneurs from rural areas who say they are less informed are rather dissatisfied with local public authorities and ownership associations.

Table 3: Satisfaction degree towards the parties interested in regional development * access to information related to business opportunities

| Satisfaction degree | Relationship with | Better informed | Just rightly informed | Less informed | Do not know |
|----------------------------|------------------------------|------------------------|------------------------------|----------------------|--------------------|
| Very satisfied | APL | 37.5% | 27.9% | 21.2% | 9.0% |
| | Ownership association | 8.3% | 11.5% | 6.5% | 3.7% |
| | APC | 4.2% | 11.8% | 5.4% | |
| Satisfied | APL | 25.0% | 36.6% | 37.7% | 17.2% |
| | Ownership association | 33.3% | 40.8% | 38.2% | 17.9% |
| | APC | 25.0% | 24.4% | 25.0% | 12.7% |
| Dissatisfied | APL | 8.3% | 9.2% | 14.8% | 5.2% |
| | Ownership association | 12.5% | 9.5% | 11.7% | 4.5% |
| | APC | 4.2% | 13.4% | 14.0% | 7.5% |
| Very dissatisfied | APL | 4.2% | 6.9% | 5.8% | 3.0% |
| | Ownership association | 4.2% | 3.8% | 2.3% | 1.5% |
| | APC | 4.2% | 3.8% | 6.9% | 0.7% |

| | | | | | |
|---|------------------------------|-------|-------|-------|-------|
| I have not had any collaboration with them until now | APL | 25.0% | 19.5% | 20.4% | 65.7% |
| | Ownership association | 41.7% | 34.4% | 41.2% | 72.4% |
| | APC | 62.5% | 46.6% | 48.7% | 79.1% |

The formulated hypothesis is confirmed. Improvement of the relationship between the parties involved in regional development can be achieved only if equal access to business opportunities is being provided.

3.2. The second tested hypothesis relates to the use of European funds and collaboration with parties interested in regional development.

2.2.1 Testing the hypothesis at sample level. The data confirm that there are not dramatic differences between the number of accessing pre-adherence funds and post-adherence ones until the date of the survey. It emphasizes a certain practice, a pattern how companies accessed European funds (see Table 4).

Table 4: Access to non-refundable financing in rural areas: pre-adherence and post-adherence funds(%)

| | Have you accessed any non-refundable pre-adherence fund (PHARE, SAPARD, ISPA) with your company or another one? | Have you accessed any post-adherence fund? |
|--|--|---|
| Yes, I got financing | 12.9 | 12.3 |
| Yes, but I have not got the funds | 5.7 | 4.4 |
| I have not tried | 81.4 | 83.3 |
| Total | 100.0 | 100.0 |
| Number | 1448 | 1448 |

We can see that the business environment of the South-West region had taken the least interest in accessing pre and post-adherence funds compared to other regions (see Table 5). There the success rate was lower than in other regions.

Table 5: Access to non-refundable financing in rural areas: pre-adherence and post-adherence funds on development regions firmelor cu interes

| Have you accessed any non-refundable pre-adherence fund (PHARE, SAPARD, ISPA) with your company or another one? | | | | |
|--|-----------------------|-------------------|-------------------|-------------|
| | South-Muntenia | South-West | North-West | West |
| Yes, I got financing | 14.8% | 7.9% | 10.7% | 16.9% |
| Yes, but I have not got the funds | 6.1% | 4.7% | 5.6% | 6.1% |
| I have not tried | 79.1% | 87.5% | 83.7% | 77.0% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% |
| Have you accessed any structural fund (after the accession to EU)? | | | | |
| | South-Muntenia | South-West | North-West | West |
| Yes, I got financing | 12.8% | 6.1% | 10.4% | 19.8% |
| Yes, but I have not got the funds | 5.1% | 4.7% | 4.2% | 3.2% |
| I have not tried | 82.1% | 89.2% | 85.5% | 77.0% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% |

Our hypothesis underlines the relationship between access to European funds and public local authorities, central and professional organizations. One can see that there is a direct relationship between access to pre-adherence funds and collaboration with local authorities, central and business ownership associations. The closest collaboration has been with APL – 93%, followed by business ownership associations – 81.7% and public central authorities – 70.1%.

Also, satisfaction degree related to the relationship with the three institutions is increasing. The greatest satisfaction and the closest collaboration is with APL: 74.3% (see table 6). of those who obtained a pre-adherence non-refundable fund, then business ownership associations – 67.9% (see table 7). and public central authorities – 43.9% (see table 8).

Table 6: Correlation between satisfaction degree and colaboration with APL and obtaining a pre-adherence fund

| Satisfaction degree | Yes, I have got pre-adherence non-refundable financing | Yes, but I have not got any pre-adherence fund | I have not tried to access such funds | Weight total sample |
|--|---|---|--|----------------------------|
| Very satisfied | 31.0% | 19.3% | 20.2% | 21.5% |
| Satisfied | 43.3% | 45.8% | 33.4% | 35.4% |
| Dissatisfied | 12.8% | 12.0% | 12.8% | 12.8% |
| Very dissatisfied | 5.9% | 7.2% | 5.6% | 5.7% |
| I have not had any colaboration with them until now | 7.0% | 15.7% | 27.9% | 24.5% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% |

Table 7: Correlation between satisfaction degree realted to the colaboration with the ownership associations and obtaining pre-adherence funds

| Satisfaction degree | Yes, I have got pre-adherence non-refundable financing | Yes, but I have not got any non-refundable pre-adherence fund | I have not tried to access such funds | Weight total sample |
|--|---|--|--|----------------------------|
| Very satisfied | 18.7% | 3.6% | 5.6% | 7.2% |
| Satisfied | 49.2% | 54.2% | 33.5% | 36.7% |
| Dissatisfied | 12.8% | 13.3% | 10.1% | 10.6% |
| Very dissatisfied | 1.1% | 6.0% | 2.5% | 2.6% |
| I have not had any colaboration with them until now | 18.2% | 22.9% | 48.2% | 42.9% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% |

Table 8 : Correlation between satisfaction degree related to the collaboration with public central authorities and obtaining pre-adherence funds

| Satisfaction degree | Yes, I have got pre-adherence non-refundable financing | Yes, but I have not got any non-refundable pre-adherence fund | I have not tried to access such funds | Weight total sample |
|---|---|--|--|----------------------------|
| Very satisfied | 13.4% | 8.4% | 4.7% | 6.0% |
| Satisfied | 30.5% | 22.9% | 22.8% | 23.8% |
| Dissatisfied | 17.1% | 22.9% | 11.8% | 13.1% |
| Very dissatisfied | 9.1% | 8.4% | 5.0% | 5.7% |
| I have not had any collaboration with them until now | 29.9% | 37.3% | 55.8% | 51.4% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% |

Those who obtained European funds had a better collaboration with the public local and central authorities than those who accessed pre-adherence nonrefundable financing. Collaboration with APL rose from 93% to 96.1%, business ownership associations from 81.7% to 84.8% and public central authorities from 70.1% to 74.7%.

Satisfaction degree (very satisfied and satisfied) towards collaboration with APL has increased slightly from 74.3% to 75.91%. A higher satisfaction is towards the relationship with the business ownership association from 67.9% to 71.9% and with public central authorities from 43.9% to 46.1%.

Those who tried to obtain a European financing and did not succeed are less satisfied with their relationship with APL than those who tried to obtain pre-adherence funds: 61.1% as opposed to 65.1%. The same happens with business ownership associations 57.8% to 53.1%.

Satisfaction degree towards the collaboration with public local authorities of those who tried to obtain a pre-adherence fund is almost the same with those who wanted a post-adherence financing. The satisfaction feeling is strongly correlated with an expectation feeling. In other words, the expectations from the part of the public local authorities are greater than from the part of the Government and other central authorities.

The weight of the dissatisfied respondents towards public local authorities, business ownership associations and central authorities for those who did not try to access pre-adherence funds remained constant: 18.4-18.2% relationship with APL, 12.6-12.8% relationship with business ownership associations and 16.8-16.5% public central authorities. However we can see a significant statistical association of dissatisfaction of not obtaining European financing and satisfaction degree towards the public central authorities which is not observed in similar cases in the relationship with public local authorities and ownership associations. They are to be blamed for unsuccessful attempts to financing.

Table 9: Correlation between satisfaction degree related to the collaboration with APL and obtaining post-adherence funds

| Satisfaction degree | Yes, I have got post-adherence funds | Yes, but I have not got post-adherence funds | I have not tried to access such funds | Weight total sample |
|---|---|---|--|----------------------------|
| Very satisfied | 29.8% | 23.4% | 20.2% | 21.5% |
| Satisfied | 46.1% | 37.5% | 33.7% | 35.4% |
| Dissatisfied | 14.0% | 12.5% | 12.6% | 12.8% |
| Very dissatisfied | 6.2% | 7.8% | 5.6% | 5.7% |
| I have not had any collaboration with them until now | 3.9% | 18.8% | 27.9% | 24.5% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% |

Table 10 : Correlation between satisfaction degree related to the collaboration with the ownership associations and obtaining post-adherence funds

| Satisfaction degree | Yes, I have got post-adherence funds | Yes, but I have not got post-adherence funds | I have not tried to access such funds | Weight total sample |
|----------------------------|---|---|--|----------------------------|
| Very satisfied | 11.8% | 10.9% | 6.3% | 7.2% |
| Satisfied | 60.1% | 42.2% | 33.0% | 36.7% |
| Dissatisfied | 10.7% | 14.1% | 10.4% | 10.6% |
| Very dissatisfied | 2.2% | 6.3% | 2.4% | 2.6% |

| | | | | |
|---|--------|--------|--------|--------|
| I ahve not had any collaboration with them until now | 15.2% | 26.6% | 47.8% | 42.9% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% |

Table 11: Correlation between satisfaction degree related to the coloboration with public central authorities and obtaining post-adherence

| Satisfaction degree | Yes, I have got post-adherence funds | Yes, but I have not got post-adherence funds | I have not tried to access such funds | Weight total sample |
|---|---|---|--|----------------------------|
| Very satisfied | 13.5% | 9.4% | 4.7% | 6.0% |
| Satisfied | 32.6% | 23.4% | 22.5% | 23.8% |
| Dissatisfied | 20.8% | 25.0% | 11.4% | 13.1% |
| Very dissatisfied | 7.9% | 10.9% | 5.1% | 5.7% |
| I have not had any collaboration with them until now | 25.3% | 31.3% | 56.3% | 51.4% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% |

2.2.2. Hypothesis testing at regional level.

One can see a better preoccupation for obtaining financing for the West region. Also in that region there is a higher succesful rate. In the otgher regions the interiewed entrepreneurs obtained fewer post-adherence funds than during the pre-adherence period. Thus in the South Muntenia region 20.9% applied for pre-adherence funds, 12.6% in the South-West region and 16.3% in the North-West. The same situation can be found with the post-adherence funds (see Table 12).

Table 12: Distribution on development regions: ratios of pre and post-adherence non-refundable financing opportunities

| | South-Muntenia | | South-West | | North-West | | West | |
|--|-------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|
| | pre-adher ence funds | post-adher ence funds | pre-adher ence funds | post-adher ence funds | pre-adher ence funds | post-adher ence funds | pre-adher ence funds | Post-adher ence funds |

| | | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Yes, I got financ ing | 14.8 | 12.8 | 7.9 | 6.1 | 10.7 | 10.4 | 16.9 | 19.8 |
| Yes, but I have not got financ ing | 6.1 | 5.1 | 4.7 | 4.7 | 5.6 | 4.2 | 6.1 | 3.2 |
| I have not tried | 79.1 | 82.1 | 87.5 | 89.2 | 83.7 | 85.5 | 77.0 | 77.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

The most pleased with the collaboration with the authorities in obtaining pre-adherence financing are the people from the North-West region while those from the South-West although they have not obtained financing do trust in authorities (see Table 13).

Table 13: Weight of those satisfied with the collaboration with APL after accessing pre-adherence funds (%)

| Development region | Yes, I have got financing | Yes, but I have not obtained financing | I have not tried |
|---------------------------|----------------------------------|---|-------------------------|
| South-Muntenia | 72.0 | 73.5 | 54.6 |
| South-West | 68.2 | 92.3 | 54.1 |
| North-West | 80.6 | 36.8 | 47.9 |
| West | 76.6 | 58.8 | 58.9 |

Regarding the relationship with the business ownership associations, the people from the West are the most pleased (see Table 14).

Table 14 : Weight of those satisfied with the collaboration with business ownership associations after accessing pre-adherence funds (%)

| Development region | Yes, I have got financing | Yes, but I have not obtained financing | I have not tried |
|---------------------------|----------------------------------|---|-------------------------|
|---------------------------|----------------------------------|---|-------------------------|

| | | | |
|-----------------------|------|------|------|
| South-Muntenia | 63.4 | 55.9 | 39.0 |
| South-West | 59.1 | 61.5 | 36.1 |
| North-West | 69.4 | 63.2 | 40.1 |
| West | 78.7 | 52.9 | 41.6 |

The relationship with the public central authorities is much more appreciated by the North-West respondents and the West region (see Table 15).

Table 15: Weight of the respondents satisfied with the collaboration with the public central authorities after accessing pre-adherence funds (%)

| Development region | Yes, I have got financing | Yes, but I have not obtained financing | I have not tried |
|---------------------------|----------------------------------|---|-------------------------|
| South-Muntenia | 39.0 | 26.5 | 29.2 |
| South-West | 40.9 | 38.5 | 29.9 |
| North-West | 58.3 | 26.3 | 23.4 |
| West | 42.6 | 41.2 | 26.2 |

Satisfaction degree of those who obtained European financing is higher in the West region with a relationship to APL and respondents from South-West are to a greater extent satisfied with APL collaboration (see Table 16).

Table 16 : Weight of respondents satisfied with APL collaboration after accessing post-adherence funds (%)

| Development region | Yes, I have got financing | Yes, but I have not obtained financing | I have not tried |
|---------------------------|----------------------------------|---|-------------------------|
| South-Muntenia | 71.8 | 67.9 | 55.6 |
| South-West | 76.5 | 84.6 | 54.2 |
| North-West | 77.1 | 28.6 | 48.6 |
| West | 80.0 | 55.6 | 57.5 |

Satisfied with the business ownership associations collaboration is close to the values in the 4 regions, increased in the North-West. Less satisfied with the business associations collaboration are respondents from the West region on the segment of people who have not obtained financing (see Table 17).

Table 17 : Weight of satisfied respondents with businesses ownership collaboration after accessing post-adherence funds

| Development region | Yes, I have got financing | Yes, but I have not obtained financing | I have not tried |
|---------------------------|----------------------------------|---|-------------------------|
| South-Muntenia | 70.4 | 50.0 | 39.1 |
| South-West | 70.6 | 60.2 | 35.3 |
| North-West | 74.3 | 50.0 | 40.6 |
| West | 72.7 | 44.4 | 42.5 |

Collaboration with public central authorities is much more appreciated in the North-West region by respondents who successfully accessed funds and in the South-West region respondents who wanted to get financing (see Table 18).

Table 18: Weight of satisfied respondents with the public central authorities collaboration after accessing post-adherence funds

| Development region | Yes, I have got financing | Yes, but I have not obtained financing | I have not tried |
|---------------------------|----------------------------------|---|-------------------------|
| South-Muntenia | 42.3 | 35.7 | 28.4 |
| South-West | 35.3 | 38.5 | 30.5 |
| North-West | 54.3 | 21.4 | 24.3 |
| West | 49.1 | 33.3 | 24.8 |

In the North-West and West respondents are more pleased with APL, public central authorities and business association collaboration only if they access funding while South-West respondents give their credit even though they did not obtain financing. It is a pattern in the West part of the country and partly in the South.

We consider that the second hypothesis is true at the level of the four development regions included in the present study. Still the element that gives consistency to the hypothesis can be found especially in the West.

The more pertinent is the access to European funds, the higher the satisfaction regarding collaboration with the institutions involved in regional development.

4. Conclusions

A consistent economic activity of companies is an important element of regional development. In an economic environment where the loan is expensive, Romania has to take advantage of the financing opportunities provided by the European structural funds. Rural areas entrepreneurs and potential entrepreneurs face even bigger difficulties. Our study has tested two hypothesis:

a. the first deals with the relationship accessing information about business opportunities and satisfaction with public local and central authorities collaboration;

b. the second deals with the access to European financing and satisfaction with public local and central authorities collaboration.

The first hypothesis is valid and demonstrates that satisfaction degree with the institutions mentioned in the study is directly proportional to ensuring equal access to information sources both for the rural and urban areas.

The second hypothesis demonstrates that the relationship with the players involved in regional development are directly proportional to obtaining European money funding. The greatest expectations are from the part of public local authorities, then from the business ownership associations and finally central authorities. Thus the framework to solve economic problems is constituted through the joint effort of the local players. Brokendown on regions, entrepreneurs from the West part of the country (North-West and West development region) are more focused on the local relationships than those from the South. Explanations can be found in the cultural model and proximity of the decision makers that have an impact on the whole country. Unfortunately there is no growth in the interest of the entrepreneurs and potential entrepreneurs to get financing from European money. There are signs of change at the entrepreneurs from the West who accessed more pre-adherence non-refundable funds.

