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ANALYSING AND MANAGING PRIVATE BENEFITS, A COMPLEMENT OF SOCIAL SECURITY PROGRAMS

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Abstract: *The paper aims at identifying, measuring and analysing the global social security programs, the private benefits practices that complement the state benefits, as well as the impact of the latter on the employee's quality of life.*

The study focuses in particular on the health insurance and pension plans from the public-private partnership point of view, thus bringing an element of novelty within the current social security domain, giving the fact that the large majority of works focus only on public domain – employee or private domain – employee relationships, and not on the public domain – employee – private domain relationship.

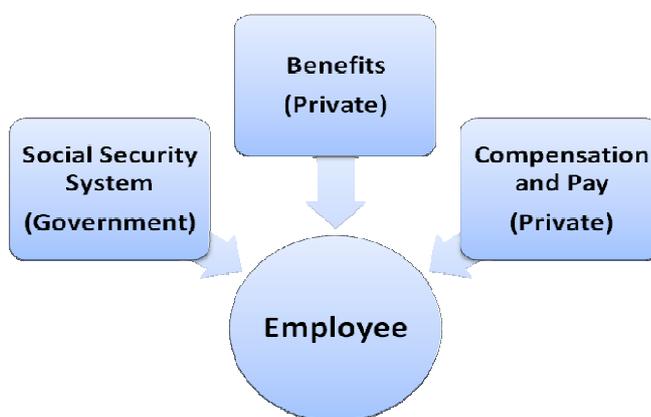
Key words: Social Security, Public Benefits, Private Benefits, Health Insurance, Pension Plan

JEL classification: J30, J32, J33

1. Introduction

Current economic environment requires an always higher offer of secure and convenient social security programs, as well as maximisation of private benefits, that complement the regular social programs in place. The concept of private benefits is now an established practice, and it is often considered an essential component of the benefits package offered by private companies to their employees.

Picture 1. Public – Private Impact on employees in the private sector

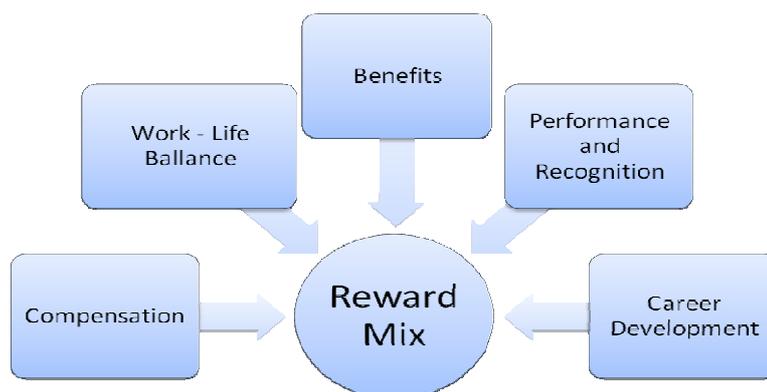


In our days, many companies embrace a global approach, with products, services, clients, sales and technology offices all over the world. The evolution of free trade regions, the creation of trade agreements as well as the enlargement of the European Union are the best proofs of globalisation. In order to stay competitive on the market, companies learn that global resources and markets become the best growth and expansion opportunity.

2. Reward Mix

Private benefits are part of the Reward Mix, which is a mix of programmes, practices and elements meant to develop an entire strategy of attracting, retaining and motivating skilled employees.

Picture 2. Reward Mix



The Reward Mix can be measured through employee’s productivity and through skilled employees’ retention rate, both elements leading to increased organisational results.

Benefits aim at supplementing the direct compensation scheme received by employees (annual wage, bonuses and shares) and they complement social security programs offered by the state.

Moşteanu and Andrei (2009) conclude that performance is linked to most of compensation strategies in order to motivate and retain key employees. Even though the Reward Mix can be supported by a strong strategy linking such schemes to performance can encourage certain behaviours which will result into higher employee performance, there for higher changes to obtain the desired revenue.

3. The structure and management of private benefits

Benefits include health plans, pension plans and paid vacations. All these, as well as the rest of the payments favouring employees aim at keeping the equilibrium between employee’s personal and professional life.

World-at-Work, a non-profit organisation dedicated to research on rewards, divides benefits into three categories: Social Insurance, Group Insurance, and Pay for Time Not Worked.

Table 1. Structure of private benefits

Social Insurance (mandatory)	Group Insurance (voluntary)	Pay for Time Not Worked
Unemployment	Medical	Paid vacation
Workers’ compensation	Dental	Company holidays
Social Security	Prescription drug	Lunch break
Disability (occupational)	Life insurance	Other breaks
	Disability	
	Retirement	

Source: World-at-Work

Insurances aim at protecting the employee’s income and warranting a certain level of living standards for the employees and their families (husband/wife, children and dependant persons). They can be mandatory, demanded by the law (unemployment, social security, disability) or voluntary, depending on employer’s choice and practices (medical, dental, mental health, survivor pensions, disability, pension plans, etc.)

Paid vacation programmes are designed to protect employee’s income during time periods when they do not work (paid vacation, medical leave, and maternity leave).

Managing private benefits within global companies involves a very good coordination of the following elements:

- Benefit cost

- Current legislation
- Benefits strategy
- Competitive practices

Armstrong (2007) takes a more practical approach in when classifying employee benefits as he looks beyond personal security into financial assistance, personal needs, holiday benefits, company car, voluntary (or “affinity”) benefits as well as other miscellaneous benefits. He looks at benefits as part of the total package and stress the fact that the additions to the salary package, meant to improve the quality of life are not (usually) subject to tax.

4. Main benefits offered

The array of benefits offered differs from company to company, as well as from country to country. There are though two main benefits offered by most of the private programmes.

- Health insurance
- Private pension

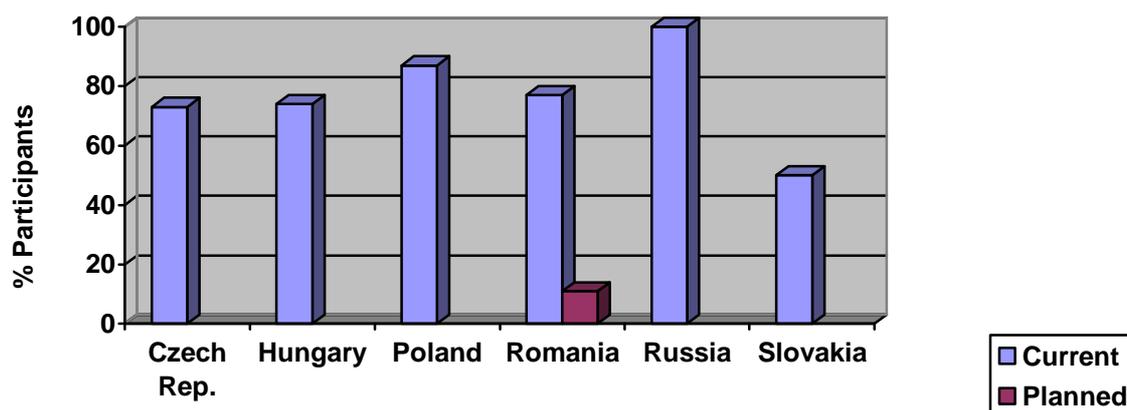
Health insurance is imposed by the law through the introduction of workplace behaviour, with the purpose of maintaining employee’s health. In Romania, the law conditions the hiring process by a medical examination. Before starting a work contract, the employee needs to receive the approval of a Medical General Practitioner (GP), and afterwards being obliged to undertake regular medical examinations. In the case of work within factories, where certain qualifications are needed in order to correctly accomplish the tasks, there is even more focused on health insurance, given the fact that a workplace accident can harm also third parties outside the factory or workplace.

Health insurance varies at regional levels, being very much influenced by the government involvement and country-specific practices. For example, in European countries, governments typically offer medical insurance to all citizens, financed by taxes. USA is the only country without a national health programme, but with only two support programmes for people over the age of 65 (Medicare Programme) and the programme for individuals or families with extremely low income (Medicaid Programme).

Frequent problems met within this system are common to most of the countries. Global employers are worried about the increased health insurance costs, access to quality, costs of technical innovation in medical field, and the division of responsibilities for pension plans.

In Eastern Europe, this type of benefit is very common in Poland, Romania and Russia, and it is offered by certain companies in Hungary, Czech Republic and almost absent in Slovakia.

Picture 3. Eastern Europe – Trends in Health Care (Towers Perrin)



Private Pension

Most additional state pension schemes contained the facility of transforming state pension into a private pension. Individuals included in such schemes can obtain a reduction of personal contributions to the national insurance system. The individuals included in the private pensions schemes can choose to have part of their contributions to national insurance programmes transferred to the private (personal) pension.

Following the counselling of Governmental Statistics Service, the Government will determine which can be the level of this amount transferred to the private pension.

Pension reform process in Romania uses the World Bank three pillars system (Moldovan T. 2007):

- Pillar 1: A restructured „pay-as-you-go” contribution;
- Pillar 2: A strictly defined mandatory contribution, privately administered for most of the employees;
- Pillar 3: A voluntary contribution, aiming at saving for retirement.

The pension plan, similar to the health insurance plan, is offered both through governmental programmes, and employer programmes. In certain countries, pension plans are even more substantial, while in other they barely exist. There are two main categories of pension plans:

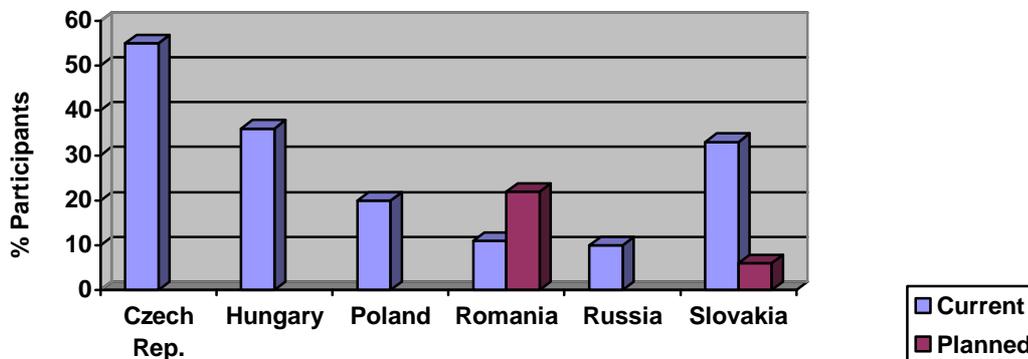
- **Defined Benefits (DB)**, is a traditional plan defining a fixed guaranteed benefit at retirement

- **Defined Contribution (DC)** is a plan uniting a fixed contribution from the employee and the employer, which is then invested for example at the Stock Exchange, and that promises a certain pension level with a certain risk. This can most of the times be received at the time of retirement, but there are exception cases when receiving the cumulated cash can be made before retirement age. These contributions are generally fixed, and the benefits cannot be stated in advance as they depend on the investment efficiency and annuities.

Recently, many of the plans based on defined benefits have been closed to new employees, the latter being offered almost in totality schemes based on defined contributions. The main difference between the system based on defined benefits and the one based on defined contributions is the risk location. That is because within the plans with defined benefits the employer takes over the most part or even all the risks associated with the investments and the longevity of the former employee. In a pure defined contribution plan, the risks stay with the individual.

In Eastern Europe, this benefit is very common in Czech Republic and less common in Poland and Slovakia. Private pension is almost inexistent in Russia, and is in its development phase in Romania.

Picture 4. Eastern Europe – Trends in pension plans (Towers Perrin)



Recent studies (Mercer, September 2009) show that there are four main challenges in regard to the future evolution of benefits:

- Adapting to new legislative changes brought by the government;
- Adapting to the long term changes brought by the financial crisis;
- Understanding costs and risks implied by any changes in benefits procedures;
- Improving global benefits management to achieve market competitiveness.

Adapting to new legislative changes brought by the government appeared as a necessity due to governmental reforms of the last year, put in place with the purpose of helping companies to face the economic recession and capital market decline. On long term, it is very probable that most governments will continue to transfer the cost of public environment benefits towards the private environment, due to the fact that it is always more difficult to tackle the increasing life expectancy.

The long term changes brought by the financial crisis determined a more intense analysis of internal costs and especially a necessity to strictly control them. According to Mercer global market research from May 2009, *Leading through Unprecedented Times 2.0*, many companies try to test various methods to cut costs.

- 27% of companies have already reduced their contributions to the Defined Contribution DC pension plans or intend to do so soon;
- 58% of companies will probably increase employee contributions to health insurance plans during next year.

Additionally, many companies try to introduce other less expensive benefits aiming at increasing workforce motivation, such as gym subscriptions or wellness programmes, that can be part of a scheme of flexible benefits, a variety of benefits where employees chose up to a certain limit what elements suits him/her best.

One thing is for sure: a clear effect of financial crisis is also the increased necessity for pension plans, health insurance and risk evaluation for strong and stable benefits.

Understanding costs and risks implied by any changes in benefits procedures is on of the top priorities of companies facing budget issues. Special attention is given to pension plans, while a strict evaluation of costs implied by health insurance plans contributions is also undertaken. According to the same Mercer study:

- 70% of companies identified risks correlated with pension plans;
- 23% of companies intent to review their health insurance plans and the costs of the contributions they offer

Armstrong (2007) compares the two main benefits schemes DB and DC and weights toward a DC scheme as these types of schemes puts the financial risk to the member (as suppose to the employer), can easily be portable to new employers, the employer contribution is fixed and has no excess if employee contributions.

Improving global benefits management is necessary especially due to increased visibility of such plans at employee level as well as due to the changes in the current economic climate. In the past, most companies had small resources for managing benefits plans, and most of the times these were managed at country level, and not in a centralised manner. This meant that decision factors were divided in various locations, and as communication was not very efficient, a correct global analysis of costs and consistency of these benefits was not possible. In the last years, the Reward function of Human Resources Management developed more and more, companies starting to see the benefits of developing and implementing sound global policies of private benefits.

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THE TAX AUDIT SUBJECT TO THE FISCAL PROCEDURE CODE

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Abstract: *With the integration of Romania into the European Union, a greater attention should be given to tax audit in terms of alignment with the provisions of the Member States in the field, as they are effective. The aim of this paper is to present the scope of the tax audit, how is it made and the stages of the fiscal inspection in Romania in the context of the present Fiscal Procedure Code.*

Key words: tax audit, Fiscal Procedure Code, fiscal inspection.

JEL classification: H 20, H30

1. Introduction

In the recent period, the fiscal policy of Romania represents a very debated topic in the context of the financial crisis. Also, greater attention has been paid to tax audit. It was often said that decision makers focus on the tax system control and the verification of economic agents, and pays too little attention to the tax administration as a whole, including administration of taxes and fees. It may be true, but these things should be judged in the context in which the Romanian fiscal legislation was in continuous change, combined with the desire to stop the slippage law.

The new statutory tax audit intends to seek the highest degree of voluntary compliance legislative provisions in tax matters and their implementing rules, but should be accompanied by a very rough framework and unequivocal regarding sanction for any infringements and violations. The target is to set a tax administration system, so that the state intervention to be as small as possible and only when appropriate, based on the principle that is more effective to combat the causes that generate infringements than to fight with their effects.

2. The scope of tax audit

2.1. The objectives and functions of tax audit

Tax audit means to verify the tax base, tax legality and conformity, fairness and accuracy of fulfillment by taxpayers, tax compliance and accounting, establishing differences in payment obligations, and related accessories.

The tax audit has the following **responsibilities**:

- Fiscal finding and investigation of all acts and facts resulting from the work of the taxpayer or other persons subject to audit the legality and compliance of tax, tax fairness and accuracy of fulfillment in the discovery of new evidence relevant to the application of tax law;
- Analysis and evaluation of tax information in order to confront their tax returns with information or other sources;
- Sanction of law to facts and disposition of measures to prevent and combat violations of the provisions of tax laws.

For carrying out their duties, the tax authorities should precede the following:

- examining documents in the taxpayer's tax file;
- verification the data from tax returns with the taxpayer's records;
- discuss the findings and request written explanations from representatives □
- taxpayers or their legal guardians empowered persons, as appropriate;
- request information from third parties;
- establishment of tax payment obligations differences;
- checking places where work is done generating taxable income;

- precautionary measures under the law layout .

The requesting written explanation will be made during a tax audit, whenever they are needed to clarify and finalizing the findings on the fiscal situation of the taxpayer. If the person concerned refuses to provide the requested explanation or to answer some questions, tax audit bodies will transmit a written address by setting a time of at least 5 working days to reply. If there is no reply requested, the tax audit report or minutes will be refused to be used. In all cases, explanations to questions raised by the tax inspection bodies will be given in writing by "explanatory note".

Setting the tax base, as well as differences in taxes and contributions in the tax audit is based on accounting records, tax or any other evidence relevant to the assessment or estimation using the method in accordance with Art. 66 of the Fiscal Code. When the fiscal inspection bodies are entitled by law to estimate the tax base, it will be mentioned in the act of inspection reasons and legal basis what actually caused the use of estimates, and the estimation criteria.

2.2. Persons subject to the tax audit

The tax audit is exercised over all persons, regardless of their organizational form, bound down, and pay withholding taxes, contributions and other amounts owed to the general consolidated budget, as provided by law.

The competent fiscal body may delegate the power to make the tax audit to the tax authorities in whose territorial jurisdiction the headquarters are, according to the Fiscal Procedure Code. In this case, the coordination of the tax audit is made by the fiscal body in whose territorial jurisdiction the tax residence of the taxpayer is.

2.3. The Forms and the extent of tax audit

The forms of tax audit are the following:

- general tax audit, which represents work checking of all tax obligations of a taxpayer for a period of time;
- partial tax audit, which represents the activity of checking one or more tax liabilities for a period of time;

The tax audit may be extended to all reports relevant to taxation, if they are subject to the tax law enforcement. The tax auditor decides on making a general or partial tax inspection under the provisions of the Fiscal Code.

2.4. The period subject to tax audit

The tax audit is performed within the statute of limitation the right to determine the tax liabilities. For large taxpayers, the period subject to tax begins with the end of the period previously audited. Regarding the other categories of taxpayers the tax audit is performed on claims arising during the past 3 fiscal years for which there was no obligation to submit tax returns. The tax audit may be extended to the period of prescription of the right to determine tax obligations if:

- there are no signs of reducing taxes, contributions and other amounts owed to the general consolidated budget;
- there were not filed tax returns;
- there were not fulfilled obligations to pay taxes, contributions and other amounts owed to the general consolidated budget.

3. How the tax audit is done.

3.1. The competence of the tax audit

The tax audit is exercised solely by direct and unimpeded Manage National Tax Agency or, where appropriate, by specialized departments of local public administration authorities or other competent authority, which by law to administer taxes, contributions or other General consolidated budget amount due.

The tax audit exercise of jurisdiction is determined by the organization and operation approved under the law. The competence on tax inspection body may delegate another tax. The National Tax Administration Agency has general competence in the territorial tax inspection in the field of taxes, social contributions and other amounts owed to the general consolidated budget for the administration of which is competent under the law.

The territorial administrative units and the specialized divisions of their structure represents the competence substantive and territorial tax inspection in the field of taxes and other revenues for whose administration is competent under the law. The delegation of powers is made by issuing an order. According to the Fiscal Procedure Code, jurisdiction may be delegated in the case of cross-checks or other fundamental cases.

The selection of the taxpayers to be subject to tax audit is performed by the tax authorities. The taxpayer cannot object to the used selection procedure.

3.2. Tax audit opinion

Before performing a tax audit, tax authorities have the obligation to notify the taxpayer about the audit action, by sending a notice of tax audit, which will include:

- the legal basis of tax audit;
- the starting date of a tax audit;
- the tax obligations and periods to be subject to tax audit;
- the opportunity to request postponing the starting date of a tax audit. Postponing the start date of the tax audit may be claimed once, for legitimate reasons.

In duly justified request of taxpayers, the tax auditor may agree to postpone the start date of a tax audit, informing them the date on which the tax audit was scheduled.

Before starting the tax audit, the tax authority should notify in writing the taxpayer, by sending a fiscal notice, as follows:

- with 30 days before for large taxpayers;
- with 15 days before for other taxpayers.

3.3. The venue of the fiscal inspection

The tax audit takes place usually on the desktop of the taxpayer. The taxpayer must make available adequate space and logistics for the fiscal inspection. If there is not an adequate working space for conducting a tax audit, then the tax audit will be conducted at the fiscal body or any other place fixed by mutual agreement with the taxpayer. Regardless of the venue tax audit, tax authorities have the right to inspect sites where work is takes place with the support of the taxpayer or another person designated by him.

Tax audit usually takes place during working hours of the taxpayer. The tax audit can take place outside working hours of the taxpayer, with the co-written agreement and approval of the fiscal body and taxpayer.

The physical space needed to proceed the fiscal inspection should be an area equipped with the minimum requirements for office and that should allow the safekeeping of primary documents for tax audit. If the taxpayer cannot provide a suitable space, he will notify the relevant tax audit body including his motivation.

3.4. The duration of the fiscal inspection

The duration to perform a tax audit by the tax audit bodies or, as appropriate, specialized departments of local public authorities, depending on the objectives of the inspection, should not exceed more than three months. In case of large taxpayers the duration of the tax audit should not exceed six months.

3.5. The rules of the tax audit

The tax audit review will consider all factual and legal relations between states, which are relevant to taxation. The tax audit will be conducted to affect as little current activity of taxpayers and to use the time effectively for tax audit. The tax audit is performed once for each tax, fee, contribution and other amounts owed for each period consolidated taxable.

The responsible tax audit manager may decide to re-checking if for a certain period of time unknown additional data appears, and tax inspectors have to check or calculate the errors that influence the results.

The tax audit exercise is based on the principles of independence, uniqueness, autonomy, hierarchy, territoriality and decentralization. Upon completion of tax audit, the taxpayer is required to give a written statement on own responsibility, of showing that he made available all documents and information required for tax audit. The declaration will mention the fact that all required documents have been returned and made available by the taxpayers.

At the end of the actual fiscal situation, in order to determine the tax base, the tax authorities will consider all documents and financial records and accounting which are means of evidence and relevant to the determination of rights and tax obligations.

The decision on re-checking a given period may be subject to situations such as:

- a cross-control according to the Fiscal Procedure Code: the documents of a group of taxpayers are compared to the documents of the taxpayer in question;
- getting information during the tax audit conducted on other taxpayers, or further information on the taxpayer's business, for a period that has already been subject to tax audit;
- solicitation of criminal investigation or other bodies or institutions entitled by law;
- information obtained in any way that alters the results of the previous fiscal control.

If, after the abolition of an administrative act, the re-checking for a taxable period is required, than the re-checking should be performed by other inspection team, different from the initial one. Until the date of limitation provided by the Fiscal Code, the competent fiscal body may re-check a taxable period by issuing a report that comprises the reasons for the new request. The paper is subject to approval by the competent head of the tax auditor, and the approval will be scheduled after the fiscal inspection.

3.6. Taxpayer's duty to cooperate and the right to be informed

In applying the principles embodied in the Fiscal Procedure Code *art. 5 – 12* , the tax audit of taxpayer implements the obligation to cooperate. As a consequence of *Art. 7 of the Fiscal Procedure Code that presents* the active role of the tax authority, the taxpayer has the right to be informed. Besides all, the tax audit has to follow the Ministry of Public Finances Order no. 137/2004 (*published on the Official Gazette no. 66 of January 27, 2004*) approving the *Code of Ethics for the Public Employees*, and the Order of the President of NAFA no. 422/2005 (*published on the Official Gazette no. 837 of September 16, 2005*) approving the *Charter of external communication NAFA* .

The taxpayer is obliged to cooperate with tax auditors. This means that the taxpayer has to give all the information relevant to tax purposes, to submit to the venue of a tax audit all documents needed and any other data necessary to clarify the actual situation.

If the information given by the taxpayer or other person appointed by him is insufficient, then the tax inspector may appeal to other person in order to obtain information. Throughout the taxpayers subject to tax audit shall be entitled to receive special or juridical assistance.

During the fiscal inspection, the taxpayer will be informed about the findings of the tax audit. At the end of a tax audit, the tax authorities shall give to the taxpayer the opportunity to express his point of view, unless the tax bases have not undergone any change after a tax audit or unless the taxpayer give up this right. After that, the taxpayer should notify the tax inspection bodies. The date, time and place of presenting the findings will be communicated in due time the taxpayer. The taxpayer is entitled to submit in writing, the views on tax audit findings.

3.7. The criminal investigation

The tax authorities will seize the criminal investigation organs about the tax audit findings that could meet the elements of an offense, as provided by the criminal law. In such cases, inspection bodies are required to prepare a report signed by the inspector and the taxpayer subject to inspection, with or without explanation or objections of taxpayers. If the subject refuses to sign the protocol control, the body of the tax audit will record this in the final report.

3.8. The tax audit report

The tax audit result will be recorded in a written report that will present the findings of the fiscal inspection. If, as a result of the audit, the tax base changes, the report will present the issuing tax decision. If the tax base does not change, the report will be represented by a decision to impose no changes to base.

The general or partial tax audit result will be recorded in a tax audit report.

The tax audit report is signed by the fiscal inspection bodies, checked and endorsed by head of service. After the approval of the report by the head of the tax auditor, a decision of the tax authorities will be issued. The model and content of the report with the results of tax audit is approved by order of President of National Agency for Fiscal Administration.

4. The steps followed when conducting a fiscal inspection

A thematic control, programmed by nature and provided in the activity of the institution with powers of control, is preceded by a preparatory phase, evidenced by:

- Documenting about the controlled entity's operations, the regulatory framework governing the rights and duties of its findings, conclusions and measures established by previous audits and the manner in which the entity controls the response Authority's request to remove deficiencies, pay tax obligations, performance of other duties imposed on it;
- Preparing the development control plan that contains the following:
 - Setting goals;
 - Determining the expected duration of the monitoring;
 - Appointment of members of the organization responsible for monitoring that will be part of the inspection team, the objectives envisaged;
 - Definition of control strategy, likely to ensure success of this activity;
 - Choice of control method (testing on representative samples, the priority areas etc.).
 - Ensuring the participation of specialists from the institutions with responsibilities within or outside the control and setting the specific objectives;
 - Any other steps to follow in order to facilitate the achievement of control within the deadlines set, with maximum efficiency and limiting the damaging consequences for the controlled entity.

The actual control work is done following the steps:

- Opening the meeting: the management staff of the entity controlled by the control team is informed of the legal basis of control, the objectives envisaged and the expected period of deployment, subject to extension, if the nature or findings will require such an extension;
- The proper control is executed by checking the specific documents, the existence of permits, agreements, licenses, permits under which the controlled entity operates, documents regarding staff payment of contributions and any other data and documents which depend on the performance of individual control;
- The completion of control, evidenced by specific findings of each of the envisaged objectives, accompanied by conclusions and - where appropriate - the proposed measures to remedy deficiencies, compliance with legal provisions violated the suspension of authorizations, permits, agreements, licenses, permits, interruption of activities and any other measures likely to ensure correspondence between the activity of the controlled entity and regulations based on which the activity itself;
- Analyzing the findings, the conclusions and the proposed measures for the controlled entity, including points of view and defend their arguments in order to clarify all the problems whose solution is required by the control objectives;
- The recovery, if necessary, based on data, evidence and arguments presented by representatives of controlled entity of the findings, conclusions and proposals for action;
- Drawing the control document, representing the synthesis of findings and conclusions of the proposed action and its ownership by each of the inspection team;
- The presentation, for awareness, of the content of the control act to the representatives of the controlled entity in order to ensure fulfillment of the measures ordered, by setting terms to comply.

The inspection report on the work completed is materialized in documents. The report will form the basis for issuing an imposing decision. In this sense, the following issues are relevant:

- The inspection report is a document drafted unilaterally by inspection bodies based on their findings, completed with the views expressed by representatives of controlled entity, that becomes binding only after the incorporation of the measures envisaged in a legal instrument (order / decision of suspension, withdrawal of authorization / agreement / license, the arresting of installations, equipment, etc.).
- The minutes of contraventions is a document that presents the offenses or other violations of legal regulations and establishes sanctions explicitly mentioned in regulations, including additional sanctions and administrative measures;
- The minutes is a bilateral document signed by the inspection officer and inspected by the taxpayer and presents the tax audit findings and the findings that could meet the elements of an offense, as provided by the criminal law which will be referred to criminal investigation authorities;
- The minutes of seizure and preservation of documents or material evidence.

- The explanatory notes are documents prepared by the controlled entity and its employees, designed to clarify the circumstances in which they have committed violations of regulations applicable to a field and to provide clues about the persons responsible; it shall be prepared in a single copy.

5. The use of the inspection reports

The inspection reports following the completion of the work itself should be used by implementing the measures set out in their content.

The inspection reports shall be completed by the measures whose implementation cannot be done immediately and that requires a reasonable time. The inspection bodies will set a time limit, after which they will check the fulfillment of the obligations imposed. The controlled entities refusing to comply with the measures ordered could face one or more of the following: pay penalties, suspension of activity, cancellation of the functioning authorization/license.

The inspection reports are subject to appeal procedures laid down in the legislation. In the absence of such rules, the inspection reports are subject to administrative verification procedures conducted by competent bodies or to judicial review.