The present research, limited by its scope and number of people surveyed, represents a starting point in the study of the relationship between the business environment and institutions interested in regional development. The results obtained can constitute working hypothesis for research on larger samples applied to all development regions from Romania.

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THE ENVIRONMENTAL CONTINGENCIES OF KNOWLEDGE DISSEMINATION: THE CASE OF CONSULTANCIES IN INTERNATIONAL DEVELOPMENT

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Abstract

This paper explores the impact of context on forms of knowledge dissemination using secondary data concerning the role of management consultants in international development. It identifies three forms of consultancy intervention (forced, invited, humanitarian) which differ considerably in the power of the client, the knowledge maturity of the consultancy, the frequency and complexity of the project. The combination of these factors, we argue, strongly influences the type of knowledge dissemination found in the different types of projects. It is hypothesised that knowledge transfer will be most common in 'forced projects', knowledge translation in 'invited projects' and knowledge evolution in 'humanitarian projects'.

Key words: Management consultants, consultancy, management knowledge, diffusion, capitalism.

JEL classification: E02, E65, F02, F35, F42, F59, P19

2. Introduction

In recent years, there has been a growing interest in the role of management consultants as carriers, diffusers or translators of management knowledge and practices (Kitay and Wright, 2004; Micklethwait and

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Wooldridge, 2003). Management consultants have been shown to be key agents in the practical transfer of management ideas into companies (Mueller and Whittle, 2011), sectors (Stone, 2004), countries (Wright and Kwon, 2006), and even continents (McKenna, 2006) that were new to consultancy interventions. More generally, consultants have been associated with both the generation and dissemination of a wider discourse that helps set the agenda for change or transformation (Whittle et al. 2010).

However, within organisation studies, this research has two related limitations. The first is that the vast majority of these studies focus on the impact of management consultants on Western companies in Western countries (Wright and Kipping 2012). These are generally clients which have invited in consultants in order to improve efficiencies. This rather simple relationship lends itself well to micro-level studies where ‘management knowledge’ is negotiated and translated in interactions between consultants and their clients. A consequence of this, and the second limitation is the lack of political aspect to these studies. Management knowledge is frequently assumed to be politically neutral and the wider socio-political dynamics of capitalism are not called into question (for example, Heusinkveld and Benders, 2002; 2005; Huczynski, 1993; Suddaby and Greenwood, 2001; Werr and Stjernberg, 2003). Despite recent calls for organisation studies to engage with critiques of capitalism, especially at a global level (Prichard and Mir, 2010; Morgan et al., 2011) the role of consultants in diffusing management knowledge has remained strangely politically neutral. Most studies in this field ‘normalise’ the role of consultants in diffusing knowledge or fail to explore the wider political consequences of these activities.

This paper seeks to address these gaps by examining the role of management consultancies in disseminating neo-liberal ideas to developing countries through an examination of international development literature. This context is substantively different from traditional consulting interventions on several grounds. First, because the consultants are generally paid for, not by the client, but by various institutions involved in international development, such as the World Trade Organisation, the World Bank or the International Monetary Fund, who generally finance the work. Second, these interventions are often part of a wider macro-economic intervention by these institutions which is managed at a national level, for example, concerning the privatisation of industry or deregulation of markets. Finally, the interventions are often imposed upon a country against its wishes after it has defaulted upon its debts

or lost a war. We believe this different context highlights the political aspects of consultancy by placing it explicitly within a macro-economic, neo-liberal framework which questions the legitimacy and efficiency of (some) consulting interventions in developing nations.

To achieve this, we draw upon studies of international development and neo-liberal interventions to generate hypotheses for future exploration in three key areas. First, we seek to describe and categorise types of consultancy interventions in developing countries and match these to the types of knowledge transfer that might be taking place. This is useful because, there is currently discord concerning the what actually happens when management ideas are transferred. By matching types of transfer to the type of intervention, we provide an inclusive but analytically superior analysis of the impact of context upon knowledge. Second, we show the importance of both the maturity of consulting knowledge involved in a project and the relative power of the clients involved. We argue that these are the dominant (though not only) underlying processes which generate the forms of knowledge transfer which we describe. Finally, by achieving these two previous objectives, we seek to show that in some contexts, consultancies can perform a dangerous role of imposing Western neo-liberal ideas with little regard for the cultural sensitivities, local realities and national institutions that are so important for the institutionalization of management ideas.

3. Theorising the diffusion of management knowledge

The dissemination of management ideas has been depicted as central to the processes of globalization and the international institutionalization of Western management ideas (Guillen, 2001; Strange, 1997; Sturdy, 2004). The role of management consultancies has been shown to be central to this dissemination process (Bessant and Rush, 1995; Morris, 2000; Micklethwait and Wooldridge, 2003). Theoretically, the diffusion of management, or other, ideas, raises the important question of what happens to management knowledge when it is diffused? Whilst answers to this question are hardly rare, they themselves, tend to be based upon waves of fashion, or at least the researcher's favourite theoretical perspective, rather than on a context-dependent typology of what happens in different circumstances. Below, we briefly outline the three main approaches to explaining what happens to

management knowledge during the diffusion process and the types of consultancy depicted in these studies.

2.1 Knowledge transfer

In many, especially earlier, accounts of knowledge transfer, knowledge is portrayed as remaining relatively coherent and intact during the transfer process. Such a view is often borrowed from studies of technical innovations where stability and change are easier to track (Abrahamson, 1996). This view often depicts management fashions as being generated through a series of ‘waves’ where ideas remain relatively stable but grow and decline in popularity throughout a fashion’s lifecycle. The underlying assumption of stability in the content of the knowledge being transferred is manifested in the bibliometric methodologies by which such innovations are tracked (Harris and Purdy, 2000; Heady et al., 1997; Kieser, 1997). Here, the ‘counting’ of instances of innovations is based primarily upon the presence of a keyword in an article, book or academic paper, rather than appreciation of the variance of the innovation in the empirical setting.

The key question from this perspective is less what happens to the knowledge as it is transferred, because it is assumed to remain relatively stable, and more how is the transfer characterised. Thus, the seminal paper by Carson et al. (2000) states it studies the ‘sixteen management fashions that emerged over the past five decades’ with little appreciation of how these fashions were changed over the period. However, such a perspective is not necessarily ‘wrong’, despite frequent attacks by other theoretical positions. One might postulate that some types of knowledge that, in a stable environment might vary little as they are passed between consultants, clients, authors, readers, teachers or students. One example might be Porter’s Five Forces which is still taught in many business schools in roughly the same way as it was over thirty years ago.

Where consultants are represented in this perspective, they are most commonly ‘recognized as carriers of advanced knowledge’ (Alvesson, 1993, p. 1004) - that is, they pick up the knowledge in one area (books, clients, MBAs, internal tools) and drop it in another area (usually the client). This might be seen as typical of those consulting firms that practice ‘engineering’ or ‘codified’ business models (Hansen et al., 1999) which rely upon a standardised model or methodology that is a suitable basis for a high leverage

company (i.e. one where junior workers can deliver a service due to a highly prescribed repertoire).

2.2 Knowledge translation

Translation has been used to understand how things ‘spread in time and space’ (Latour, 1986, p. 267), and more recently, has been used to understand the spread of management ideas and practices (Czarniawska and Sevón, 1996; Callon, 1986). Rather than taking innovations as ‘things’ that are spread to different organisations:

‘in this perspective, management ideas are translated into objects (models, books, transparencies), are sent to other places than those where they emerged, translated into new kind of objects, and then sometimes into actions....The concept of translation works exactly because it is polysemous: usually associated with language, it also means transformation and transference. It attracts attention to the fact that a thing moved from one place to another cannot emerge unchanged: to set something in a new place or another point in time is to construct it anew’ (Czarniawska, 2009, p. 425).

The process of translation is contextualised and enabled by the networks of power that frame and legitimise it. Thus, rather than focusing on the power of the actor that transmits the idea to an ‘other’, translation theory suggests that the idea is translated through the receiver’s power, thus ‘more agency is placed with what was previously termed “the controlled”, while still placing that agency under structural constraints’ (Kalonaityte and Stafsudd, 2005, p. 5). Thus, networks of agents seek alliances to legitimise their construction so that it, in effect, becomes a ‘black box’, achieving a legitimised solidity which remains unquestioned for some time (Latour and Woolgar, 1979).

Such an approach is sensitive to both the dynamics by which networks of power shift through time and space and the potency of the ‘recipient’ of management knowledge. As such, it is potentially useful in showing how ideas are negotiated through the agency of those who would traditionally be depicted as the receivers of knowledge. In the consulting world, the concept helps counter the representation of clients as passive recipients of service innovations and instead enables an understanding of how ideas are translated as power relationships shift over time (Doorewaard and Bijsterveld, 2001; Saka, 2004, Suddaby and Greenwood, 2001).

The depiction of consultants in studies of translation tends towards imagery of partnership, focusing on the joint production of knowledge or the ways in which the power of the client is exercised through agency to exert control over both the consultancy and their forms of knowledge (Werr and Linnarsson, 2002; Werr and Stjernberg, 2003). A common metaphor concerning consultants who translate is that of the bricoleur. This emphasises both the inherent ambiguity of knowledge in this perspective and the work done to transform knowledge by consultants and clients (Benders et al., 1998; Benders and van Veen, 2001; Morris, 2001; Visscher, 2001).

2.3 Knowledge evolution

The third perspective emphasises the way in which knowledge evolves through a dynamic of replication, selection and variation (Nelson and Winter, 1992; Carayannis, 2008; Baum and Singh, 1994). This incorporates knowledge transfer (replication) but also incorporates selection, by which the client has some ability to select more effective or attractive forms of knowledge, and variation, whereby replicated instances of any idea will contain variations in form and content from the original idea, whether by chance mutation or by intentional agency (Clarke, 2009). Thus, from this perspective, knowledge, like many technological inventions, is subject to a social dynamic by which the ‘fittest’ ideas (i.e. those best suited to their environment) survive, whilst others die. Such a view is inherently processual in that it relies upon knowledge transfer taking place repeatedly and temporally (Williams, 2004).

Consultants represented in studies of knowledge evolution are seen as both replicators (as above) but also as providing elements of variation (for example, by changing models for new clients). Central to their the evolutionary dynamic are the networks by which their knowledge is transmitted (Baum and Singh, 1994, p. 43) and also the frequency with which knowledge is transmitted (ibid. p.149). The result is not knowledge that is inherently ‘better’ (i.e. more efficient or profitable) but one that is more keenly suited to the changing environment. O’Mahoney (2007), for example, shows how forms of BPR evolved through the activities of consultants and clients replicating, selecting and varying a model for their own purposes.

2.4 Context dependency or perspective?

The three theories of knowledge outlined above tend to be used rather single-mindedly by the associated authors. Translation theorists, for example, rarely suggest that an evolutionary answer might be more applicable than translation to a new case, and vice versa. However, from the discussion above it does seem that in some situations an evolutionary perspective might be more applicable because there are opportunities for replication, selection and variation, and in others a translation perspective might be more suited.

For this reason, we examine in more detail, below, the role of consultants in developing countries. This is chosen precisely because it provides greater extremes of environmental conditions than are usually studied in Western corporations. In developing countries, as we shall see, interventions range from the wholesale transformation of a country after a war to a training intervention in a charity project. Such diversity will help us examine more closely the different examples of what happens to management knowledge when it is diffused and to understand if differing theories can help us understand how this happens.

4. Consultancies: International Development

In this section, we provide an overview of the types of interventions that consultants make in developing countries. We have specifically chosen extreme examples which are relatively unheard of in Western interventions. As the literature is relatively scarce, we seek not to provide a comprehensive categorisation but instead to illustrate ‘extreme’ forms of consulting interventions: Forced, Invited and Humanitarian. These are ideal types. In reality, they are often mixed together or incorporate each-other, however, for the purposes of theory, separating them enables a clearer understanding of how knowledge diffusion might be understood to vary in each case.

3.1 Forced Interventions

A ‘forced’ intervention is the one in which a country is compelled to accept macro-economic reform. This generally occurs in exchange for a bail out (e.g. in Argentina 1999-2000) or as a package after the end of a war (e.g. Germany 1946; Iraq 2003-2011). In these situations consultants are often introduced as experts when the local population are perceived either to have little expertise in the types of neo-liberal programmes that are implemented, or

political pressure has been applied for the contracts to be awarded to Western companies (del Castillo, 2008). The consultants that are bought in tend to be paid for by a third party. In the case of financial bail-outs, the International Monetary Fund or the World Bank, whilst after the Iraq and Afghanistan wars, primarily the US Department of Defence.

These interventions tend to be characterised by a high maturity of consulting knowledge, clients' incapacity of negotiating their position or communicating their needs, high project complexity and low project frequency. The many examples of this type of intervention tend towards the implementation of 'neo-liberal' reforms such as privatisation, de-regulation and the shrinking of the state.

This project definition leads to several hypotheses based upon our discussion of knowledge. The first such hypothesis is that *forced interventions are likely to involve knowledge transfer*. Since institutions such as the IMF/WB/USDF are paying the bills, the low power of the client means that 'expertise' is likely to be pressed upon the recipient country.

However, for the transfer of this knowledge, third parties (such as consultants and economic advisors) from Western companies are generally used. Therefore, the second hypothesis is that *in forced interventions, consultants act as carriers of knowledge from the 'West' to the developing country*.

In these circumstances, the recipient country generally has a weak bargaining position – they have either recently lost a war or are in desperate need for funds. Such a position means that the power is primarily in the hands of the Western countries who fund the consultants. Furthermore, the client often has little 'expert' knowledge of the types of programmes that are being forced upon it and often are recalcitrant or resistant administration in place. Therefore, the dominance of the Western consultants is two-sided, as many studies show that low levels of collaboration and partnership in knowledge transfer projects increase the likelihood of project failure. Due to the nature of these forced interventions the client has little relevant knowledge and limited power to decide on the project's implementation. This situation, combined with the typically high project complexity would, we suggest, negatively influence the success of the projects. Our third hypothesis is that *in the case of forced interventions knowledge transfer projects have a high failure rate*.

3.2 Voluntary Interventions

In voluntary interventions a recipient country brings in, from its own choice, expertise from the outside, often after a change of government who wish to bring in reform, or some other sort of significant event. These types of projects tend to be characterised by a high maturity of consulting knowledge and a medium/high capacity of clients to negotiate their position. Also, the frequency of the projects tends to be low, but they are usually of high complexity.

One example of voluntary intervention would be the case of local officials from Shanghai that used consultants regional development expertise. This case is presented by Chien and Ho (2011) and points out to the fact that although the intervention was requested by the recipient and its results were satisfactory, the client selected how to use its outcomes.

Taking into account the characteristics of this type of intervention, we propose several hypotheses. Firstly, *it is more likely that voluntary interventions involve translation of knowledge*. The client country pays for the project, the relationship with the consultants is direct and therefore the client has significantly more power. Considering this balance of power, the knowledge that the consultants originally possess is more likely to be transformed and adjusted to better respond to the local requirements.

This adaptation is conducted by the consultants themselves, acting on the explicit or implicit requests of the clients. Therefore, our second hypothesis is that *in the case of voluntary interventions consultants act as translators of knowledge*.

Due to the fact that the client has the ability to choose the consultants, has control over their activity and the knowledge they provide, our third hypothesis is that *the failure rate is lower in voluntary interventions than in the case of forced intervention*. However, factors such as the low frequency of this type of projects negatively influence their success rate.

3.3 Humanitarian Interventions

For an example of humanitarian intervention we use the case of the work conducted under UK aid from the Department for International Development (DfID), as presented in the Country Evaluation Programme for Sudan (Foster et al., 2010).

Developmental aid is often humanitarian in nature and focuses around key areas such as disease, water, food (e.g. the Clinton Foundation). These

humanitarian interventions tend to imply simpler projects, which are therefore more likely to be evolutionary. They happen more frequently and thus have more chance for replication and variation.

This project definition leads to several hypotheses based upon our discussion of knowledge. Firstly, we believe that *humanitarian interventions tend to involve the evolution of forms of knowledge*, the consultants being able to change some parts of the project. The projects brought by humanitarian interventions often possess significant unique characteristics, which provide unique challenges for the consultants. Therefore, as a second hypothesis, we propose that *consultants generally play the role of experimenters in these projects*. Thirdly, in terms of the failure rate of these projects, it is hypothesized that although significant, *humanitarian interventions will improve over time*.

5. Discussion

The overview of the types of interventions carried out by consultants in developing countries presented in the previous section was used to identify a set of characteristics which are most likely associated with this types of interventions (Table 1).

Table 1: Characteristics of Different Consultancy Interventions

| Interventions | Forced | Invited | Humanitarian |
|------------------------------------|---|---|--|
| Typical Case | Iraq | China | Sudan (Darfur) |
| Project Complexity | High | High | Medium |
| Typical Project | Neo-liberal ideas are passed, with relative stability, from the West to the Developing Country. | Knowledge of a more specific nature is sought by the Developing Country | Interventions justified on moral grounds |
| Power / Knowledge of Client | Low | Medium – High | Low |
| Project Frequency | Low | Low | High |
| Who Pays? | Third Party | Client country | Development Agencies / Local |

| | | | |
|---------------------|------------------------------------|--------------|-------------------------------------|
| | | | client / Pro bono work |
| Who Governs? | Budget holder (IMF / WB / USDF) | Local Client | Development agencies / Local Client |

The characteristics presented in Table 1, combined with the theoretical framework we used for the diffusion of management knowledge led us to a series of hypotheses regarding the impact the different types of intervention have on the form of knowledge dissemination, the role played by consultants and the chances of success/failure of the projects (Table 2). Since the types of consultant interventions taken into account in our analysis of international development were purposely chosen to be “extreme” it is implicit that the resulting hypothesis are designed to provide more general rather than comprehensive and precise guidelines for future research.

Table 2: Hypotheses of Different Consultancy Interventions

| Interventions | Forced | Invited | Humanitarian |
|--|-----------------------|--------------------------|------------------------|
| Form of knowledge dissemination | Transfer of knowledge | Translation of knowledge | Evolution of knowledge |
| Role of Consultants | Carriers of knowledge | Translators of knowledge | Experimenters |
| Failure Rate | High | Medium | Medium (Improving) |

We hypothesise that knowledge transfer will be most common in ‘forced projects’, knowledge translation would be typical of ‘invited projects’ and knowledge evolution should be evident in ‘humanitarian projects’. In addition, it is hypothesised that forced projects will be the most likely to fail because they encourage the transfer of management knowledge, with little appreciation of the important political and cultural sensitivities which can derail a project. Invited and humanitarian projects are likely to have smaller chances of failure, due to the increased interactivity between the consultants and the clients (and the higher project frequency in the case of humanitarian projects).

The hypotheses generated in this paper contribute to organisation studies by proposing a relationship between types of knowledge transfer and

the socio-political context of the interventions. These hypotheses can be used as the basis for future research, both quantitatively, by testing, and qualitatively by exploring the mechanisms further. It appears necessary to introduce both macro-economic and political dimensions to the studies in this field, especially in the current context that provides important material for research in the area of diffusion of neo-liberal ideas and the role of consultants in this process.

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THE ANALYSIS OF THE DISTRIBUTION OF EUROPEAN COUNTRIES ACCORDING TO THE ECONOMIC DEVELOPMENT LEVEL AND HEALTH STATUS OF THE POPULATION

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Abstract

The paper aims to find if and in which extent the number of diseases per 100000 persons (hospital discharges) vary by economic development level, type of disease (circulatory system disease, respiratory system disease and digestive system disease) and life style.

In the paper we apply the general linear method (GLM) on a data sample of 30 European countries for the year 2010. The health status of the population is expressed by the number of diseases by type of disease, while health determinants are the gross national income (GNI) per capita and the life style factors.

We noticed that each of the two factors, the economic development level and the type of disease, has a significant influence on the number of diseases per 1000000 persons. Moreover, the interaction between the two factors has a significant influence on the number of diseases. The number of circulatory system diseases is higher in the countries from the high and upper middle income groups, while the respiratory system diseases are the less frequent in high income group countries.

Key words: health, economic development, income, general linear model

JEL classification: C21, E01, I15

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1. Introduction

The health status of a population is affected by different factors such as the socio-economic factors (health care system), the lifestyle factors (alcohol and tobacco consumption), and environment (water and soil quality, noise and air pollution) [Or Z. 2000].

The action of these factors depends, in a high extent, on the level of development of each country [Elola, J. et al. 1995]. Therefore the health status of a population is related to the economic development. At European level, the increase in health expenditures, in the last decades, is associated to the improvement in health outcomes (infant mortality and life expectancy) [Nixon, J. 2000].

Studies on the relationship between environment and income per capita conclude that air pollution problems are alleviated in countries where income per capita reaches \$4,000–\$5,000 [Grossman, G., Krueger, A. 1991]. However, other indicators such as municipal waste and carbon dioxide emissions worsen as income increases [Ansuategi, A. 2003]. The environment quality improves as income increases; therefore one can expect that the health status of population is better in countries with a medium or high income.

2. Data and method

2.1. Sample

We analyse a sample of 30 European countries. The countries are grouped in three income groups: 1) low income and lower middle income group, 2) upper middle income group and 3) high income group. In each group there are 10 countries randomly selected from the total number of European countries distributed in the three income groups.

2.2. Variables

The dependent variable is the number of diseases per 100000 persons (hospital discharges), as a measure of the health status of the population.

The categorical independent variables (grouping variables) are type of disease and income level. Other independent variables are: Hospital beds per 100000 persons; Physicians per 100000 persons; Pure alcohol consumption, age 15+ (litres per capita); Percent of regular daily smokers in the population, age 15+.

Type of disease is recorded by three main categories: circulatory system diseases, respiratory system diseases, and digestive system diseases.

The second categorical variable is the income group. The groups are: low income and lower middle income group (countries with income per inhabitant of \$3,855 or less), upper middle income group (countries with income per inhabitant between \$3,856–11,905) and high income group (countries with income per inhabitant of \$11,906 or more). The classification follows the World Bank's classification of countries by income group according to 2008 gross national income (GNI) per capita, calculated using the World Bank Atlas method. While the World Bank's classification proposes four income groups (low income: 975 or less, lower middle income: \$976–3,855, upper middle income: \$3,856–11,905, high income: \$11,906 or more), we merged the first two income groups due to the reasons of the very small number of European countries in the low income group.

The variables Hospital beds per 100000 persons and Physicians per 100000 persons are variables that express health care resources of one country. The variables alcohol consumption and percent of regular daily smokers are life style indicators.

The data source is the European health for all database (HFA-DB) from the WHO Regional Office for Europe, for 2010 or the latest year available.

2.3. Method

In order to analyse the variation of the number of diseases by economic development level and type of disease, we applied the general linear model.

The dependent variable in the model is the number of diseases, while the independent variables are two categorical variables, assigning cases into groups: the economic development level and the type of disease. The equation of the regression model is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 X_2 + \varepsilon$$

where:

Y – the number of diseases

X₁ – the income level (dummy variable)

X₂ – the type of disease (dummy variable)

X₁X₂ – the interaction term

ε – the error term

The regression equation incorporating the two independent variables is a conceptualization of a two-way independent ANOVA or a factorial ANOVA [Field, A., 2005, Jaba, E., 2002]. The total variance is break down into the variance explained by the model and the variance that cannot be explained by the model. The model variance has three components: variance explained by each of the two independent variables (main effects) and variance explained by the interaction of these two variables (interaction effect). In order to test the significance of the two main effects and the interaction, the F ratios are calculated for each of the two independent variables and their interaction.

The treatment of data is made with SPSS software.

3. Results

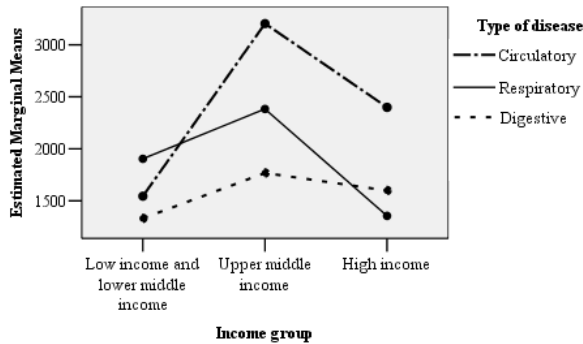
The health status of the population is different according to the economic development of the countries (Figure 1). The number of diseases is highest, for all the three categories of diseases, in the countries from the upper middle income group.

However, the prevalence of a certain type of disease is different among the three income groups of countries. For the countries in the first income group, the highest number of diseases corresponds to the respiratory system diseases category, while for the countries in the 2nd and 3rd income group, the circulatory system diseases are more prevalent than other types of diseases.

Regarding the number of digestive system diseases, the data shows that the hospital discharges are more numerous for the high income group countries than in the low and lower middle income group countries.

The existence of differences in the number of diseases among the three income groups by type of disease suggests the possible interaction effect between the two factors (income group and type of disease).

Figure 1: Interaction of income group and type of disease in number of diseases per 100000



Source: Own processing (HFA database)

The significance of the individual effects of each of the two factors as well as the interaction effect is tested using GLM. Firstly the homogeneity assumption is verified. For our data, the null hypothesis that the variance of the error term is constant across the cells defined by the combination of factor levels is accepted.

The analysis of variance allows testing the interaction effect and the ability to account for variation in the dependent variable (number of diseases) of each factor. The GLM results show that the variance in the number of diseases is accounted for both by the income group and the type of disease. Moreover the interaction between the two factors is significant (Table 1).

Table 1: Tests of between-subjects effects for the dependent variable Diseases per 100000

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------------|-------------------------|----|---------------|--------|------|
| Corrected Model | 30213597.654 | | 3776699.707 | 5.150 | .000 |
| Intercept | 339742605.034 | | 339742605.034 | 63.269 | .000 |
| Income level | 12185152.212 | | 6092576.106 | 8.308 | .001 |
| Disease type | 10176612.480 | | 5088306.240 | 6.938 | .002 |
| Income * Disease type | 7851832.962 | | 1962958.241 | 2.677 | .038 |
| Error | 59402153.591 | | 733359.9 | | |

| | | | | | |
|------------------------|---------------|---|----|--|--|
| | | 1 | 21 | | |
| Total | 429358356.278 | 0 | | | |
| Corrected Total | 89615751.245 | 9 | | | |

Source: Own processing (HFA database)

In order to measure the influence of the effects on the variation of the number of diseases, we use, instead of R squared, a more accurate and less biased measure called omega squared (ω^2). It is recommended when we have equal numbers of cases in each group (Howell, D.C., 2002, Field, A., 2005). It is based on the variance explained by the model and the error variance.

The size of the main effect for income level is equal to $\omega^2_{\text{income}} = 0.12$, the main effect for type of disease is equal to $\omega^2_{\text{disease}} = 0.096$ and the effect of the interaction of income and type of disease is equal to $\omega^2_{\text{income} \times \text{disease}} = 0.054$. We take the square root to obtain the effect sizes. Therefore $\omega_{\text{income}} = 0.35$, $\omega_{\text{disease}} = 0.31$ and $\omega_{\text{income} \times \text{disease}} = 0.23$. None of the three effects is very large (above 0.50), however the income effect and the type of disease effect are above 0.30, while the interaction effect is not very small either.

The post-hoc test breaks down the main effect of income level, as if a one-way ANOVA analysis is made on income variable. The Bonferroni test show that number of diseases (hospital discharges) for the upper middle income group is significantly higher than for the low and lower middle income group ($p < 0.005$) and the high income group ($p < 0.05$). However, the difference in the overall number of diseases between the low and lower income group and the high income group is not statistically significant.

The post-hoc test (Bonferroni test) for the main effect of type of disease show that number of diseases (hospital discharges) of circulatory cause is significantly higher ($p < 0.005$) than the number of digestive diseases. There are no differences in the number of respiratory diseases and circulatory diseases, nor between respiratory diseases and digestive diseases.

The differences in the number of diseases among the groups of countries are estimated by the coefficients in the model between the dependent variable (number of diseases) and the explanatory factors (income group and type of disease). The explanatory variables are coded as dummy variables in the GLM procedure in SPSS.

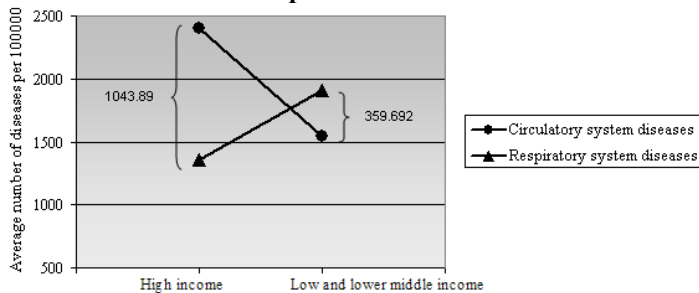
In a first step, we consider as reference categories the high income group and the circulatory diseases. Firstly, the independent effects of income group and type of disease are tested.

The number of circulatory diseases is significantly lower (- 854.356 diseases per 100000) for low income group than for the high income group, while it is significantly higher (+ 805.131 diseases per 100000) for upper middle income group than for high income group.

For the high income group, the number of circulatory diseases is significantly higher the number of respiratory (+ 1043.890 diseases per 100000) and digestive diseases (+ 799.918).

Then, the interaction effects are tested. There is one significant coefficient in the model ($p < 0.05$), the interaction coefficient in the model that compares the effect of type of disease (circulatory and respiratory) between high income group and low income group (1403.582 diseases per 100000). The coefficient compares the difference between the average number of circulatory and respiratory diseases in high income group with the difference between the average number of circulatory and respiratory diseases in low income group (Figure 2).

Figure 2: Interaction of income group and type of disease in number of diseases per 100000



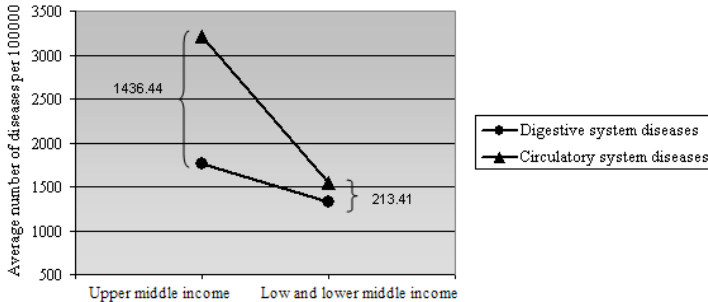
Source: Own processing (HFA database)

In a second step, we considered the reference categories the upper middle income group and digestive diseases.

In the general linear model, there is one significant interaction coefficient ($p < 0.05$) that compares the effect of type of disease (digestive and circulatory) between the upper middle income group and low income group (- 1223.023 diseases per 100000). It compares the difference between the

average number of digestive and circulatory diseases in middle upper income group with the difference between the average number of digestive and circulatory diseases in low income group (Figure 3).

Figure 3: Interaction of income group and type of disease in number of diseases per 100000



Source: Own processing (HFA database)

In a third step, we consider as reference categories the upper middle income group and the respiratory diseases.

The independent effects show that the number of respiratory diseases is significantly lower for the high income group than the upper middle income group (-1028.23 diseases per 100000).

For the upper middle income group, the number of circulatory diseases is significantly higher than the number of respiratory diseases (+ 820.79 diseases per 100000).

The interaction effect shows the significant effect of type of disease (circulatory and respiratory) on the low and lower middle income group and the upper middle income group (-1180.479 diseases per 100000). The interaction coefficient compares the difference between the average number of circulatory and respiratory diseases in low income group to the difference between the average number of circulatory and respiratory diseases in the upper middle income group ($p < 0.05$).

For the sample of 30 European countries, we also studied the influence of two main categories of factors (socio-economic factors, such as the health care resources – Hospital beds per 100000; Physicians per 100000, and life style factors, such as alcohol consumption and % of regular daily smokers) on the number of diseases.

The factors vary among countries, but there are no significant differences among the three income groups of countries. We notice the highest average of the number of hospital beds (692.98 beds per 100000) for the upper middle income group countries. The high income group countries has the highest average of the number of physicians (315.64 physicians per 100000) and also the highest pure alcohol consumption (10.21 litres per capita). The highest percentage of regular daily smokers in the population (23%) is observed for the upper middle income group countries.

Using multiple regression, we identified the factors with significant influence on the number of diseases of a certain type (circulatory, respiratory and digestive) for the pooled sample. Both the dependent variables and the factors are expressed as logarithm of the original variables. The regression coefficients, their significance level and the standard errors are presented in Table 2.

The main determinants of circulatory diseases are: Hospital beds per 100000 and Pure alcohol consumption. Both factors have a positive effect on the number of circulatory diseases. The two factors explain 49.7% of the total variation of the number of circulatory diseases.

The same two factors Hospital beds per 100000 and alcohol consumption have a significant influence on the number of digestive diseases, too. Both factors explain 40.7% of the variation of digestive diseases.

Table 2: Regression coefficients between number of diseases per 100000 and the explanatory factors

| | LN (Circulatory diseases) | LN (Respiratory diseases) | LN (Digestive diseases) |
|--------------------------------------|----------------------------------|----------------------------------|--------------------------------|
| LN (Hospital beds per 100000) | 0.569** (0.232) | 0.582** (0.192) | 0.403** (0.177) |
| LN (Pure alcohol consumption) | 0.317** (0.124) | - | 0.180* (0.095) |
| R Square (%) | 49.7 | 25.5 | 40.7 |

*** p<0.001, ** p<0.05, * p<0.1

Source: Own processing (HFA database)

There is a significant relationship between the number of respiratory diseases and the number of Hospital beds per 100000. The health care resource factor explains 25.5% of the total variation of the number of respiratory diseases. However, the results show, surprisingly, that another

lifestyle factor, % or regular daily smokers, does not have a significant influence on the number of respiratory diseases.