The inspection reports evidenced in the minutes of finding and sanctioning contraventions are always subject to judicial reviews.

The inspection reports setting out the measures that have the effect of cancellation, suspension, withdrawal of permits, agreements, licenses or other similar interruption or discontinuation of the activity of the entity controlled are also subject to judicial review.

The control is not limited to finding gaps, deficiencies and irregularities. A control action is considered finished if all the deficiencies have been liquidated and the established practical measures leading to improvement of financial and economic activities have been applied.

The evidence of following the application of the measures disposed by the documents used includes:

- The document number and date of use of the document;
- The document number and date of response;
- For reporting the control results a number of documents and statements are prepared: the stock control sheet; the monthly and quarterly performed control situation; activity control; the annexes with the findings following the inspections and with the amounts of collected taxes during controls, the fines imposed; the annual report on fiscal control activities.

The program of the performed control situation is prepared monthly and sent to review to the direction of the Directorate of Methodology and Procedures for Fiscal Inspection of the National Agency for Fiscal Administration.

In order to improve transparency and control it was adopted the Order No. 713/2004 approving the Charter of rights and obligations of taxpayers during the fiscal inspection, published in the Official Gazette no. 977 of October 25. 2004.

6. Conclusions

In this paper we identified the scope and the objectives of tax audit and the main steps that have to be followed in order to comply with the current regulations.

In order to present a part of the Fiscal Procedure Code in a friendly way we summed up the duties and responsibilities of the fiscal bodies as well as the rights of the controlled agents represented by the tax payers.

It might be a big problem that the tax system still has not a very good communication with taxpayers and the information transmitted is limited and sometimes runs late. We hope that the tax audit will be understood and will be exerted increasingly more in line with the needs of Romanian society, as companies and individuals should benefit from an efficient administrative system.

For further research we intend to present a tax audit report based on the information presented above, as a practical tool of the Fiscal Code.

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LIQUIDITIES AND SOLVABILITY- INSTRUMENTS OF SURVEILLANCE OF THE INSURER FOR THE REALIZATION OF A FINANCIAL MANAGEMENT IN THE CONTEXT OF EUROPEAN INTEGRATION

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Abstract: *The company has sufficient funds to realize its financial obligation on a short term? The answer to that question lies with the correlation between the entry and exit of cash in the company. A company can face problems of liquidities when it invests too much in actives or it can not control its debtors. But even a successful insurance society has problems with liquidities. Territorial expansion means investments in building, electronic systems and work force which must be paid before the insurance policies are sold and paid of by clients. This may cause a temporary liquidities crisis.*

Financial management by his directions of action, presents various importance for all those that wish to know besides the performance of firms how does the company stand regarding solvabilities and liquidities.

Keywords : liquidities, solvability, surveillance, integration

JEL classification: G

1. Liquidities and solvability – elements of financial management

It is important to remember the fact that financial management uses information that is exclusively monetary, and the questions that are asked are completely related to money. Regarding the models applied in this area, they are based in the definitions of the instruments of measure, of comparison and of evaluation. The criteria of the decision making are analyzed from the perspective of a quantitative solution that must be reached or not surpassed. Linked to the application of the adopted decision is the integrity of the other functions and it is all reflected on the production, commercial and strategic service.

Financial management presents two directions of action: identifying and analyzing the need for financing, the gathering of financial recourses and the equilibrium in using funds, following financial performance, monetary flux and capitalization, the optimization of the financial structure and the resulted costs, decision-making regarding investments based on the capitalization and equilibrium principle.

Financial management, regardless of its form, answers two questions:

- Which investments must the company undergo?
- How can we finance these investments?
- How do we assure the financial equilibrium of the company s in order to assure the continuity of exploitation activity?

The calculated indicator for each side of the financial management presents various importance for: stock holders and potential investors that are interested to know the value of investment indicators; managers and analysts of performance indicators that present the economical situation of the company; banks and other creditors that wish to know besides the performance of firms how does the company stand regarding solvabilities and liquidities.

2. The surveillance of insurers in the context of European integration

The company has sufficient funds to realize its financial obligation on a short term? The answer to that question lies with the correlation between the entry and exit of cash in the company. A company can face problems of liquidities when it invests too much in actives or it can not control its debtors.

But even a successful insurance society has problems with liquidities. Territorial expansion means investments in building, electronic systems and work force which must be paid before the insurance policies are sold and paid of by clients. This may cause a temporary liquidities crisis.

The liquidities quotient for the activity of insurance is the represented by the sum that is formed by dividing the liquid actives and the certain obligation on a short term of the insurer to the insured.

According to the order no.6/2001, for the application of the laws regarding the categories of actives that are admitted to represent technical reserves of the insurer that practice general insurance, the rules of placement dispersion and the quotient of liquidities, published in the Official Monitor, First Part, nr.666 of 23 October 2001:

- In the category of liquid actives, there are included: state titles, bank deposits that have placements that do not exceed 50% in one bank, but not more that 20% in banks that are part of the same financial group or that are a significant stock holder a the before-mentioned insurer; cash availability in current accounts and in the cashier.
- In the category of certain shot term obligation of the insurer to the insured are included the damages reserve and the reserve for unapproved damages.

The minimum requirement of the liquidity quotient is fulfilled if the liquid actives of the insurer are represented by at least 50% of certain short term obligation to the insured.

The category of liquid actives are modified after the Order no.1/2002, for the modification of the order no.6/2001, for the application of the laws regarding the categories of actives that are admitted to represent technical reserves of the insurer that practice general insurance, the rules of placement dispersion and the quotient of liquidities. The order includes in the category of active liquidities:

- State titles which are managed only by commercial banks authorized by the National Bank of Romania, with a dropped social capital of at least 10 million euro;
- Bank deposit¹ with a total placement that does not exceed 25% in one commercial bank but not more the but not more that 20% in commercial banks that are part of the same financial group² or that are a significant stock holder a the before-mentioned insurer;
- cash availability in current accounts and in the cashier.

According to the Order no.3124/2005, published in the Official Monitor, Part I, no.1165 from 22 December 2005 in the structure of liquid actives it can be included, without exceeding 50% of the total value of them:

- the securities exchanged on the required markets and watched with the fulfilment of the following conditions:

- The 5% limit of the total of securities released by the same society;
- Obligation will be weighted with 0, 75%
- Stock will be weighted with 0, 50%

- participation titles for the organisms of collective placement in securities will be weighted with 0,90%.

Insurers have the obligation of having a liquidity quotient for the life insurance activity for at least 1 year and are obligated to follow its evolution for the activity of life insurance, and in the case a subunit quotient, they will communicate this within 48 hours to the Commission of Insurance Surveillance.

The solvability of insurance companies lies in their capacity to honor their obligations to the insured and the beneficiaries of the contracts. The measurement of solvability depends on the evaluation of the active and passive. The main commitments of an insurance society are found in the main technical previsions that allow a company to face the sinister predictable and to the expenditures of the subscribed contracts. They are established on a statistical basis. They cannot, however, guarantee in full the obligations taken on for damages and expenditures.

For the protection of insured, it becomes necessary to force insurance companies to hold some values of supplementary resources that can be used to cover unexpected expenditures.

According to art. 16 (5) of the Law no.32/2000 regarding insurance companies and the surveillance of insurance, the solvability margin of insurers, represents the sum with which the value of actives surpasses the value of obligations.

According with the directives form the year 2001, the Commission of the Surveillance of Insurance has printed laws regarding the minimal limit of the margin of solvability of insurers, calculus methodology of it

¹ Banking deposits will be realised only in commercial banks with a dropped social capital of 10 million euro, and it the cse of bank deposits to foreign commercial banks, the social capital will be at least 4 million.

² These placements in a single commercial bank will not exceed 50% of the dropped social capital f the bank.

differs on the two categories of insurance, general and life, as well as the criteria of evaluation of actives and obligations that can be taken into consideration in the calculus of the margin of solvability³.

According to the laws, the margin of minimal solvability and the margin of solvability are calculated. The difference between actives and obligation taken into consideration at the calculus of the margin of solvability represents the net active of the insurer and expresses his capacity to cover the obligation without relying on personal capital.

The minimal solvability margin must be established so that the effects of uncounted risks or the consequences of a sub estimation or of a abnormal fluctuation of quantitative risks. It tries to give the insurance company and the control administration time to repair the situation once the risk has occurred.

For the determination of the solvability of the insurer we must divide the margin of solvability with the margin of minimal solvability.

In trying to prevent the state of insolvability, the management of the society will monitor the evaluation of taken risks, of actives that must be free of tasks, of created technical reserves, of the rate of damages in each type of insurance, of reinsurance contracts that have been signed and of the policy of investments; to send to the Commission of Insurance Surveillance any modification recorded of the degree of solvability under the limit of 1,5%.

For the realization of the before – mentioned objectives, the Commission of Insurance Surveillance created in the first semester of 2004, the Minimal Law regarding the internal control activity, applied by the Order no.3109/2004, by which insurance societies are obligated to establish procedures of internal control and to verify their application for each level.

In 2005, in order to introduce the modifications that surfaced in the insurance legislation regarding the placement of products in the new insurance classes, the calculus of the minimal solvability margin of general and life insurance was modified.

According to the Order no.3111/2005 for the application of laws regarding the method of calculating the margin of solvability of the insurer that works with general insurance, of the margin of minimal solvability and of the public security fund published in the Official Monitor, P.I., nr.615/22.12.2005, insurers authorized to practice general insurance have the obligation to hold a permanent limit of available solvability, corresponding to the activities realised by them, equal at least with the minimal limit of solvability calculated according to the before mentioned laws.

In the conditions of a single market at a European level, the existence of a solid and effective system of careful surveillance of the insurance level is extremely important. In this effort we can place the intention of the European communities to elaborate a model of solvability – Solvency II – that will take into account the risks that the insurer is subjected to, the degree of market development, of the management of the actives correlated with the passives and the reinsurance.

In the debates regarding this new concept, that have started in the year 2005, are involved states of the European Union as well as standardized international associates like International Association of Insurance supervisors(IAIS), International Actuarial Association(IAA), International Actuarial Board(IASB), Committee of European Insurance and Occupational Pensions(CEIOPS) etc.

In the moment of Romania entry in the E.U., came to existence the Laws regarding the principles of organisation of a system of internal control and management of risks in insurance, through the order nr.113117/2006, published in the Official Monitor, P.I., no. 572, from 03.07.2006. This legal norms underline the insurer obligation to have a system of internal control and risk management that has as its objectives:

- the identification and evaluation of risks, that must be done at the central point of the insurer as well as, at all of the levels of its organisation, it must cover all activities and to consider the birth of new activities;
- the identification and evaluation of risks, that must be realised by taking into account the internal factors (the complexity of the organised structure, the nature of the activities unravelled, the quality of the personnel and its fluctuation);
- the process of risk evaluation must include the identification of the risks that are controlled by the insurer as well as the uncontrolled risks;

These norms are created to prepare the insurance societies for the application of the solvability standards Solvency II, because they are called to define the exposure to risk, to quantify the probabilistic terms and to manage the risks of a series of behaviours and actions.

³ The Order no.10/27.12.2001 regarding the minimal limit of the margin of solvability of insurers that work with general insurance and calculus methodology.

Through the adaptation of a system of internal control and risk management; companies manage to get information that helps them to manage their one activity and their one capital in an effective way, responding quicker to the demands of the market.

In 2007 the Order no.4 for the application of the Laws regarding the methodology of the calculation of the solvability limit of the insurer that works with general insurance, of the minimal limit of solvability and the safety fund, published in the Official Monitor, P.I., no. 344/21 may 2007 that annulled the Order no. 3.111/2005 for the application of the Laws regarding the methodology of the calculation of the solvability limit of the insurer that works with general insurance, of the minimal limit of solvability and the safety fund and apply the norms of art. 16, 17, 23 point 2 let. e), of art. 25 point 2 and 3 of the Directive 73/239/CEE, of the Directives 2002/13/CE and of the Notification regarding the adjustment of the level of inflation of certain sums presented in the directives regarding the activities of life insurance and general insurance, published in the Official Journal of the European Union, series C, no.194 from 18 august 2006.

Among the new requirements that apply starting with 1 January 2008, the determination of the limit of solvability available means taken the following aspects into consideration:

- social capital underwriting or, if we are talking about mutual societies, the reserve free dropped fund to which we add all the accounts of its members that fulfil certain criteria⁴;
- all the reserves of the society, others then the technical reserves: reserves of primes of capital, from revaluation, legalist, statutory, from conversion, other reserves:
- the net profit resultant from the deduction of dividends that need to be paid or, from the loss of the insurer;
- the reported result.

and the diminution of its value with the value of its own actions held directly by the insurer.

Besides the components presented, we can include in the calculus of the limit of available solvability the following components:

- cumulative preferential stocks and/or subordinate⁵ debts in proportion of 50% of the smallest value obtained by the comparison of the limit of available solvability and the limit of minimal⁶ solvability;
- value founds⁷ with indeterminate duration and other types of value founds, including cumulative preferential stock, others then those mentioned, up to a level of 50% of the smallest value obtained from the comparison of the limit of available solvability and the limit of minimal solvability. At the request of the insurer, The Committee of Insurance Surveillance may approve, on the basis of solid documents, the inclusion in the calculus of the limit of available solvability and of the following components, depending on the case:
- half of the un-dropped social capital or from the free un-dropped reserve fund⁸;
- in the case of mutual insurance societies or of mutual with variable contributions, any legal debt which the society can have on its members through the solicitation of supplementary contribution, in a financial exercise, but no more then 50% of the difference between the

⁴ The statute must state that from these accounts there can be issued payments to the members only if the payments do not have as a result the diminish of the limit of the available solvability under the minimal level or, in the case of the dismantle of the society, if all the payments have been finalized; it must also state that for any other payments mentioned before, realized with an other purpose then the individual retreat from the mutual society, the Committee for Insurer Surveillance must be informed a month prior to the realization of the payment, so it may have the chance to annul it.

⁵ The subordinate debts must fulfill the following: the sums are totally underwritten; for the loans with a established down payment, the initial down payment is set at 5 years; the loans with a down payment that is not set must be paid only with the fulfillment of a 5 year notice.

⁶ Among these, a maximum of 25% must be made up of subordinate debts with a established down payment and/or preferential cumulative stocks with a determined duration.

⁷ Value founds will be taken into consideration in the calculus of the limit of solvability if the following conditions are fulfilled: value founds can not be returned with out the approval of the Committee of Insurance Surveillance; the emission contract allows the insurer to hold an inferior level to the legal debts of all the unsubordinated creditors; the documents that are the basis for value founds emission must anticipate society's capacity to cover its debt and interest, so it can allow the insurer to continue it business.

⁸ In the situation in the dropped social capital represents at least 25% of the social capital, to a level that must not exceed 50% of the smallest value obtained by comparing the limit of available solvability and the limit of the minimal solvability.

maximum and total contribution of the market and it must not surpass 50% of the smallest value of the limit of available solvability and the limit of minimal solvability;

- any hidden net reserves that originate from the evaluation of actives, considering that these reserves are not of an exceptional nature.

The limit of minimal solvability is determined with the help of two methods, and it is equal to the largest value obtained by applying them:

- the comparison with the value of the brut prime underwrite in the last 12 months before the date of the report or the value of contributions from the last 12 months prior to the date of the report;
- the comparison to the annual media of brut damages paid in the last 36 months⁹ prior to the date of the report.

If the limit of the minimal solvability calculated is smaller then the limit of the minimal solvability reported at the end of the last financial exercise, then the limit of the minimal solvability at the date of the report must be at least equal with the one presented an the end of the last financial exercise, multiplied with the sum obtained by dividing the value of the net reserve with the damages at the beginning of the current financial exercise, sum that can not be higher the 1.

The insurer is forced to determine the permanent limit of the available solvability and at least the semestrial limit of minimal solvability, with the help of the data from the financial reports, and to send to the Committee of the Surveillance of Insurance, at the end of each financial exercise, a sheet of reportation in relation to the limit of available solvability and the limit of minimal solvability, and to inform the Committee of the Surveillance of Insurance, during the year, upon 2 days of the discovery, the diminish of the limit of available solvability under the level of the limit of minimal solvability.

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⁹ If a society of insurance takes in the insurance one or more risks : of credit, storm, frost the period of reference for the calculus of the annual average for the paid brut for damages will correspond to the last 84 months prior to the date.

RETHINKING THE REGULATION OF DERIVATIVES MARKETS AND IMPLICATIONS FOR FINANCIAL RISK MANAGEMENT

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Abstract: *The unprecedented global financial and economic crisis that started in 2007 has had a profound impact on the regulation of financial markets and on risk management. The reform of the derivatives markets regulation represents an important topic nowadays. The paper analyzes the far-reaching reforms of the derivatives markets regulation in order to assure the stability of financial system. The financial crisis has underscored the need for safe, efficient and sound derivatives markets, as well as appropriate risk management practices.*

Key words: regulation, OTC derivatives markets, financial risk management, financial crisis.

JEL classification: G01, G15, G18, G28.

1. Introduction

The current financial crisis has demonstrated that **crises are inherent in deregulated financial system**. The inadequate regulation and supervision of banks and financial markets represent major causes of the current financial crisis. In this regard, there is a growing consensus that more comprehensive and effective financial markets regulation is needed. Boskovic et al. (2010) consider that important gaps in securities regulations are the imperfect oversight of large interconnected institutions, the low transparency of OTC markets, especially derivatives, and the insufficient liquidity and capital across financial institutions. One of the key issues on the reform agenda is the regulation of the OTC derivatives markets, where trades are less transparent and less frequently cleared.

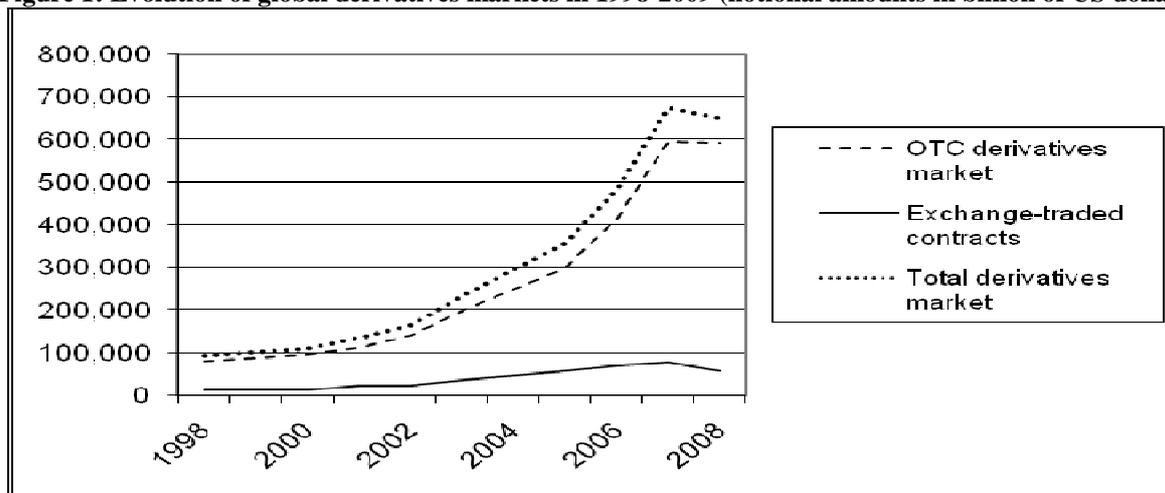
2. The evolution of derivatives markets

In the last decade the use of financial derivatives and the range of products available for companies have grown spectacularly worldwide. According to the estimations made by the Bank for International Settlements (BIS) in its statistics about the evolution of the volume of traded derivatives, the total market value of derivatives increased from \$94.253 billion in 1998 to \$649.826 billion in 2008 as figure 1 shows. The first-ever decline of notional amount outstanding registered in the second half of 2008, after the onset of current financial crisis.

In December 2008, the total amount of derivatives traded over-the-counter was \$591.963 billion, from which 55.42% represents interest-rate swaps. The growth of interest rate contracts was mainly due to market participants' changing perceptions about the future path of policy rates. Consequently, the increase in turnover was greatest in derivatives on short-term interest rates, both futures and options, whereas activity in long-term bonds contracts declined slightly.

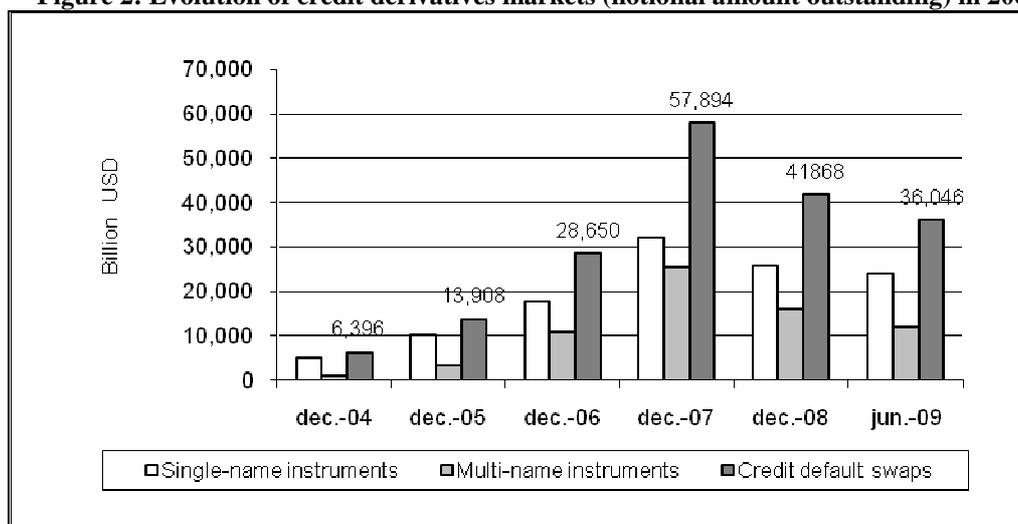
In terms of notional outstanding, however, OTC markets are ten times bigger than organized markets. The proportion of derivatives traded on the OTC markets has increased over time, as showed in figure 1. Over-the-counter (OTC) derivatives are used as major risk management tools by thousands of companies across all sectors of the economy and around the globe. According to the International Swaps and Derivatives Association, 94% of the 500 largest companies (Fortune 500) in the world and 50% of medium-sized businesses use derivatives as risk management tools.

The notional amount of exchange-traded derivatives (options and futures) grew from \$13.935 billion in December 1998 to \$57.863 billion in December 2008. By far the most commonly traded derivatives on organized markets are interest rate contracts, accounting more than 50% of the total number of contracts in the last five years. The international derivatives market Chicago Mercantile Exchange Group continues to expand its position as the world's largest derivatives exchange with record open interest on the exchange.

Figure 1: Evolution of global derivatives markets in 1998-2009 (notional amounts in billion of US dollar)

Source: (Bank for International Settlements, 2010).

One of the most important innovations on the OTC derivatives markets is represented by the credit derivatives. These instruments are contracts where the payoff depends on the creditworthiness of an agreed *reference entity* (a company or a country). Credit derivatives allow companies to trade risks in almost the same way as they trade market risks, to diversify credit risks, and to transfer credit risks to a third party (Hull, 2006). Most segments of the credit risk transfer markets are global markets with the counterparties often domiciled in different countries.

Figure 2: Evolution of credit derivatives markets (notional amount outstanding) in 2004-2009

Source: (Bank for International Settlements, 2010).

The simplest and the most used type of credit derivative is the credit default swap (CDS). Credit Default Swaps are widely believed to facilitate risk-sharing across financial intermediaries and, hence, to have reduced the probability that difficulties at a single intermediary could affect the entire financial system. The *main advantage of credit derivatives* is the possibility that the credit risk is spread to investors/institutions outside the banking system. In the context of high risk mortgage crisis in the USA, the positive outlook on the role of risk transfer instruments has fallen under criticism. Credit derivatives create the risk of a systemic fall of the market, as they reduce creditors' incentives to monitor debtors' quality, and thus contribute to the increase in credit risk at the level of the financial and banking system.

The credit derivatives market segment is one of the most innovative and fastest growing in the last 5 years. In 2001 the total notional principal for outstanding credit derivatives contracts was about \$800 billion. By June 2009 this had grown to over 36.046 billion USD, a 45-fold increase from the level at mid-year 2001, according to Bank for International Settlements. This growth has been accompanied by significant product innovation, notably the development of synthetic Collateralized Debt Obligations (CDOs), which allow the

credit risk of a portfolio of underlying exposures to be divided into different segments, each with different risk and return characteristics. As it can be seen in figure 2, the credit derivatives markets decrease sharply after the onset of current financial crisis.

3. The organization of derivatives markets

Financial derivatives can be traded on two main types of markets: OTC markets and exchange-based markets. OTC derivatives markets represent a network of market makers which change quotes and trades swaps, forwards and options. In this type of market, participants trade and clear their trades directly with one other, either electronically or via telephone. The main functions of the OTC market are to enable cost-effective financing, provide cross-currency and interest rate hedging tools, as well as the transfer of credit risk between market participants.

The major benefits of OTC markets relies on the customized products to suit the specific needs of the investors. Second, OTC markets permit the introduction of new financial instruments at a relatively low operational cost.

The markets participants are regulated by different agency/authorities according to the their role in the financial markets. Compared to the exchange-based derivatives market, the OTC market is not directly regulated with respect to disclosure of information between the parties. As a result, there is *no pricing transparency, nor centralized transparency of derivatives* positions, and therefore the inability to evaluate the size and scope of the market.

Table 1: Forms of market organization for derivatives

Selected Characteristic	Bilateral OTC	CCP	Exchange-based
Trading	Bilateral	Bilateral	Centralized
Clearing	Bilateral	Centralized	Centralized
Counterparty	Initial buyer or seller	CCP	CCP
Product features	All	Standardized and liquid	Standardized and liquid
Product examples	Foreign exchange swaps Interest rate swaps Credit default swaps	Plain vanilla interest rate swaps	Commodities Exchange rate futures Government bond futures
Participants	All	Typically larger dealers and higher-rated market participants	Typically larger dealers and higher-rated market participants
Market maker importance	Significant	Significant	Limited
Collateral practices	Bilateral posting of collateral	Margin requirements uniform for all	Margin requirements uniform for all
Margin movement	Decentralised and disputable	Centralized enforcement by CCP	Centralized enforcement by CCP
Risk buffers	Regulatory capital	Equity and margins	Equity and margins
Clearing and settlement	Bilateral	Centralised	Centralised
Netting	Some gross exposures netted bilaterally and some ad hoc multilateral netting	Exposures are netted multilaterally and position is against a CCP	Exposures are netted multilaterally and position is against a CCP
Regulation	Self-regulation and reliance on “market practices”	Self-regulation, reliance on “market practices” and public sector regulation of CCP	Self-regulation as well as public sector regulation of the exchanges and CCP
Transparency of exposures and activity	Limited or none	Detailed information available but not disseminated	Detailed information available but not disseminated
Transparency of prices	Pre-trade prices are non-binding quotes Actual transaction prices typically not published	Pre-trade prices are nonbinding quotes No automatic publication of transaction prices	Pre-trade prices are binding quotes Actual transaction prices published

Source: (Cecchetti et al., 2009, p. 48.)

The explosive growth and rapid innovation in the markets for credit default swaps (CDS) and other OTC derivatives has been accompanied by new risks to the investors. The most important risk is the counterparty risk (or default risk) – the risk that one party to the contract fails to meet its financial obligations. This risk is very hard to measure when the other party has other contracts with different counterparties and from the financial reports the financial obligation is not clear, since the financial derivatives are off the balance sheet instruments. The global financial crisis has highlighted that market participants did not price counterparty credit risk correctly.

The exchange-based derivatives markets present mechanisms in place to reduce counterparty risk. Clearing and settlement processes are realized by the clearing corporation. Acting as intermediary to all trades, the central counterparty ensures the proper execution of the contracts and absorbs the counterparty risk. The price discovery is available since the trading of derivatives takes place in a public market, which are directly regulated by various government agencies.

Cecchetti et al. propose an important improvement in derivatives market organization: the introduction of **central counterparties** (CCPs) for OTC derivatives. In their opinion, there are three possible forms of organization of derivatives markets: exchange-based, bilateral OTC and OTC market with decentralized trading and with centralized clearing through a CCP (see table 1).

Central counterparty (CCP) can be defined as “an entity that interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and seller to every buyer” (Cecchetti et al., 2009, p. 57). Using a CCP, the single contract between the two initial counterparties is changed with two new contracts between the initial parties and the CCP.

This form of organization has three main advantages. First, the CCPs facilitate the reduction of counterparty and operational risks. Second, they improve and simplify the management of counterparty risk. The use of CCPs for over-the-counter derivatives has the potential to improve market resilience by lowering counterparty risk and increasing transparency. On the other hand, a centralized clearing of the OTC derivatives needs a higher degree of standardization of these products, which reduces their main advantage.

The introduction of central counterparties for OTC derivatives markets has been supported by various authorities. In 2004, Bank for International Settlements (BIS) and International Organization of Securities Commissions (IOSCO) issued recommendations for central counterparties and accentuated significant benefits of a CCP by imposing more robust risk control on all market participants and by achieving multilateral netting of trades (Fratzscher, 2006). Financial Stability Board has forced market participants to introduce central counterparty clearing for OTC credit derivatives.

A central counterparty has recently been adopted in some OTC derivatives markets. For example, SwapClear acts as CCP for interbank OTC interest rate swaps. In 2008, CME Cleared Swaps and International Derivatives Clearing Groups started their operations in the United States. On the credit derivatives segment, there are also new CCPs. In the United States, ICE Trust assures the clearing of the most actively traded North American CDS index contracts. In Europe, ICE Clear Europe and Eurex Credit Clear started their operations in July 2009. The aim of these CCPs is “to reduce counterparty exposures to the more actively traded single-name CDS contracts and to standardize CDS indices” (Cecchetti et al., 2009, p. 53).

4. OTC derivatives markets: from no-regulation to over-regulation?

The Over-the-Counter derivatives markets developed enormously in the last decade due to the fact that they have not been regulated since their inception. The risks posed by the OTC derivatives markets (in particular, credit derivatives markets) have contributed to the collapse of major financial institutions (AIG, Lehman Brothers, Bear Stearns, Ambac) and to an increasing systemic risk in the economy.

Among the factors that contributed to the current financial crisis are cited in the financial literature: increased innovation in derivatives markets and their growing complexity; *inappropriate regulation and supervision of financial markets* (especially, OTC markets); poor or lax risk management practices at banks and other financial institutions; increased complexity of financial systems; financial market speculation; predatory lending practices; a combination of cyclical and structural factors (Dăianu and Lungu, 2008).

Duffie considers that the financial crisis was exacerbated by derivatives markets in two ways: insurance companies were severely hit when Collateralized Debt Obligations (CDOs) experienced large losses from mortgage defaults and the well-known failures of the investment banks (Bear Stearns and Lehman Brothers) were exacerbated by the run of their OTC derivatives counterparties (Duffie, 2009, p. 5-6).

European Commission considers that OTC derivatives have contributed to the recent financial turmoil by allowing leverage to increase and by interconnecting market participants. Due to the lack of transparency in relation to prices, transactions and positions on OTC derivatives markets, the regulatory authorities have not been able to properly supervise the markets, both in terms of systemic risk and market abuse, and the market participants have confronted with uncertainty regarding pricing, risk and valuing positions.

One lesson from the current financial crisis is that financial innovations (credit derivatives) can hold unknown risks. For example, the use of credit derivatives for hedging or speculative purpose implies numerous risks, such as: credit risk, counterparty risk, model risk, rating agency risk, and settlement risk (Gibson, 2007).

As a consequence to the current financial crisis, many countries decided to review or to introduce regulation of the OTC derivatives. Regulators have become increasingly concerned about OTC markets as they are **less transparent and highly leveraged** compared to the public exchanges.

In the USA, there are under discussion three reform proposals of derivatives markets: the Treasury plan, the Frank – Peterson principles and Waxman – Markey Act. Department of the Treasury decided in 2009 to regulate over-the-counter (OTC) derivatives, which under current law are largely excluded or exempted from regulation. According to the Department of the Treasury, the regulation of credit default swap (CDSs) markets and all other OTC derivative markets should be designed to achieve the following four **objectives**:

- 1) preventing activities in those markets from posing excessive risk to the financial system;
- 2) promoting the efficiency and transparency of those markets;
- 3) preventing market manipulation, fraud, and other market abuses;
- 4) ensuring that OTC derivatives are not marketed inappropriately to unsophisticated parties.

The major reform proposal (“Over-the-Counter Derivatives Markets Act 2009”) encloses the following measures:

- standardized OTC derivatives will be required to be traded on a CFTC- or SEC-regulated exchange or a CFTC- or SEC-regulated alternative swap execution facility;
- standardized OTC derivatives have to be centrally cleared by a derivatives clearing organization regulated by the CFTC or a securities clearing agency regulated by the SEC;
- higher capital requirements and higher margin requirements for non-standardized derivatives in order to encourage substantially greater use of standardized derivatives and thereby facilitating substantial migration of OTC derivatives onto central clearinghouses and exchanges;
- all relevant federal financial regulatory agencies will have access on a confidential basis to the OTC derivative transactions and related open positions of individual market participants;
- the public will have access to aggregated data on open positions and trading volumes;
- the federal supervision and regulation of any firm that deals in OTC derivatives and any other firm that takes large positions in OTC derivatives;
- OTC derivatives dealers and major market participants that are banks will be regulated by the federal banking agencies; OTC derivative dealers and major market participants that are not banks will be regulated by the CFTC or SEC;
- the legislation will tighten the definition of eligible investors that are able to engage in OTC derivative transactions to better protect individuals and small municipalities.

One central role in all the reform proposals is played by the central counterparty. In order to fulfill its role, a CCP should have both effective risk management and sufficient financial resources. Furthermore, in order to ensure that OTC derivatives markets operate efficiently are needed complementary measures, such as greater use of automated trading, registration of all trades in central data depositories, improved risk management and disclosure requirements for market participants themselves.

In Europe, the EC reported in October 2009 that it will introduce new regulation with the aim to ensure efficient, safe and sound derivatives markets. In the Commission’s view, there are four complementary tools to reduce the impact of OTC derivatives markets on financial stability:

- increase standardisation;
- use of trade repositories;
- strengthen the use of central counterparty clearing houses (“CCPs”);
- increase the use of organized trading venues, such as exchanges.

Major **differences** have resulted so far between US and European legislative proposal for reform of OTC derivatives markets. In the USA, House Committee on Financial Services proposal stipulates that

standardized swaps that involve end-users are not required to be cleared. In Europe, accordingly to the EC proposal it is mandatory to clear standardized contracts through central counterparties, with no exemptions for corporate end-users. These differences create opportunities for **regulatory arbitrage** – the European corporate would go to the US to hedge.

The regulation of over-the-counter derivatives markets has to be done very carefully. An over-regulation of the market will impose **significant costs** to the financial industry and will reduce the innovation degree on these markets, with possible negative impact on hedging possibilities. The impact of EU proposal on the non-financial corporations can be complex:

- the intent to drive OTC derivative transactions onto exchanges will reduce *flexibility to match underlying commercial exposures* (the main advantage of OTC derivatives);
- the use of central clearing will increase liquidity risk and funding costs through the requirement to post cash collateral based on unknown future financial market movements. Commercial end users will divert precious working capital (liquidities) from more productive uses in order to satisfy clearinghouse margin calls. The first adverse effect will be a decrease of the funds allocated to productive investment in the economy, as the companies will use their liquidities into mandatory collateralization of contracts. Secondly, the **higher cost of hedging** for corporate end-users will reduce the amount of hedging, thereby increasing uncertainty and volatility in the real economy.

The proposed regulatory frameworks present also important drawbacks. First, most of the current measures are designed to specific types of derivatives, mostly credit derivatives, leaving out others (e.g., commodity derivatives) and leaving the possibility for new types of derivatives to escape regulation. Secondly, they do not attempt to deal with three important issues revealed by the global financial crisis: liquidity risk, concentration risk, and pricing, valuation and model issues in derivatives markets.

5. Conclusions

The current financial crisis started in august 2007 as a real estate crisis in the United States and has implications at international level due to the credit risk transfer using structured products and OTC derivatives. In the context of “subprime” crisis, we need to rethink the regulation of OTC derivatives markets in order to regain the transparency and confidence in their mechanisms, to improve the management of counterparty risk and to enhance risk management processes. Introduction of CCPs, along with other measures, have the potential to reduce risks to financial stability and to improve transparency and price discovery. On the other hand, some recent changes in the OTC derivatives regulations could severely hamper non-financial corporations’ abilities to mitigate financial risks.

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INTERNATIONAL BANKING REGULATION: SOME LESSONS FROM THE MOST RECENT GLOBAL CRISIS

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Abstract: *The most recent global financial crisis which had its roots in the sub-prime mortgage crisis in the United States (2007) has revealed some weaknesses in the current regulatory system of international financial activity that must be adapted to the tendencies shown on the international financial markets. In this context, the article underlines the need for international banking regulation, the roots of financial turmoil of 2007-2008 and some lessons for international financial/banking regulation.*

Key words: global financial crisis, international financial regulation, sub-prime mortgage crisis, international financial stability, financial globalization

JEL classification: G15, G21

1. Introduction

The global financial crisis has revealed several weaknesses in the regulatory system of international financial activity that must be adapted to the tendencies shown on the international financial markets. Driven by several factors, among which are very important deregulation, technology development and innovation, we are currently witnessing a number of trends which are evident on many financial markets, some of which are very important: internationalization, globalization, mergers and acquisitions, disintermediation.

In this context, the current regulatory system of international financial activity must support a comprehensive restructuring process, which takes account of these mutations. The need to reform the regulatory system of international financial activity has been demonstrated more clearly by the sub-prime mortgage crisis (2007), which turned into a global crisis and highlighted several lessons.

2. The need for international banking regulation

Banking regulation, namely the establishment of rules that banks must meet to conduct business, is justified in the specialty literature by invoking several arguments. (See Davies, Green, 2008, p. 12-27; Busch, 2009, p. 22-26; Casu, Girardone, Molyneux, 2006, p. 161-166; Negrus, 2008, p. 150-154). Among these arguments is very important to ensure financial stability, which allows efficient allocation of resources and hence economic growth. Unlike the bankruptcy of a company, which has negative effects on shareholders and its employees and possibly certain suppliers and customers, through its specific activity, a bank failure has consequences for shareholders and its employees, but also for the depositors and, ultimately, if the bank has an important role in the banking system, for other banks. Another argument in favour of banking regulation is to correct information asymmetries that exist on the market: between savers and financial intermediaries; between shareholders and management of the company they invested, etc.). Therefore, to correct these asymmetries it is necessary the intervention of regulators. Prevention of monopolies and ensuring the conditions for competition is another objective of banking regulation.

By the early 1970s it was thought that banking stability could be achieved by measures taken only at national level. Development of international banking activity and climate of uncertainty created by the collapse of the Bretton-Woods system led to the outbreak of three banking crises (1974), which, unlike previous ones, had international impact. These major banking

crises requested some measures taken on international level. The measures aimed prevention and attenuation the negative effects of banking crisis on international level.

In order to achieve these objectives the Basel Committee on Banking Supervision was created (called below Basel Committee or simply the Committee). From its creation until now, the documents released by the Committee have had an important contribution in establishing of prudential supervision rules both on national and international level.

The three big crises from 1974 which had an impact on international banking community were: Herstatt Bank crisis, in Germany, Franklin National Bank crisis, in the United States, and the British Israel Bank subsidiary crisis, in London. In the first case, the **Herstatt Bank** bankruptcy produced serious problems on markets in the whole world and pointed out a new risk – the settlement risk, which, from that point, is known as Herstatt risk. The causes of this crisis were the very big loses caused by some speculative currency operations, hidden under false accountancy recordings. We have to mention also the fact that in that moment Herstatt was one of the biggest private banks in Federal Germany. As consequences of this crisis we can name trust diminishing among participants on international currency market and extending these precaution measures to the level of eurocurrency market.

The Franklin National Bank, willing to develop rapidly, adopted a less cautious financing policy, which affected the quality of assets. Unperformant loans and the numerous assets with low level of liquidity, together with a weak management and excessive short term financing threatened the bank to be declared insolvent. At that time, Franklin National Bank was one of the largest banks in the United States, which had ties with many banks abroad. Thus, its bankruptcy could have created important problems not only at the level of the US banks, but also for the banks from other countries which were connected to Franklin National Bank. In order to avoid such a probability, the US authorities supplied Franklin National Bank with all necessary funds it needed.

In the case of **British - Israel Bank** another problem came out, which requested its solution according to raising of the number of banks' foreign establishments. Once the bank closed, the authorities from Israel returned the deposits of the residents and the unresidents from all the local branches of the bank. The clients of the British Israel Bank subsidiary from London did not receive the money back. The justification of the Central Israel Bank was that the subsidiary in London had its own judicial personality and, consequently, was under control of the Bank of England. On the other hand, the Bank of England considered that it had no responsibility.

The bank crises mentioned above emphasised the fact that, once the international banking developed, the ties between banks in different countries increased; all these lead to a more vulnerable international banking system. In this context, some measures had to be taken that would prevent banking crisis on international level.

Consequently, in 1974 the Basel Committee on Banking Supervision was created. The Committee's secretariat is located at the Bank for International Settlements. Initially, this Committee was composed of representatives of 12 countries - The Group of Ten (Belgium, Canada, France, Germany, Italy, Japan, Holand, Sweden, England and the United States), to which added Switzerland and Luxembourg. Beginning with 1st February 2001, Spain was attached to Basel Committee. Within the Committee, the member states are represented by central banks and the authorities in charge with prudential supervision, in the case in which this activity does not represent the responsibility of the central bank in that country.

The documents released by the Basel Committee have a powerful influence in establishing the legal framework regarding the prudential supervision in many countries of the world, having a major contribution in harmonising banking agreements on international level. Also, the dissemination of the rules established within the Committee and their acceptance on international level is due to permanent cooperation between the Basel Committee and other supervision authorities, and also to international conferences regularly organised.

In order to reach their objectives, the Basel Committee drew up a series of documents which aimed:

- establishing some general principles for the supervision of banks' foreign establishments;
- establishing some international standards on capital adequacy;
- publishing some core principles for effective banking supervision.

Besides all these documents considered fundamental, the Committee's attention turned towards some other domanis of major interest, such as: credit risk management, operational risk management, enhancing bank transparency, identifying, assessing, managing and controlling the risk associated with electronic banking, management of interest rate risk, derivatives.

3. The roots of financial turmoil of 2007-2008

It is well known that the financial turmoil of 2007-2008 had its roots in the sub-prime mortgage crisis in the United States.

The causes which triggered the financial crisis are different and vary from a series of global macroeconomic imbalances to the development of the U.S. housing market, compensation policy practiced in financial sector, activity performed by rating agencies and financial innovation. Among the causes which triggered the sub-prime mortgage crisis the lax lending policies and the securitization practices had a prominent role. A major factor was also the investors' appetite for financial instruments resulting from the securitization, which did not consider the risks they run. Part of the blame is due also to both national and international supervisors that have not properly aligned the financial regulation with the mutations that occurred in the financial market in the last decades. Finally, increased globalization has led to the spread of financial crisis from the U.S. to other countries which were linked to the US housing market. Subsequently, the financial crisis was propagated into the real economy and covered the entire world.

Over the last years before triggering of crisis the value of the US sub-prime mortgages rose. This happened simultaneously with the increase of housings prices and competition among financial institutions. Once the housings prices started to drop and interest rates began to rise, the number of mortgage delinquencies and foreclosures increased dramatically. The lax lending policies were favoured by the possibility of securitization of mortgage loans, a financial innovation which allows banks to sell the mortgages granted by them.

The securitization of assets has many advantages, but it presents some disadvantages too. A problem that well came to light once the sub-prime mortgage crisis triggered is the reduced incentive of lenders who originate loans to make a strict assessment of the risk of insolvency. In contrast to the loans granted to the first category of debtors, known as prime borrowers, the sub-prime mortgages were granted for purchasing houses to the clients who didn't fulfil the best conditions for getting a loan (low incomes, credit historical problems, so on).

The sub-prime mortgages were granted on the background of a long period of growth of the housing prices, when a lot of debtors acquired loans hoping that they would be refinanced in better conditions in a certain future time.

The promotional policy developed by banks is added to all these factors. This policy allowed the clients to take advantage of a lot of facilities, such as low interest rates or payment for a certain period of time only for the loans interests.

From the moment when the first sign of housing prices reductions appeared and the loans' interest rate started to grow up, many clients couldn't pay their due instalments and the refinancing process started to be more and more difficult. In these conditions, the banks that granted sub-prime mortgage started to have losses.

By means of the securitization process great part of the risks the banks exposed themselves to was transferred to the investors who acquired the mortgage-backed securities resulted from this financial innovation. This thing was possible because in the originate-to-distribute model specific to the asset-backed securitization lenders who originated the loans didn't hold them to maturity. So they have no incentive to assess the risk of insolvency. In contrast with the revolutionary originate-to-distribute model, the traditional originate-to-hold model implies that lenders who originated loans keep them to maturity (Martin, 2009). Consequently, the US banks increased the volume of the sub-prime mortgages stimulated by the possibility to cash incomes and transfer the credit risk by means of securitization.

As the securities collateralized by sub-prime mortgages were sold not only in the US, but also in other countries, the crisis which triggered in the US spread to other international financial markets linked to the US real estate market. Moreover, subsequently, the crisis spread to the entire market in asset-backed securities and other segments of credit market.

4. Lessons for international financial/banking regulation

According to the IMF (2009) the initial lessons of the crisis have three dimensions: financial regulation, macroeconomic policy and global architecture. With regard to the financial regulation, an important problem revealed by the crisis refers to the shadow banking system (investment banks, mortgage brokers/originators, hedge funds, securitization vehicles etc.). These institutions have been always lightly

regulated, in contrast to deposit taking institutions. In this context, in order to circumvent capital requirements, banks, stimulated by the development of the financial innovation and technology, transferred risk to affiliated entities in the shadow system. Consequently, the perimeter of the financial regulation should be extended to all the financial institutions which activity may threaten the financial stability (IMF, 2009).

Development of financial integration process must inevitably lead to the creation of a single regulator for the entire financial system. The promoting of a single regulator for the entire financial system is determined by: minimising the differences between services offered by various financial institutions, increasing the number of financial conglomerates, achieving economies of scale in the regulation (Casu, Girardone, Molyneux, 2006, p. 175).

Davies and Green (2008) point out that in recent years, supervisors have given insufficient attention to liquidity supervision and the relationship between the real economy and developments in the financial plan. Another issue highlighted by the two authors refer to the need to reform the composition of groups and committees with responsibilities in international financial regulation in order to increase the presence of countries with significant weight (first of all, China and Australia, whose banks are increasingly active internationally).

Sub-prime lending crisis has revealed many irregularities in the activity of rating agencies, whose reputation has been severely affected as a result of having overly generous rated securities resulting from the securitization. Their action has been determined, on the one hand, by the inability to obtain a correct assessment, and secondly the desire to gain profits even if there was a conflict of interest between them and their clients.

A major cause that triggered the crisis of 2007 was the compensation policy practiced in the financial field. More specifically, the lack of correlation between short-term generous bonuses to employees and medium and long term risks they imposed on their financial intermediaries. A living proof is that, motivated by the desire to get as many bonuses as possible, employees were not encouraged to make a correct assessment of customers' creditworthiness. Moreover, the financial managers' salaries reached very high levels. Such unsound compensation practices, especially in the major financial institutions, may have adverse consequences on the stability of national and international financial system.

In this context, supervisors both national and international began to pay attention to compensation practices in the financial system to enhance stability. The importance of establishing sound principles for compensation in the financial system is demonstrated by the fact that currently a number of international bodies are involved in this process (the Financial Stability Board – FSB, the Basel Committee, the European Commission, etc.). In international bodies, crucial to establish sound principles of financial compensation is the Financial Stability Board (FSB), established in April 2009, as successor of the Financial Stability Forum. Building on its mandate to promote financial stability, the FSB has developed a set of principles and standards to implement sound compensation practices. Principles set out by the FSB are considering a number of issues among which may be mentioned: the need for financial institutions to constitute a committee (Board Remuneration Committee) in order to oversee the design and operation of compensation; criteria which must satisfy the variable component of remuneration, the importance of transparency on compensation policy. To be effective, these recommendations should be incorporated at the national level.

5. Conclusions

Like other financial crises with international impact the most recent global financial crisis highlighted several weaknesses in the regulation of international banking.

The first steps for supervision international banking activity has been taken in the early 1970s by the Basel Committee, documents prepared for this purpose being reviewed constantly as technology evolution and international financial market developments. However, the regulatory system of international banking activity has not always kept pace with mutations and market trends. A proof in this respect is that several lessons for regulation of financial activity have been gained from this global financial crisis.

Firstly, the perimeter of regulation of financial activity must expand to include all financial institutions and activities that could threaten the stability of the financial system. Greater integration of various financial market segments require the promoting of a single regulator for the entire financial system.

Meanwhile, it is necessary to improve the composition of the groups and committees with responsibilities in the regulation of international financial activity. Another problem highlighted by the crisis is the compensation policy practiced in the financial sector, which must respect certain principles so as to ensure financial stability. And the activity of credit rating agencies should be reviewed, given that often they gave generous credit ratings, which did not reflect reality.

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STUDY REGARDING THE ECONOMIC ENTITY'S FINANCIAL DIAGNOSIS

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Abstract: *Current and potential investors, the employees, creditors, suppliers, clients and other users of the information supplied by the annual financial statements make decisions based on the evaluation of the enterprise's credibility, respectively its ability to generate currency or its equivalents, necessary for the payment of due obligations. The evaluation of the enterprise's ability to generate cash or cash equivalents from third parties can be achieved only if they are offered relevant and credible information regarding the enterprise's financial situation, the performances and changes that occurred in the enterprise's financial situation.*

Key words: financial diagnosis, financial stability, financial autonomy, global indebtedness, financial lever

JEL classification: G32, G30

1. Introduction

The financial analysis uses specific instruments and methods adapted to the aimed purpose and it leads to the **financial diagnosis**; - part of the economic-financial diagnosis, together with the accounting diagnosis -, aiming especially performance and the enterprise risk. The financial diagnosis therefore implies certain judgements on the company's financial health, being the assessment instrument of the possible risks that the enterprise is facing, with the purpose of finding solutions to diminish them and improve performances.

2. Description of the economic entity

INTER SERVICE SRL Company, limited liability Company, established in 1994, having as main activity providing cleaning services, NACE code 8129 and a capital of 100.000 RON. Having last generation technologies, SC INTER SERVICE SRL now offers insect and pest control services of the public domains in the following municipalities: Sibiu, Brasov, Craiova, Ramnicu-Valcea, Oradea, Medias, Iasi and Pascani. The economic entity has introduced and developed an integrated quality-environment policy, which with it aimed to certify the Quality-Environment Integrated Management System, according to SR EN ISO 9001/2001, respectively SR EN ISO 14001/2005. In 2005, it obtained certificates issued by DQS Romania – Deutsche Management System and in 2006 it implemented the Occupational Health and Safety Management System, according to the OHSAS 18001/1999.

Services offered by S.C. INTER SERVICE S.R.L. are mainly destined for the clients, legal persons, and the local public authorities. The data sources used for making the financial analysis of the analysed economic entity are mainly annual financial statements, 2007-2009 period.

3. The diagnosis of the structural rates of the balance asset

It is dynamically made through the structural rates of the balance asset's elements, its registered values being influenced by the characteristics of the sector where the economic entity develops its activity.

The main rates that influence the structure of the balance asset are:

- Rate of fixed assets
- Rate of current assets

Rate of fixed assets (Rfa) – measures the percentage of assets which the company permanently has, in the asset's total and it is calculated according to the model:

$$\text{Rfa} = \text{Fixed assets} / \text{Total asset} * 100$$

Rate of current assets (Rca) – reflects the percentage of temporary assets in the assets' total, being a measure of the financial flexibility, since it outlines the relative importance of assets that are easy to be turned into cash:

$$\text{Rca} = \text{Current assets} / \text{Total asset} * 100$$

The analysis of current assets' structure can be detailed on their components, respectively stocks, debts, cash and cash equivalents, as it follows:

Rate of stock (Rs) – it reflects the stocks' percentage (the less liquid current assets) in the assets' total:

$$\text{Rs} = \text{Stocks} / \text{Current assets} * 100$$

In the economic practice, it is considered that a balanced level of the rate of stocks would be of approximately 30% for industry and 40-45% for constructions and commerce. For the service sector, the indicator records low levels, due to the specificity of this sector.

Rate of debts (Rd) – it reflects the percentage owned by the debt portfolio (mostly commercial), in the economic entity's bookkeeping, the indicator's dimensions being influenced by the payment terms stipulated in contracts as well as the particularity of the entity's activity.

$$\text{Rd} = \text{Debts} / \text{Current assets} * 100$$

Rate of cash and cash equivalent (Ram) – it reflects the percentage of available money and their equivalents in the assets' total and it measures the economic entity's internal liquidity. It is estimated that a level of the indicator of 1,5-2% of the total assets, respectively 10% of the current assets, insures the enterprise's financial necessities.

$$\text{Ram} = \text{Available money} / \text{Current assets} * 100$$

At the level of SC INTER SERVICE SRL, the indicators' evolution regarding the assets' structure during 2007-2009 is shown in table no. 1.

Table 1. The evolution of the structural rates of the balance asset during 2007-2009

o.	Specification	Symbol	Period		
			2007 (%)	2008 (%)	2009 (%)
1	Rate of fixed assets	Rfa	90,76	92,00	90,41
2	Rate of current assets, out of which:	Rca	9,24	6,20	8,06
.1.	Rate of stocks*	Rs	2,8	4,7	4,2
.2.	Rate of debts*	Rd	89,8	93,8	91,1
.3.	Rate of available money*	Ram	7,4	1,5	4,7

* The three indicators have been calculated as a percentage in the total of current assets

The analysed economic entity holds a high percentage of fixed assets and especially tangible fixed assets (over 90%), due to the purchasing of commercial spaces, with the purpose of renting them and of some technological equipment and means of transport necessary to the development of the main activity. The debts (especially the commercial ones) hold the important percentage in the total of current assets, to the disadvantage of the available money, which leads us to estimate that the economic entity encountered throughout the analysed period a serious lack of liquidity.

4. The diagnosis of the structural rates of the debts and equity capital

The structural rates of the balance liabilities, known as rates of financing sources, allow the outlining of certain aspects regarding the economic entity's stability, autonomy and financial indebtedness.

Rate of financial stability (Rfs) – it reflects the sources percentage with stable character, in the total of the financial sources of the economic entity.

$$\text{Rfs} = \text{Invested capital} / \text{Total liability} * 100$$

Rate of financial autonomy (Rfa) – it reflects the percentage of invested sources used for the financing of the enterprise's economic means.

$$\text{Rec} = \text{Equity capital} / \text{Total liability} * 100$$

Rate of global indebtedness (Rgi) – it measures the percentage of total debts towards third parties, regardless of their nature, in the total of the financing sources.¹

$$\text{Rgi} = \text{Total debts} / \text{Total liability} * 100$$

At the level of SC INTER SERVICE SRL, the evolution of these indicators during 2007-2009 is shown in table no. 2.

Table 2. The evolution of structure rates of the debts and equity capital during 2007-2009

No.	Specification	Symbol	Period		
			2007 (%)	2008 (%)	2009 (%)
1	Rate of financial stability	Rfs	80,98	92,29	91,61
2	Rate of financial autonomy	Rfa	42,55	24,46	29,80
3	Rate of global indebtedness	Rgi	54,86	74,04	68,31

The dynamic analysis of the rate of financial stability leads us to conclude that the indicator has a tendency of increase in 2008 and 2009, as compared to 2007, due to the increase in percentage of invested capitals in the total of the financing sources. The situation may be considered as favourable since the increase of invested capital as related to the total liabilities is due to the increase of equity capitals.

Although we are noticing an increase of the company's equity capital during the last two years, its increase index during the analysed period is outran by the one of long-term debts, a proof of this being the decrease of the financial autonomy and, implicitly, the increase of the entity's indebtedness, especially in 2008 and 2009.

5. The diagnosis of the economic entity's financial situation

The frequently used indicators in the diagnosis of the enterprise's financial situation and calculated based on the information supplied by the annual financial statements, are: liquidity, solvency, profitability and degree of indebtedness.

A. The liquidity diagnosis through rates

Liquidity measures the enterprise's ability to handle with obligations, especially the short-term ones, reflecting the ability to rapidly change the current assets into cash and cash equivalents. The calculation of resulted liquidity rates, by comparing all potential liquidities to the potential chargeability, is a fast method for estimating the level in which the economic entity handles the short term liabilities. The economic practice uses the following rates:

a. Rate of current liquidity (Rcl), reflects the coverage level of current debts from the current assets. It is recommended that the indicator's value is situated around number 2.

$$\text{Rcl} = \text{Current assets} / \text{Current debts}$$

b. Rate of immediate liquidity (Ril) describes the enterprise's ability to pay its short-term debts by recovering the debts, the short-term financial investments and available money. The indicator's value is considered normal if it is situated between 0,8-1.

$$\text{Ril} = (\text{Current assets} - \text{Stocks}) / \text{Current debts}$$

c. Rate of liquidity at sight (Rls) also called the payment capacity, reflects the enterprise's ability to pay the current debts, from the available money.

$$\text{Rls} = \text{Available money} / \text{Current debts}$$

At the level of the economic entities from the study, the evolution of the liquidity indicator during 2007-2009 is shown in table no. 3.

Table 3. The evolution of the liquidity indicator during 2007-2009

o.	Specification	Sym bol	Period		
			2007 (%)	2008 (%)	2009 (%)
1	Rate of current liquidity	Rcl	98,45	99,98	124,17
2	Rate of immediate liquidity	Ril	95,69	95,27	118,95
3	Rate of liquidity at sight	Rls	1,70	1,51	5,77

For the first years of the analysis, it can be noticed that the value of the current liquidity indicator is sub unitary, the value of short term debts being entirely covered by the value of the current assets only during the last year. Be estimate that the rate of immediate liquidity and the one at sight has normal levels during the entire analysed period.