4. Conclusions

The study identifies differences in the health status of the population of European countries according to two determinant factors: income level and type of disease. Both factors have a significant individual effect and, moreover, the interaction effect of these two factors proves to be significant, too.

The population in the countries with a low or lower middle income is affected mainly by respiratory diseases, while the population in more developed countries is affected especially by circulatory system diseases.

Furthermore, the health status of the population in the upper middle income group is the most affected by the three types of diseases, compared to the other groups of countries.

Also, the results of the study highlight the influence of health care resources and lifestyle on the health status of the population. The number of hospital beds per 100000 is found to be the most important factor of the number of circulatory, respiratory and digestive diseases. In addition, the pure alcohol consumption is a significant factor of the prevalence of circulatory and digestive diseases.

However, the % of regular daily smokers does not explain the number of respiratory diseases. Therefore, the high prevalence of respiratory diseases in low and lower middle income countries could be explained by other factors such as the air pollution. This result matches the findings of other studies that show the relationship between a better quality environment for more developed countries.

In conclusion, the analysis of the determinant factors that explain the variation of the health status of the population in the European countries can play an important role in developing health policies taking in account income inequalities and behavioural patterns of the population.

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GLOBAL CRISIS: SEARCHING THE ORIGINS BY BUSINESS ECONOMICS

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Abstract

Aim and topic of the paper is to research the causes of the current global crisis, which manifests itself in financial terms, but whose origin is due to the ethical model of reference: the question is evident both in macroeconomics and in Business Economics. Just from this last point of view, the article will attempt to highlight what should be the correct drivers of ethical management for companies oriented towards an internationalization of their business.

Key words: *Business Economics, Business Ethics, Corporate Social Responsibility, Globalisation, Sustainable Development*

JEL classification: *M14, M16, M21*

1. Introduction: an attempt to definition of business company

The globalisation is an economic phenomenon, that conditions especially economic integrations, but it makes also problems for many cultures around the world, because there is incompatibility between human relationships and the extreme exploitation of resources and the maximization of the concept of competitiveness on liberalized markets (Boyer et al., 1996). Usually the study of globalization has affected the social and economic sciences: this paragraph is dedicated to present the globalisation following a Business Economics approach, where the starting point of the path is provided

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by the declination of business company (or business enterprise, or simply company, or enterprise).

The company and its life are the fundamental topics for the Business Administration studies: the companies, which are considered long-term institutions, have as objective the direct or indirect satisfaction of human needs, so distinguishing themselves in “*supplying companies*” and “*production companies*”, these two aspects coexist in the mixed companies. According to the traditional “*Zappa’s approach*” (Zappa, 1926), the Business Administration studies “(...) *the conditions of the existence and expression of the life of the company* (...)” (Coda, 1985), that make the company a non-contingent entity but “*established to last*”. The companies are the instrument through which we operate in the economic field, consequently they reflect the expression of the economic activity aimed to satisfy “*needs*” that require, in conditions of “*limited tools*”, “*economic goods*” in a systematic “*create and consume*” process (Onida, 1947). The above mentioned definition of company is the classic definition in the Italian Business Administration that, with reference to the object of the activity – represented by the general goal necessary for the satisfaction of human needs – distinguishes a company according to the following classification:

- production companies for the exchange market (or enterprises); the scope of production companies is to create richness or to achieve a profit to destine, subsequently, to the fulfilment of distribution needs;
- supplying companies (or consumer companies) the aim of supplying companies, on the contrary, is to provide for the fulfilment of those needs, either through distribution or through consume expenditure: they gain their denomination from the money expenditure phase or from the distribution of profits or incomes, that usually precede the consume phase.

In order to complete the sentence above, we point out the evolution of the idea of company, promoted by the recent documents edited by the “*Società italiana dei Docenti di Regioneria ed Economia Aziendale – Italian Society of Teachers of Accounting and Business Administration*”, in which we identify a company body to be intended – always and in any case – as a “*production fact*” (Coda, 2006): both the consumer companies and the enterprises carry out the economic activities of “*consuming and creation*”, acquisition, maintenance and distribution of services and goods under limited resources conditions.

In the economic system, exchange relationship between the two indicated company categories are established in the “*remuneration process*” of the production factors employed, factors that are usually made available by the consumer companies in terms of work and savings, and in terms of offer for market exchange of goods and services by the enterprises: in this system the mutual flow of “*real*” exchanges of goods and services, made possible by the use of money as mean of compensation, are highlighted. The distinction between consumer companies and enterprises is used as a theoretical referential model, as the consumer production, acquisition, maintenance processes are common to all companies and “*pure*” consumer companies or “*pure*” enterprises do not exist. The enterprises, for example, add to the market commercial exchanges, incidental allocations and liberalities on social, aid and cultural promotion basis for employees, partners, clients, suppliers and other subjects more or less involved an interested in management.

The consumer companies, on their side, often perform, apart from their specific allocations, commercial activities in terms of market exchange, transferring, under compensation, goods and services to be used for financial gatherings to be addressed in the institutional activities. In the end and after considering the objective characteristics of companies, it is possible to outline a third category, that enrolls combined (mixed) companies in which both the specific activities of consumer companies and enterprises coexist. Business Administration individuates, besides, according to the distinctive characteristics of their subject, the category of public companies in antithesis, on a social-economic basis, with private companies. This distinction between public and private companies is based on two fundamental criteria (Puddu, 2001): the economic and legal criteria. The economic criterion analyses the nature of the economic subject represented by people, that is those people who “*(...) hold and exercise the wilful power and connected prerogative and right to choose and decide about the management of the company (...)*” (Catturi, 1968). But the legal criterion classifies the company on the basis of the private – or public – nature of the main shareholder, the subject who has control over the governance of the company:

- the public enterprise is under a public control;
- the private enterprise has its governance controlled by a private subject.

As already mentioned, the real economic system has to be intended as “*mixed*” since neither the “*collective*” nor the “*market*” form can be

considered as “*pure*” models. Compared to the described model based on two sectors – public and private sectors – it can be observed that a “*third sector*” is identifiable formed by “(...) *subjects not ascribable to the State, as they originate from private initiative and operate with resources and in the interest of privates; not ascribable either to enterprises as they do not operate according to the logic of exchanges for profit (...)*” (Ferrero, 1968). The economic-corporate nature of the “*Third sector*” can be better interpreted through a joint analysis of the principles for company classification with reference to their objective and subjective characteristics. The simultaneous classification of the companies considered both from the actual objective economic activity performed, consumer items or production, and from the subjective classification as public or private, allows – in the end – to synthesize the following “*objective-subjective*” theoretic configurations. The model identifies the following four “*objective-subjective*” company configurations (Puddu, 2001; Anselmi, 1996):

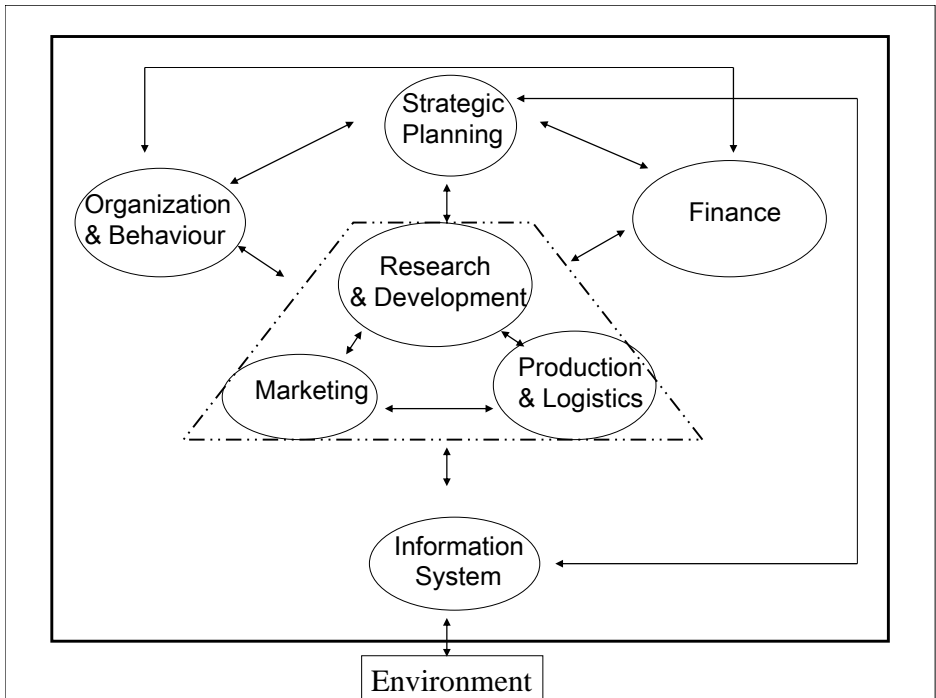
- Public Administrations, consumer companies with no profit making or distributing goals, whose governance control is performed by public juridical subjects (i.e. Regions, Public Universities, Local Municipalities, etc.);
- Public Enterprises, companies that operate for the general market, which are basically public even if legally they are structured as business companies (i.e. Consip S.p.A., Sogei S.p.A.: in these Italian cases the main shareholder is the Ministry of Economy and Treasury);
- Private Enterprises, companies that produce goods for market exchange, with profit making and earn sharing goals, legally based on private assets (i.e. companies quoted at the stock exchange whose governance control is performed by private juridical subjects: these enterprises are also called “*public companies*” in the Anglo-Saxon model of Business Economics);
- Not-for-profit Organizations, consumer companies with no profit making or distributing goals, whose governance control is performed by private juridical subjects [i.e. Non-Governmental Organizations (NGOs), Non-Profit Organizations (NPOs), etc.].

All these kinds of companies – with reference to their internal structure – can be studied following a “*functional study approach*” that identifies two “*Corporate Functional Macro Areas*” (Figure n. 1):

- 1) the “*Core Functional Areas*”;
- 2) the “*Integrative Functional Areas*”.

The first cluster – “*Core Functional Areas*” – includes “*Research & Development Area*”, “*Marketing Area*” and “*Production & Logistic Area*”: these areas have specific characteristics depending on the activities carried out. The second cluster – “*Integrative Functional Areas*” – includes “*Finance Area*”, “*Organization & Behaviour Area*”, “*Strategic Planning Area*” and “*Information System Area*”: these areas have characteristics common to all types of enterprises, regardless of the business activities.

Figure 1: The approach that identifies the “Corporate Functional Areas”



Source: (Ferrero, 1987)

2. A Business Economics approach to present the globalization: discussion and analysis

Following the “*functional study approach*” – illustrated in the previous pages – now it is possible to identify four “*business models*”, with reference to the activities of corporate relocation (or internationalization of business):

- “*Local company*”;
- “*Budded company*”;
- “*Partial relocated company*”;
- and “*Hollowed company*”.

These “*business models*” models are explained in the following points.

The “*Local company Model*” presents the following characteristics:

- these enterprises don’t realize global strategies;
- the business continues to be allocated only inside the domestic market;
- these companies – also so called “*Local Players*” – suffer passively the international competitiveness;
- in the long term these companies may have strong problems of survival resulting from the globalization of markets.

The “*Budded company Model*” presents the following characteristics:

1. these subjects realize full global strategies;
2. these companies actively address themselves to the international competitiveness;
3. new enterprises are created around the world, but the holding (or “*Parent company*”) maintains the historical operational structure;
4. this approach does not cause a negative impact in terms of employment.

The “*Partial relocated company Model*” presents the following characteristics:

- these subjects realize partial relocation strategies;
- these companies actively addressing the international competitiveness;
- in this case the corporate delocalisation regards some “*Corporate Functional Area*”, or some business unit, or some business process, etc.;

- this model has a partial negative impact in terms of employment (with reference to the Nation of the “*Parent company*”).

The “*Hollowed company Model*” presents the following characteristics:

- these subjects realize full relocation strategies;
- these companies actively addressing the international competitiveness;
- in this case the corporate delocalisation regards all “*Corporate Functional Areas*”, or all business units, or all business processes, etc.;
- this model has a full negative impact in terms of employment, because the “*Parent company*”, becomes a “*Hollowed company*”.

The next step is to identify which of these models goes towards an ethical model of globalization. In the first instance it is possible to say that a corporate organisation has an ethical outline when – not only – it respects the laws, but it also manages its own business respecting the interest of the various stakeholders: “*business ethics*” is closely tied to issues of “*sustainable development*” and that of “*corporate social responsibility*”. The first issue – regarding the concept of “*sustainable development*”, first introduced in 1987 by the World Commission on Environment and Development (WCED) – is defined as “(…) *the economic and social development that doesn't compromise the environment and the natural resources the continuation of human species and the future development depend on (...)*” (WCED, 1987).

Starting from this definition it was possible to explain sustainability in three different ways: “(…)

1) *environmental sustainability: the ability of preserving the quality and the reproducibility of natural resources;*

2) *social sustainability: the ability of assuring human welfare and growth opportunity respecting human rights and labour law;*

3) *economic sustainability: the ability of creating incomes, profits and stable and durable jobs (...)*” (CNDCEC, 2009).

About the second issue – the “*corporate social responsibility*” – European Commission defines the Corporate Social Responsibility as “(…) *the voluntary decision to contribute to the progress of the society and to the defence of the environment, integrating social and environmental problems*

into the corporate operations and the interactions with the stakeholders (...)" (EC, 2000). In October 2011 the European Commission published a new policy on "corporate social responsibility". It states that to fully meet their social responsibility, enterprises "(...) should have in place a process to integrate social, environmental, ethical and human rights concerns into their business operations and core strategy in close collaboration with their stakeholders (...). The aim is both to enhance positive impacts – for example through the innovation of new products and services that are beneficial to society and enterprises themselves – and to minimise and prevent negative impacts (...)". (EC, 2011).

The two concepts investigated – "sustainable development" and "corporate social responsibility" – have a common denominator in the environmental and social sustainability, while the third point of view – economic sustainability - is considered:

- in macroeconomic terms, following the concept of "sustainable development";
- in business operations and core strategy, within the concept of "corporate social responsibility".

In the latter case, the economic sustainability can be ensured only by the presence of a constant and continuous "corporate profitability" resulting from the business operations and the core strategy. So for defining a model of globalization oriented to "business ethics", it is necessary that two conditions are met jointly (Figure n. 2):

- 1) there must be a constant and continuous attention to the value creation for stakeholders and this condition match the model of the "corporate social responsibility" (csr) (Carroll, 1979);
- 2) there must be a regular and fair return on capital, with constant monitoring of the most important key financial ratios, with particular reference to the "corporate profitability" (cp), because Business Administration observes the company like a non-contingent entity "established to last" (as has been previously emphasized).

Figure 2: The Business Ethics Drivers

| BUSINESS ETHICS DRIVERS | DEFINITION | POTENTIAL OUTCOMES | | | |
|--|---|--|---------------------------------------|---------------------------------------|---------------------------------------|
| = | = | = | = | = | = |
| <u>CORPORATE SOCIAL RESPONSIBILITY</u> | = Enterprises should have in place a process to integrate social, environmental, ethical and human rights concerns into their business operations and core strategy in close collaboration with their stakeholders. | = driver is present | driver is absent | driver is present | driver is absent |
| ∩ | ∩ | ∩ | ∩ | ∩ | ∩ |
| <u>CORPORATE PROFITABILITY</u> | = Enterprises must have a regular and fair return on capital, with constant monitoring of the most important key financial ratios (with particular reference to the "corporate profitability"). | = driver is present | driver is present | driver is absent | driver is absent |
| = | = | = | = | = | = |
| <u>BUSINESS ETHICS</u> | = POTENTIAL OUTCOMES | <u>Model oriented to Business Ethics</u> | Model not oriented to Business Ethics | Model not oriented to Business Ethics | Model not oriented to Business Ethics |

Source: (Development proposed by the Author)

For theorizing a processes of globalization oriented to “*business ethics*” the two drivers must be present jointly, because:

- the only exclusive presence of the “*corporate social responsibility*” (csr) does not always guarantee business continuity;
- while the only exclusive presence of the “*corporate profitability*” (cp) does not always guarantee that enterprises “(...) *should have in place a process to integrate social, environmental, ethical and human rights concerns into their business operations and core strategy in close collaboration with their stakeholders* (...)” (EC, 2011).

This theorization may be explained using the following a formula:

$$(be) = (csr) \cap (cp)$$

with:

- (be) = “*business ethics*”;
- (csr) = “*corporate social responsibility*”;
- (cp) = “*corporate profitability*”.

Unfortunately, the current globalization has focused more on “*corporate profitability*” (cp) and less on “*corporate social responsibility*” (csr), favouring models previously defined as “*Partial relocated company Model*” or/and “*Hollowed company Model*” (Rodrik, 2011): the final part of the paper is dedicated to explore these concepts.

3. Conclusions

The contents of this article has focused in identifying the causes of the current global crisis, which manifests itself in financial terms – with effects in the economic and social field (Tileaga, 2010) – but whose origin is due to the ethical model of reference: the question is evident both in macroeconomic terms and in Business Economics approach. Just from this point of view, the article has attempted to highlight what should be the correct drivers of ethical management for companies oriented towards an internationalization of their business.