B. The solvency diagnosis

Solvency reflects the entreprise's ability to deal with the payment obligations especially from own resources. It is expressed through the rate of solvency indicator, which can be calculated in two ways:

- Rate of general solvency (Rgs);
- Rate of patrimonial solvency (Rps)

a. The rate of general solvency (Rgs) measures the enterprise's risk of payment inability. The indicator shows the level in which debts can be covered from the company's assets. The indicator has to have over-unitary levels.

$$\text{Rgs} = \text{Total assets} / \text{Total debts}$$

b. The rate of patrimonial solvency (Rps) is calculated as the relation between the equity capital and the invested capitals. Patrimonial solvency is considered good when the obtained result is situated between 30% and 50% (0,3 – 0,5), indicating the percentage of own resources in the total of the entreprise's permanent resources.

$$\text{Rps} = \text{Equity capital} / \text{Invested capitals} + \text{Long-term debts}$$

At the level of the economic entity considered for the analysis, the evolution of the two indicators for the 2007-2009 period is shown in table no. 4

Table 4. The evolution of the solvency rates during 2007-2009

o.	Specification	Sym bol	Period		
			2007	2008	2009
1	Rate of general solvency	Rgs	1,72	1,33	1,43

.					
2	Rate of patrimonial solvency	Rps	0,53	0,27	0,33
.					

The result of a great volume of assets, higher than debts, during the entire analysed period, showed that the level of the general solvency has been adequate. As far as the patrimonial solvency is concerned, especially during the last 2 years of the analysis, we have been facing a decrease of the indicator, mainly determined by the higher level of increase of the long-term debts, as compared to the equity capitals.

C. The profitability diagnosis

Profitability (performance) indicators reflect the efficiency of the enterprise's activity, meaning its abilities to get profit from its own available resources.

The main indicators characterizing an economic entity's financial profitability are the profitability rates, namely:

- Rate of economic profitability;
- Rate of financial profitability.

a. The rate of economic profitability (Rep) reflects the efficiency of the enterprise's exploitation activity, being a performance estimation indicator of the managerial team.

$$\text{Rep} = \text{Gross profit of the exploitation} / \text{Total assets} * 100$$

b. The rate of financial profitability (Rf), evaluates the enterprise's ability to get net profit through the equity capitals invested in its activity. Financial profitability remunerates the enterprise's owners by distributing them dividends and increasing savings, which, in fact, are an increase of the owners' wealth. The indicator reflects the correlation between the net profit, as the owners' income, and the enterprise's equity capitals.

$$\text{Rf} = \text{Net profit} / \text{Equity capitals} * 100$$

The evolution of profitability indicators at the level of the studied economic entity is shown in table 5.

Table 5. The profitability evolution during 2007-2009

o.	Specification	Period		
		2007	2008	2009
1	Rate of economic profitability	15,64	5,72	12,17
2	Rate of financial profitability	30,89	19,61	34,27

The economic activity developed by the economic entity during the analysed period may be estimated accordingly, being materialized in getting profit, both from the exploitation activity and from the other activities. The lower levels of the 2 indicators in 2008 have been determined by investments in equipment made by SC Media Service SRL, which, once employed, brought some economic-financial performances much above the ones in 2009.

D. The diagnosis of the indebtedness level

The economic entity's financial autonomy (independence) to third parties may be evaluated through the rate of global indebtedness (Rgi), which describes the economic entity's dependency on third parties, respectively the percentage of total debts in the total capitals. It is recommended that the indicator's value does not exceed 50%

$$\text{Rgi} = \text{Total debts} / \text{Total capitals} * 100$$

In its turn, the indicator can be detailed on the following variants:

a. Financial lever (Fl), used to diagnose the financial risk, meaning the debts percentage into the equity capitals (the indicator's recommended value is of maximum 60%).

$$\text{Fl} = \text{Total debts} / \text{Equity capitals} * 100$$

b. The rate of financial autonomy (Rfa), an indicator used to evaluate the entity's level of financial dependency towards third parties. It is recommended that the equity capitals' value is higher than that of the debts, respectively, the indicator's value should be supraunitary.

$$\text{Rfa} = \text{Equity capitals} / \text{Total debts} * 100$$

c. The reimbursement capacity (Rc), representing the part of the entity's total debts that can be paid from the self-financing capacity. It is recommended that a minimum percentage of 25-30% of the total debts is supported from the self-financing capacity.

$$\text{Rc} = \text{Self-financing capacity} / \text{Total debts} * 100$$

The evolution of the indebtedness indicators at the level of SC INTER MEDIA SRL is shown in table 6.

Table no. 6. The evolution of indicators regarding indebtedness during 2007-2009

o.	Specification	Period		
		2007 (%)	2008 (%)	2009 (%)
1	Rate of global indebtedness	54,86	74,04	68,31
2	Financial lever	128,9	302,6	229,1
3	Rate of financial autonomy	77,6	33,0	43,6
4	Reimbursement capacity	95,4	46,1	74,1

The economic entity's indebtedness is high, being determined by the increase rhythm of debts (especially the medium and long term ones), higher than the one of the equity capitals, which makes us estimate that SC INTER SERVICE SRL has a high dependency on third parties (especially during the last 2 analysed years). Another cause of the entity's high indebtedness (although it benefits from a high self-financing capacity) is represented by the lack of liquidity necessary for the payment of due obligations, basically because of non-collection on time of commercial claims.

E. The diagnosis of the financial balance

There are different possibilities to approach, interpret and diagnose the "balance" between the entity's resources and financing necessities, the most used ones in the specialized practice being:

- The financial balance, determined based on the correlation fund – necessary circulating fund – net cash;
- The correlation debts – debts in the financial balance system;
- The rates of financial balance.

a. The diagnosis of financial balance, established based on the correlation fund – necessary circulating fund – net cash.

The circulating fund (CF) is the part of the invested capital used to finance the current assets, imposed by the differences between the amounts to be collected and the amounts to be paid, as well as the

gap between the medium term to change current assets into liquidities and the average time in which short term debts become exigible.

$$\text{CF} = \text{Invested capital} - \text{Fixed assets}$$

or

$$\text{CF} = (\text{Current assets} + \text{Accrued expenses}) - (\text{Short term debts} + \text{Accrued income})$$

The necessary circulating fund (NCF) is the difference between temporary needs and temporary resources, respectively the necessary amount to finance the gaps that occur in time between the real cash flows and the financial cash flows.

$$\text{NCF} = (\text{Current assets} - \text{Available money}) - (\text{Short term debts} - \text{Short term loans})$$

or

$$\text{NCF} = (\text{Stocks} + \text{Debts}) - \text{Short term debts}$$

The Net Treasury (NT) is the most conclusive expression of how an efficient and balanced activity develops. It reveals the quality of the enterprise's general financial balance, both on the short and long term. The indicator can be calculated in two ways:

-as the difference between the circulating fund and the necessary circulating fund:

$$\text{Net Treasury} = \text{CF} - \text{NCF}$$

or

-as the difference between the available money (Am) and the cash credits (Cc):

$$\text{Net treasury} = \text{Am} - \text{Cc}$$

At the level of the analysed economic entity, the evolution of the three indicators during 2007-2009 is shown in table 7.

Table 7. The evolution of the indicators regarding the financial balance during 2007-2009

N o.	Specification	Period		
		2007	2008	2009
1	Circulating fund	2328	-7010	23815
2	Necessary circulating fund	-87038	-1868	23591
3	Net treasury	89366	-5142	224

The negative size of the circulating fund in 2007 meant the absorption of a part of the temporary resources for financing some permanent necessities, contrary to the principle of financial management: permanent sources are allotted to permanent necessities, so that long term allocations are financed through short term resources. In 2009, we are dealing with an increase of the circulating fund, determined on one hand by the increase in value of long term debts and, on the other hand, by the maintenance under the same parameters of the fixed assets' value.

The necessary circulating fund is negative during the first two years of our analysis due to the increase of the current debts' volume, as compared to the current assets. In 2009, the indicator's value is positive, due to the decrease of current debts' value.

The economic entity has a surplus of cash flow during the first and last year of the analysis, respectively a cash flow deficit in 2008, a year when financing necessities were bigger than the financing resources.

b. The diagnosis of the financial balance, established based on the correlation claims-debts

Another objective of the financial balance is represented by the evolution of claims-debts relation and the modifications that the variation in the activity's level brings to this relation. The purpose is to establish if the enterprise has the possibility to cover its short term debts, from the claims it collects.

The correlation claims/debts can also be analysed by the duration of claims' recovery and the duration of paying the debts through the turnover, as it follows:

$$\text{The period to recover the claims (Di)} = (\text{Claims/ Turnover}) \times 365$$

and

$$\text{The period to use the attracted resources (Df)} = (\text{Current debts/Turnover}) \times 365$$

At the level of analysed economic entity, the evolution of the claims – debts relation is shown in table 8.

Table 8. The evolution of the relation claims-debts during 2007-2009

o.	N	Specification	Period		
			2007	2008	2009
1	.	The relation claims/debts	0,49	0,94	1,13
2	.	The period of claims' recovery (days)	37,44	39,87	39,74
3	.	The period of using the attracted resources (days)	76,41	42,52	35,12

It can be noticed that during the first two years of the analysed period, the relation claims/debts is sub unitary, the possibilities to cover the current debts from claims being certain only in 2009. With regard to the claims' recovery period, although in slight decrease, we estimate that it is normal for an economic entity in the field of service supply. The turnover growth has contributed to the increase of the claims' volume and consequently, to a high level of uncollected incomes, necessary for the payment of current obligations. Therefore, if in 2007 the economic entity paid its current obligation at an average of 76,41 days, during the following two years the situation significantly improves, managing, in 2009, to pay its obligations at an average of 35,12 days.

c. The diagnosis of the financial balance, established based on the rates

The rates of financial balance are the expression of making the enterprise's long and short term financial balance, outlining the existence or the insufficiency of the circulating fund. We are talking about the following indicators:

- The rate of financing the fixed assets (Rfa) or the circulating fund rate outlines the fixed assets' financing conditions, expressing in relative terms an indicator similar to the one of circulating fund, in absolute value.

$$\text{Rfa} = \text{Invested capital} / \text{Fixed assets} * 100$$

- The rate of financing the equity capitals (Rfef), outlines the economic entity's equity capital contribution to the financing of permanent usage.

$$\text{Rfef} = \text{Equity capitals} / \text{Fixed assets} * 100$$

- The rate of financing current assets (Rfca) reflects the percentage in which the circulating fund contributes to the financing of current assets.

$$\text{Rfca} = \text{Circulating fund} / \text{Current assets} * 100$$

- The rate of financing stocks (Rfs), reflects the percentage in which the circulating fund contributes to the stocks' financing.

$$\text{Rfs} = \text{Circulating fund} / \text{Stocks} * 100$$

The evolution of the financial balance rates, at the level of the analysed economic entity is shown in table 9.

Table 9. The evolution of the financial balance rates

N o.	Specification	Period		
		2007 (%)	2008 (%)	2009 (%)
1	The rate of financing the fixed assets	101	99	102
2	The rate of financing the equity capitals	52	26	32
3	The rate of financing the current assets	1	-5	15

During the analysed period, it can be noticed that the fixed assets have financed entirely from permanent resources (especially long term debts) and only in a small measure from the entity's equity capitals (between 32-52%). During the whole analysed period, the circulating fund has contributed in a very small measure to the financing of current assets, as a result of the low registered value.

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APPROACHES AND TRENDS ON COST MANAGEMENT CONSIDERING THE DEEPENING OF THE FINANCIAL CRISIS

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Abstract: *Knowing the costs represents an important factor when taking decisions or planning future activities. The analysis and registration of data regarding the costs of past activities is only part of the cost accounting. Managers are preoccupied both by the future costs - their level influences production and supply decisions – and by price politics.*

The economists from transitional countries try to introduce modern approaches in the calculation of costs with strategic management purposes, known and utilized in the countries with well developed economies. Unfortunately they paid little attention to the modalities of applying the new international approach to cost management in a new competitive environment.

Considering that all firms are preoccupied with continuous cost reduction, in this material we want to debate on this subject that is of major importance for any manager, regardless of his or her field of activity. We will try to answer to the following questions:

How can we effectively reduce business costs?

What should be the priorities of the management of companies in 2010?

Keywords: fixed costs, variable costs, resource consumption, ABC method

JEL classification: M11; M21; M41; E21

1. Introduction

“The strategy of an enterprise is the art of selecting and optimizing the resources and the means of all type that are available, in order to reach one or more goals of progress, imposing to the competition the place, time and conditions of the competitive struggle” – Maria Niculescu (2003). From here we can understand the important role that the resources consumption analysis has, the analysis of costs when evaluating the results obtained. Between cost analysis and the enterprise strategy is a double connection. On the first hand the results obtained from cost analysis and accounting are important for strategic decisions of the enterprise, and on the second hand management accounting provides us information regarding the costs of products, services and activities. By comparing them with the turnover obtained by a product or service, we can calculate the margins and profitability for every level of analysis. The cost of production represents an economic indicator, which expresses the value of the utilized resources in order to complete a concrete process which is finalized with a product or service.

The calculation method is the path to be followed by using some specific calculation processes with the purpose of achieving the main objective of the managerial accounting, and the determination of the product unit cost. The classical methods of production cost calculation belong to the integral or absorbent cost concept, bringing together within the price of fabricated products, portfolios and services provided the sum of the production expenses usually grouped in direct, indirect expenses and calculation articles.

These methods involve making two rows of calculation regarding the costs of production, namely pre-calculation and post-calculation. Through these calculations two rows of indicators are elaborated, pre-calculated and effective, with their help the periodic control over framing the effective cost in the level pre-calculated is done. Through the comparison between the two rows of indicators the deviation from the pre-calculated costs can be determined.

The utilization of the traditional cost calculation methods have the following limits:

- Calculates the periodic cost and compares the products that are not in the same stage of the life cycle;
- Traditional methods measure the cost as it is created, at which point he can no longer act on it;
- Traditional methods correspond to an optics of fixing the selling price according to the cost; this logic is not valid in the sectors in which the competition is high and where the price is market oriented.

Comparative analysis of the profitability of products is important when deciding the product portfolio of the firm.

Guidelines for the launch of discussion in this article are:

1. How classify costs according to the specific business: fixed and variable costs, direct and indirect?
2. How to analyze the evolution of fixed and variable cost structure by type of activity of the company?
3. What are the measures to reduce fixed costs of the firm?
4. What are the measures to reduce variable costs of the firm?
5. How to realize fixed and variable cost management of the company?

"How can we effectively reduce the costs of a firm?"

In order to answer to this question it is necessary to know some useful information, as follows:

Fix costs (FC) are those whose size remains relatively unchanged, or changes depending on the increase or decrease of the production obtained in insignificant size. For example: depreciation costs, costs with rent, costs with salaries. Fix costs are generated from consumption of material, human, informational, financial resources, resources used in various activities of the firm with the purpose of obtaining income and benefits, in accordance with the objectives, strategies and company policies.

Variable costs (VC) are those which modify their volume according to the modification of the volume of production. For example: consumption with raw materials, consumables, energy and water.

When the economy is rising, the companies are concerned with reaching objectives that refer especially to the growth of the market share and income and use development strategies by further investments in upgrading or acquisition of new storage, sale and production capacities. This expansion of company activities automatically generates an increase in fixed costs related to the use of new resources.

When the business opportunities are stagnating or decreasing, companies give more attention to reducing fixed and variable costs of the company, taking in consideration the objectives of maintaining the profitability and financial stability in an unstable and unpredictable business environment.

Identification, classification, calculation and control of fixed costs become a priority for managers of any company daily. The analysis and control of costs requires awareness and understanding of general characteristics of the company's activity and understanding the interdependencies relation between business and the environment in which it operates (economic, politic, technologic, social etc).

Cost managerial accounting is the main source of information for the analysis and control of fixed costs. For the analysis and efficient reduction of fix costs we can take into consideration the following:

- cost approach must begin first at the company level (global approach) and then by components (types of activities and cost centers, types of expenses);
- identify the activities which generate fix costs and analyze then the two basic options: the activities will be decreased and reorganized or the activities will be eliminated;
- identify resources that generate the highest consumption within each cost center;
- approaches to reduce fixed costs are determined by each category of fixed costs;
- benefits of cost reduction measures must be maintained on long term in order to ensure business competitiveness on the short, medium and long term.

The best way to reduce costs is to change the way of thinking on the use of resources. Conventional methods of cost reduction focus on reducing staff. They give short term results but fail in the long term because staff reduction does not necessarily mean reduction of the related activities.

Turney has five basic ideas related to cost reduction by administrating the activities, as follows:

- a) reducing the time and effort required to perform a task. This is usually done by improving the process or product;
- b) eliminating the activities that are unnecessary, not appreciated by clients and not essential for the well-functioning of the firm;
- c) where is possible the choosing and selecting the activities with low cost since the design phase;
- d) business must meet several requirements, unless it is necessary only in one purpose;

e) elimination of unused resources. Costs can be reduced only if resources that can be saved are spread in another place of the firm or eliminated. Cost savings based on these data become re-allocation bases.

How does managerial accounting help us to better manage business resources?

By monitoring movements of the market share for most products, a company can see if she gains or loses its market position, and the examination of relative market shares will indicate the strength of different competitors. Cost management has to be well informed in order to determine the strategic positioning in the market. Depending on the chosen strategic position, firms put more emphasis on particular techniques of cost management. Conceptual conditions that must be met by current methods of calculation of the costs in terms of future company engineering, are:

- Technology costs should be allocated directly to products
- Significant costs should be entered directly in the objectives of management reporting
- Costs of activities that bring or don't bring added value should be separately identified
- Support costs will be recognize as costs that don't bring added value and that should be to be oriented directly to the product
- Each homogeneous group of activities, products, etc.. should be organized in the centers of responsibility
- Calculating the cost of activities will enhance the efficiency of storage and operational control
- To determine the cause - effect relationships between the costs of activities and objectives of management reporting separate criteria for allocating should be developed
- The costs must be aligned to support the requirements of the product life cycle

A modern management method that allows a company to understand more clearly how to generate profit is ABC (Activity Based Costing). The principle behind this method is smoother distribution of expenditure by carrier. In other words, in ABC, all specific activities to achieve a product or service are identified and expenses with these activities are calculated with higher accuracy than traditional methods of accounting.

A typical situation in a small production company assumes the existence of products or services which are technically good and delivered on time. Clients are satisfied and productivity is almost or above the average branch. However, after a big development in the first years of operation, profitability reaches an unacceptable level.

The reality is that nobody knows for sure what products bring and what products spend money. The concept of ABC method starts from the idea that not the products are the ones that spend resources, but the activities do this. After the accounting by activity appeared, it was discovered that the traditional methodology of costs calculation can create significant differences in final product costs.

They come, experts say, from the manner of allocation of costs, practiced by traditional accounting. The difference in cost sharing may obstruct the final price of outputs and also may lead to erroneous management decisions, say the promoters of the methodology applied today specially in large companies, alert to any possibility of cost control and reduction.

Scheme of allocation of costs under ABC methodology:

The comparison example of costs determining takes into account the production of a company that makes two products: Q and K. The production, sale prices and costs of the enterprise are presented below.

	Average production	Sale price	Cost per unit
Product Q:	100 units	120 euro	110 euro
Product K:	200 units	18 euro	20 euro

Management is concerned about the cost of product K, which excess the average market price, making it uncompetitive.

Before taking the final decision, a request for more detailed analysis was made, using the newer methodology of ABC system for determining costs and comparing the results obtained with the data of traditional methods.

In this respect, the following information were collected:

Direct costs:

Product Q: 100 euro per unit

Product K: 10 euro per unit

General expenses: Department "Supply": 10,000 Number of orders, Annual cost with orders: 10,000 euros

Necessary orders for one unit of product Q: 30

Necessary orders for one unit of product K: 5

Example of sharing the costs through traditional methods of calculation:

Total general expenses / Total Production = cost per unit of product value
 10,000 euro / 1,000 euro = 10 euro

ABC approach:

Annual cost with orders / number of orders = unit cost per order

10,000 euro/10,000 euro = 1 euro number of orders per product (Q or K) x unit cost per order = total cost per unit of product

Product Q: 30 x 1 euro = 30 euro

Product K: 5 x 1 euro = 5 euro

Total unit cost per unit of product

Traditional methods of calculation:

Direct cost + indirect cost = total unit cost

Product Q: 100 euro + 10 euro = 110 euro
 Product K: 10 euro + 10 euro = 20 euro

ABC approach:

Direct cost + indirect cost = total unit cost

Product Q: 100 euro + 30 euro = 130 euro
 Product K: 10 euro + 5 euro = 15 euro

Analyzing the two sets of results, the management of the company can notice the difference between the results from the two approaches: ABC and the internal system used.

	Product Q:	Product K
Traditional	110 euro	20 euro
ABC	130 euro	15 euro
Difference	+18%	-25%

When costs are distributed on activities, product Q is 18% more expensive than it was believed, if the market price is 120 euro and its cost is 130 euro, it is not competitive.

Product K is competitive and it must be kept in the portfolio of products manufactured by the enterprise (selling price: 18 euro; cost: 15 euro). If the management would decide on excluding product K, as

it was initially decided, this would be followed by the elimination of the costs generated by it and all the attention would be focused on the costs of product Q remained in production. It has been noticed that the "Supply" department would not have been able to cut the costs as fast as the management believed it could. The price for product Q would still be about 130 euro, which would have made it impossible to sell. If the management would base its decision on the new analysis made in the ABC system, then product Q should be eliminated.

Once this decision is taken, the results will be early visible. This simplified example proves that the traditional methods of distributing general expenses directly on the final product could lead to the exaggeration or minimizing of the true costs recorded when the internal mode of forming costs is analyzed.

Even though the example was simplified for demonstration purposes, it constitutes without doubt a precise representation of the way in which an ABC approach distributes costs in a better way with fewer arbitrary allocations and distributions that usually occur when using traditional procedures for determining and managing costs.

We may conclude that determining costs on the activity basis confers a bigger accuracy for the final product costs of an organization through attributing indirect (general) expenses to activities designed to produce outputs than by allocating these expenses.

The possibilities offered by the ABC method that are missing from traditional methods are:

- identifying the most profitable (unprofitable) clients, products, distribution channels;
- determining the "real contributors" at the financial performances
- accurate forecasting of the costs and resources related to the volume of production and the organizational structure
- identifying the causes and weak performances
- tracking activities and processes

The competitive advantages of those who apply the ABC method are:

-identifying the profitability of each customer through the distinct calculus of two costs: *the product cost* and *the client cost* (maintenance cost). By deducting these costs from the selling cost the profit per client and the corresponding positioning of product and services are determined.

-accountability of the personnel. The introduction of the ABC method helps employees understand the costs, which will allow them to analyze and identify the activities that are not generating value and improve the system.

-reduction of the economic risk through the adaptability to a market with competitive prices.

Through the ABC method enterprises can improve efficiency and reduce costs without sacrificing client value. The ABC method targets, on one hand, the calculus and analysis of costs, and on the other hand, it can be looked upon as an instrument of measuring the performances of the enterprise.

Which should be the priorities of the enterprise s management in the year 2010?

Enterprises will focus their attention especially on:

- restructuring the product and service portfolios towards the actual target client needs;
- revising selling price policies, promotion and distribution of products, in a way in which clients may understand the characteristics, advantages and benefits of each product and by doing this stimulating the demand for consumption;
- implementing a system of measuring performances on a company level and based on activity types;
- resuming investments that sustain the re-launch of the firms activities;

1. Sales priorities: more or better?

Most of the businesses recorded declines in sales in 2009 compared to 2008. And still, some businesses are also doing well in 2010. Why is that?

Because in these businesses, managers and specialists have acted with priority in the following directions:

- they re-evaluated the opportunities and risks of the market;
- they restructured and diversified the product and services based on the needs and the power of paying customers portfolio ;
- they monitored the financial efficiency of each sale and focused on cashing and commercial profit.

2. Changing the strategic position of enterprises

This is due to changes in the environment of the enterprise. These changes occurred due to the essential contributions of developments in computer technology. Along with the introduction of CIM systems (Computer Integrate Manufacturing) came important modification in all fields and sectors of the enterprise.

Within decision-making of the enterprise we find new aspects on a high level such as:

- Preparing information about costs referring to a multitude of objects of cost calculation.
- Reduction of the size of the fabrication lots;
- Determining an optimal number of production variances;
- Determining costs for specific orders;
- The economic efficiency control in the ever-growing and important sectors of common indirect costs.

The necessary information is referring to the whole value adding chain within a company, including production sectors and auxiliary activities that help indirectly.

3. Knowing the mode of action of each of the factors of profit optimization

It is necessary the knowledge about the mutual influences of those factors (sales price, volume of production and distribution, variable costs, fixed costs, production structure and dissolution), because only in this way we can take rational decisions to optimize profit:

- modification of the production and sale structure of the products and assortments, stimulating the product with the highest coverage factor, promoting the sale of differentiated products and assortments which will lead to an increase in profit equal to the difference between the amount by which the production and sale of certain types has increased (with high coverage factor) multiplied with the gross contribution per unit and the reduced amount of production and sale of certain products and assortments (with lower coverage factor) multiplied by the gross contribution per unit.

- reducing variable costs as a result of actions to redesign the products, to use substitutes, to streamline work etc. with a certain percentage or amount to each individual product, which will result in an additional profit equal to the product between the quantity sold and the reduction of variable costs.

- finally, reducing fixed costs, either by dissolution of a retail store, of a warehouse, downsizing staff, with a certain percentage or amount, leading to the obtaining of additional profit equal to the reduction of fixed costs.

4. Conclusions:

1. The cost of production is an economic quality and quantity indicator, which occupies a central position in the indicator system of a company and it is used for the measurement and assessment of economic growth.

The cost of production expresses the value of the resources used for realising a process, which ends with the creation of a product or service and is meant to assist the efficiency evaluation of the production activity conditioned by the production technology and organization, and to assist the process of managerial decision making with the purpose of selecting the best and the most rational way of business development.

2. The concept according to which traditional accounting-based systems are useful tools for strategic analysis of costs is wrong; companies must implement new systems of modern strategic management of costs. Today, the competitive environment requires a modern architecture of the cost system, which should be based on the conceptual principles of strategic management: to allow multidimensional cost management and performance measurement of the company.

3. Knowing the production cost structure, knowing its change in time and space, is particularly important in guiding actions to reduce costs, acting preferably on costs with the largest share of expenditure.

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ANALYSIS OF LIQUIDITY IN ROMANIAN IT COMPANIES

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Abstract: *In this paper, the authors have created a system of indicators to evaluate the financial position of IT companies throughout liquidity. Due to the rapid development of the Romanian IT industry, we focused our attention on this area and analyzed a subject pool of IT companies throughout the concept of liquidity. Using a system of indicators, we have observed that the selected companies need to focus more on their liquidity management policies, to avoid further high debts and overdue obligations.*

Key words: current liquidity, rapid liquidity, safety interval

JEL classification: G32

1. Introduction

The informational system needs to ensure also the evaluation of the company's liquidity, which is necessary in order for the suppliers (generally, short-term creditors) to evaluate the company's ability to pay off its current obligations.

This ability depends on the cash-on-hand resources which are available on the date of the balance sheet elaboration and on the cash-on-hand which will be generated by the operational cycle of the company. The sales of the finite products inventories generates receivables, which, when cashed in, are used to pay off the suppliers and, in this way, the operational cycle restarts. The company's ability of repeating this cycle depends on its short-term liquidity and on its capacity of generating cash-in-hand, which represents its working capital.

2. Analysis of liquidity

The concept of working capital is based on classifying assets and liabilities in “current” and “non current”. The main difference between current assets and liabilities on one hand, and those non current, on the other hand, is focused on the maturity of the company operational cycle (under one year).

The company balance sheet contains five categories of current assets, namely:

- inventories;
- receivables;
- short-term investments;
- cash and cash equivalents
- prepayments.

and two categories of current liabilities:

- short-term liabilities;
- advanced revenues.

By definition, each asset or current liability has a maturity (a date on which an asset is expected to be transformed in cash, the date on which a debt is expected to be paid) under one year. Nevertheless, in practice, the boundary between current and non current is not clearly stated. Investment titles and liabilities are not easy to fit in either of the two categories. For this reason, the indicators of working capital are to be used with caution.

Short-term liquidity evaluation compares the company's cash resources with its (cash) obligations.

– Cash resources contain:

- the value of the cash from the company balance sheet and other potential cash sources as:
- operational (net) cash-flow.

– As cash liabilities, debts contain:

- current obligations which need cash;
- cash outputs, which are generated by the company's activity.

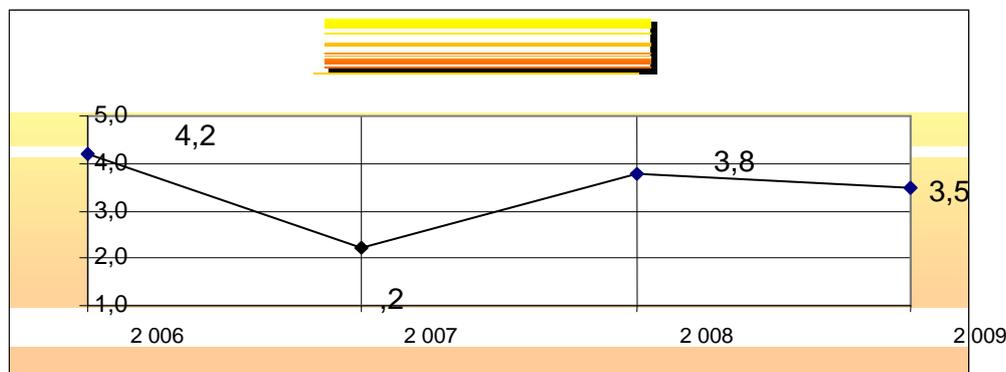
Three indicators compare the levels of cash resources with current liabilities as a measure of the company monetary obligations: current liquidity, rapid liquidity and immediate liquidity, which will be analyzed as following.

a) *Current liquidity* defines cash resources as current assets and is determined with the formula:

$$\text{Current liquidity} = \frac{\text{Current assets}}{\text{Current liabilities}} \quad (1)$$

In the Romanian IT industry, based on a selected subject pool, the evolution of this indicator is the following:

Figure 1: Current liquidity



Source: authors' calculation

The higher is the current liquidity, the more capable is the company of paying its obligations. Current liquidity assesses the efficiency of the company operational cycle or its ability of transforming the production into cash. The companies which have problems with cashing in receivables from clients or which have a lower inventory rotation speed may face difficulties concerning liquidity, because the companies do not have the possibility of covering the obligations.

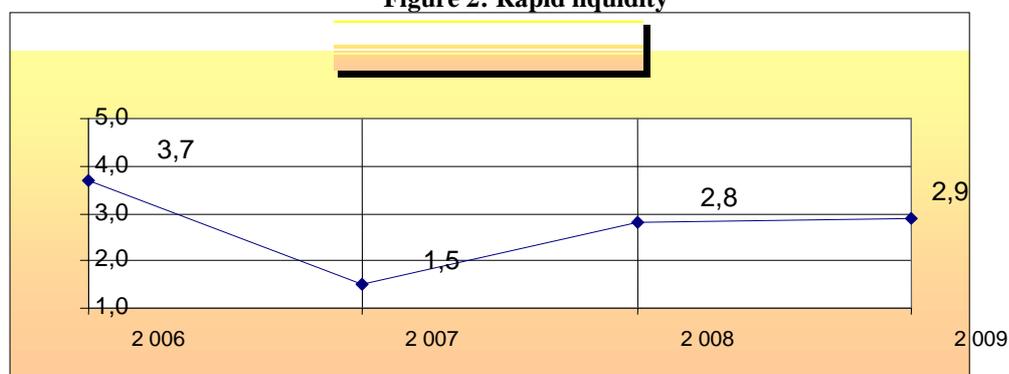
From the data presented in figure 1, it can be stated that, during the whole analyzed period, the IT companies have registered a liquidity excess, a positive aspect if it involves increasing the inventories and receivables rotation speed and the cash has an unrestricted level in the company accounts.

The liquidity assessment can be realized with the help of the *rapid liquidity* indicator. It is an indicator smaller than one and it reveals the fact that the company will not have the capacity of paying its obligations if the obligations are due at the moment of the assessment. This fact demonstrates the financial issues of the company, but it does not mean that bankruptcy is a certain thing, because there are several financing possibilities. The indicators determined above are closer to the value one, which is a positive sign for the IT companies.

The formula for determining the rapid liquidity is the following:

$$\text{Rapid liquidity} = \frac{\text{Cash} + \text{Short-term investments} + \text{Receivables}}{\text{Current liabilities}} \quad (2)$$

Figure 2: Rapid liquidity



Source: authors' calculation

The indicator eliminates the inventories, this way being recognized the fact that turning inventories into cash is a less sure method, both as time and value. The assets which have been included are “rapid assets”, for it can be rapidly turned into cash.

In the Romanian IT industry, the dynamic situation of this indicator is presented in figure 2:

From the figure 2, it can be seen that the rapid liquidity has reached a high level, compared to the safety interval [0.5;1]. In the first two years, the liquidity excess was due to the receivables, in the last two years it was due to the cash, a positive aspect regarding the treasury management.

Finally, the *immediate liquidity* completes the image of the company cash resources, assessing the actual cash and the short-term investments easily turned into cash, according to the formula:

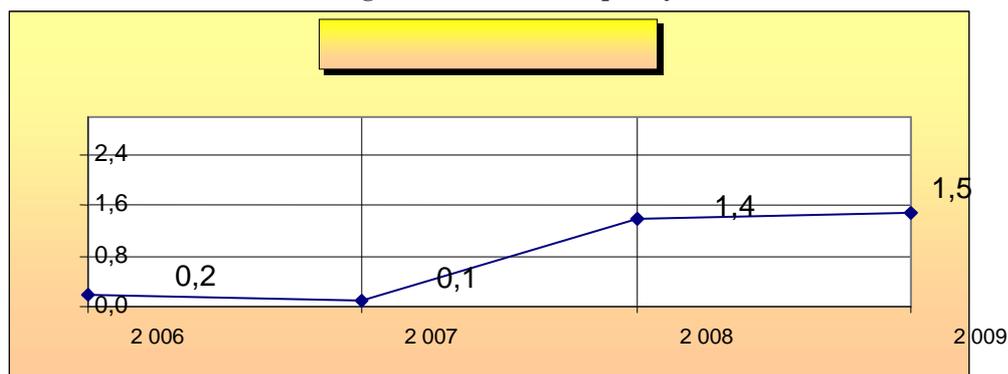
$$\text{Immediate liquidity} = \frac{\text{Cash} + \text{Short-term investments}}{\text{Current liabilities}} \quad (3)$$

This is the most restrictive of all the methods of determining cash resources, because only actual cash and short-term investments easily turned into cash are used to determine the liquidity.

The use of current liquidity or rapid liquidity requires for the current assets to be turned into cash. Nevertheless, in reality, companies do not turn current assets into liquidity in order to pay debts. There is always the need for a minimum level of inventories and receivables to abide to the principle of continuous activity. If all current assets would be turned into cash, the company would have to eventually cease its activity.

Graphically, the indicator offers the following image:

Figure 3: Immediate liquidity



Source: authors' calculation

From the above graphical representation, it can be seen that, during the first two years, the IT industry has faced liquidity problems; the liquidity level has been under the inferior boundary of the safety interval, namely under 0.5. In the second part of the analyzed period, the companies have registered a liquidity-cash excess, a positive aspect regarding the treasury management.

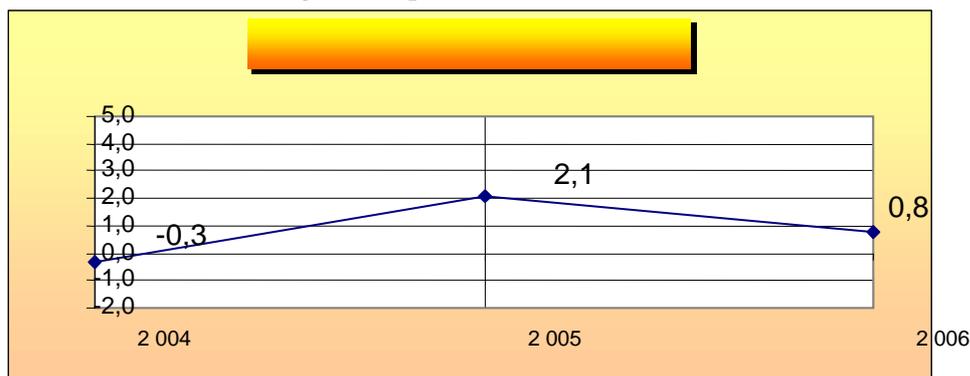
The liquidity analysis of the company is not independent of its activity analysis. Low levels of receivables and inventories rotation speed limits the utility of the current and rapid liquidity rates. It is unlikely that mandatory inventories or overdue receivables are cash sources. Therefore, levels and changes in time of the short-term liquidity indicators should be correlated with the rotation speed of these assets.

To assess liquidity, the company informational system allows the use of the operational cash-flow ration, which is determined with the formula:

$$\text{Operational cash - flow ration} = \frac{\text{Operational cash - flow}}{\text{Current liabilities}} \quad (4)$$

As it can be seen, it measures liquidity, by comparing the actual cash-flow (instead of current and potential cash resources) with current liabilities. This ratio assesses the way in which current liabilities are covered with the cash-flow generated through the company's activity. Thus, the indicator avoids the problem of actually turning current assets into cash.

Figure 4: Operational cash-flow ratio



Source: authors' calculation

The data from figure 4 shows the fact that analyzed companies have high debts, which cannot be easily covered from the operational cash-flow; this means that analyzed companies have to rely on external finance in order to ensure the necessary liquidity level to continue the current activity.

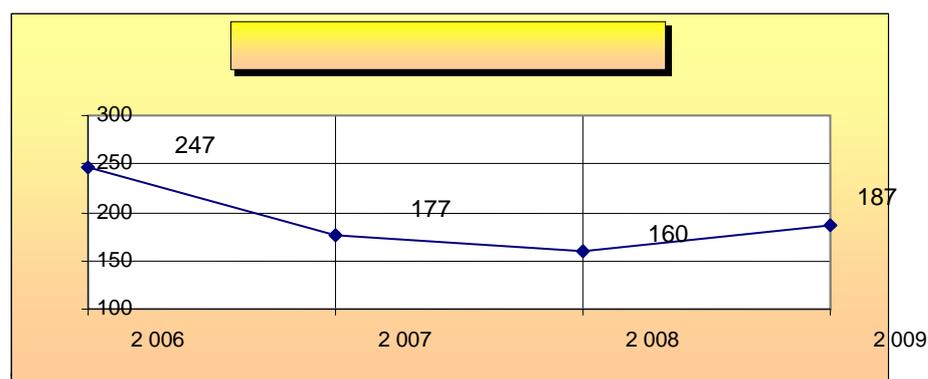
An important limit imposed to the liquidity indicators is the absence of an economic or "realistic" interpretation of the used terms. Unlike the way on interpreting liquidity, which shows the number of days in which the cash is "rotated" in the operational cycle, a current liquidity ratio above 1.5 does not have a particular signification. For some companies, such value would be high, for others would be dangerously low.

Another indicator which assesses the dependence of the company's liquidity on its activity is the *safety interval*.

As opposed with the indicators previously presented, the safety interval ensures an intuitive assessment of the liquidity, although a more restrictive one. This indicator compares immediate cash resources (cash, short-term investments, receivables) with estimated cash outputs necessary for carrying the company activity in good conditions: forecasted expenditures. There are different definitions of cash resources and forecasted expenditures. A basic form would be the following:

$$\text{Safety interval} = 365 \times \frac{\text{Cash} + \text{Short-term investments} + \text{Receivables}}{\text{Forecasted expenditures}} \quad (5)$$

Figure 5: Safety interval (365 days)



From the data in figure 5, it is shown that, during the whole analyzed period, the analyzed companies have ensured the financing of the activity from cash or future cash in resources. Thus, in the year 2006, financing was ensured for 247 days; in the year 2007, financing was ensured for 177 days; in the year 2008, financing was ensured for 160 days and in the year 2009 for 187 days.

3. Conclusions

Due to the rapid development of the Romanian IT industry, we focused our attention on this area and analyzed a subject pool of IT companies throughout the concept of liquidity. Using a system of indicators,

we have observed that the selected companies need to focus more on their liquidity management policies, to avoid further high debts and overdue obligations.

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THE FINANCIAL AND THE PERFORMANCE AUDIT – SUCCESSFUL ALTERNATIVES IN MANAGING THE PUBLIC FINANCIAL RESOURCES

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Abstract: *The external public audit work done by the Court of Accounts, as the supreme audit institution in our country, is essential for ensuring accountability on the management of public funds. The responsibility for using the public money under legal and performance conditions is, of course, entitled to the officers of public budgets, but the public audit is the one that assesses the financial management of the entities and that issues recommendations that stay behind taking managerial decisions aimed at a better use of the funds. By auditing the execution accounts of the budgetary funds and of other public funds it is intended to see if all the financial resources of the state and of the public sector have been used in an efficient and appropriate way in the purposes and according to the destination established through the budgetary laws.*

Key words: external financial audit, performance audit, financial resources.

JEL classification: G29 O52

1. Introduction

The budget funds, allocated to public entities are not as comfortable to allow spending them without restrictions. This aspect must constitute an urge for prudence and discreetness, for the necessity of sustained efforts to find the most adequate ways for using available resources.

The public audit has an essential contribution for protecting financial resources, promoting the responsibility of public entities involved in forming and using public funds, the order and discipline necessary for administering public money, for consolidating and developing the public and private patrimony of the state.

The necessity of public audit derives from the complexity of activities and tasks of public entities, from the request to combat the dissipation in the administration of public funds, the bureaucracy, to stimulate responsibility, to prevent malfunctions that can appear in the public entities' activities.

In practice, the audit activity establishes a reasonable trust between financial-accountancy information producers and users of the same, by increasing the credibility over the fact that financial situations offer a truthful image and the legal provisions and internal procedures established by the unit's management have been respected.

According to Law no. 94/1992 regarding the organization and functioning of the Court of Accounts as amended by Law no. 217/2008, the external public audit is "the audit work undertaken by the Court of Auditors, which comprises mainly the financial audit and the performance audit." The two forms of external public audit are exercised under the Regulation regarding the organization and the development of specific activities of the Court of Auditors as to seize documents from these activities, adopted on the basis of the generally accepted international auditing standards.

2. The Financial Audit – an attestation activity for the financial responsibilities of public entities

The financial audit is the activity that seeks if the financial situations of the public entities checked are complete, true and consistent with the laws and regulations enforced, in this sense it was issued an opinion.

The financial Audit of the Accounts Court is made over the execution accounts for periods of administration concluded and seeks mainly:

- Data accuracy and reality in the financial statements;
- Determining the legality and the public revenue collection;
- The employment, clearance, ordinance, payment and the registration of costs according to law and to the legal regulations budget;
- The approval and the amendments brought to the original provisions of the public budgets;

- Granting from the budget subsidies and of allocations for making investments and for the legal use of them;
- Contracting loans, the repayment and payment of interest on outstanding rates;
- The concession and lease of publicly owned property, including leasing of public services;
- Ensuring the integrity of the heritage.

The Accounts Court certifies the accuracy and reliability of the data from the audited accounts, being the only authority that can adjudicate on such data.

If by the end of 2008, the Accounts Court exercised the financial control over the closed execution accounts of the public institutions and granted an agreement discharge to officers whose accounts were accurate and real, starting with the year 2009, the Accounts Court exerts financial audit over the closed accounts, issuing a certificate of compliance for the accounts that meet the statutory requirements.

In the attempt to modernize and align to the good European practices, the Court of Accounts made a great qualitative step forward through legislating and realizing the financial audit, but the valuation of the findings resulted from the audit mission has not been finished. My affirmation is based on a real fact, according to which the concept of management discharge which the Court of Accounts had been operating is not any more between its attributions, but neither between those of other public authorities.

My proposal is that the concept of management discharge be legally reintroduced, because this is a concrete instrument to reinforce public responsibilities in the financial field but this competency must be granted to authorities that entrusted credit ordinarators with the management of public funds, respectively to the parliament for ordinarators subordinated to the government and to the local councils for ordinarators of local budgets.

The management discharge must be granted only to main credit ordinarators, who should be responsible also with the accuracy of the accounts elaborated by secondary or third credit ordinarators subordinated to them.

In order to adequately valorize the findings resulted from audit missions, I express my opinion that in case of finding some financial/accountancy deviations or losses, the measures and recommendations issued after financial audit missions have to be transmitted to a specialized commission of the Parliament (for example a Commission for Public Funds) or to the local councils, depending on the case, analyzed and transmitted by these to the main credit ordinarators for implementation.

This way the sanctions for the inadequate management of public money can take different forms, including the withdrawal of the public support or the diminution of some funds, this way insuring an increase of the financial discipline.

3. The performance audit – a modern form of external public audit in the activity of the Accounts Court

Performance is the unique chance that Romania has for reducing the differences which separate it from the developed countries, it is the only way to valorize resources regardless their nature. In the future the performance audit will play an important role.

Introducing the performance audit between the main powers of the Court of Accounts of Romania is relatively recent. The regulatory framework is represented by Article 26 of Law 217/2008 recently amending and supplementing the Law on Organization and Functioning of the Court of Accounts, which states: "The Accounts Court shall carry out the performance audits of using the financial resources of the state and of the public sector. The Court makes an independent assessment on the economicity, efficiency and effectiveness with which a public entity, a program, a project, a process or an activity uses the public resources allocated to achieving the established objectives. "

These three components of the performance audit are characterized through a number of features, which are presented in the following paragraphs.

The economicity is defined as being the minimization of the cost of the resources used for an activity, subjected to quality conditions as scheduled. This requires the evaluation of a good management of the resources on the basis of some accepted and enacted criteria.

Measuring the economicity can be analyzed through the following relationship:

$$\text{Economicity} = \frac{\text{Resources consumed}}{\text{Results obtained}}$$

The situation is considered favorable when the result of the relationship sub unitary, but achieving this condition being insufficient, at the same time being necessary that the results find themselves at an adequate level regarding quantity and quality.

Efficiency is understood as being a relationship between results, in the form of goods and services, and resources used to produce them. Efficiency can be expressed as a ratio between the results obtained (the outputs) and the effort made in the form of the consumed resources (the inputs) by the following formula.

$$\text{Efficiency} = \frac{\text{Results _ obtained}}{\text{Resources _ consumed}}$$

The situation is favorable if the result of the ratio is above average and is higher than the one programmed or increases in dynamics.

The efficiency is closely linked to the concepts of profitability and productivity.

The efficacy is the extent to which the objectives have been met and the relationship between the desired and the actual impact of an activity. The efficacy can be expressed as the ratio between the achieved and the planned results.

$$\text{Efficacy} = \frac{\text{Results _ obtained}}{\text{Results _ planned}}$$

The situation is considered positive when the result is higher than one or at least one.

It is necessary to consider also other criteria which can define the performance of the usage of funds allocated to public entities. So, apart of the control of the “3E” (economy, efficiency, effectiveness) the performance audit should consider another “2E”, respectively the efficiency of using environment resources and the ethics of public money usage.

The performance audit, the most modern and efficient form of audit orientated towards results must occupy a grater quantum in the external audit activity, because it insures a superior valorization of financial resources made available for public entities. The number of performance audit actions in the current stage is reduced, and the effects of the mission don't have the desired impact, we observe some reserves of the audit towards criticism and eventual identified failures. The new regulation of the activity of the Court of Accounts regulates the performance audit, introducing at the same time a new element. If the performance audit was being exerted only ex-post until now, the new normative act gives the possibility to perform audit actions during the deployment of programs, projects, activities'.

This is an important competency which should be exploited by the Court of Accounts, but my convincement is that the legal regulation could be improved in the sense of introducing also the performance audit type ex-ante. In the case of performance audit, following its preventive side can prevent the dissipation of public money, negligence, eventual losses or deficiencies through making public entities and their leaders more responsible in engaging and making public money expenses.

An aspect which has to be always considered must follow one of the serious phenomena in Romania in the actual stage, respectively corruption. Corruption has unpleasant consequences for the public entities, but also for honest citizens. Identifying concrete forms where corruption happens, evaluating its dimensions and keeping the phenomena under control implies the external public audit which must undertake actions for protecting the public financial resources.

Adapting the audit methodologies to the degree of the delinquents' professionalism, extending the transnational collaboration, aligning the external audit to the international standards and good practices in the field must become absolute priorities.

For a better measurement of the performance it is necessary to elaborate budgets on programs, these helping auditors to concentrate on concrete objectives, established by the public entity. This way the accent on how public money is spend will be moved on obtaining results and reaching the set goals.

In order to completely evaluate the audited activity or program, both from the legislative point of view as from that of performance, there is necessary a new vision over the concept and operating external public audit, which means combining the two forms of audit (financial and performance audit) under the same mission.

The goals projected by the state, desired in a more performant economy cannot be achieved without an efficient and effective integrated audit, capable to identify deviations form the set performances and to issue recommendations to adjust these.

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THE ORGANISATION OF THE AUDIT STRUCTURES IN THE CONTEXT OF THE CORPORATE GOVERNANCE

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Abstract: *The internal audit function represents a unique setting research for at least four important reasons. The internal audit function (IAF) often fully serves the stakeholders involved in the governing processes, in the board of directors, in the audit committee, in the external audit, and in the company's management, for instance.*

Keywords: *internal audit, corporate governance, strategic management.*

JEL classification: M48

Demands for a Better Governing

At least ever since the appearance in the USA, by the end of the '90s, of the *Blue Ribbon Committee* Report on the efficiency of the audit committees, in the environment of both the practitioners, and the accounting professors at university, there could be noticed an increasing interest in the enterprise governance. The financial scandals which took place at the beginning of 2000 undoubtedly contributed to the increase of this interest. The scandals highlighted the fact that the enterprise governance at that time, in certain cases, weans nothing but a « shadow theatre » (Field, 2003). Thus, the governance is often perceived as a key element of the normative apparatus meant to prevent, or, at least, to reduce, the incidence of this kind of scandals. Under the impulse of a legislative impetus probably characterized by a strong dose of isomorphism, numerous countries and jurisdictions established diverse regulations in this regard, following the endorsement of the Sarbanes-Oxley Law in the USA. Such was the case especially in France with the The Financial Security Law (FSL) in 2003. This legislative act, participating in the globalisation of the regulatory space, influenced the world of accounting in a significant way.

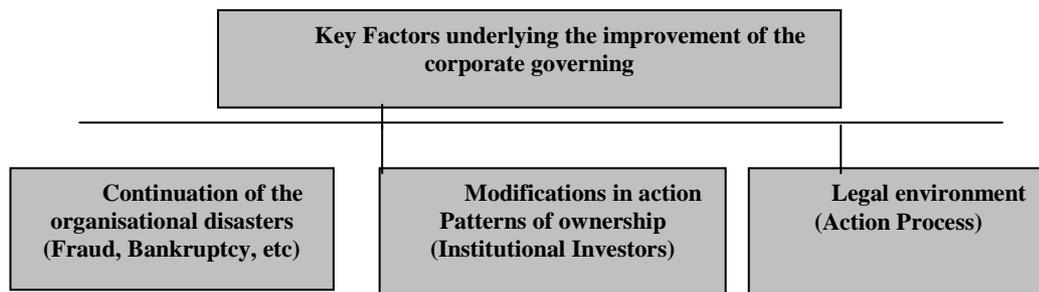
In the last 10 years, there has been launched an appeal to a " better" governing of the organizations. This appeal started with an emphasis laid on the main public companies and was extended until it came to cover a wide range of organizations. As presented in Figure no.1, there are at least three key-factors which underlie the improvement of the corporate governing - *organizational disasters, changes in the patterns of share holding and in the legal environment.*

No later than 2001, OECD together with USAID (*United States Agency for International Development*) initiated a cooperation programme, whose main purpose was the improvement of the corporate governance in Eastern Europe, by means of measures such as:

- monitoring and evaluating the current stage of the corporate governance in these countries;
- identifying the specific needs in the area and ensuring technical assistance of specialty;
- improving the degree of comprehension of the corporate governance practices and informing the international community about the achieved progresses;
- enabling the access of these countries to an uninterrupted dialogue at an international level.

In March 2002, the Corporate Governance Center (CGC) issued Governing Principles for the public companies. The principles were issued in order to *"enhance a current dialogue and to promote it to the investors, the stakeholders, and the financial interests declared by the user"* (Dana R. Hermanson, Larry E. Rittenberg, 2003). The 10 principles were issued in order to show the importance of the efficient interaction between the management, the directors and the auditors, and also to show directly the appeal to all the public companies to maintain the efficiency of the internal audit function.

Figure no. 1. Demands for Better Corporate Governing



Source: Dana R. Hermanson, Larry E. Rittenberg, 2003

1. The Role of the Board of Directors within the Corporate Governance

The purpose of the board is to "supervise the course of the company's activity and to give a certain direction to the company's business, and not to manage it" (M. Ghiță, M. Sprânceană, 2006), which means that the directors supervise the organisation, but do not interfere in the day-to-day operations. The main goal of the board of directors is to favour the long-term success of the organization in conformity with its responsibility as fiduciary shareholder. Monks and Minow (Monks, R., N. Minow, 2001) describe the board of directors as follows: "The connection between the persons who provide the capital (the shareholders) and the persons who use the capital in order to create value (managers)".

The main purpose of the board of directors is to favour the long-term successes of the company in accordance with its fiduciary responsibility towards the shareholders.

Most of the times, the activity of the board consists of monitoring and supervising the corporate strategy, also concerning the monitoring and control risks. We must understand these responsibility requirements in order to better visualize the roles of the audit. The fundamental elements of the role of the board are the following:

- the review and approval of the major strategies of the organization.
- the monitoring of the company's operations.
- the supervision and the development of the organization and the application of the strategy.
- the monitoring of the organization's risks and control system.
- the monitoring of the activities and the measure adoption in order to ensure the correctness of the treatment of the different groups of shareholders in other stakeholders.

The board monitors the risks and supervises the organization's control system. COSO the internal control framework is frequently used with a view to guide the efforts of the board in this domain. Finally, the board has the responsibility of representing the shareholders who have contributed with capital, in order to make sure that the organization functions in their best interest.

The role of the board in supervising the process of strategic scheduling was the central point of a recent NACD commission (National Association of Corporate Directors). The purposes of the commission were:

"To provide assistance to all types of boards of companies which, in a constructive way, become more involved in the corporate strategy, and to help them work together more efficiently in order to make sure that their companies institute and pursue winning strategies".

Exercising their attributions, the members of the board pursue two legal norms, the diligence obligations, as well as the loyalty duty.

The diligence obligation in order to require from the directors:

- the act of good faith;
- have full knowledge of the facts;
- participation in the meetings;
- meeting deadlines and attention;
- to believe in their actions.

The loyalty duty (NACD, 1996)

- do not use the position of director in order to make personal profit or wealth,
- the organization comes first (you must act in the best interest of the organization),

- confidentiality is essential.

A big part of the board's activity implies discussions regarding risk evaluation and control, including the internal auditors. In addition to that, the financial risks linked to these are most of the times regarded by the board as the field of the audit committee.

Finally, the board has the responsibility to represent the shareholders that contributed with capital in order to make sure that the organization functions in their best interest.

Furthermore, we should underline the fact that the governing practices vary very much from one country to another. The range of practices of the board all over the world is particularly interesting for the profession of internal audit and the IAI (Internal Auditor Institute), which stimulates the research done by those interested in problems of organisational governing nature, how it evolved the world over, especially in the underdeveloped countries.

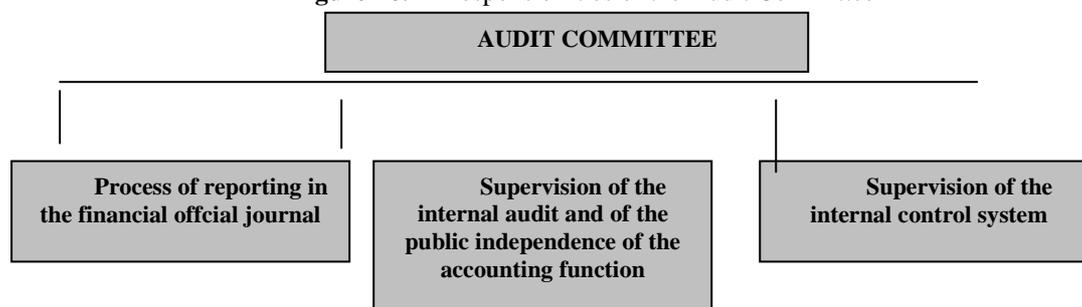
2. The Audit Committee

The role of the audit committee is defined *"to ensure that the accounting policies, the internal control, the independence and the objectivity of the external auditors are meant to discourage fraud, to anticipate the financial risks, to promote a high quality and, in due time, to reveal financial information and other materials of the board to the financial markets, as well as to the shareholders"*.

The audit committee can endorse the role of a critic in the reporting composition regarding the ensuring of quality and control, as well as in that of risk identification and risk management. The three key roles of the audit committee, such as they are presented by the National Association of Corporate Directors (NACD), can be completed with those presented in Figure no. 2. Typically, the audit committees are in charge of the financial monitoring, of the reporting process, of the supervision of the internal control system, as well as of the supervision of the internal and external auditors' activity.

The supervision of the external auditors implies similar activities. Some supervision activities are now expressly necessary to the public American companies, such as the discussion of the audit problems with the external auditor, the evaluation of the external auditor's independence, as well as of the audit committee that have the capacity of employing external auditors.