Following a “*functional study approach*” the paper has defined four business models, with reference to the activities of corporate relocation: 1) “*Local company*”; 2) “*Budded company*”; 3) “*Partial relocated company*” and 4) “*Hollowed company*”.

Then our proposal has identified two drivers, which must be met jointly in the processes of globalization to ensure “*business ethics*” (be):

- the “*corporate social responsibility*” (csr);
- the “*corporate profitability*” (cp).

Only in the “*Budded company Model*” are jointly present the two drivers: this dual presence of the two conditions is the only condition (necessary and sufficient) to ensure a model of globalization oriented towards “*business ethics*”. This condition is not present in the other three cases, because:

- in the “*Local company Model*” the enterprises don’t realize global strategies and in the long term these companies – also

so called “*Local Players*” – may have strong problems of survival resulting from the globalization of markets;

- while in the other two cases – “*Partial relocated company*” and “*Hollowed company*” – could be guaranteed only the corporate durability, but not the corporate social responsibility, because these models have a partial (or full) negative impact in terms of employment (with reference to the Nation of the “*Parent company*”).

In conclusion it can be stated as follows (Table n. 1):

- the case of the “*Budded company*” is included in a paradigm of globalization classifiable as “*Fair Globalization*”;
- while the other two cases – “*Partial relocated company*” and “*Hollowed company*” – represent the alternative paradigm of globalization classifiable as “*Unbridled Globalization*”.

Table 1: Comparative Analysis of the Business Models underlying the different Paradigms of Globalization

| Paradigms of Globalization | Unbridled Globalization | Fair Globalization |
|--|---|---|
| <u>Business Models Underlying</u> | <ul style="list-style-type: none"> • <u>Partial relocated company</u> • <u>Hollowed company</u> | <ul style="list-style-type: none"> • <u>Budded company</u> |
| 1. Corporate Target | Profit Maximization | Adherence to the concept of Business Ethics |
| 2. Term Perspective of Corporate Strategy | Short-Term Period | Long-Term Period |
| 3. Profile of Innovation pursued by the company | Financial Innovation | Full Innovation |
| 4. Vision of the Corporate Finance Area | As a Core Functional Area | As an Integrative Functional Area |
| 5. Analysis of the Corporate Budget/Report | Priority to Financial Analysis applied to the Corporate Budget/Report | Priority to Core Business Analysis applied to the Corporate Budget/Report |

Source: (Development proposed by the Author)

Further arguments and widening, combined with an experimentation on the field, will be able, therefore, to allow a useful consolidation of this proposal and favour at the same time a working progress process of a new vision of the corporate globalisation referred to the Business Economics.

So, it necessitates a realignment of these imbalances, where the responsibility lies with the policy makers reference (Opreana, 2010): some suggestions for policy makers can be derived from reading the “*World Competitiveness Yearbook*” (abbreviation WCY), that is the world’s most renowned and comprehensive annual report on the competitiveness of nations, ranking and analyzing how a nation’s environment creates and sustains the competitiveness of enterprises (Ogrea et al., 2010). The latest version of the “*World Competitiveness Yearbook*” (WCY) is now available at the following web address: <http://www.imd.org/research/publications/wcy/index.cfm>.

Reasoning on competitiveness, may be useful to report the “*Golden Rules of Competitiveness*” listed in the renowned document; in detail, the “*Golden Rules of Competitiveness*” listed in the “*World Competitiveness Yearbook*”, are: “(...)

- 1) *create a stable and predictable legislative environment;*
- 2) *work on a flexible and resilient economic structure;*
- 3) *invest in traditional and technological infrastructure;*
- 4) *promote private savings and domestic investment;*
- 5) *develop aggressiveness on the international markets as well as attractiveness for foreign direct investment;*
- 6) *focus on quality, speed and transparency in government and administration;*
- 7) *maintain a relationship between wage levels, productivity and taxation;*
- 8) *preserve the social fabric by reducing wage disparity and strengthening the middle class;*
- 9) *invest heavily in education, especially at the secondary level, and in the life-long training of the labour force;*
- 10) *balance the economies of proximity and globality to ensure substantial wealth creation, while preserving the value systems that citizens desire.*

(IMD, 2004).

If these rules - published in 2004 - had been followed by our policy makers, probably our conference – today – would have had another title.

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FISCAL AND BUDGET POLICIES – MAJOR COMPONENTS OF ECONOMIC AND SOCIAL POLICY MIX IN ROMANIA AT PRESENT AND IN FUTURE

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Abstract

The main goal of the Government's economic policy is represented by ensuring coherent macroeconomic stability, by maintaining a conservatory fiscal position and by promoting prudent salary policies in order to support disinflation and limit foreign imbalances which shall facilitate sustainable economic growth and a real convergence. The fiscal and budget policies applied in Romania in the years before the crisis have led to domestic and foreign imbalances which must be changed during the next period. The sustainable accomplishment of lower budget deficits involves the significant change of the budget process as well as reforms of revenue and expense policies.

Key words: *fiscal policy, budget policy, sustainability*

JEL classification: *H 30, H 60*

1. Introduction

The State's intervention in the economy is as old as the actual economic life. If today's economy were perfect, with perfect competition in all

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economic operations, if all the effects upon people's welfare could be expressed by prices, by markets, and if there were not scale economies or externalities, then the State's existence would be pointless.

Specialized economic and juridical literature shows that State involvement in economic life was and still is very controversial. Practically, a wide variety of perspectives have been supported and argued about, starting from the State's direct, total intervention in the economy and reaching the complete lack of intervention. These two perspectives which are actually diametrically opposed have been gradually left aside because of dogmatic views lacking the reality of economic facts. Economic doctrine has launched an additional opinion according to which the State's role and intervention are continuously decreasing until they completely disappear. Economic reality proves by the power of facts which cannot be questioned that the State not only reduces its economic life role and intervention, but also diversifies and augments its ways of action. This is not true only in developing countries, underdeveloped countries, or countries in transition towards market economy, but also in the countries whose economies are advanced, and they are economically developed. The economic policy of capitalist countries has long been discreet, in order for the State to intervene slowly, gradually, significantly. Fiscal and budget policies are some of the most important instruments used by the states with the purpose of economic intervention.

2. Fiscal and budget policies in Romania at present

In a broad sense, budget policy comprises the following policies: *fiscal policy*, *allocation policy* (or budget policy in brief) and *balance budget policy* envisaging the funding of deficits and development of budget redundancies, and budget policy instruments include: variance of the level and/or structure of public spending; ways to compensate a budget deficit etc.

As far as fiscal policy is concerned, the main issue for leaders is collecting money resources to allow them to cover the expenses. In order to increase budget revenues, leaders may achieve this goal in several ways: raising fees and taxes, issuing bonds, securities or other state documents, or selling assets (when the State owns various goods, especially real estate).

One of the weaknesses of Romania's economic policies over the last years has been in procyclical fiscal policy. More precisely, Romania has acted contrarily to what economic theory imposes.

Instead of focusing on running budget deficits during the last economic boom years, the country's budget has all along been at an important minus level which would have been justified only by investment expenses in the field of infrastructure, for example. Such correct reasoning would have allowed a wider budget deficit only at times of crisis, when an economy needs encouragement including fiscal measures.

Thus, during 2000-2011 the budget deficit within the general enhanced budget has had the following evolution:

Table 1: Revenues, spending and deficit of general enhanced budget

| Years | Revenues (million Lei) | Spending (million Lei) | Surplus/Deficit (+/- (million Lei)) |
|--------------|-----------------------------------|-----------------------------------|--|
| 2000 | 25 109.5 | 28 314.1 | -3 204.6 |
| 2001 | 35 174.1 | 38 932.1 | -3 758.0 |
| 2002 | 44 891.1 | 48 841.3 | -3 950.2 |
| 2003 | 56 692.8 | 61 087.9 | -4 395.1 |
| 2004 | 70 826.3 | 73 733.8 | -2 907.5 |
| 2005 | 87 629.4 | 89 897.8 | -2 268.4 |
| 2006 | 106 975.3 | 112 626.3 | -5 651.0 |
| 2007 | 127 108.2 | 136 556.5 | -9 448.3 |
| 2008 | 164 466.8 | 189 121.7 | -24 654.9 |
| 2009 | 156 624.9 | 193 025.4 | -36 400.6 |
| 2010 | 168 598.4 | 201 903.6 | -33 305.2 |
| 2011 | 181 566.9 | 205403.6 | -23.836.7 |

Source: www.mfinante.ro

It can be noticed that, whereas between 2000 and 2006 the budget deficit growth rate was quite low, after 2007 it basically boomed: in 2007, the deficit rose by more than 67% as compared to the previous year and after one more year its increase exceeded 160%. Since 2010, the deficit has had a descending trend; thus, in 2010 it decreased by 9 percent as compared to the

previous year and in 2011 it dropped by almost 24%. Yet, these values are high in relation to those during 2000-2007.

The explanations for this budget deficit's changes can be classified in two categories: on one hand, in conformity with Romania's EU accession dates, observing all imposed requests led to confining the deficit within certain limits (interval between 2000-2006); on the other hand, the latter period has fallen under the world economic crisis which has left its traces upon the progress of macroeconomic indicators.

Romania officially entered technical recession after its economy went down during two quarters in a row. In late 2008, the local economy dropped by 3.4% and during the first quarter of 2009 by another 2.6%. Expressed in money, its increase was worth grosso modo 4.14 billion Lei in relation to the end of 2008 and 5.55 billion Lei in relation to the same period of 2008.

The 6.4% decrease in the Romanian economy as compared to the first quarter of 2008 was two percent higher than the 4.4% European average with a decline record in Latvia whose GDP lost no less than 28.7% during the period. This was Romania's first economic decline after many years of growth. After 2003, the first quarter of every year recorded increases of at least 5% in relation to the same period of the previous year. The economic growth peaked with the performance recorded during the first quarter of 2008 when Romania's GDP was 8.2% higher than it had been in the first quarter of 2007. That is why it could be said that 2009 included a "base effect", with reference to a record held during the period after December 1989.

The economic crisis Romania has been facing is mainly a domestic crisis generated by the wrong mix of macroeconomic policies adopted over the last years. Before setting an anti-crisis plan, one should not only admit it really is a crisis, but also what its causes are. Its main cause is the excessive consumption based on indebtedness. The population cannot be blamed but in future they can be better informed and surely more cautious regarding their expectations from own incomes. In exchange, the government can be criticized for having made a huge strategic mistake: at times of economic growth, it has used up all this growth and even acquired additional debts.

The world financial crisis has just triggered the domestic economic one because it has affected funding sources. The people consume "on tick" and then they borrow more expensively or they do not borrow at all. This state of affairs is valid for the government, companies and population, too.

A crisis period involves a mentality change in fiscal policy. Fiscal policy is, at least theoretically, one of the instruments used by the State to support the economy at times of crisis.

If one analyzes the reaction way of fiscal policies in the European Union area, one can notice big differences in terms of outcomes; they are strongly influenced by the choices made when modelling fiscal behaviour.

The crisis should obviously bring about a mentality change both in the structure of the state budget and in the fiscal policies meant to narrow crisis effects. Crisis circumstances are good for deep reforms, they have a great potential to change mentalities so, theoretically speaking, the Romanian fiscal policy can be changed, too. (Golinelli, 2009)

In the Romanian economy, the measures taken have often proven unproductive, boomeranglike, with effects contrary to those expected. Several concrete examples can be enumerated:

1. the measure for labour additional tax in a context where labour had already been excessively burdened and for some years the authorities had been undergoing a programme to gradually decrease the harsh fiscal duties for salary labour.

The Romanian fiscality upon labour remains one of the hardest in the EU because of high social contributions, especially by widening their calculation base, so that employees have been the ones to feel the effects of state budget-related social contributions' rise. Higher social contributions in the context of crisis economy and market liquidity issues have done nothing but increase the employee-associated costs of companies and thus the latter have had the ability to hurry their decisions to reorganize/fire their personnel and/or to apply certain measures typical of underground economy, such as partially stating salary costs. In the long run, it is the state budget that gets affected by the increase in the budget spending related to dismissed employees or by the loss of revenues.

2. the tax collection system in Romania relies on mandatory executions, aggressive fiscal inspections, fiscal record instrument, single account. All these are effective but they cannot accomplish something to be compared with the positive outcomes that positive incentives might have: tolerant, not hostile fiscal authorities, as willing to improve taxpayers' lives as they are ready to punish criminals. Under these circumstances, applying a combination between allowances used as rewards for proper fiscal behaviour and tough penalties used for lack of payment or evasion can prove efficient.

The collection level largely depends on the partnership quality between fiscal authority and taxpayers, transparency and predictability in fiscal administration legislation and practices.

It is not the time for a fiscal authority to make economic agents' existence even more difficult since they keep to "the rules of the game" and have not gone into the underground economy, on the contrary, it is the time to give them a helping hand.

In terms of the ways to improve the collection system and to attract underground economy revenues into the system, it can be stated that the fiscal administration policy is the one requesting a mentality change so as to make the system more transparent and easily changing.

3. in general, the lack of liquidities and fundings during a crisis period is a key-issue and specialists expect possible additional measures to set things right: delaying the payment of profit tax, VAT for invoices to be received by taxpayers, granting the chance to entirely deduct provisions for questionable customers, supporting the transactions generating economy liquidities.

3. Prospects regarding Romania's fiscal and budget policies

The budget structure for 2012 aims at reaching the following essential goals:

- ensuring a sustainable target related to budget deficit within 2.3% of GDP (ESA methodology) which should be below the 3% limit provided by the Maastricht Treaty;
- keeping government debt at a sustainable level on long term. It is estimated the government debt level in 2012 will be 33.9 % of GDP and below 33.5% of GDP during the next three years, thus obeying the provisions of the Maastricht Treaty stipulating the confinement within not more than 60% of GDP;
- stability, predictability and simplification of the fiscal system by keeping the single quota, limiting the ad-hoc changes made to the fiscal system to ensure its predictable and stable feature, improving the fiscal system's efficiency, and reducing the number of non-fiscal fees and tariffs;
- restructuring the public spending system and effectively controlling it by the improvement and prioritization of investment expenses, and the allocation of amounts needed in projects funded by European grants for absorption growth.

The absorption of unreimbursable foreign grants must be one of the priorities held by Romania's government; this priority should be optimally taken into account as it is a central element of budget sustainability from the perspective of investment strategies and of these grants' being unreimbursable. Unfortunately, this opportunity has not been used enough until now with the absorption degree of European grants of almost 6% in late 2011.

- continuing the policy to reduce and prevent the occurrence of arrears by improving corporate governance, improving the concepts and procedures framework, enhancing top down budgeting approaches, enhancing programme-based budget approaches (programme budgeting).

The long-term sustainability of public finance is evaluated according to determining factors: evolution of **demography, economy and labour market**.

From the **demographic perspective**, Romania will face major problems on long term related to population aging: one's estimated living duration is growing and tends to reach a level relatively close to the average one in the European Union, but the birthrate ranks among the lowest in the Union.

The population's accelerated aging process is also the result of the low birthrate. In 2008, the birthrate was 1.32 children per one woman, much lower than optimal reproduction. According to the Eurostat prognosis, the year 2060 will mean a rate of 1.52 children/woman, quite close to the Union's average, but this figure, too is below the level of reproduction needed in the entire prognosis range.

The demographic prognosis made by the Eurostat shows a significant decrease in Romania's population, by 4.6 million people in 2060 as compared to 2008. The population structure by age groups will be much affected: the share of work age population (group 15-64 years old) will diminish dramatically (15% decrease in the prognosis range). The share of young population, too tends to lessen because the decrease of the reproduction age female group will oppose birthrate rising effect, yet the share of population aged over 65 will double in the end of the period.

Table 2: Romania – Long-term demographic indicators

| | 2008 | 2020 | 2030 | 2040 | 2050 |
|-------------|------|------|------|------|------|
| 2060 | | | | | |
| Birthrate | 1.32 | 1.37 | 1.41 | 1.44 | 1.48 |
| 1.52 | | | | | |

| | | | | | | |
|--|-------|-------|-------|-------|-------|--|
| Estimated living duration at birth (years) | | | | | | |
| Men | 69.8 | 73.0 | 75.5 | 77.8 | 79.9 | |
| 81.9 | | | | | | |
| Women | 76.6 | 79.3 | 81.3 | 83.2 | 85.0 | |
| 86.6 | | | | | | |
| Estimated living duration at 65 years of age | | | | | | |
| Men | 13.6 | 15.2 | 16.6 | 17.9 | 19.2 | |
| 20.4 | | | | | | |
| Women | 16.3 | 18.0 | 19.4 | 20.7 | 22.0 | |
| 23.2 | | | | | | |
| Net migration (thousand) | -5.6 | 6.3 | -0.8 | 12.9 | 12.7 | |
| 3.9 | | | | | | |
| Population (million) | 21.4 | 20.8 | 20.0 | 19.2 | 18.1 | |
| 16.9 | | | | | | |
| -at work age (15-64) | | | | | | |
| % of total | 69.9% | 67.9% | 66.8% | 62.6% | 57.3% | |
| 53.6% | | | | | | |
| -over 56 years old, | | | | | | |
| % of total | 14.9% | 17.4% | 20.3% | 25.5% | 30.9% | |
| 35.0% | | | | | | |

Source: Eurostat-EUROPOP 2008, DG ECFIN

The speed of the aging process will change the ratio between retirement age population and active population which will lead to major changes in the age-related structure with negative consequences upon the labour market.