Figure no. 2 Responsibilities of the Audit Committee



In many people's opinion, the main role of the audit committee is to monitor the financial reporting process – with a view to help ensure a reliable financial reporting. The activities in this domain include reviewing the financial situations and the information presentations, evaluating the quality of the organization and of the gains, asking difficult questions regarding the management and evaluating the risks of fraudulent financial reporting. The final area of responsibility of the Audit Committee is the supervision of the internal and external audit. As far as the supervision of the internal audit is concerned, the audit fees should include the reception of the internal audit reports, the evaluation of the objectivity of the function of internal audit, and the monitoring of the internal audit problems. The external auditors' supervision implies similar activities, such as the discussion of the audit problems with the external auditor, the evaluation of the external auditor's independence. The board of supervisors has the functions of general supervision and is responsible for the protection of the company's general welfare by reviewing the activity of the Board of Directors, (Fraser, I., W. Henry, and P. Wallage, 2001).

Among the numerous problems of the audit committee examined so far there are:

- the composition of the audit committee and its relationship with quality reporting, the composition of the audit committee differs between the companies,
- the association between the characteristics of the audit committee and the interaction with the IAF,

- the association between the composition of the audit committee and the reporting audit for the companies in difficulty,
- the association with the voluntary audit factors revealed by the committee .

3. Conclusions

Yet, the current knowledge, at the frontier between accounting and enterprise governance, is only in an embryo stage. Thus, from a historical point of view, there comes the question of how and in what context the connection between accounting and enterprise governance appeared and developed. How do the actors involved in the mechanisms of enterprise governance really act, when resorting to the accounting data (audit committee, risk management committee etc.) ? What role do the accounting and the accountant play within these mechanisms? How does the connection between accounting and governance materialize in organizations from the point of view of regulation/control? Which is the impact of regulation in terms of governance within the audit committees? How does regulation translate in terms of governance in a day-to-day basis – be it about the accounting cabinets, or the audit committees? Is there a difference between norms and concrete practices on the field?

Perhaps the best summary of the role of the internal audit function in governing is given by the Internal Auditor Institute:

“The roles of the internal auditors include the monitoring, the evaluation and the analysis of the organizational risks and of the controls, as well as the review of the information meant to confirm the compliance with policies, procedures, and laws. Working in partnership with the management, the internal auditors ensure the Board, the audit committee, and the management business executive that the risks are kept under control and that the governing corporate organization is powerful and efficient. And, when there is no room for improvement anywhere within the organization, the internal auditors make recommendations for the improvement of processes, policies and procedures.”

The general conclusion of this paper on the organizational governing and the internal audit is that the *Internal Audit Function* (IAF) is a critical element of the governance structure. When the internal audit function is efficient, the success potential of the organization can increase in a significant way.

As a study object, the accounting-governance axis is much too rich and complex to be examined from only the disciplinary point of view, as the «real situation» is much too complex, ambiguous, contradictory and unstable to be treated from a single viewpoint.

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RISK AVERSION ANALYSIS AND SIMULATION OF JUMPS IN OPTION PRICING

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Abstract: *Using an evolutionary algorithm for simulation, we investigate the effects of risk-aversion and physical jumps in option pricing, especially for medium- and short-term options.*

Key words: Option Pricing, Risk Analysis, Evolutionary Algorithms

JEL classification: G13, G11

1. Introduction

Evolutionary Programming has been proposed for determining the relationship between the options prices and the parameters that are believed to be important in determining the price. This advantage of a non-parametric approach such as Evolutionary Programming is that it requires minimal assumptions and can easily adapt to changing and uncertain economic environments. The implementation of a Evolutionary Program for option pricing involves various programming parameters that determine the efficiency of the evolutionary program. The philosophy underlying Genetic Programming is to replicate the stochastic process by which genetic traits evolve in offspring, through a random combination of the genes of the parents, in the biological world. A random selection of equations of the option contract terms and basic statistical properties of the underlying stock price will have among them some elements that will ultimately make up the true option pricing formula. By selectively breeding the equations, presumably these elements will be passed onto future generations of equations that can price options more accurately. The essence of the method is the selection of equation parameters, i.e. genetic traits, which parents pass to the next generation. Since it is impossible to determine which element is the best ex-ante, the focus is on choosing parents that seem to be the fittest. The genes to be propagated to the next generation are thus selected on the basis of the pricing errors of the models.

Theoretical option pricing models based on risk-neutral pricing theory, such as the seminal Black-Scholes model [Black and Scholes (1973)], rely on strict assumptions that do not hold in the real world. Most subsequent works that seek to improve on the model can be roughly categorized into two groups. One strand of research assumes that volatility is stochastic instead of constant. Stochastic volatility in option pricing has been examined by Heston (1993) and Amin and Ng (1993). The stochastic volatility is correlated with the stock price dynamics, and this correlation controls the skewness of the stock return distribution. When the correlation is negative, the model can generate the familiar volatility smile pattern.

In the traditional jump-diffusion framework, the jump risk is diversifiable and uncorrelated with aggregate market returns, therefore commands no risk premium. This is no longer true if the underlying asset is the market portfolio itself. To relax the assumption of unsystematic jump risk, Bates (1996a, 1996b, 2000) and Bakshi, Cao and Chen (1997) explicitly incorporate both volatility risk and jump risk under the risk-neutral probability measure. However, they adopt a simply but rather restrictive assumption that the premium for each risk factor is a constant proportion to the amount of risk.

In the presence of jumps, the financial market becomes incomplete. Therefore, option payoffs cannot be replicated by a portfolio of primitive assets. In order to deal with this, a more general method than the risk-neutral approach is needed. In this idea, Ma (2005) proposed a general equilibrium model, in which both diffusion and jump risks are priced, and the risk aversion parameters explicitly incorporated. Built upon an exchange economy of the Lucas (1978) type, Ma (2005) assumes recursive utility in the presence of Levy jumps, and solves for a general pricing formula. In addition, the relationship between risk-neutral jump and objective jump can be established. In the special case of expected utility and log-normal jump size, Ma's model reduces to that of NL, who set up a fully stated economic equilibrium to price diffusion and jump

risks in the index option market, and demonstrate that the risk premium is proportional to the covariance between the option payoff and the change in the marginal utility of equilibrium aggregate wealth.⁴

In this paper, we apply an Evolutionary programming simulations to demonstrate the important difference that risk-neutral jumps and physical jumps have on option prices and to find the optimal riskless interest rate r . We find that compared with the full equilibrium framework, the risk-neutral measure overvalues options across maturities and moneyless. More importantly, the level of jump risk aversion has significant impact on option prices. The higher the risk aversion, the higher the expected risk premium, and the lower the option prices.

The rest of this paper is organized as follow. Section 2 discusses the theoretical relationship between risk-neutral and physical jumps in option pricing. Section 3 presents simulation results from two representative models. Finally, Section 4 concludes.

2. Risk-neutral and physical jumps

We used in this paper the model described in Chen, Liu and Ma (2007): assume that the aggregate dividend process δ_t follows a compound jump-diffusion process with constant volatility,

$$\frac{d\delta_t}{\delta_t} = \alpha dt + \sigma dZ_t + \int_0^\infty (u-1)\Pi(dt, du) \quad (1)$$

where α and σ are the mean and volatility of the diffusion process, Z_t is a standard Wiener process, and the Poisson measure is characterized by jump intensity λ and jump size distribution Π . The recursive utility function is defined as

$$U_t = W(c_t, \mu(U_{t+1}|F_t)) \quad (2)$$

where W is a utility aggregator and μ is a certainty equivalent that values the random future utility U_{t+1} conditional on the current information F_t . The utility is defined by two primitive functions f and M ,

$$f(kc, k^\eta v) = k^\eta f(c, v) \quad (1)$$

and

$$M(x, y) = y\phi\left(\frac{x}{y}\right) \quad (2)$$

where η is a measure of risk aversion. Given the index process and information structure, Ma (2005) shows that a European call option, with strike price X , underlying price S_t at time t , and expiry at T , is priced as

$$C = Xe^{-r(T-t)} L^{-1}\{\Phi_{T-t}(\cdot)\}\left(\log\frac{X}{S}\right) \quad (3)$$

where

$$\Phi_{T-t}(s) \equiv \frac{\Theta^{T-t}(s)}{s(s+1)}$$

and

$$\log \Theta(s) = -[\alpha + (\eta - 1.5)\sigma^2]s + \frac{1}{2}\sigma^2 s^2 + \lambda \int_0^\infty (u^{-s} - 1)\phi'(u^\eta)u^{\eta-1}\Pi(du)$$

where L^{-1} is the bilateral Laplace inverse operator, α and σ^2 are defined as in the stochastic process of the aggregate dividend, λ the jump intensity, Π the distribution of jump size, and η is the risk aversion coefficient.

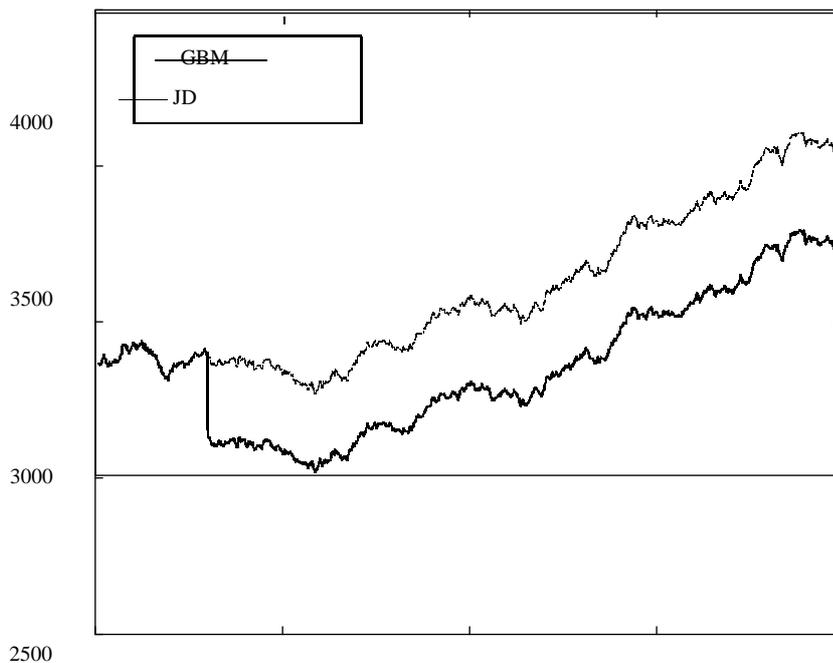
3. Simulations

In this section, we used the Evolutionary simulations to demonstrate the differences between risk-neutral and physical jumps.

The procedure of the basic approach is described as follows.

- Given a problem to be solved and a training set of matched stock processes, a set of possible values for the risk aversion coefficients is randomly generated (the genetic codification of the “population”). The size of the population is held constant (in our simulations equal at 100).
- Every individual in the population is evaluated to test whether it can accurately price options in the training data set. We assign a fitness measure to select the surviving gene. A *smaller variation of the prices* for the training data set indicates a better fit.
- Based on the fitness measure, a subset of the population is selected to act as the parents for the next generation of the population of formulas.
- A pair of the parents generates a pair of offspring. Components of the parent formulas are crossed to generate offspring formulas. A random point is selected in each parent tree. The sub-trees below that random point are switched between the two parent formulas. This operation creates a new pair of individuals, the offspring. It is possible that no crossover is performed and the parents themselves are placed in the new population (a clone). The process of selection and crossover is repeated until the new generation is completely populated.
- The individuals in the new population are tested to gauge their performance in pricing options. The steps above are repeated for a pre-specified number of times, or generations. We keep track of the best-fit individual found throughout this process and set it as the solution to the best interest rate and the option pricing problem.

Figure1. Example of test values for the Stock processes with and without jumps, generated by the geometric Brownian motion (GBM), respectively the jump-diffusion (JD) process
 Source: Chen, Liu and Ma (2007)



We carry out 100 generation of simulations for each task. Following Ma (2005), the underlying non-dividend-paying stock price S_t follows a stochastic differential equation with random jumps,

$$\frac{dS_t}{S_t} = (\alpha - \lambda\mu_j)dt + \sigma dZ_t + J_t dq_t$$

with the same notation as above. The expected rate of return α and volatility σ for the stock are assumed to be 0.06 and 0.17, respectively. We used the “riskless” interest rate $r= 0.03$, mean jump size and the standard deviation of jump size -0.05 σ_j and 0.07 respectively, and jump intensity λ (1 jump every 2 months).

Figure 1 plots the pure diffusion process and the jump-diffusion process over a 2-months period. The stock prices starts at 3100 and ends at 3937.9 for the jump-diffusion process, and 4267.1 for the pure diffusion Wiener process, due to a big crash around time 0.3, roughly on the 110th day. The magnitude of this crash is approximately 263.8 points, 8.35% of the starting value.

Figure 2. Variation of the option prices for different risk aversion parameter $\gamma = 0.28, 0.42$ respectively 0.84 , in the absence of jumps.

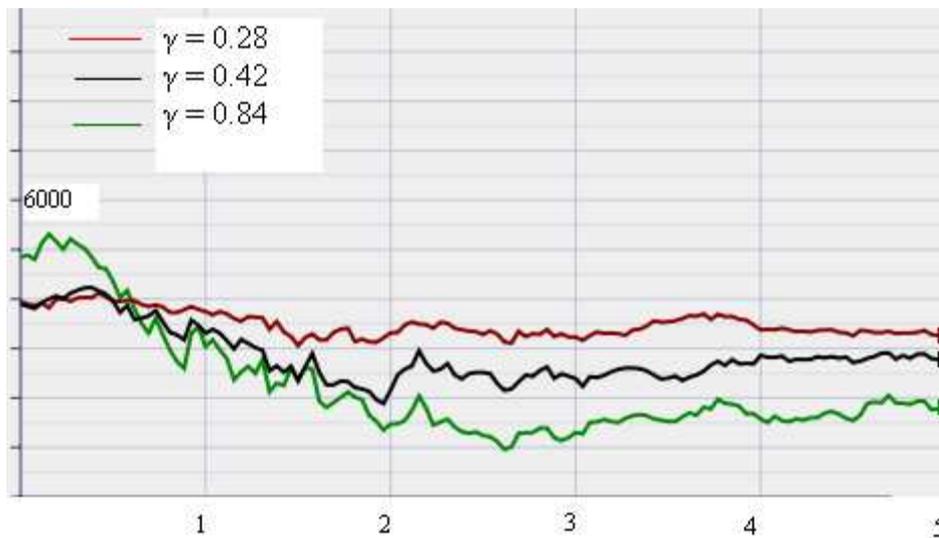
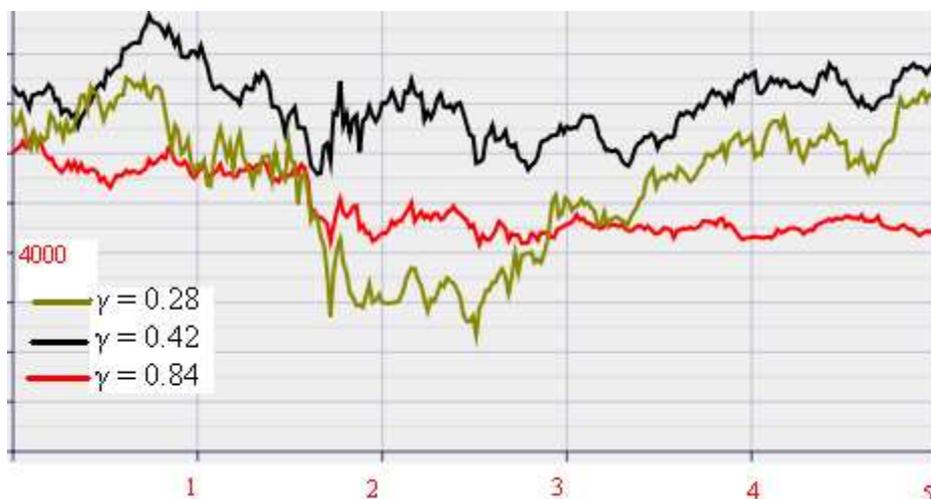


Figure 2 illustrates the time evolution of the option prices for different risk aversion parameter $\gamma = 0.28, 0.42$ respectively 0.84 . We simulate two groups of option prices with the same maturity. We apply the model of Naik and Lee (1990) (NL) without physical jump. In addition to the parameter values mentioned already, we specify the option strike price to be 4000 for the first two simulations, and 5000 for the third one.

In Figure 3, we reports option prices for three different values of the risk aversion parameter, the same as for the precedent case, but using the model of Chen, Liu and Ma (2007) with small physical jump produced each month and a big one in the second month (the seventh week), jump that simulate a crisis effect. For this model, the lower level of risk aversion produce a strong instability in the variation of the price, but the system stabilise on an increasing trend, contrary to the case of high level of the risk aversion.

The evolution algorithm suggest the existence of three optimal values for the risk aversion ($0.28, 0.42, 0.84$) parameter, values that induced a stabilization in time of the price level after the chock, and we obtained the best values for optimal risk aversion parameter $\gamma = 0.42$.

Figure 3. Variation of the option prices across 5 months, for different risk aversion parameter $\gamma = 0.28, 0.42$ respectively 0.84 , in the presence of a financial chock (a jump), implemented in the 7th week of the simulation.



4. Conclusions

We simulate option prices over time for different level of risk aversion in order to highlight the effect of the jump risk aversion parameter on option prices. Results show that the risk aversion parameter fully captures jump risk. Contrary to the case of a regularized market, when we introduced the jumps in the simulation, the effect of an increasing risk aversion diminishes the variation and the average of the price, but a low level of the risk aversion induce instability of the market. The simulation propose an average value that stabilise the evolution on an ascendant trend.

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IMPACT OF ACCOUNTING OPTIONS ON FINANCIAL REPORTING OUTPUT - AN OVERVIEW ON EU CAPITAL MARKETS

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Abstract: *Our paper exploits the uniformity degree of accounting regulation by considering companies listed in the EU, but within the context of a certain diversity degree of accounting practices, which is guaranteed when considering the largely debated area of reporting for financial instruments. Accounting practice should mainly represent accounting standards' projection into reality, but as Ray Ball expressed it, implementation is the Achilles heel of IFRS. We make use of the Herfindahl (H) Index in order to document the compatibility of accounting practices. The documented level of compatibility allows for useful debate from a standard setting perspective, high compatibility being expected.*

Key words: Accounting practices, Accounting options, Compatibility degree, European Union

JEL classification: M40, M41

1. Introduction

Beyond efforts being made by standard setting bodies in order to develop accounting regulation that would be accepted at a global level, we must also consider a series of aspects with significant impact on the current state of facts. Veron (2007) was emphasizing the fact that beside the uniformity of the international accounting referential that might also be exaggerated to a certain degree, there is also the issue of its implementation that can lead to significant differences in accounting practice. In other words, a significant degree of uniformity where accounting regulation is concerned does not implicitly generate a similar uniformity degree for accounting practices. This represents the starting point of our initiative in quantifying the compatibility or uniformity of accounting practices within a considered economic space.

Our analysis considers the European space, referring to the member states, but further enquires if an accounting European space can be documented. At a conceptual level, we could say that we are investigating the uniformity degree of accounting regulation and principles within the context of a certain diversity degree of accounting practices. Two distinctive elements are placed at the basis of our approach: accounting laws, currently expressed through the concept of 'accounting standards' and accounting practice, mainly referring to the way regulations are actually transposed in reality. What is therefore the difference between 'accounting standard' and 'accounting practice'? The concept of accounting standards is often used in terms of recommended rules that are issued by institutions that are appointed through laws or similar legal regulation (Abd Allah, 2009, p. 51). On the other hand, accounting practices can be considered to be '...any other calculation algorithm that is used or suggested in preparing financial statements...' and include all techniques that are used in financial reporting (Watts and Zimmerman, 1979).

If we refer to the process of accounting standard setting, we can consider accounting standards as being the result of the regulation process, while accounting practice being a reflection into the economic reality of those accounting standards. This is where it becomes obvious that the implementation process is extremely important for the process of developing and grounding an accounting space, be it European, regional and/or global. Moreover, since the reflection is never identical to the original, when analyzing the accounting domain we ask ourselves what is the source of the existent differences between the two considered elements (accounting standards and accounting practice).

When considering a direct approach, we can say that 'accounting options' have a significant role to play in this respect. Mainly, it refers to the accounting treatment or policy being adopted by management at one moment in time, in relation to a certain economic transaction or assembly of operations. On the other hand, Fields *et al.* (2001) included a series of new aspects when documenting the concept of accounting option.

Among these: choosing different accounting methods, options referring to the level and character of information being provided through financial reporting documents, choosing the moment for first time adoption of a new accounting standard, but also options in the area of accounting practice, mostly when influencing accounting information is considered.

Moreover, there will always be a decision making pole within the entity, organization or institution that actually makes the choice regarding a certain accounting option. Fields *et al.* (2001) considers that management usually plays this role. That is way management's intention is considered as a criterion for assessing accounting practices in order to determine if management's choices have been made with the desire of influencing the results provided through the accounting information system or not. Moving forward, the authors consider that auditors, the audit committee, but also accounting standard setting bodies also have the possibility of representing such a decision making pole. As a consequence, when the implementation of a certain accounting referential is imposed, the manner in which the decision making pole acts, regardless of its composition, leads to the existence of a certain degree of uniformity of accounting practices.

Accounting practice diversity is in fact one of the three dimensions of international accounting diversity (Riahi-Belkaoui, 2002, p. 53-59), and this type of diversity represents what is actually being transposed within the diversity of accounting practices and principles that are used in different states around the world. These differences can refer to the presentation of accounting information or to the level of flexibility in relation to accounting practices being used within different national accounting systems. The fact that when considering a certain accounting referential there is still the issue of several alternative accounting treatments or options, can be translated through a distinct source of accounting diversity (Mustata, 2008, p. 34).

Our paper develops a study that analysis the diversity of accounting practices in the field of financial instruments, while considering the European economic space. Our declared intension is to generate an overview on accounting practices within the European Union, beyond the obsessive dialog between nations and the insistence on unity through diversity (Guran, 2007). Such an image can only be built when considering accounting treatments that belong to a certain referential, proving the possibility of the decision making pole's intervention at the level of 'accounting options'. We can therefore formulate the following research hypothesis:

H₁: When considering the European capital market, there is a high level of uniformity of accounting practices in the field of financial instruments.

Methodological aspects are discussed further, followed by the analysis and interpretation of the obtained results.

2. Methodological aspects related to empirical testing

The main objective of the International Accounting Standards Board is that of developing and participating to the implementation of accounting standards that are generally accepted at a global level. This process was born as a consequence of the declared intention of reaching a high degree of uniformity in financial reporting. Under these circumstances, a natural question arises: to what extent is this process a natural one that is registered within the evolution of national European societies? (Guran, 2007). Moving forward, we ask ourselves to what extent does the uniformity degree of accounting regulation translate into accounting practice? Is there a diversity of accounting practices beyond the uniformity of accounting regulations?

The first step of our study is that of forming the sample of entities to be analyzed. With this purpose, we considered all 27 capital markets (NCM¹⁰) within UE and randomly determined a medium number of entities (ArNE¹¹) that were to be selected from each considered capital market. This lead to establishing the total number of entities to be considered for the study, or in other words the sample of considered entities.

This reasoning allowed us to dimension our sample while considering an equal number of selected entities from each capital market. Furthermore, we consider that such an approach is not sustainable because of the fact that any two selected capital markets at one moment in time are not identical. In fact, capital markets themselves can be characterized through a significant degree of diversity. We have therefore appealed at calculating an adjusted number of selected entities (AdjNE¹²) from each capital market, starting with the results that were obtained by applying the above presented reasoning and also considering market capitalization, as an expression of the capital markets' performances.

¹⁰ NCM = Number of Capital Markets

¹¹ ArNE = Arbitrary Number of Entities

¹² AdjNE = Adjusted Number of Entities

This adjusted number of companies (*AdjNE*) that was determined for each national capital market was calculated by using three decimals. Due to the fact that through normal rounding, a significant number of capital markets were not allocated entities to be analyzed, we calculated an allocated number of entities (*AllNE*¹³) by using the *ROUNDUP(number, num_digits)* function. This is the final number of entities that were comprised within our final sample (*AllS*¹⁴). The final dimension of our sample is determined by summing the number of entities (*AllNE*) that were allocated to each national capital market.

The above-mentioned reasoning that helped us establish our sample entities can easily be expressed through the following calculation formula:

$$AllS = \sum_{i=1}^n NCM \times ArNE \times \frac{MCp_i}{MCp_E}$$

where:

- AllS* final sample
i the considered *i* capital market
n total number of capital markets that were considered when establishing the sample of entities
NCM total number of capital markets that were considered for analysis
ArNE random number of considered entities
MCp_i market capitalization for the *i* capital market
MCp_E total market capitalization, for the considered capital markets within EU

The following table synthesizes the above presented information:

Table 1: European capital market. Establishing the sample entities

Capital Market		Market Capitalization	Market Capitalization	No of Entities	No of Entities
No.	Country	Value (mil. Euro)	%	Adjusted <i>Adj NE</i>	Allocated <i>All NE</i>
1	Bulgaria	6057,10	0,10	0	1
2	Czech Republic	33405,70	0,40	1	1
3	Malta	1333,80	0,00	0	0
4	Hungary	12705,20	0,10	0	1
5	Latvia	1100,20	0,00	0	0
6	Lithuania	2481,90	0,00	0	0
7	Poland	61723,70	0,70	1	1
8	Romania	13629,90	0,10	0	1
9	Slovakia	3475,80	0,00	0	0
10	Slovenia	8056,00	0,10	0	1
11	Austria	129389,70	1,40	2	2
12	Belgium	217055,50	2,40	3	4
13	Cyprus	14987,20	0,20	0	1
14	Denmark	151088,90	1,60	2	3
15	Finland	194202,40	2,10	3	3
16	France	1631896,60	17,70	24	24
17	Germany	1330877,90	14,50	20	20
18	Greece	137130,70	1,50	2	3
19	Ireland	90342,90	1,00	1	2
20	Italy	687672,90	7,50	10	11
21	Luxembourg	76904,60	0,80	1	2
22	Malta	3418,30	0,00	0	0
23	Netherlands	535455,50	5,80	8	8
24	Portugal	81612,50	0,90	1	2
25	Spain	1047978,30	11,40	15	16
26	Sweden	406417,40	4,40	6	6
27	United Kingdom	2320961,60	25,20	34	35
Total			100,00	135	148

Source: Market capitalization: World Bank, 2009 Euromonitor International and our calculations¹⁵.

All selected entities were also required to complete financial statements in accordance to IAS/IFRS, therefore choosing consolidated financial statements that abide this rule starting with 2005. Moreover, the selected

¹³ *AllNE* = Allocated Number of Entities

¹⁴ *AllS* = Allocated Sample of Entities

¹⁵ Market capitalization is presented in million Euros, by using a fixed conversion rate for 2008, while the effective value is expressed in current prices.

entities were all listed on the main market of each national capital market and were included in the main index¹⁶ or the most representative ones for the considered capital market.

The development of financial reporting standards in the field of financial instruments has often imposed IASB to create certain areas of flexibility. An optimistic approach would say that this flexibility is there to offer managers the possibility to reflect, in the best possible manner, the information they have regarding the entity and avoid creating artificial volatility within financial statements (Herranz Martín and García Osma, 2009). Meanwhile, managers also have the possibility of using this liberty given through accounting standards in order to classify financial assets and liabilities, to reclassify some of them or to apply hedge accounting in accordance to particular intentions. A significant part of trade literature underlines this shortcoming of flexibility in accounting regulations, therefore offering the possibility of opportunistic use, with purposes that relate to manipulation of information being provided (Healy and Wahlen, 1999, Dechow and Skinner, 2000).

3. Identifying the analyzed accounting options and measurement discussions

The next step of our study required us to identify those accounting practices that were in accordance to the IASB's foresights and allowed different options or policies for the same accounting treatment, as a relevant source of accounting diversity in practice. A similar study was developed by Abd Allah (2009) by focusing on entities that were listed on the Swedish capital market. We have therefore chosen six referential issues in the field of accounting for financial instruments, followed by the necessary codification for achieving the aimed analysis. The particular topics being analyzed from the accounting practices' perspective are as follows:

(1) Fair value option

In accordance to the fair value option, companies have the possibility of assigning, under certain circumstances, any financial asset or liability at fair value on initial recognition. Financial asset or financial liability at fair value through profit or loss comprises those elements that were designated by the entity upon initial recognition and/or others that were classified as help for trading. We therefore analyze to what extent entities chose to use the fair value option. The impact of this choice is significant since a certain financial instrument can be measured at fair value by one entity, while another one can opt for a different type of measurement, such as amortized cost, depending on the category to which the instrument belongs.

(2) Trade date or settlement date accounting

The international accounting referential allows entities to choose between trade date and settlement date accounting, as critical event in recognizing and derecognizing financial instruments. Even if the impact of offering such an option is temporary when it comes to financial statements, there is still the issue of comparability at a certain moment in time. We therefore considered it would be useful to analyze the selected entities' practices in this matter.