Labour market evolution

The prognosis of dependence rates shows a significant deterioration: the share of population aged over 65 in the work age population (15-64) will rise from 21% in 2008 up to 65% in 2060 and the total dependence rate (population aged under 15 and over 65 as a share in work age population) is likely to double in the end of the prognosis period.

Table 3: Work force and dependence rates

| | 2008 | 2020 | 2030 | 2040 | 2050 |
|--------------------------------------|-------|-------|-------|-------|-------|
| 2060 | | | | | |
| Work force, thousand people | 9875 | 9650 | 8811 | 7918 | 6868 |
| 6051 | | | | | |
| Participation rate (15-64 years old) | 63,0% | 64,8% | 62,4% | 60,8% | 60,5% |
| 61,3% | | | | | |

| | | | | | |
|--|-------|-------|-------|-------|-------|
| - aged 25-54 75,1% | 78,9% | 77,1% | 75,3% | 74,7% | 75,2% |
| - aged 55-64 45,4% | 42,4% | 47,1% | 48,2% | 45,6% | 44,2% |
| Occupation rate (15-64 years old) 57,6% | 58,7% | 61,0% | 58,6% | 57,2% | 56,9% |
| Share of old population 22,5% | 15,1% | 17,7% | 22,3% | 25,3% | 26,3% |
| Dependence rate of people over 65 65% | 21% | 26% | 30% | 41% | 54% |
| Total dependence rate 87% | 43% | 47% | 50% | 60% | 75% |

Sursa: Eurostat-EUROPOP 2008

Taking account of the long-term demographic hypotheses, birthrate increase is essential to improve the scenario which, in the current context, foretells a rapid pace of population's aging. Law 396/2006 has been adopted in this respect regarding the supply of financial support when families are set up, namely granting a 200-Euro financial aid to each family provided both spouses get married for the first time. Additionally, in order to raise the childbirth rate, Government Emergency Ordinance no.148/2005 has been amended - regarding the support of families with a view to raising children – by including the option that the monthly financial aid for child raising should be 85% of mothers' monthly average of work incomes over the last twelve months (but not more than 4,000 Lei) or 600 Lei and a 100-Lei monthly additional bonus. Furthermore, mothers are entitled to maternity leaves to raise their children until the latter turn two years old, or three years old referring to children with disabilities.

4. Conclusions

Economic recovery in Romania is difficult and somewhat delayed on one hand because of the imbalances having occurred before the crisis (procyclical policies) and on the other because of the political instability which has lately become a dominant feature of our country. Political instability attracts economic instability which in turn brings about foreign investors' reticence to invest in Romania on medium and long term. It is obligatory to go on with the firm implementation of the economic programme

by observing the conditions imposed by (present and future) agreements made with the IMF and EU, maintaining the credibility of this programme by a proper mix of monetary, fiscal, budget, revenue, and structural reform policies, all these in order to resume the economic growth in a sustainable way, to strengthen inflationary anticipations on medium term, and the future accession to the Economic and Monetary Union. **The goals and rules of the fiscal and budget policies must be set in compliance** with the principles and rules of fiscal and budget responsibility included in Fiscal and Budget Responsibility Law no.69/2010, with those assumed by the government's convergence programme and with those comprised in the Fiscal and Budget Strategy drawn up by the Ministry of Public Finance and also assumed by the government, as well as with domestic and foreign constraints.

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NEURAL NETWORK PRINCIPLES TO CLASSIFY ECONOMIC DATA

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Abstract

The increased globalization makes every country more and more responsible for its actions that are meant to support the price stability and the fiscal position sustainability in an unpredictable world. Decisions makers can provide the right solutions to overcome the latest global economic crisis by using methods of classifying the continuously growing amounts of digital economic data. The principles of neural networks are applied in order to classify a set of countries according to their statistical data for economic indicators provided by the European Committee. The results and performance of this classification technique is discussed in the final section of the paper.

Key words: neural networks, supervised learning, data classification, economic prosperity

JEL classification: A12, C15, C38, C45, C52, C53, C63, C88

1. Introduction

Machine learning covers a field that solves a problem using data samples and experiences. The existing large amount of applications in different planes of the economy makes this type of learning a successful one.

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From the broad range of machine learning topics, neural networks represent an important and very interesting research and testing area.

As soon as the structure and functions of the human brain were discovered, the scientists found a way to use this to create automated learning. The neural network is built to be similar to how the brain works because the scope is to have the ability to learn from samples.

Advantages offered by this method of supervised learning are given by their high accuracy computing, the tolerance to errors, high performance resulted from a minimum human involvement, their ability to generalize and outperform some statistical methods and their independence from previous assumptions.

A lot of applications were created using the artificial neural networks principles, namely: marketing, medicine, telecommunications, banking, insurance, physics etc.

Given the process of globalization the world's countries must have lately the same economic goals to converge to. The different level of prosperity of a country is given by the values obtained by them as a consequence of the economic politics they do.

2. Economy and Neural Networks Applications

Analysts and decisions makers can provide the right solutions to overcome the latest global economic crisis by using methods of classifying the continuously growing amounts of digital economic data.

Economic indicators were used for neural network data classification due to its attractive robust solutions offered by neural networks method. One of the most used subjects used to perform this method are inflation rate, stock market index, bank performance etc.

During the past few years were a lot of studies that tried to apply both neural networks models and many econometric or statistical models in order to measure their performance and abilities. Neural networks were better working by themselves or combined with other econometric models.

Inflation rate was the main subject for a competitiveness study over the neural networks model and econometric models (Moshiri, Cameron, 2000) by experimenting them for a dataset of values regarding this economic indicator.

A comparison between neural networks method and multiple regression analysis applied for modeling capital structure showed that the results are far better in the case of neural networks (Pao, 2008). Thus, ten variables were studied: seven variables for the capital structure and three macroeconomic factors that influence the modeling of capital structure.

The area of stock market is another economic domain that is interested in data classifications and predictions. A study over the used methods to classify and predict economic data was done (Guresen, Kayakutlu and Daim 2011). Researches, methods and results applied for financial time series were reviewed. Using neural networks or a hybrid between neural networks and an econometric model in order to solve a classification or a prediction problem is proved to have very good results and high performance for every one of the 25 studied papers. MLP method is considered the best the other applied methods did not have notable results in the case of the stock market.

Classification process plays a very important role in a number of artificial intelligence applications regarding decision and prediction economic plane related to information processing (Mehdi, Hamadani, Bijari, 2012).

The results obtained after a model of neural network was applied for classification and prediction of banking performances recommend this method as a powerful and accurate tool (Bakar, Tahir, 2009).

Testing many applications that had better results than econometric models the trend is increased when it comes to use neural networks in many different economic areas.

The neural networks method is applied in order to show how efficient a country classification can be made even if the values presented to the network are not having a specific range and how well it can perform an accurate classification.

3. Neural Networks Principles

An artificial neural network is formed of layers. Every layer has a number of neurons; a neuron is also called unit or node. Every neuron from a layer has connections to other neurons from the other layers. The layers are: the input layer, the output layer and the hidden layer or layers. The hidden layer must have an adequate number of hidden neurons – not too many and not too few, so that the application could run efficiently. The process of learning or training a neural network supposes the adjustments made to the

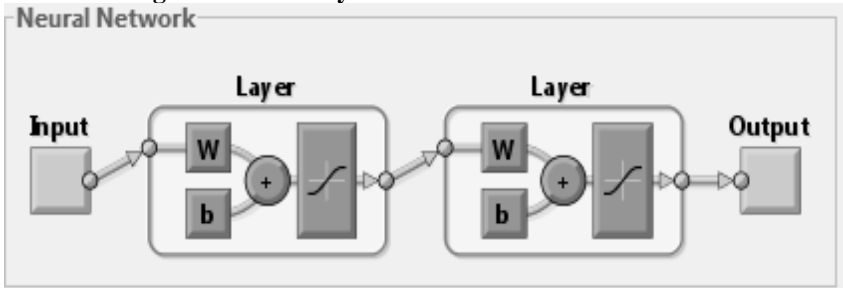
weights. In this process there are used three types of samples: training samples, validation samples and testing samples.

The training samples are used to help the neural network adjusting itself by using the error resulted after iteration, in order to adjust the weights from the previous layer. The weights are the parameters for the neural network model. This is another very important property of the neural network.

The validation samples are used to measure the network level of generalization. When the network can no longer get an improvement of its generalization the process of training must be halted.

The testing samples are utilized to measure the performance during the training of the neural network and after that.

Figure 1: A two-layer feed-forward Neural Network



Source: (Authors' Matlab output)

The hidden layer needs to contain an adequate number of neurons so that the algorithm could run efficiently.

Given an input vector (x_1, x_2, \dots, x_n) the neuron activity implies an output y as the function activation result. This activation function is applied to a linear combination of inputs to which a constant value named *bias* or *threshold*. Each of the input values has a certain real value, named weight, w_i .

Some of the most used functions are the step function (Heaviside function), the sigmoid function or the logistic function (Vesely, 2011).

A single hidden layer feed-forward neural network is considered the most used type of neural network for solving classification, modeling and prediction problems (Mehdi, Hamadani, Bijari, 2012).

Some of the most important neural networks properties that can be used are:

- Nonlinearity

An artificial neuron can be linear or nonlinear; hence a neural network that has nonlinear neurons is nonlinear itself.

The neural networks are able to approximate any continuous function, so they are able to provide nonlinear models for different time series, allowing the users to make efficient predictions (Vesely, 2011).

□ Input-Output Mapping

Every training data consists in an input signal and its correspondent, the output signal. The neural network trains itself by building an input-output mapping to solve the problem.

□ Adaptability

The neural networks have the ability to adapt their weights to the changes that take place in the operating environment. A neural network that was trained to work in a certain environment can be very easily retrained to work when slightly changes appear. Even more, when the environment is nonstationary, that is the statistics modify in time, a neural network can be designed so that it can change its weights.

□ Evidence response

In the context of the classification models, a neural network can be designed not only to provide information for a certain selection model but to provide that information for the confidence level needed in order to make a decision after the selection was done. Information can be used to reject those models that are ambiguous, if they exist, and so, the performance of the classification network can be improved.

□ Context global information

Knowledge is represented by the structure and the activation status of the neural network. Every neuron of a neural network could be affected by the global activity of the others neurons from the network. Thus, the context information is treated naturally by a neural network.

□ Error tolerance

It is possible for a neural network to be error tolerant and capable of robust computations results, its performance decreasing when some adverse operating conditions appear. In order to be sure that the network makes the proper ratio between error tolerance and performance it might be necessary to correct the algorithm design used to train the network.

4. Neural Networks Data Classification

4.1. Classification error

The algorithms used to train a neural network are based on an adapting method. One of these methods is gradient learning method based on the mathematical method of computing the local minimum of a function. Hessian matrix is used for different algorithms, like Levenberg-Marquart algorithm, to estimate the optimum size of the weights that are helping the network to learn faster.

Error functions are used to measure the neural network performance for the training set. The most frequently used error function we mention the square error functions applied to minimize the resulted errors.

The classification error is given by the fact that an input belonging to a certain class of objects was misclassified as belonging to another class.

The quality of classification can be compute considering two parameters. The first parameter, sensitivity or true positive rate, means the percent of correctly classified objects as belonging to the target class. The second parameter is false alarm, that represents the percent of the objects which belong to a class and they are misclassified as belonging to another class.

The functional dependence between these two parameters is given by the ROC (Receiver Operating Characteristic) curve. The curve space has a dividing diagonal and provides details about the performance of classification. The points situated above the diagonal indicate a correct and good classification while those who are below the diagonal indicate a misclassification.

Based on these principles and properties neural networks can be utilized to solve various data classification problems.

4.2. Data classification and results

The neural networks method is applied in order to establish based on 312 observations, the belonging of a country to one of the classes: prosper country, not prosper country.

Each of the 26 chosen countries for classification is characterized by five numeric attributes that represent the values for each of the following indicators: exchange rate, inflation rate, long-term interest rate, budget deficit/surplus and public debt.

These indicators are considered the most important to measure the level of prosperity of a country due to their great influence.

We have investigated the performance of neural network technique for classification for a set of economic data recorded for a period of 12 years, 2000 – 2011.

Data was taken from the official site of The European Commission, ec.europa.eu, transformed and processed in order to obtain valid results.

The economic indicators presented in Table 1 are those which were used for the first application.

Table 1: Group of five indicators for national prosperity, plus GDP

| Indicator |
|-------------------------|
| Exchange rate |
| Inflation rate |
| Long-term interest rate |
| Budget deficit/surplus |
| Public debt |
| Gross Domestic Product |

Source: European Commission site, ec.europa.eu

The performance of this method of classification was tested first for a dataset that has six attributes and then investigated for the same dataset but having removed an attribute to note how correct it can still classify the countries.

We investigated the neural network performance considering two cases: first, for a set of six attributes, exchange rate, inflation rate, long-term interest rate, budget deficit/surplus, public debt and Gross Domestic Product; secondly, just for the first five indicators considered the most influential for a country level of prosperity.

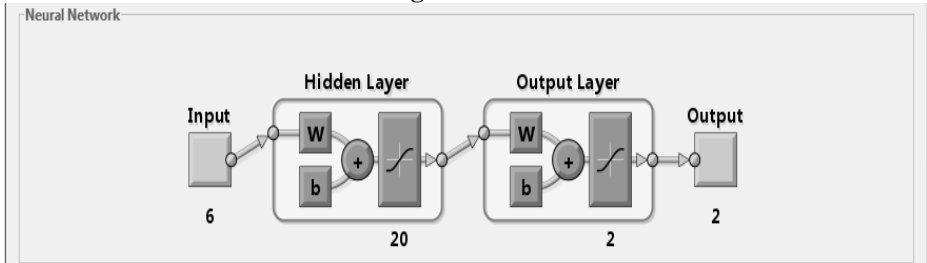
The results for both cases are presented and discussed.

In figure 2 the neural network created to classify data is presented and note that there are 6 inputs, the 6 attributes and for the output we have 2, which means the two classes that we are expecting the countries to be classified in.

For the hidden layer we used 20 neurons and after we made numerous different tests changing this number with smaller or greater numbers of

neurons the results were still the same or they had just a slightly, insignificant modification.

Figure 2: Neural Network architecture



Source: Authors' Matlab output

After the network is trained a summary of algorithms, progress and plots is displayed.

The plots area contains four different graphs and we have selected just two of them in order to show a rather big difference that we have obtained for the considered cases.

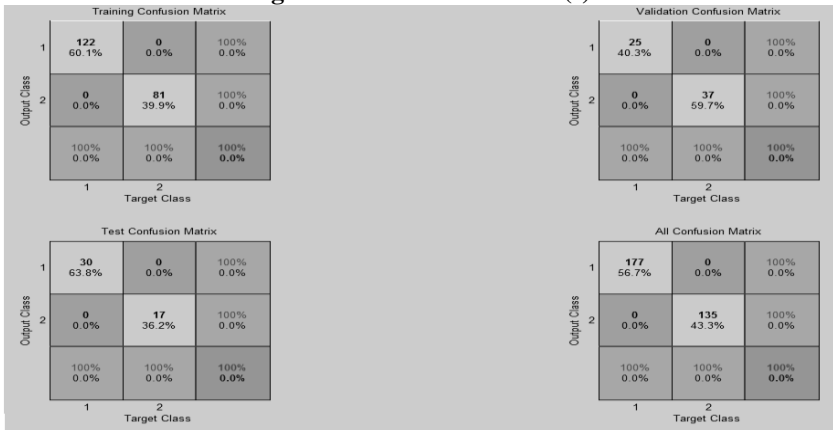
The used algorithm for training the network is a back-propagation algorithm, scaled conjugate gradient. After 18 iterations, when the generalization was not being improved anymore, the training stopped, and best validation performance is 1.2854e-006.

Confusion matrix graph resulted for the first considered case shows three kinds of combined data: training data, validation data and testing data. Figure 3 and figure 4 show four different 3x3 matrices.

If we note a confusion matrix cm_{ij} , where i and j can be 1, 2 or 3, we can make the following observations:

- cm_{11} and cm_{22} shows the number of correct classified responses and corresponding percentage;
- cm_{12} and cm_{21} displays the number of misclassified responses and corresponding percentage;
- cm_{33} shows the overall percentage accuracies of classification.