(3) Fair value valuation models in a non-active market

When markets are illiquid, since there are no prices to be observed or other information that can be obtained objectively, establishing fair values for certain financial instruments can indeed be difficult to achieve. This once again offers the opportunity for enhancing diversity of accounting practices by using different fair value valuation models. The international accounting referential mentions the necessity of using a valuation model, but leaves its choosing to the management's decision. This choice should be done with the purpose of best reflecting the available observable information on mind. If fair values can not be valued in a reasonable manner, it is indicated to even renounce using it. This often happened in the case of available for sale financial assets which should be measured at fair value, but their cost is used in cases when fair values can not be determined in a reliable manner by the entity. It is therefore obvious that the same financial instrument can be measured at different values within financial statements belonging to different entities. This motivated our choice in analyzing models being used by entities under such circumstances. Details on models being used by entities, as proven through our analysis, are presented in the table summarizing the compatibility degree of accounting practices in the field of financial instruments when considering the European capital markets.

(4) Treatment for transaction costs

¹⁶ For example: for London Stock Exchange – FTSE 250, Sweden – OMX Stockholm 30 Index, Poland – WIG 20 Index, Belgium – BEL 20 Index etc.

Including this issue within our analysis is motivated by the confuse foresights of the international accounting referential regarding the accounting treatment of transaction cost that might generate different interpretation when put into practice. In accordance to IAS 39, transaction cost should be included within fair values used in the case of all financial instruments upon initial recognition, with the exemption of those belonging to the category at fair value through profit or loss. Meanwhile, the application guidance offered by IASB indicated the use of bid and ask prices. Since these also include transaction cost, a confusion is being created in relation to the above-mentioned exemption.

(5) *Embedded derivatives*

Another issue allowing the manifestation of accounting options appears when dealing with embedded derivatives' accounting. The purpose this time would be not to allow entities to avoid fair value accounting by incorporating instruments that require such a treatment within others that do not. Consequently, entities have the option of separating the embedded derivative from its host contract and only use fair value for it, or putting the whole hybrid instrument within the category at fair value through profit or loss. Once again, it would be interesting to see the options being applied into practice, the impact of this choice being different from case to case.

(6) *Mathematical models used for testing hedge effectiveness*

When it comes to hedge accounting, the international accounting referential is on one hand strict, by asking for an extremely high level of effectiveness, and on the other flexible, in accepting different models to be used in testing this effectiveness. It is our opinion that this flexibility can generate significant differences between entities. Therefore we have also analyzed model actually being used in practice by the selected entities.

Analyzing the above presented accounting practices is done based on 148 consolidated financial statements. The last three sets of financial statements being published by the sample entities were considered. This was necessary because of existent differences between entities regarding the start date of the financial period.

In order to measure the compatibility degree of accounting practices within the European capital markets in the area of financial instruments, we have developed an analysis based on the *Herfindahl (H) Index*, proposed by Van der Tas (1988), but in a modified shape, considering the argumentation and the adjusted model being developed by Taplin (2003). Moreover, considering the following arguments: (1) the diversity of entities within our sample, (2) the large number of distinctive capital markets that were considered in establishing the sample, and last but not least, (3) the relatively unitary character of these markets due to the administrative and political unity of EU, we propose an adjusted form of the calculation formula for Taplin's (2003) *(H) Index* as follows:

$$E(H) = \sum_{i=1}^n \pi_i^2 + \sum_{i=1}^n \pi_i(1 - \pi_i) / n$$

where:

E	estimation operator
n	number of accounting options
π_i	relative frequency of accounting options within the analyzed population ¹⁷

This application of the *(H) Index* is different from that used within der Tas' (1988, 1992) studies because it represents an example of implementation of the index under spatial report, in comparison to the other approach which obviously represents an implementation of the index under temporal circumstances.

Moreover, when considering an accounting research that focuses on the issue of compatibility and comparability degree between accounting practices, as well as between different sets of accounting regulation, a series of measurement instruments exist such as the Euclidian Distance (Garrido *et al.*, 2002), Jacard Coefficients (Fontes *et al.*, 2005; Mustata, 2008; Morais and Fialho, 2008), *(C) Index* and *(I) Index* (Van der Tas, 1988 and 1992). We have chosen to use the *(H) Index* for our study analyzing the area of financial instruments because it is the most often used when intending to measure the comparability degree of accounting practices within a country (Abd Allah, 2009, p. 68) or within a similar territorial administrative unit. This index is also fit to be used under circumstances that aim at measuring the similarity degree of accounting practices, regardless of the content of national accounting regulation (see studies performed by de Van der Tas, 1988, 1992) and without the necessity of also analyzing the comparability degree between the corresponding national accounting regulation and another accounting referential. Moreover, *(H) Index's* form

¹⁷ In this case the sample entities that were chosen for this analysis.

being used in this study helps eliminate the limits of the initial form being used by Taplin (2003), while also being adjusted according to the above presented argumentation.

4. Developing the analysis and debating the obtained results

In order to develop a complex image of the comparability degree existing between accounting practices of entities listed on European capital markets in the field of financial instruments, we have implemented the $E(H)$ Index in two steps. The first one determines the index's values for each accounting aspect being analyzed and the second calculates its value for the whole sample, based on cumulating the 6 major elements being analyzed on an individual basis. The obtained results are presented in the following table:

Table 2: Synthesis of the compatibility degree of accounting practices in the field of financial instruments on European capital markets

Categories of accounting practices	Recorded accounting options	Absolute frequency of options among entities	$E(H)$ Index
Fair value option	Used	52	0.8835
	Not used	73	
	Not presented	23	
Trade date or settlement date accounting	Trade date	65	0.4993
	Settlement date	14	
	Trade date for certain financial assets and settlement date for others	19	
	Not presented	50	
Fair value valuation models in a non-active market	Discounted cash flow	28	0.3200
	Discounted cash flow and Black Scholes Model	11	
	Discounted cash flow and Option Pricing Model	14	
	Analysis of recent transactions, comparative items that are traded and discounted cash flow	34	
	Discounted cash flow and multiples	3	
	No model, only similar transactions	12	
	Not presented	46	
Treatment for transaction costs	Transaction cost is included in fair value determination except financial assets and liabilities at fair value through profit or loss.	57	0.5130
	Transaction cost is included for all financial assets	20	
	Transaction cost is excluded	8	
	Not presented	63	

Source: authors' projection

Table 2: Synthesis of the compatibility degree of accounting practices in the field of financial instruments on European capital markets (continued)

Categories of accounting practices	Recorded accounting options	Absolute frequency of options among entities	$E(H)$ Index
Embedded derivatives	Separated	11	0.5172
	Not separated	3	
	Separated in some cases and reflected at fair value in others	26	
	Do not exist	86	
	Not presented	22	
Mathematical models used for testing hedge effectiveness	The <i>critical terms match</i> method	17	0.6935
	Not presented	104	
	Do not exist	27	
E(H) Index (global)		0.5711	

Source: authors' projection

A simple direct analysis of the above presented results shows that the highest compatibility level of accounting practices is recorded for the ‘*fair value option*’ issue, reaching a level of 88.35%. From this perspective, we can state that the diversity of accounting practices is insignificant. The opposite situation is recorded for the ‘*fair value valuation models in a non-active market*’ issue, the compatibility level of accounting practices being of only 32%. This proves that when entities are dealing with non-active markets they appeal at using a significant number of different models in determining fair values. This implies that the typology could rather be uniform at the level of capital market, country, typology of entity or field of activity, rather than under the aspect related to the market being active and as a consequence of the uniformity degree of regulation.

As for the other analyzed accounting issues, we notice a relative medium level of compatibility of accounting practices with some differences in the case of ‘*mathematical models used for testing hedge effectiveness*’ that records a level of 69.35%. Unfortunately, on a closer look, we can see that this higher degree of compatibility is due to entities not presenting the model, which was used in determining hedge effectiveness.

When defining the major objective of our study we started with the idea that entities being listed on European capital markets were implementing approximately the same accounting policies and options due to the fact that they apply the same regulation¹⁸, namely the international accounting referential (IAS/IFRS). Our hypothesis was therefore tested by considering entities that were listed on EU capital markets, being included in the corresponding country’s main stock exchange index, completing consolidated financial statements in accordance to IAS/IFRS. Still, the area of accounting practices being analyzed was that where the international accounting referential allowed flexibility and entities were able to choose among certain ‘*accounting options*’ in the field of financial instruments.

The obtained results indicate that the compatibility level of accounting practices in the considered context can only be documented as medium. The effective value being measured for the E(H) Index (*global*) is of 57.11%. Under these circumstances, we can state that the formulated hypothesis is not sustained. As a consequence, we can conclude that the flexibility degree of the international accounting referential leads to a significant low level of compatibility of accounting practices in the field of financial instruments. If we are to find arguments for the ‘*only*’ medium level of compatibility of accounting practices that was documented, we might bring up the complexity and difficulties characterizing the field of accounting for financial instruments, which was always a controversial area. This often compelled standard setting bodies to accept certain flexibilities that might have then represented the best solution for problems already being raised in practice. On the other hand, it seems that the uniformity degree of accounting regulation (as for the considered sample entities) does not overcome the diversity of accounting practices within the economic space always trying to fight for unity through diversity.

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TESTING THE EFFICIENT MARKET HYPOTHESIS FROM THE INFORMATIONAL POINT OF VIEW - THE CASE OF THE ROMANIAN CAPITAL MARKET

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Abstract: *In this paper we aim to test the efficient market hypothesis (EMH), the case of the Romanian capital market. According to this purpose, our research aims to test the hypothesis of the random walk of the BET and BET-C stock indicators of the Bucharest Stock Exchange and to this end we apply statistical tests to detect whether the capital market in Romania is efficient in the weak form.*

Key words: efficient capital market, random walk, stationarity tests, normal distribution

JEL classification: G14

1. Introduction to the context

The concept of an informationally efficient capital market (*Efficient Market Hypothesis*) was introduced by American Professor Eugene Fama, marking the beginning of modern literature on the topic, *defining an efficient capital market as a market where the rates of financial assets fully reflect the information available at a given time.*

According to Fama such a market is characterized by matching the rate of securities with an equilibrium value: *“An «efficient» market is defined as a market where there are large numbers of rational profit maximizers actively competing, with each trying to predict future market values of individual securities, and where important current information is almost freely available to all participants. In an efficient market, competition among the many intelligent participants leads to a situation where, at any point in time, actual prices of individual securities already reflect the effects of information based both on events that have already occurred and on events which, as of now, the market expects to take place in the future. In other words, in an efficient market at any point in time the actual price of a security will be a good estimate of its intrinsic value”.*

In this context, according to this argument, no market investor can earn by speculating imbalances between the stock market rate (observed value) and the financial value (intrinsic) of the title. Thus, if we generalize, the value of a company is regarded as equal to market capitalization. But in reality, on the financial market there are informed and uninformed investors.

Because of this, countless researchers have brought a series of criticism to this concept, so that Eugene Fama subsequently proposed that the meaning of this equilibrium value may correspond to the equilibrium price determined by a general equilibrium model or a convention on the division of market investors in informed and uninformed investors (naive).

This is practically very difficult to achieve since one cannot know exactly all the available information and the equilibrium pricing should be based on a model. In this respect, in one of his articles, Fama (1970) proposed a new definition, more widely accepted: *“A market in which prices always fully reflect available information is called efficient.”*

Conceptually, there are three forms of informational efficiency on the capital markets; we will describe them in the following:

➤ *Weak form: the price of an asset instantaneously and fully reflects all information contained in the history of that title's price. This translates into the impossibility of obtaining substantial excess profits from transactions inspired by studying the history of asset rates based on technical or graphical analysis. The fundamental hypothesis of technical or graphical analysis is that the past tends to repeat itself and some graphic forms, once detected, will provide information on the future movement of rates.*

➤ *Semi-strong form: the information considered relevant is, this time in addition to the history of rates, all publicly available information about the issuer. These include: balance sheets, operating accounts, capital increases, ads targeting mergers or acquisitions, public information related to the perspective of the industry, of the national economy, etc. In an efficient market in the semi-strong form, fundamental analysis based on public information is of no use. To the extent that information becomes public, it is immediately and fully integrated by the current price of assets which does not allow to obtain substantial excess profits from transactions based on this information.*

➤ *Strong-form: the relevant information incorporated by the present rate of assets is, at this level, both public and private information. In such a situation, all unexploited profit opportunities will be eliminated. The distinction between public and private information is not very easily made. Three categories of agents are likely to have private information: intermediaries on financial markets, managers who have information on their company and investment fund managers. In empirical studies it is difficult to determine how the performance of these categories of agents is due to informational advantages and how much to their superior ability to treat common information.*

Previous presentations on the level of efficiency may seem general and abstract, but to verify them there are a number of methodological approaches based on empirical or econometric tests.

2. Studies on the informational efficiency of the Romanian capital market

In recent years, numerous studies have emerged in the analysis of informational efficiency of the Romanian capital market.

Most Romanian researchers, concerned about this issue, have channeled their efforts to highlight the existence of trends in exchange rates changes which contradict the random walk movement. Thus, from the methodological point of view, the studies are based on tests of autocorrelation, stationarity, analysis of probability distribution of data series on which the validation of the informational efficiency hypothesis in its weak form of the Romanian capital market was attempted.

However, test results do not lead to a meaningful and definitive conclusion on this problem.

A summary of major studies on informational efficiency of the capital market in Romania is presented in the table below:

Table 1: A summary of major studies on informational efficiency of the capital market in Romania

Researchers [year(s)]	Sample data	Tests used	Conclusions
Dragotă and Mitrică [2001,2004]	6 of the most liquid shares listed on the first category of the BSE (Bucharest Stock Exchange) between the 9th of April and the 10th of October 2000	Coefficients of autocorrelation, stationarity tests, tests for normal distribution of data series, filter rules Coefficients of autocorrelation, stationarity tests	The rates of return have a random walk. The capital market is not informationally efficient in the weak form due to lack of liquidity. Doubts about the difference between share price and their intrinsic value. Also, doubts about the confirmation of the informational efficiency hypothesis of the Romanian capital market.
Dragotă and Dămian and Stoian [2002]	18 shares listed on the first category of the BSE between the 1st of April 1997 and the 1st of July 2002. The study also included the indices of the Romanian capital market (BET, BET-C, BET-FI RASDAQ-C)	Coefficients of autocorrelation, stationarity tests, tests for normal distribution of data series	The autocorrelation coefficients are significantly different from zero. The Romanian capital market is not informationally efficient in the weak form.

Dragotă and Stoian [2004]	Shares listed on the BSE and RASDAQ between 1999 and 2003.	Event studies	Relatively rapid adjustment in share prices to new information regarding the distribution of dividends or share capital increase.
Dumitru and Bucșa [2004]	The study included the Romanian capital market indices (BET, BET-C, BET-FI RASDAQ-C).	Stationarity tests, tests for the normal distribution of data series.	The random walk hypothesis is rejected for stock market indices, but there are signs of improvement of the informational efficiency in terms of the institutional framework and openness toward foreign investors.
Dima, Murgea and Pirtea [2005]	The study included the BET index between 1998 and 2004.	Autocorrelation coefficients, tests of stationarity, tests on the normal distribution of data series (for the analysis of the random-walk movements) ARCH and GARCH models	Abnormal distribution, high-level autocorrelation, local stationarity. It rejects the informational efficiency hypothesis of the Romanian capital market.

Source: Victor, Dragotă; Andreea, Stoian, *Considerații privind raționalitatea investitorilor pe Piața de Capital din România*, Piața de Capital, issue 1(4)/2006, Ed. Universității de Vest, Timișoara, pp. 22-23.

More recently, Voineagu and Pele (2008) tested the efficiency of the Romanian capital market using an econometric model based on the random walk theory, demonstrating the efficiency of this market in the weak form.

3. Testing the efficiency of the Romanian capital market

In what follows, we aim to carry out a series of empirical tests to test the efficiency of the Romanian capital market in the weak form.

We recall the fact that the efficiency in the weak form concerns the integration of the development of past rates in anticipation of future rates. In other words, today's price of a financial security is determined by the previous price observed by all capital market participants, the expected profitability in a period of time and a residual random factor.

Our empirical research aimed to test the random walk hypothesis (random-walk) of two indices of the Bucharest Stock Exchange, undertaking the following tests (we specify that for the tests, the Eviews 5 application was used as technical support):

- tests on the observance of the normality hypothesis of the distributions of the stock indices' instant returns (logarithmic);
- stationarity tests for the instant returns (logarithmic) of stock indices;

To this end, we chose as study subjects two stock indices calculated at the Bucharest Stock Exchange (BSE) as follows:

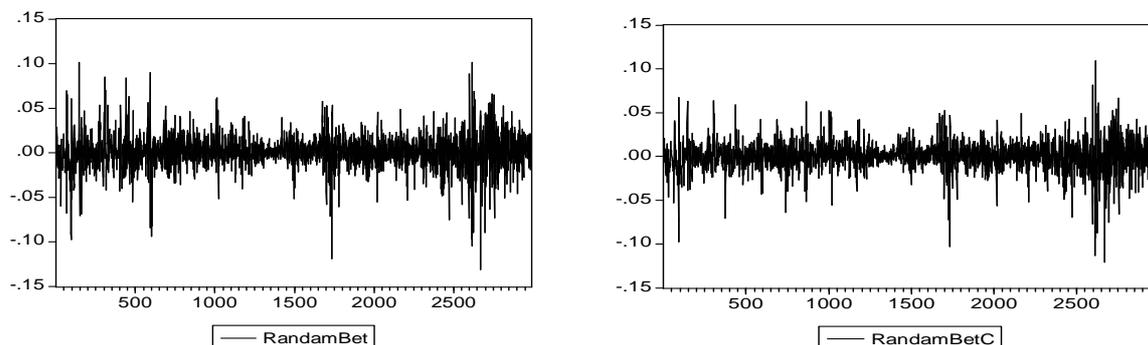
- the BET (Bucharest Exchange Trading) stock index. This index is considered one of the reference indexes, including stock prices of the most liquid ten companies listed on the BSE.
- the BET-C index (Bucharest Exchange Trading-Composite Index). This stock index includes in its structure the evolution of all companies listed on the BSE.

Remarks:

- For the BET stock index analysis, the intraday values of this indicator between the 13th of April 1998 and the 9th of April 2010 were used (2991 observations);
- For the BET-C stock index analysis, the intraday values of this indicator between the 16th of April 1998 and the 9th of April 2010 were used (2988 observations);
- To model the processes on the capital market we use the lognormal distribution because it eliminates the drawbacks of the normal distribution and it supports the stationarity of the series, without which these could not be processed. Thus, noting with I_{t-1} and I_t the value of the analyzed indices on two consecutive days, respectively with i_{t-1} and i_t the logarithmic values of the stock indices ($i_t = \ln I_t$, respectively $i_{t-1} = \ln I_{t-1}$) and calculating the remainder of natural logarithms we obtain the daily logarithm return.

The first analysis which we can use to assess normality and homoscedasticity is to study the logarithm return graphs of the stock market indices, as follows:

Fig. 1: Logarithm return graphs of the stock market indices



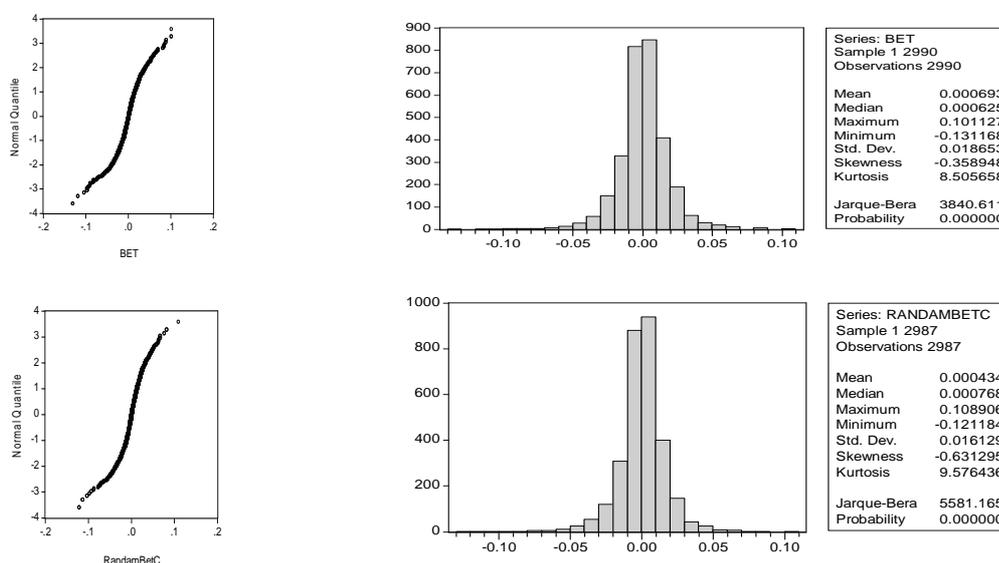
Source: own calculations

Graphically, we remark that the lack of normality is not very obvious, but is relatively easy to observe the heteroscedasticity by the irregular amplitude of variations.

3.1. Tests regarding the observance of the normality hypothesis of the instant returns' distributions of the BET and BET-C stock indices

To test the normality hypothesis of the instant returns' distributions of the BET and BET-C stock indices, we use the qq-plot diagrams and the Jarque-Bera statistical test. The Jarque-Bera test is a synthetic test of normality. In order to accept the null hypothesis it is necessary that the value associated to the test is lower than the tabular value for a chi-square process, with two degrees of freedom $\chi^2_{1-\alpha}(2)$, on the α significance threshold. In an efficient capital market returns follow a normal (or lognormal) distribution.

Fig. 2: The qq-plot diagrams and the Jarque-Bera statistical test



Source: own calculations

As we see from the analyzed data, the qq-plot charts for the stock market indices under consideration reveal that the daily returns are not normally distributed. Also, based on the Jarque-Bera test we cannot conclude that the series' distributions are normal and therefore it raises serious questions about the existence of information efficiency of the capital market in the weak form. The series are asymmetric to the left, because the *Skewness ratio* (asymmetry coefficient) is negative in both cases, the *Kurtosis ratio* (smoothing ratio) shows that the series have a higher curve than that specific to the normal distribution ($k = 3$). In both cases the null hypothesis is rejected.

3.2. Stationarity tests for the instant returns of the BET and BET-C stock indices

In order to test the stationarity of instant returns, calculated daily, for the BET and BET-C stock indices we use the *Augmented Dickey-Fuller Test (ADF)*. This test assumes that the series of natural logarithms of the stock indices analyzed by us follow a stochastic process (a stochastic process is a random process that can be characterized by mathematical expectancy and dispersion) of the AR (1) type (autoregressive process of 1st order). In other words, the *ADF Test Statistic* represents the *t* test for the acceptance or rejection of the null hypothesis of the Dickey-Fuller test.

Basically, after data processing using the Eviews program, we have the following results:

Table 2: ADF Test results for the BET

Null Hypothesis: BET has a unit root				
Exogenous: Constant				
Lag Length: 0 (Automatic based on SIC, MAXLAG=28)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-44.89894	0.0001
Test critical values:	1% level		-3.432348	
	5% level		-2.862308	
	10% level		-2.567223	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(BET)				
Method: Least Squares				
Date: 04/11/10 Time: 16:37				
Sample(adjusted): 2 2990				
Included observations: 2989 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
BET(-1)	-0.805995	0.017951	-44.89894	0.0000
C	0.000560	0.000335	1.670936	0.0948
R-squared	0.402948	Mean dependent var		5.50E-06
Adjusted R-squared	0.402748	S.D. dependent var		0.023685
S.E. of regression	0.018304	Akaike info criterion		-5.162676
Sum squared resid	1.000803	Schwarz criterion		-5.158659
Log likelihood	7717.619	F-statistic		2015.915
Durbin-Watson stat	1.992883	Prob(F-statistic)		0.000000

Source: own calculations

Table 3: ADF test results for the BET-C

Null Hypothesis: RANDAMBETC has a unit root				
Exogenous: Constant				
Lag Length: 0 (Automatic based on SIC, MAXLAG=28)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-44.81731	0.0001
Test critical values:	1% level		-3.432350	
	5% level		-2.862309	
	10% level		-2.567224	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(RANDAMBETC)				
Method: Least Squares				
Date: 04/11/10 Time: 18:00				
Sample(adjusted): 2 2987				
Included observations: 2986 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.

RANDAMBETC(-1)	-0.804614	0.017953	-44.81731	0.0000
C	0.000344	0.000290	1.188160	0.2349
R-squared	0.402314	Mean dependent var		-2.16E-07
Adjusted R-squared	0.402114	S.D. dependent var		0.020460
S.E. of regression	0.015820	Akaike info criterion		-5.454424
Sum squared resid	0.746805	Schwarz criterion		-5.450404
Log likelihood	8145.456	F-statistic		2008.591
Durbin-Watson stat	2.000062	Prob(F-statistic)		0.000000

Source: own calculations

Based on the above, we can say that:

- By taking into account the fact that the value of the t test in both cases presents values in the critical region, we accept the alternative hypothesis;
- The probability for these statistics, the p -value is below the threshold of the 1% significance level, so that the series of the obtained logarithmic returns are stationary;
- ADF test results for both BET and BET-C returns are below the critical values of the significance threshold of 1%, 5% respectively 10%, and thus reject the null hypothesis of the presence of a unitary root in the indices series, in the respective significance thresholds. This result below the critical values indicates the absence of a unitary root and therefore the informational inefficiency of the capital market in the weak form.

4. Conclusions and considerations

As a result of the statistical tests applied to the BET and BET-C indices, we can draw the following conclusions:

- the tests applied to detect the random-walk type behavior led to the rejection of the random behaviour hypothesis for the daily series of these stock indices;
- there wasn't sufficient evidence to support the efficient market hypothesis in the weak form for the stock indices based on daily data.

We point out that whatever conclusions we reached in the present work, these must be confirmed by further analysis of the companies listed on the Bucharest Stock Exchange, taking into account the analysis of weekly data in order to eliminate the effect of random influences, as well as the calculation of certain autocorrelation coefficients, which we omitted in the present study.

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RESIDENTIAL CONSTRUCTIONS IMPULSION THROUGH DECENTRALIZATION AT BRASOV COUNTY LEVEL

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Abstract: *The current global economic crisis has determined major transformations in specific markets, residential construction field not being excluded. The decrease in the number of residential units delivered at national level, which is also encountered at Brasov County level, requires solutions for the enhancement of the upward trend in the above-mentioned field. State involvement, by decentralization measures, may contribute to residential constructions impulsion by specific levers, restructuring and outsourcing being two connected processes that may contribute to administrative and fiscal flows making efficient.*

Key words: decentralization, residential construction, construction market, investment, economic crisis

JEL classification: H70, H71, H72, L74

1. Introduction

The strong impact of current economic and financial crisis in world economy has determined specific markets transformations, the field of construction materials sales being also affected. We consider that the economic field of construction materials sales, by the nature of the activities carried out herein, is one of the most important fields of activity of a country or a community of countries, such as the European Union, and, in the same time, one of the main components of the national economy level and strength measurement system.

The specialized studies carried out in Romania, country undergoing full development and transition towards market economy, indicate that the main requirements which have to be satisfied in construction field are: residential buildings delivery to population, transportation infrastructure development and modernization, urban services supplementation, as well as environment protection-related problems settlement. Construction materials uses are numerous and have deep implications in the adequate activity carrying out in many fields of activity: commerce, telecommunications, production etc. For this reason, considering this field of activity not only in terms of its economic value in GDP formation, but also in terms of the sustainable development of infrastructure and residential spaces which it confers on a nation, it is necessary to use a systematic approach in order to ensure its revitalization and upward trend.

This can be possible by active state involvement. It is well known that, during the last ten years, Romania's economy has undergone significant transformations. Its GDP increased from 80,984.6 million lei in current prices (about 40,308 million Euros) in 2000 to 491,273.7 million lei (about 115,940 million Euros) in 2009. According to government's estimates [1], in approximately four years, the GDP/inhabitant is supposed to reach 10,000 Euros, which will provide the conditions necessary for reaching the average EU development level. For most of us, this forecast seems to be unrealistic, as nowadays the GDP is no more than 5,500 Euros/inhabitant.

In 2005, a major fiscal reform was enforced, which replaced the progressive taxation system extant to that date, both for individuals and for companies. The law provided for a flat 16% taxation rate for all income taxpayers for the purpose of encouraging direct investment and economic activities. As a consequence, the GDP increased from 288,954.6 million lei in 2005 (approximately 79,750 million Euros) to almost 116,000 million Euros at the end of 2009.

All these evolutions laid the basis for the transition towards more qualitative developments and a real economy and society modernization, including decentralization. Decentralization has been defined as public expenditure and revenues division between government levels, and the liberty given to regional and local governments to establish the own budgets by taxes and fees levying and resource allocation. [Davey, 2003]

2. Overview of Romanian construction market

2.1. The effects of the economic crisis in Romania

According to the information supplied by the National Institute of Statistics (NIS), in 2009, construction works volume (as raw series) has decreased by 15.1%, the most important decrease being recorded in overhaul repairs (-24.1%) – as, the most probable, they were delayed because of the lack of liquidities. New buildings execution has grossly decreased by -13.8% and maintenance and current repairs have decreased by 13.2%. But, in terms of adjusted series (depending on the number of business days and the seasonal factor), construction works volume has diminished by 12.2% in 2009, thus contradicting the data initially announced by the management of the professional associations in the field, indicating an overall market decrease in 17%. In a release called “Gross Domestic Product (GDP) in the Fourth Quarter and in 2009” [3], NIS shows that GDP has decreased (as short term balance) by 7.1%, in real terms as compared to 2008, in compliance with the forecast made by the evaluation commission of the International Monetary Fund (IMF). This decrease was determined by the gross value added volume reduction in all fields of activity and, especially in the construction field (-13.6%).