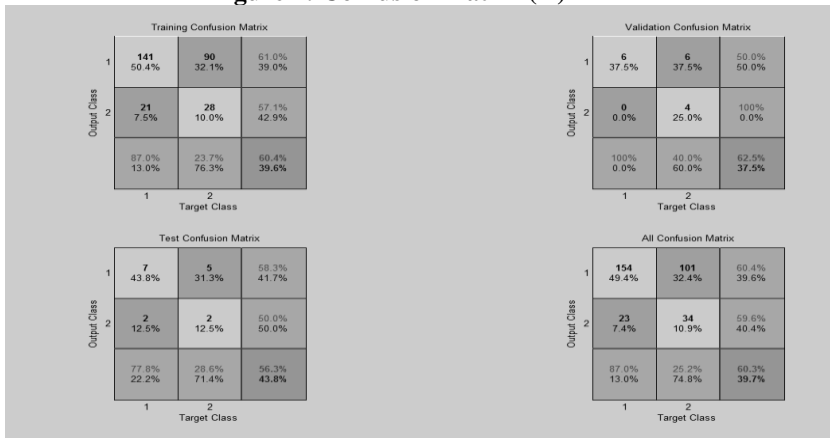
Figure 3. Confusion matrix (I)



Source: Authors' Matlab output

Figure 3 displays a perfect classification having the best results for it, without misclassified responses. Let us see what happened when we removed an attribute, Gross Domestic Product, and the results of the confusion matrix are shown in figure 4.

Figure 4: Confusion matrix (II)



All confusion matrix for the second case has the following outputs:

- cm_{11} and cm_{22} , with 49.4% and 10.9% of correct classified responses, regardless the number of neurons considered for the hidden layer;
- cm_{12} and cm_{21} , with 32.4% and 7.4% of incorrect classified responses;
- cm_{33} gave us the overall accuracies by displaying 60.3%, percent of correct classified responses and 39.7% representing the percent of misclassified responses.

We note the tremendous difference between the results for the two considered cases and how important is to choose and consider the right economic indicators for classification.

5. Conclusions

According to the Maastricht Treaty every country has to converge to a certain level of prosperity as a consequence of the globalization process.

We have presented the principles and the performance of a supervised classification method in order to show that it is a powerful tool that can be used in many applications.

Given the big difference we can note that tests have to be made so that good results are used to make good decisions.

Having the results presented above we can say that, in this case of classifying a number of countries based on their level of prosperity indicators, more is better. Because of the worldwide economic instability the more attributes we present to the network the better its performance. This method represents a very powerful tool to use for economic decisions against the persistence of the crisis.

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FOREIGN DIRECT INVESTMENTS IN POLAND: TREND AND EFFECTS ON THE ECONOMY

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Abstract

Countries of Central and Eastern Europe opened their economies to foreign investors in 1990. Poland became the leader of foreign direct investments (FDI) inflows in 1996 and proved to be the most attractive country of the region. Having the most stable economy in the region and becoming a member of the European Union, Poland recorded a boom in FDI during 2003-2007 and reached a historic peak in 2007. The crisis erupted in 2008 affected the FDI inflows worldwide, which declined and changed composition, but in CEE region, Poland continued to be the leader. The present research aims to analyze the dynamics of FDI inflows in Poland, focusing on the composition of the FDI received and the effects on the economy. The low share of privatization-related FDI and the growing number of green field FDI have led to positive effects since the first years of transition, but the quality of the investments received still needs to be improved.

Key word: foreign direct investments, Poland, exports, technology transfer

JEL classification: F21, F23

1. Introduction

The communist regime that came to power after the Second World War affected states both politically and especially economically. After 20 years from the end of this regime, states go through the process of transition to a market economy, thus passing from a closed economy to an open economy in terms of market access, international trade and international capital. These

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states have begun to reduce the gap with Western Europe and met the criteria for joining the European Union, statute that increases their credibility, competitiveness and attractiveness to foreign investors. (Sohn and Suder, 2011)

Having similar features and almost the same advantages, these countries were competitors in attracting FDI. The macroeconomic stability of each country, the different stages of the transition process or the privatization programs chosen have influenced the time, value and the mode of entry of the FDI flows in these countries.

Although initially Poland, like the rest of Central and Eastern Europe, had a sense of reluctance to foreign investors, the politicians understood the importance of foreign capital for the development of the country and therefore have allowed FDI in its territory. Immediately after the fall of communism and the beginning of the transition and economic reform, Poland together with other three states formed the basis of a regional cooperation, by which the signatory states provided mutual support in political and economical integration. This group called the Visegrad group, consists of four states that at the time had the best economic performance: the Czech Republic, Slovakia, Hungary and Poland.

This article aims to present an analysis of FDI in Poland in the period 1990-2010 and is divided into three parts. The first part presents a slight overview of the economic situation in Poland, the second includes the evolution of FDI in Poland from 1990 to present, while the last part analyzes the effects of FDI on the Polish economy.

2. Basic information about Poland

Poland, framed in Central Europe, is part of the ex-communist states that after the fall of the Berlin Wall began the transition path to achieve the statute of market economy and an economic development similar to the western economies.

In the 20 years that past since the fall of communism, Poland proved to be a strong economy, sustainable, which recorded constant growth rates, being the only economy in Europe that was not affected by the economic recession (see Table 1). Even if growth rates were not the highest in Europe or in Central and Eastern Europe, they proved to be the most constant. Having a large domestic market (about 38 million inhabitants) allowed a high demand

to support economic growth, even though after the outbreak of the crisis the external demand proved to be the growth engine. (MOE, 2010)

The period of growth has began in 2004 with the accession to the EU, and reached a peak in 2007 with a growth rate of 6.8%, but since 2008 the financial crisis has influenced also Poland, which economy contracted, but the GDP growth rate remained positive (1.7% in 2009). Poland showed positive performance in the primary sector and the sustainability of the services sector, while industrial production declined in 2009 (World Bank, 2010). Polish exports rose by 3.5 times between 2000-2010, while imports increased 2.5 times, effects that have led to the reduction of commercial deficit, while in 2009 net exports contributed also to the GDP growth (PAIZ)

Prices were found to be stable, high inflation rates from early transition continued to decline due to economic stability, allowing long term projects to be realized. Foreign debt is one of the lowest (45%, although after the financial crisis has increased to 59.4%), which demonstrates a financial stability. (PAIZ)

The only problem that Poland has continued to face in this period was high unemployment (20% in 2002), but although it tended to decrease in recent years, the current level is still high (8.5 % in 2009).

Private sector reaches 75% in the '2000, a high value compared to most of Central-Eastern Countries, but a lower share compared to the other members of Visegrad group such as Hungary or the Czech Republic (about 80%), whose shares are comparable to those of the Western states. EBRD indicators regarding the quality of infrastructure in Poland show that it is a modern one, an essential feature for attracting foreign investors. Being located in Central Europe, Poland is an ideal place to carry out trade with the East. For this reason, the infrastructure is essential for this country. (PAIZ)

Tabel 1: Poland main macroeconomic indicators 2000-2010

| Poland | 2000 | 2002 | 2004 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| GDP(% real growth) | 4.3 | 1.4 | 5.3 | 6.2 | 6.8 | 5.1 | 1.7 | 3.3 |
| Unemployment (end-year)(in percent of labour force) | 16.1 | 20 | 19 | 13.9 | 9.6 | 7.1 | 8.5 | na |
| Consumer prices (end of Year) | 8.5 | 0.8 | 4.4 | 1.4 | 4 | 3.3 | 3.6 | 2.5 |

| | | | | | | | | |
|---|-----------------|----------------|-----------------|----------------|-----------------|-----------------|----------------|-----------------|
| Current account(millions of US dollars) | - 10,34 3 | - 5,54 4 | - 10,06 7 | - 9,39 4 | - 20,25 3 | - 26,90 9 | - 7,20 7 | - 11,17 3 |
| Current account/GDP (in per cent) | -6 | -2.8 | -4 | -2.8 | -4.8 | -5.1 | -1.7 | -2.2 |
| Population (end-year, million) | 38.5 | 38.2 | 38.2 | 38.1 | 38.1 | 38.1 | 38.1 | na |
| Share of industry in GDP (in per cent) | 31.7 | 28.7 | 30.8 | 31.3 | 33.7 | 35.9 | na | na |
| Share of agriculture in GDP (in per cent) | 4.9 | 4.5 | 5.1 | 4.3 | 4.6 | 4.2 | na | na |
| External debt/GDP (in per cent) | 40.6 | 42.8 | 42 | 46.6 | 48.4 | 56.5 | 59.4 | na |
| Privatisation revenues (cumulative, in per cent of GDP) | | | 13.5 | 14 | 14.2 | na | na | na |
| Private sector share in GDP (in per cent) | | | 75 | 75 | 75 | 75 | 75 | 75 |
| Private sector share in employment (in per cent) | | | 70.3 | 71 | 73.3 | 74.4 | 73.9 | na |
| EBRD index of infrastructure reform | | | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| Electric power | | | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| Railways | | | 4 | 4 | 4 | 4 | 4 | 4 |
| Roads | | | 3 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| Telecommunications | | | 4 | 4 | 4 | 4 | 4 | 4 |
| Water and wastewater | | | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 |

Source: EBRD

3. FDI in Poland-general overview

The liberalization of the capital flows in 1990 led automatically to FDI inflows to Central and Eastern Europe, but distribution was uneven among the countries. Poland was one of the countries that has attracted foreign investors from the start. At the beginning of transition, however, the restructuring of state enterprises was done through privatization. As there was a high reluctance to foreign investors, the countries initially have tried to limit the access of foreigners in carrying out the privatization. As for foreign investors, the market of Central and Eastern Europe represent an unknown and they were preferring to enter the market through acquisitions (at that time through privatization) in order to benefit from the local company's knowledge of the local market. As the years passed, the FDI restrictions reduced and until 1995, 45% of privatization in Poland was made through FDI (Sinn and Weichenrieder, 1997). Except for Hungary, where privatization was achieved mostly through foreign investors, in the other states, FDI were not the main form through which this process was achieved.

Immediately after the liberalization of capital flows, Poland, Czech Republic and Hungary were the main destinations of FDI in the automotive sector and became the host of the leading manufacturers of the U.S., Western Europe or Japan. The closeness to the EU market made of these countries the perfect destination for serving the European market. General Motors, Volkswagen, Fiat and Suzuki are among the first investors in CEE. (UNCTAD 1992)

Between 1990 and 1994, over 70% of FDI was attracted by three countries: Hungary, the Czech Republic and Poland, so that by 1999 the proportion attracted by these countries reached 79% of the FDI inflows directed towards CEE (Globerman et al, 2004). Hungary was the main host country as it opened its economy before the other states did and conducted privatization by foreign take-overs, while the other countries have preferred domestic investors.

Already in the second half of the '90s, the Czech Republic and Poland reduced the FDI gap respecting to Hungary, and in 1996, Poland became the leader of FDI inflows in the region (Hunya and Geishecker, 2005), attracting 30% of total FDI. Poland's attractiveness can be explained by a large domestic market extremely attractive (the second after Russia from a GDP view, and the third in population, after Russia and Ukraine). (UNCTAD, 2000)

The value of FDI inflows continued to rise in Poland until 2000 (when FDI inflows reached a peak of 9.445 million dollars and had a share of 35% of the total FDI directed to the CEE). In 2001 Poland recorded the first decline in FDI since 1996, probably due to the macroeconomic problems the country was facing at that time and the proximity of the end of the privatization process (UNCTAD, 2002), while in 2002 Poland lost its leading position in favor of the Czech Republic. (see figure 1). The peak value recorded in 2000, represented an increase of about 30% respecting to 1999, mainly due to the privatization of 35% of the telecommunications company Telekomunikacja Polska SA to France Telecom for 4.3 billion dollars and 35% of Orbis hotels for 0, 1 billion dollars. (Zukrowska et al, 2002).

In 2003 FDI flows started a new uptrend and Poland regained the leadership as host state in Central and Eastern Europe. Between 2004-2010, Poland continued to be the main destination of FDI in CEE, but its share was continuously decreasing: from 35% in 2000 to 18% in 2009, while in 2010 the amount drawn to represent only 10% (see figure 1). In 2004, FDI inflows increased by almost 3 times compared to 2003, which can be attributed to the EU accession, but immediately next year it recorded a decline of 20%. Analyzing the structure of FDI in 2004, it can be observed a significant share of green field FDI of 53% versus only 17% of FDI related to privatization. (Kornecki, 2006)

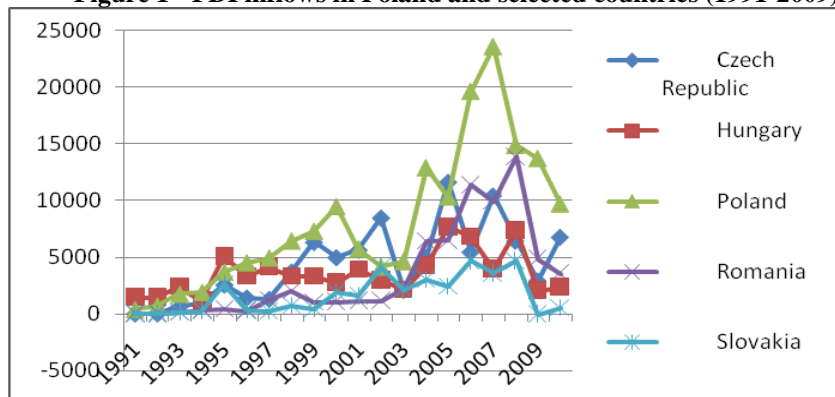
The FDI upward trend was resumed in 2006 when they nearly doubled their value respecting to 2005. In 2007, Poland reached a historic high level of FDI inflows (23,560 million U.S. dollars), up 20% over the value recorded in 2006. Since 2008, there has been a decline in FDI, decline sustained by the full repayment of reinvested profits. The financial crisis makes its presence felt and the crisis is transmitted also to foreign direct investments by tight credit conditions and lower profitability that eroded companies' ability to finance new investments. Firms revised their business plans and numerous acquisitions and green field investments are postponed or canceled (Filippov and Kalotay, 2009). Poland, although it remains the leader of FDI inflows during the crisis, the received values are declining and in 2010 the value of FDI inflows comes to be similar to the 2000's value.

A key factor in attracting FDI to Poland was the economic transformation that led to economic conditions, infrastructure and legislative framework favorable to foreign investors. These elements along with Poland's accession to some international organizations seem to attract FDI: OECD -

1996 (coinciding with the year of becoming leader of FDI received), NATO 1999 (immediately in 2000, Poland received a record value of FDI) and EU in 2004 (during 2004-2008 there are achieved record levels of FDI). (Zukrowska et al, 2002)

Greenfield FDI have increased since 2003 and reached the highest level in 2008, but recording a decline immediately the year after. In 2010 the number of Greenfield projects was increasing, but their value continues to be below the one recorded in 2008. (Hunya, 2011)

Figure 1 - FDI inflows in Poland and selected countries (1991-2009)



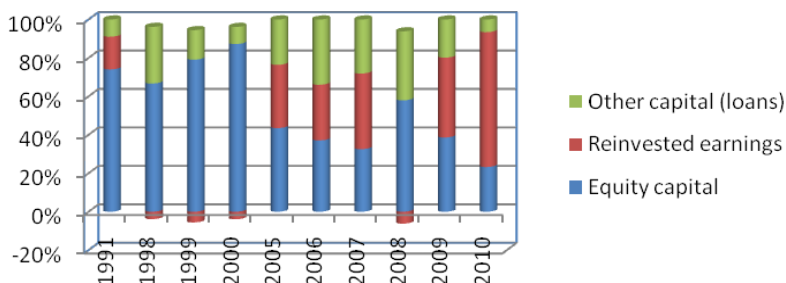
Source: UNCTADstat

The form of FDI inflows in Poland was dominated by equity investment, but this form of investment has been decreasing in the recent years. Between 1991 and 1998 their share averaged 60% and reached over 90% between 1999-2002. Last five years have led to FDI inflows as equity investment in share of about 40% (except for 2007 when the share was 70%), this value reaching even 20% in 2010. (see figure 2)

While the share of FDI as equity-investment was reducing in total FDI received, the other two forms: reinvested earnings and intra-company loans increased their value. Reinvested profits gained important percentages after the EU accession, item that can be explained by the effect of the adaptation of the local legislation to the *aquis communautaire* and the drop of those incentives offered to foreign investors. The significant increase in reinvested earnings since 2008 can also be an effect of the out brake of the crisis. Foreign subsidiaries, in order to continue the projects already started, no longer having

the support of the parent companies (intra-company loans fell dramatically) were constrained to invest their profits. The growing share of this form of investment means, at the same time, the decrease of greenfield FDI, as a way to enter on the market. In 2010, the value of the new investments recorded a significant decrease in Poland and Romania (Hunya, 2011)

Figure 2 - FDI inflows in Poland by form (1991-2010)



Source: created by author (WIIW database)

The largest investor in Poland in 2009, after the stock size, was the European Union by 85%. At individual level the main investors in Poland are Netherlands (18%), Germany (16%) and France (11%). The first investor outside Europe is USA with a share of 7%.

The analysis of the stock by sector in Poland shows a diversified trend, the share of the manufacturing sector has decreased from 45% in 1996 to 32% in 2009. Meanwhile, the share of the tertiary sector has been growing, financial intermediation and real estate sectors receiving the most FDI (see Table 2). The increasing FDI inflows in real estate were due to the removal of permit requirements which have already led to an increase of 10% in 2004 in this sector. (UNCTAD, 2005). Currently one third of outsourcing centers in Europe are located in Poland (MOE 2010)

The share of FDI stock to GDP for the economies of Central and Eastern Europe, compared with developed countries' economies is a high one, peaking 99% in case of Bulgaria. For Poland, this share is one of the lowest of the 10 New Member States (about 39% in 2010), exceeded only by Slovenia and Lithuania. On the one hand, high stock value reflects the importance of FDI in GDP for these economies, but in Poland, this importance is much lower than in other states. Probably, this lower dependence on foreign capital has

helped the country to maintain positive growth rates during the recent financial crisis.

**Table 2 - Foreign Direct Investments stock in Poland-Breakdown by sector
(mil euro)**

| NACE code | 1996 | 2000 | 2004 | 2007 | 2008 | 2009 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| A-B Agriculture, hunting, forestry, fishing | 18.8 | 170.6 | 298 | 515 | 549 | 587.1 |
| C Mining and quarrying | 36.2 | 148.6 | 148 | 214.5 | 212 | 208.3 |
| D Manufacturing | 4154.2 | 14199.4 | 23849.4 | 40467.4 | 36016 | 40905.8 |
| E Electricity, gas and water supply | 5.4 | 438.4 | 2252.8 | 3559.9 | 4136.6 | 5255.3 |
| F Construction | 143.3 | 2444.8 | 1187.8 | 2513.4 | 2552.3 | 3218.5 |
| G Wholesale, retail trade, repair of motor vehicles, etc | 1074.4 | 6148.7 | 11330.7 | 19912.8 | 19129.3 | 20429 |
| H Hotels and restaurants | 34.4 | 186.5 | 427.5 | 654.7 | 538.2 | 573.6 |
| I Transport, storage and communication | 221.9 | 2952.8 | 4879.7 | 8733.8 | 7069.7 | 7399.4 |
| J Financial intermediation | 1022.2 | 7340.7 | 12608.3 | 22904.5 | 22312.5 | 23939.8 |
| K Real estate, renting and business activities | 266.1 | 2577.6 | 5980 | 18513.6 | 20618.6 | 22567.2 |
| L-Q Other services | 17.2 | 183.5 | 396.9 | 620.6 | 699.7 | 640.4 |
| Other not elsewhere classified | 2234 | 0.6 | 89.2 | 169.8 | 266.4 | 700 |

| | | | | | | |
|---|------|-------|-------|--------|--------|--------|
| activities (A-Q) | | | | | | |
| Private purchase & sales of real estate | . | . | 152.7 | 2500 | 2533.7 | 2703.6 |
| Total by activities | 9228 | 36792 | 63601 | 121280 | 116634 | 129128 |

Source: WIIW database

4. How do FDI affect the economy of Poland?

FDI was seen as crucial for former communist countries by all international organisms (UNCTAD, 1994). The effects on host economies stills creates numerous international controverts because there is no generally accepted conclusion.

Certainly, FDI affect host economies, but the type and value of these effects is different from state to stat. Mainly, the effects of FDI on host countries is manifested through the impact on the balance of payments, the impact on employment, productivity and wage, the impact on the local competitors or technology transfer.

Poland is a country that is opened to foreign investors and has a legislative framework which aims to promote and stimulate FDI. Host countries are interested not only in attracting more foreign direct investments, but especially in their quality. In 2002, Poland amended its legislation on investment in order to attract more FDI, especially qualitative investments, so that the economy may benefit from. Thus, investments in order to receive financial support must meet the following conditions (UNCTAD,2003):

- Value of the investment must be at least 10 million
 - The investment of at least 500,000 is to modernize and develop existing business and maintain 100 jobs over a period of at least 5 years (or 50 seats if made in a priority location)
 - 20 new jobs are created for a period of at least 5 years
 - Investment leads to technological innovation, leading to the production of goods and service competitive on the market
 - the investment use ecological technology

4.1 The effects on the balance of payments and export competitiveness

The first impact that FDI have on the economy is on the balance of

payments, in which there are recorded all inputs and outputs. FDI directly influences both capital account and current account of the balance of payments.

In the capital account are recorded FDI inflows and outflows and current account shows the movement of repatriated profits and reinvested earnings (outflows) (Hunya, 2011)

One of the potential positive effects of FDI on the host countries is to increase export competitiveness and thus a lower trade deficit. (UNCTAD, 1996). FDI is the main way to finance current account deficits. In Poland, as shown in Table 4, FDI contribute significantly to cover the current account deficit, but the percentage is down during the crisis, dropping from a rate of 116% in 2004 to only 40% in 2008, while in 2010 it reached 31%. Even if the percentage is declining it is significant in maintaining a current account deficit to a comforting level.

Table 3 -Indicators of external imbalances 2004-2010

| Indicators of external imbalances | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|-------|-------|-------|-------|-------|------|------|
| Current account balance/GDP | -4.0 | -1.2 | -2.7 | -4.7 | -4.8 | -2.1 | -3.4 |
| Current and capital account balance/GDP | -3.5 | -0.9 | -2.1 | -3.6 | -3.7 | -0.5 | -1.6 |
| Balance on trade in goods/GDP | -2.2 | -0.9 | -2.0 | -4.0 | -4.9 | -1.0 | -1.7 |
| Current account balance/current account inflows | -9.4 | -2.9 | -5.9 | -10.1 | -10.6 | -4.9 | -7.4 |
| Direct investment/current account balance | 116.1 | 184.4 | 115.8 | 90.0 | 40.6 | 91.6 | 31.4 |
| Foreign debt/GDP | 46.5 | 45.9 | 47.3 | 51.0 | 48.0 | 62.7 | 66.1 |
| Officially reserve assets expressed in terms of monthly imports of goods and services | 4.0 | 4.7 | 3.9 | 3.9 | 3.3 | 5.4 | 5.6 |
| Short-term debt/ total foreign debt | 19.1 | 20.4 | 20.4 | 26.0 | 26.9 | 24.9 | 23.4 |
| Short-term debt/official reserve assets | 67.5 | 63.6 | 71.3 | 92.6 | 106.0 | 88.0 | 78.2 |

Source: NBP, 2010

From 2002 to 2007, repatriated profits have been rising, reaching 11.9% in 2007, but once the crisis hit, profits declined and reached 8,4% in 2010 (Table 4). The negative effects of the repatriation of profits are offset by the positive effects had on the trade balance, especially for export oriented FDI. At first there was a trade imbalance, only for a short period of time, as foreign affiliates had to import the elements needed to develop the operating capacity in the host country (imports of capital goods). Given that local suppliers did not satisfy the requirements of foreign companies, they had initially to import the necessary goods, but once they trained the workforce and spillovers effects

to the local companies took place, foreign firms began to include the local suppliers in their network. So, the foreign subsidiaries' contribution to trade balance has become positive since 1993. (UNCTAD, 1996)

Table 4 - FDI income outflow 2002-2010

| FDI income outflow | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|-------------|-------------|-------------|-------------|-------------|
| Total | 797 | 2886 | 7691 | 7479 | 10469 |
| Repatriated income | 2095 | 1911 | 2712 | 4737 | 5911 |
| Reinvested earnings | -1298 | 975 | 4979 | 2742 | 4558 |
| FDI-related income outflow relative to inward fdi stock | 1.7 | 6.3 | 12.1 | 9.9 | 11.5 |
| FDI income outflow | 2007 | 2008 | 2009 | 2010 | |
| Total | 13765 | 8797 | 10790 | 11616 | |
| Repatriated income | 6983 | 9510 | 6678 | 6483 | |
| Reinvested earnings | 6782 | -713 | 4112 | 5133 | |
| FDI-related income outflow relative to inward fdi stock | 11.9 | 8.0 | 8.8 | 8.4 | |

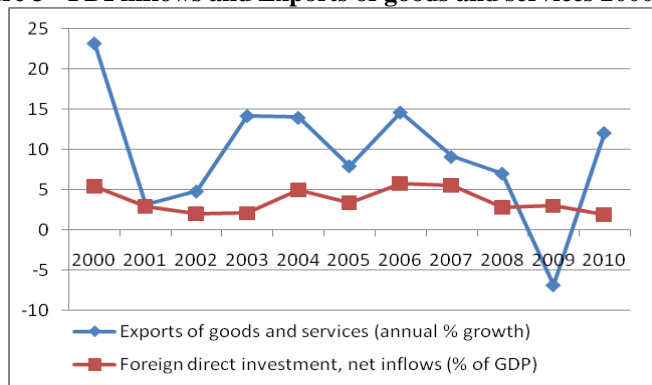
Source: Hunya, 2011

Export growth is associated with increased FDI even in Poland's case. Poland is one of the states that by modern infrastructure, transport facilities and reduced transaction costs have attracted export-oriented investments. (Hunya and Geishecker, 2005) The exports of the automotive sector are among the most important, given that the investments received are on 2nd place in economy, Poland being home to some of the most important car companies such as Fiat, General Motors, Isuzu, Volkswagen, Toyota, Volvo, MAN.(MOE, 2009). Also the electronics; sector is a huge export platform for Poland and also due to foreign investors. Computer or TV sets, Poland became the leader of the manufacturers for many brands, using the latest technologies and achieves 75% of European demand for such TV set, exporting 80 % of the total production (MOE, 2010).

In Poland, foreign branches exported 15% of sales in 1993, while the export of the domestic firms was 10%. In the case of the sector of automotive and communications' equipment, the export share of foreign subsidiaries was even greater: 89% and 84% respective. The acquisition and restructuring of

local business, made that they become major exporters, although previously they had never exported their products (UNCTAD, 1995). At present, the percentage of foreign subsidiaries in total trade conducted by Poland is over 60%. Export growth is mainly due to increased competitive products made by foreign subsidiaries by using advanced technology, cheap and highly qualified labor force (Zukrowska et al, 2002).

Figure 3 - FDI inflows and Exports of goods and services 2000-2010



Source: created by author (UNCTADstat)

The positive relationship between FDI and export growth can be seen in Figure 3, where between the two variables there is a direct connection until 2008, the outbreak of the crisis, when foreign demand plummeted and so did the exports. At the same time the increasing share of FDI in non tradable services and the decline of investments in the manufacturing sector, may explain the tendency of the last three years.

4.2 FDI effects on labor force

The effects of FDI on labor force, were synthesized by Hunya and Geishecker(2005) as follows:

1) direct effects

- job losses through privatization and restructuring of former state companies.

In the early years of transition, Estonia, Hungary and Poland were the countries for which FDI began to contribute significantly to the economy, foreign subsidiaries exporting more than 10% of total sales. Foreign

subsidiaries contributed only with 0.5% of the total workforce in CEE, while in the three above mentioned countries the foreign affiliates had higher percentages of employees: 3%, 4.5% and 2.3%. At that time, the low rate of labor force employed by foreign subsidiaries may be explained by extremely low levels of greenfield investments, since FDI through mergers and acquisitions, due to restructuring and modernization of the state enterprises, lead to a reduction of the number of employees in the first years.(UNCTAD,1994).

- creating new jobs through Greenfield FDI

Between 2007 and 2010 in Poland the number of jobs rose by 880,000 of which 23% was made by foreign subsidiaries .The majority of the workforce employed by foreign subsidiaries is to be found in the manufacturing sector in proportion of 47%. Since the restructuring was completed, privatization nearly over and the number of Greenfield investments grew, also the employment raised. In 2010, according to the Central Statistical Office of Poland, foreign companies had 1,519,398 million persons employed, up 3% respecting to 2009 and had a 10.7% share in total employment. The foreign subsidiaries increased their share in total employment from 2.3 % in 1993 to over 10% from 2005 to present.

2) indirect effects

- Destruction of jobs as a result of replacing local suppliers with foreign suppliers (Case FIAT, which was followed by 18 suppliers in 1992)
- Destruction of jobs through increased competition due to advanced technological structure
- Increasing the number of jobs as a result of creating new links with local suppliers

4.3 *The effects on technology transfer*

The technology transfer takes place in several ways, but FDI remains the main way to benefit from advanced technologies. There are 4 major channels through which FDI can spillover technology to host countries and OECD (2001) summarizes them as follows:

- a) the internationalization of research and development
- b) vertical links
- c) horizontal links
- d) labor migration.

The internationalization of transnational companies can be seen worldwide also through the relocation of research and development activities. Although the largest share of R&D is still found in the developed countries,

the developing countries have begun to gain ground. Also for CEE, TNCs began to relocate their activities of research and development and Poland is among the host countries. The relocated R&D activities are in the manufacturing sector and more precisely the electronic and automotive industry. (UNCTAD, 2005) The low share of the expenses with research and development (about 0.57 to 0.67% in Poland –see table 5) is among the lowest in Europe and reflects a low technological intensive industry and foreign subsidiaries does not seem to contribute to the development of this sector in Poland, 57% of the research and development's expenses were financed by the public sector (OECD, 2008). Neither the number of researchers is very high (it reached 1623 to 1 million persons) and the absorption of advanced technology depends on the innovative capacity of the host country. After the out brake of the crisis it can be observed a slight increase in the share of high technology products in total manufactured exports, while the share of expenditure financed by foreign capital is declining (from 6.7% in 2007 to 5.5% in 2009)

In the early 2000s, the share of patents granted to residents was 50% lower than that of non-residents, but in 2006 this indicator reversed, most patents are obtained by residents, getting to be 6-8 times higher (see table5).

In 2007, Poland created the National Centre for Research and Development, a center responsible for financing research projects. We may see an increase in research expenditure immediately the following year (from 0.57% to 0.67%). With PAIZ's help, in 2008, there were created four research projects developed by foreign companies, which led to investments of 1.9 million euro and created 225 jobs in the research sector.

Table 5 – Science and Technology indicators

| Science and Technology indicators | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Gross domestic expenditure on R&D(mln zł) | | | 5575 | 5893 | 6673 | 7706 | 9070 |
| ratio of GERD to GDP | | | 0,57 | 0,56 | 0,57 | 0,6 | 0,67 |
| Gross domestic expenditure on R&D finance from abroad (mln zł) | | | 320.2 | 414.6 | 448.3 | 417.6 | 499 |
| ratio of GERD abroad to GERD | | | 5.7 | 7.0 | 6.7 | 5.4 | 5.5 |

| | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|------|
| Patent applications, nonresidents | 3973 | 5359 | 4555 | 655 | 361 | 290 | 241 |
| Patent applications, residents | 2268 | 2381 | 2028 | 2157 | 2392 | 2488 | 2899 |
| resident/non-resident ratio | 0.6 | 0.4 | 0.4 | 3.3 | 6.6 | 8.6 | 12.0 |
| Researchers in R&D (per million people) | 1,531 | 1,594 | 1,627 | 1,561 | 1,610 | 1,623 | |
| High-technology exports (% of manufactured exports) | 3.1 | 3.3 | 3.8 | 3.7 | 3.0 | 4.3 | 6.1 |

Source: Central Statistical Office of Poland, World Bank and author's calculations

5. Conclusions

FDI has become an important part of the Polish economy. Since the beginning of transition, Poland has proved to be attractive to investors and from 1996 to present (except 2002) was the leader of FDI inflows in CEE. The macroeconomic stability, evidenced by positive growth rates during the economic crisis, contributed significantly to attract new foreign direct investments. During 2003-2007, after joining the EU, Poland attracted record levels of FDI, but its share in total FDI inflows begins to reduce. During the crisis, the structure of FDI changes, the share of equity investment decreased while the share of reinvested earnings grew. FDI influenced the Polish economy by increasing the export competitiveness of the country, contributing significantly to cover the current account deficit. The FDI led to the creation of new jobs, while the technology transfers seem to be the weak part of the foreign capital. The polish agency PAIZ contributes significantly to attract qualitative FDI that may conduct to economic externalities to the economy.

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ERRATUM TO PRINT ISSUE 3(62)/2012

On page 24 of the “Revista Economică 3(62)/2012”, the incorrect title of article by Drucă Elena, Cornescu Viorel and Ionescu Vladimir-Codrin was published as “Creativity, Innovation and Change in Knowledge-based Organization”. The correct title and the first page of the article appears bellow:

**BETWEEN SUBJECTIVE AND OBJECTIVE IN MAKING
DECISIONS ON THE ROMANIAN HIGHER EDUCATION MARKET**

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Abstract

Having roots in intentional behaviours, adverse selection as part of information asymmetry is a widely – discussed concept, closely related to many sides of economics and generating the most various problems in practice. As the specific literature says, the adverse selection leads, or at least in theory should lead to market failure when no external force comes to balance its effects. Since this failure never occurs in fact, it is questionable whether the adverse selection is the only factor that influences an uninformed consumer decision, or other factors come to counterbalance the factors described by Akerloff. This paper intends to advocate the idea that as much as adverse selection, there are subjective factors having impact on the decision made on the Romanian Education Market.

Key words: *adverse selection, subjective decision making, education market*

JEL classification: *A13, D70, D79, I21*

1. Introduction

Since 1970, when Akerloff published his paper over ‘lemons’ (Akerloff, 1970), adverse selection has been awarded as an important threatening both for individuals and firms, having major implications over the results of a deal.

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