Although recession has negatively influenced all fields of activity, the main GDP development factors on categories of resources and uses in 2009 were industry, commerce and constructions. Therefore, from 491,273.7 million lei (the GDP recorded for the last year) – value expressed in current prices – the construction field contribution was of approximately 48,386 million lei. In terms of the volume index (expressed in percents as compared to 2008), in 2009, the companies in the field have achieved approximately 84.6% of the level recorded in the previous 12 months.

NIS specialists assert that, in terms of residence environment, new residential units execution analysis evidences an increase in their weight in the rural environment during the last two years, specifying that this indicator has decreased by 2 percents in 2009, from 52.4% to 50.2%. Therefore, 30,308 residential units (as compared to 30,665 units in 2008) were finalized in the urban environment, while 30,793 residential units (as compared to 33,749 units in the previous year) were finalized in the communes and the localities within the communes. The distribution on the funds granted for finalized residential units financing indicates that, as compared to 2008, in 2009 the number of the residential units built from private funds has decreased (by 4,545 residential units), to the benefit of the residential units built from public funds (whose number increased by 1,232 residential units). However, residential units financed from private sources have had – and still have – an important weight (55,410 residential units in 2009), the number of the residential units financed from budget sources being of 5,691.

An interesting analysis is the analysis of residential units execution on country regions. According to NIS analysts, in 2009, the distribution on country regions evidences a decrease in the number of finalized residential units, the most significant decrease being in the development regions: Bucharest - Ilfov (-1,414 residential units), North - West (-1,386 residential units) and Center (-1,298 residential units). Some increase in the number of finalized residential units was in the development regions: South - Muntenia (+733 residential units), North - East (+318 residential units) and South - East (+286 residential units). In the context of the economic crisis, the center of the country, including Brasov County, seems to be the closest to Bucharest - Ilfov region in terms of the finalized residential units, their number reaching 6,506 residential units in the central part of Romania (as compared to 7,804 residential units finalized two years ago), while at the level of the capital city and the neighboring region only 6,912 residential buildings (as compared to 8,326 residential units in 2008) were delivered.

The current business bulletin for March 2010 published by the National Bank of Romania [4] specifies that the main negative influence on construction works activity is the decrease in demand (trend recorded by 60% of the companies specialized in construction works field – from approximately 420 companies questioned). The financial blockage continues to exercise a restrictive impact hereupon (32% of the companies questioned). Other negative factors are caused by the high interest rates practiced by banks, exchange rate evolution and raw materials insufficiency. As far as construction materials are concerned, a decrease in the investments made in this field is underlined (with a short term balance between -35% and -57%).

According to [Pestrițu, 2010], there is a linear connection between construction field evolution and demand evolution. In consequence, any implication existing on the building construction field (residential or non-residential buildings) may be easily directly related on the field of construction materials sales in Romania.

2.2. Short history of construction market in Brasov County

In order to perform a thorough analysis at the level of Brasov County, we have chosen to study the construction field, and implicitly, construction materials market, before the economic crisis, as well as currently, when, as we shall notice, they are still undergoing a downward trend. For this reason, we have monitored and evidenced their evolution from 2006 until 2009 in terms of the investment field and of the construction field. Therefore, according to the data taken from [6], activity at the level of Brasov County in terms of the investments made globally has had in 2006 a volume of 1,159.54 million lei, 11.3% lower as compared to 2005. In terms of structural elements, investments made in constructions have decreased by 12.7%, and investments made in equipment (with and without mounting) and transportation means have increased by 1.4%. It may be noticed that the downward trend, at least at the level of Brasov County, existed before the current crisis perceptibly appeared.

In 2006, 749 residential units (365 in the urban environment and 384 in the rural environment) were finalized and delivered to population, 76 residential units more than the previous year, all of them being built from population funds.

On 31.12.2006, 1,281 residential units were undergoing construction, of which, on execution stages: 48 residential units finalized but not subject to reception, 688 undergoing finishing stage, 308 undergoing foundation execution stage, and, in addition thereto, 20 residential units undergoing construction by the National Housing Agency (NHA).

In 2007, investment activity was of 1,378.3 million lei, being, in real terms (constant prices), 13.38% higher as compared to 2006, and even 18.87% higher in nominal terms (current prices). Investments made in constructions have increased by 11.3%, and investments made in equipment and transportation means have increased by 17.2%. 948 residential units (547 in the urban environment and 401 in the rural environment) were finalized and delivered to population, 199 residential units more as related to 2006, of which, 894 were built from population funds. In addition thereto, 16 residential units were delivered to population by NHA.

At the end of the year, 1,314 residential units were undergoing construction, of which, on execution stages: 32 residential units finalized but not subject to reception, 695 undergoing finishing stage, 298 undergoing structure execution stage and 289 undergoing foundation execution stage.

The least favorable condition of the investments made in constructions was in 2008, when their volume has decreased by 40.2%. However, in 2008, the number of residential units finalized and delivered to population almost doubled as compared to the previous year – 1,811 residential units (1,282 in the urban environment and 529 in the rural environment), of which, 1,055 were built from population funds, 581 from private companies' funds and 175 from budget funds.

On 31.12.2008, 1,397 residential units were undergoing construction, 1,333 being built from population funds and 64 from the funds of the entirely private companies.

In 2009, 1,728 residential units were finalized and delivered to population in Brasov County, of which, 1,273 in the urban environment and 455 in the rural environment. 1,056 residential units were finalized and delivered to population only in Brasov Municipality, which represents 83% of the number of residential units finalized in the urban environment and 61.1% of the total number of residential units finalized in Brasov County.

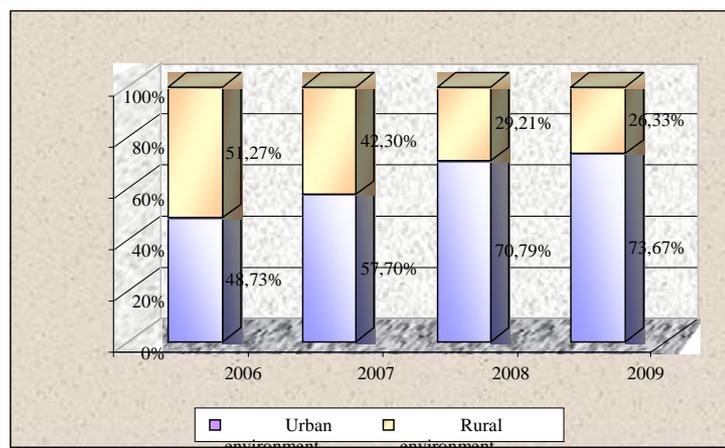
At the end of 2009, 1,162 residential units (401 in the urban environment and 761 in the rural environment) were undergoing execution in Brasov County, of which, 31 residential units in Brasov Municipality.

Analyzing the statistics regarding the number of residential units delivered to population each year, we realize that at the level of a pretty large county, like Brasov County (seventh large county in the country), with 527,439 inhabitants [7], an average of the four last years – of 1,300 residential units finalized is alarmingly enough. Nevertheless, we notice that in 2008 and 2009, approximately 1,770 residential units/year were delivered to population, which was a spectacular enough leap as compared to previous years, when not even 1,000 residential units /year were finalized on the entire county territory.

However, investments made in everything related to construction field have generally decreased, except for 2007. As far as new residential units distribution on the urban or rural environment is concerned, if in 2006 they were balanced enough, as of 2007, the majority of new buildings were made in the urban environment, as presented in the following chart:

In 2006, the current market condition tended to take side with the constructions built in the rural environment, but in the next years, the weight of the new constructions built in the rural environment has decreased to the benefit of the urban environment; consequently, at the end of 2009, the weight of the residential units built in the rural environment was only 26.33%.

Figure 1: Distribution between the rural and urban environment of the residential units finalized and delivered to population in 2006 – 2009



Source: Report of the mayor of Brasov Municipality regarding the activity carried out during 2006 and 2009

At the municipality level, the mayoralty plays an important part in terms of authorization delivery and discipline assurance in constructions. The task of this service is to coordinate the harmonious urban development by the enforcement of the strategy imposed by the approved construction plans, by the result of the verifications of the documentation based on which the approvals necessary for the Urban Planning Certificate and the building permit are delivered.

In terms of the four years forming the objet of analysis, the activities performed by this service were:

1. The carrying out of the activities for building/demolition permits drafting, approval and delivery;
2. Constructions field inspection performance;
3. Investigation and settlement, in the terms and conditions provided by law, of all requests filed by natural or legal persons, subject to the service by means of the registry office;
4. Delivery, in legal conditions, of the Urban Planning Certificate for building delivery to its owner and of the certificates necessary for property registration;
5. Building permits charges adjustment monitoring;
6. Efficient monitoring of warning notices, contravention reports and law courts notifications regarding case settlement modality;
7. Authorized construction works beginning monitoring;
8. Monitoring of the compliance with the building and demolition permits provisions of the Law no. 50/1991, republished, and the penalization of the infringements of discipline in constructions.

As it may be noticed, the analysis of this data indicates a decrease in the activity carried out in construction field, at least at Brasov Municipality level. Therefore, a decrease in the number of the building permits delivered in 2007, as well as in 2008, may be noticed, but in the last year subject to analysis, the conditions have become more favorable. In terms of the number of Urban Planning Certificates delivered, they had a downward trend; in 2009 approximately 20% less Urban Planning Certificates were delivered as compared to 2006. An exception hereto is 2007, when their number was higher as compared to the previous year: 4,361 in 2007, as related to 4,029 in 2006.

It may be also noticed that in the last two years, a smaller number of requests filed by natural or legal persons was approved; only approximately 90% thereof were approved, as related to 95% approved in the previous periods of time.

A progress may be noticed in terms of the Urban Planning Certificates for building delivery to its owner issued, which have increased from 524 in 2006 to 735 in 2009. Nevertheless, the volume of charges collected from these certificates delivery has had largely decreased: from 230,751 lei in 2006, to 61,672 lei in 2007, 12,489 lei in the next analyzed year, and in 2009, to approximately 17,115 lei. Thus, although a higher number of certificates was delivered in 2008 as compared to 2006 (114 or 21.76% higher), the amounts collected by the mayoralty in 2008 have dramatically decreased as related to 2006: by 218,262 lei (by 94.59%), which is a contradiction.

Table 1: Results of the activity carried out by the service “Authorizations delivery and discipline assurance in constructions”

	Results			
	2006	2007	2008	2009
1	- 1,145 authorizations; - 4,029 Urban Planning Certificates; - 524 Urban Planning Certificates for building delivery to its owner.	- 1,067 authorizations; - 4,361 Urban Planning Certificates; - 664 Urban Planning Certificates for building delivery to its owner.	- 864 authorizations; - 3,801 Urban Planning Certificates; - 638 Urban Planning Certificates for building delivery to its owner.	- 1,015 authorizations; - 3,231 Urban Planning Certificates; - 735 Urban Planning Certificates for building delivery to its owner.
2	1,170 inspections	1,045 inspections	1,254 inspections	1,045 inspections
3	- approval of 90% requests; - maintenance and renovation of the existing built fund in proportion of 70%; - specialized reports performance : 99%; -settlement of requests – 95%.	- approval of 90% requests; - maintenance and renovation of the existing built fund in proportion of 70%; - specialized reports performance : 99%; -settlement of requests – 95%.	- approval of 85% requests; - maintenance and renovation of the existing built fund in proportion of 50%; - specialized reports performance : 90%; -settlement of requests – 90%.	- approval of 85% requests; - maintenance and renovation of the existing built fund in proportion of 70%; - specialized reports performance : 75%; -settlement of requests – 90%.
4	524 Urban Planning Certificates for building delivery to its owner issued (charges amounting to: 230,751 lei).	664 Urban Planning Certificate for building delivery to its owner issued (charges amounting to: 61,672 lei).	638 Urban Planning Certificate for building delivery to its owner issued (charges amounting to: 12,489 lei).	735 Urban Planning Certificate for building delivery to its owner issued (charges amounting to: 17,115 lei).
5	- adjustment: 90,778.75 lei; building permits 3,495 lei; - authentication: 1,407,784 lei.	- adjustment: 696,159 lei; building permits 57,849 lei; - authentication: 641,415 lei.	- adjustment: 3,364,302 lei; building permits: 52,408 lei; - authentication: 530,214 lei.	- adjustment: 4,333,382 lei; building permits 2,854,953 lei; - authentication: 5,651,397 lei.
6	82 contravention reports.	62 contravention reports.	41 contravention reports.	66 contravention reports.
7	663 notifications for monitored works beginning.	507 notifications for monitored works beginning.	554 notifications for monitored works beginning.	457 notifications for monitored works beginning.
8	- 32 demolitions; - 52 demolition files, of which 6 ex officio demolitions; - 113 warning notices; - fines amounting to: 55,292,000 lei, of which fines collected 15,013,500lei.	- 23 demolitions; - 42 demolition files, of which 6 ex officio demolitions; - 286 warning notices; - fines amounting to: 1,187,008 lei, of which fines collected 159,215 lei.	- 910 demolition files, of which 456 ex officio demolitions; - 243 warning notices; - fines collected amounting to: 124,500 lei.	- 476 demolition files and 107 ex officio demolitions; - 1,343 warning notices and formal notices; - 4,453 complaints; - fines collected amounting to: 1,054,500 lei.

Source: Report of the Chief Architect Division within the mayoralty of Brasov Municipality

A very important part of the activity carried out by this service is the monitoring of the compliance with the provisions of the building and demolition permits and the penalization of the infringements of discipline in constructions. In this respect, in 2008, the highest number of demolition files was recorded, and in the next year, the highest number of warning notices and formal notices were given: 1,343 as related to only 243 in 2008 or 113 in 2006. The amount of the fines imposed in 2006 is by far the highest one, approximately 47 times higher as compared to 2007. What has to be noticed is the extremely low weight of the amounts effectively collected from these fines imposed: 27.15% in 2006 and 13.41% in 2007. Unfortunately, the report of the mayor for the last two years subject to analysis does not give information on the total fines imposed.

The following table is a synthesis of the contribution to the local budget of the activity carried out by the service “Authorizations delivery and discipline assurance in constructions”.

Table 2: Service contribution to the local budget

Income from charges levied on the following activities	2006	2007	2008	2009
Building / demolition permits	3,225,944	2,932,101	7,987,251	7,189,019.45
Urban Planning Certificates	361,706	88,086	171,066	122,079.03
Urban Planning Certificates for building delivery to its owner	230,751	61,672	12,489	10,001,892.9
Adjustment of Urban Planning Certificates for building delivery to its owner	90,778.75	696,159	3,364,302	4,333,381.89
Authentication of Urban Planning Certificates for building delivery to its owner	1,407,784	641,415	530,214	5,651,396.35
Fines collected	15,013,500	159,215	124,500	1,054,500
Total	20,330,463.75	4,578,648	12,189,822	28,352,269.62

If we study the evolution of the general budget of Brasov Municipality, we notice the following values for the incomes made in the four years subject to analysis:

Table 3: Incomes of the general budget of Brasov Municipality during 2006 – 2009

Indicator name	Final budget– thousand lei			
	2006	2007	2008	2009
TOTAL GENERAL BUDGET OF BRASOV MUNICIPALITY	391,956.19	539,144	665,439	650,408
Weight of the total income made by the service “Authorizations delivery and discipline assurance in constructions” in the total general budget	5.19%	0.85%	1.83%	4.36%

Financial crisis effects were noticed especially in 2009, which is materialized at Brasov Municipality level by the decrease in the incomes made, reflected in the general budget in 2009 as compared to the previous year. In comparison with 2008, budget incomes have decreased in nominal terms by 2.26%. Taking into consideration that inflation rate at the end of 2009 was 4.74% [8], the decrease in real terms was more acute: by 6.68%.

The analysis of the incomes made from the charges levied at local level on the activities carried out in construction field indicates total incomes approximately 2.5 higher in 2009 as compared to 2008. This growth is determined by the increase in the amounts collected from fines, which were 8.5 times higher, and also by the incomes collected from the authentication of Urban Planning Certificates for building delivery to its owner (10.65 times higher as related to those collected in 2008). But, unfortunately, incomes collected from fines do not contribute and, therefore, cannot be considered factors of influence on building field development. Consequently, even if the weight of the service analyzed in local budget income is high enough (4.36%), this can be also explained based on higher non-fiscal incomes which do not require periodical collection and are easy to forecast.

All estimates and considerations made up to this point indicate a high economic decrease in construction field and, implicitly, in construction materials field, decrease based on exogenous factors, as well as on endogenous factors. The measures that can be taken to help these fields, which, a short time ago, were considered the engine of Romanian economy, must be thought globally, as it is necessary to take into consideration the efforts that can be made by the specialized companies, as well as the efforts that must be made by the state. A largely debated, yet not sufficiently thought and enforced, theme is fiscal decentralization, which, by means of the levers offered, can offer viable solutions to several of the current problems, possibly specific not only to construction materials field. [Patriche, 2003]

3. Decentralization process effects on residential constructions field

3.1. Implications of decentralization and attributions transfer from central government to local public government

Generally, in the transition phase, it is possible to have some implications that may render difficult and delay decentralization process, having a negative impact on decentralized public service performance, at least at its current level.

At the Mayoralty and Local Council level, the new competencies may determine the increase in political influence use in the decision made in relation to legal persons or natural persons regarding the approval of certain projects, funds allowance, the awarding of certain works paid from public funds, etc.

Some attributions taken over from central government level to public county government level may not be entirely agreed by the local public government representatives, as they would have wanted these attributions to be at mayoralties level. The taking over of new attributions by the local government determines the increase in the number of functional compartments within the Mayoralty and Local Council, the increase in the number of the public officers employed within these bodies and, implicitly, the increase in the necessary spaces and funds.

The diversification and the increase in the number of activities carried out by the Mayoralty in the relations with legal and natural persons result in the increase in Mayoralty's income-earning activities, apparently in bureaucracy increase, to the detriment of region and community patrimony administration and development attributions.

Decentralized structures commissioning requires the instruction of a large number of specialists in order to perform at local level the activities which were performed in a centralized manner, at central level, by a smaller number of specialists, and, implicitly, the increase in the number of the public officers involved in documents delivery, by means of the public government, upon the request of legal and natural persons:

- the specialization degree decrease and the diversification of the activities which have to be carried out by the local public government public officers involved in documents delivery, by means of the local public government, upon the request of legal and natural persons, in order to ensure a reasonable number of tasks given to the personnel and an as complete as possible use of the work time fund;
- the increase in the number of the central government public officers responsible with the control of public funds use by the local public governments;
- the separation of nationally and internationally valid documents delivery from the delivery by the local public government of the same documents, but only with local validity.

Decentralization shall not implicitly determine the increase in Mayoralties' administrative capacity. At local level, administrative capacity increase is especially obtained by their financial capacity increase following the diversification and the development of the income sources available to the Mayoralty.

International financial institutions usually prefer to work with a limited number of central government representative institutions, which are able to provide specialized personnel, competent and experienced in project funding, as activity results and funds use modality may be more easily controlled.

In large projects execution, partnerships between the central government and the local public government may be more advantageous than total decentralization at Mayoralty level of project and financing application drafting and its execution monitoring.

Decentralization at local government level of certain activities which require large budget funds has to be avoided, as local government's financial sources are limited, and the fields requiring financial resources are very numerous.

3.2. Future effects on construction market in terms of decentralization

The process of construction field reorganization and restructuring, as well as the outsourcing of certain activities create the adequate framework for the sustainable economic growth, the improvement of the living conditions for the population and the assurance of the premises necessary to offer and perform qualitative public services, on the entire Romanian territory.

In this respect, the attributions of the various ministries in the field of constructions in terms of public relations (legal or natural persons) for the delivery of documents, approvals, etc., were reduced and, in certain fields, even eliminated, these attributions being taken over by the newly created structures in the territory.

Also, the creation, by means of decentralization, of the nationally represented structures with territorial activity has determined the approach of the authorities to the region where public service requirements were made, as well as the creation of the opportunities to use the local labor force for the respective public services provision.

By means of the territorial network of bodies, established by decentralization, under the direct orders of the ministries, the possibility of taking over the community acquis on technical, organizational or any other norms, in the jurisdiction of the ministry and of ensuring its implementation, monitoring and control was created. The operation in the territory of public specialized institutions has created the favorable

premises for the cooperation between the specialists within these institutions and the specialists within local public governments, both in the current activity as well as in emergency situations (natural disasters or other exceptional situations).

By trading companies restructuring and the outsourcing of the trading activities carried out by the public corporations and the authorities created under the direct orders of the ministries, the adequate framework for the reduction of state participation as shareholder by companies privatization was created, and the requirements for the assurance of state ownership transfer to private domain, under transparency, correctness and efficiency conditions were met.

Decentralization at local public government level of the majority of activities and approvals delivery in the field of construction and national planning and development by the provisions of Law 50/1991 on construction works execution authorization and certain measures for construction works execution and of Law 350/2001 on national planning and development and urban planning has created the framework for the unitary regulation of these activities and for the creation of the conditions necessary for meeting the real civil society needs, by complying with local government autonomy, which, currently, as it could be noticed from the offered example regarding Brasov Municipality, is authorized to approve and deliver Urban Planning Certificates, Building Permits and Demolition Permits.

The adequate conditions were created for civil engineering development, harmonious urban development achievement and substantial incomes obtainment from taxes and charges for the local government.

Corroborated with the specific objectives specified in sector strategies for the restructuring and reorganization of the activities in the construction field, a priority permanent objective is the increase in public services and public relations quality and the enforcement of the framework act no. 195/2006 on decentralization, for the approach of service execution and decision to the place where the need and demand appeared, as well as the development of the adequate structures covering own county or territorial and administrative regions requirements.

For the future, the guideline consistently enforced in the field of activities restructuring, reorganization and decentralization will have directions with new meanings by:

- the consolidation of social and territorial cohesion at local, regional and national level for general access granting to local and national public services;
- the amplification of the “transfer” to the private domain of certain public services activities carried out by units of the ministry and the outsourcing of their execution to specialized private trading companies that meet the necessary conditions regarding equipment, personnel, respectability and competency;
- the consolidation of the partnership between the central public government and the local public government in the execution of national/regional development projects in terms of:
 - a) national planning and development and urban planning;
 - b) cadastre records;
 - c) residential units building.

The authorities in construction field should be willing to get involved and offer legislative and technical support, by means of their specialized personnel, in an organized framework, the implementation of “the modalities of experimental operation by “pilot centers” at local public government level of public relations activities under the responsibility of the ministries which can be transferred to local public government, first experimentally and temporary, and subsequently definitively after the compliance with the execution conditions” [10].

At the same time, it is necessary for the various authorities to get involved and offer legislative and technical support for the implementation of the following activities:

- the creation of a unitary base for the management of the projects in the field of urban infrastructure – roads, water supply, sewage system – by the integration of the programs coordinated by central governments /ministries and local governments at national and local level;
- development /establishment of a legal framework specifying the relations between the central governments /ministries that manage urban infrastructure projects and the regional development agencies for the unitary management of the implementation of development projects in the field which are currently carried out at sector level by each institution;
- the development of administrative structures at territorial level, enabling regional development centers to effectively coordinate the infrastructure programs at local level, corroborated with the enforcement of the Governing programme by the drafting of a common plan of the central authorities – the ministries involved – regarding infrastructure development.

In this framework, the main activity directions in the restructuring and decentralization field for the future stages shall have as object:

a. the consolidation of the institutional capacity in the field of public policies development, legislative quality improvement and community acquis enforcement;

b. the consolidation of the authority role and the increase in the degree of monitoring and control of regulations enforcement and compliance with, by means of specialized technical bodies / public institutions and /or local governments;

c. the increase in the capacity of ensuring and allocating the resources necessary to the priorities established in multi-yearly modernization /development programs and by means of the undertaken commitments;

d. the institutional and administrative capacity development of the structures created for the management and implementation of community unredemable funds granted from the Cohesion Fund and Structural Funds;

e. the adaptation of the institutional and administrative framework of public institutions having inspection and control attributions to the community acquis requirements;

f. the reduction of the number of authorizations, licenses and approvals necessary to be delivered;

g. the creation of computer structures at territorial structures level (databanks inclusively) integrated into the general computer system;

h. the legislative, normative and financial support of the authorities at county, town and commune level for the provision of public services assigned to them by the Memorandum (approved by the Government in February 2006), namely: county roads and public roads network in the areas planned for new residential units building, national planning and development and urban planning;

i. local governments support by development projects execution in partnership between the central government – the local government which, after finalization, shall be managed by the local public government, namely: residential units for youth, social residential units, sport centers, rehabilitation of residential units, communal roads, water supply, sewage systems etc.

4. Conclusions

Decentralization is a very important issue in the present debates concerning public economy and finance domains in many European countries. In the current context, in which the people are requiring an increased accountancy and efficiency level in the use of the public money, decentralization has been increasingly evoked as an essential tool in this direction.

By means of this article, we discovered that the envisaged decentralization degree depends upon several key factors, such as outsourcing generated by public goods provision modality, local authorities' knowledge and expertise, social and cultural traditions and so on.

The analysis of the construction field in the last four years at Brasov Municipality level acknowledge a decrease in the investments made in this field. However, in 2008, although real estate market was strongly affected by the current economic crisis, there was an increase in the number of residential units finalized.

The establishment of specific structures, such as NHA, ensured the conditions for the starting of the execution of residential units (executed in partnership with the local public government, the final construction works beneficiary) and the premises of population (especially youth) access to a decent dwelling place.

The conditions and the legal framework were created so that the local public government can establish and substantiate its needs for the objectives related to the development of rural infrastructure, social residential units and social and cultural sport centers building and financing sources identification.

Decentralization - which started in the years preceding the adhesion to the European Union by SAPARD Agency and the 8 Regional Development Agencies, in cooperation with the European Union bodies - of the complex programs for the improvement of rural life and urban infrastructure: roads, water supply, sewage system, residential units, has created the framework for the rural development policies relaunch developed and implemented by the local public governments, as an expression of local autonomy in the fields: roads, water supply, sewage system, residential units. The selection of the projects forming the object of financing may be performed by county councils and local councils based on the criteria established by these authorities, the local councils also having the capacity as contracting party.

The cooperation between the central government and the local public government has determined the taking of firm and adequate actions for the removal of the disastrous effects of the floods and landslides which repeatedly occurred during 2005 and 2008.

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THE INTERNATIONAL FINANCIAL REPORTING STANDARD FOR SMALL AND MEDIUM-SIZED ENTITIES: PROS, CONS AND CHALLENGES

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Abstract: *The IFRS for SMEs is considered an important milestone in the process of international accounting harmonization. The aim of this paper is to discuss some consensual and controversial issues on this standard, focusing on the need for specific accounting regulation for SMEs, practical consideration prior its adoption, its impact from the perspective of important stakeholders, and some challenges of adopting the IFRS for SMEs. Our conclusion is that a simplified framework for financial reporting for private entities is in the best interest of the users of financial information and that the efforts of the IASB in these directions are welcomed.*

Keywords: small and medium-sized entities, financial reporting, users' needs, cost-benefit of financial reporting

JEL classification: M41

1. 1. Introduction

The International Accounting Standard Board (IASB) has taken a major role in the harmonization of global accounting regulations. Recently, the IASB has focused its efforts in attempting to harmonize the financial reporting of non-listed firms by first introducing the Exposure Draft of a proposed International Financial Reporting Standard (IFRS) for small and medium-sized entities (SMEs) in 2007, and later introducing the "International Financial Reporting Standard for Small and Medium-sized Entities" (IFRS for SMEs) in July 2009. The standard is designed to meet the financial reporting needs of private entities and focused on the specific needs of the users of their financial statements.

The principal aim when developing accounting standards for SMEs is to provide a framework that generates relevant, reliable and useful information, which should provide a high-quality and understandable set of accounting standards suitable for SMEs. The IFRS for SMEs provides an alternative framework that can be applied by eligible entities in place of the full set of IFRSs. This is a self-contained standard, incorporating accounting principles based on existing IFRSs, which have been simplified to suit the entities that fall within its scope. A number of accounting practices and disclosures may not provide useful information for the users of SMEs' financial statements; therefore, the standard does not address some topics. There are also certain accounting treatments that are not allowable under this standard. In addition, the IFRS for SMEs is simplified by including only the simpler option (or a modified version of the simpler option) in many of the areas where full IFRSs has a choice of alternative accounting treatments. Therefore, we conclude that IFRS require SMEs to comply with less than 10% of the volume of accounting requirements applicable to listed companies.

An IFRS for SMEs has clear benefits for investors, lenders and those seeking to raise finance through the transparency afforded by a consistently applied global set of financial reporting standards. Such benefits are not confined to the financial statements of entities with securities traded on public capital markets. One aim of the IFRS for SMEs is to provide a standard for entities in countries that have no national GAAPs and to provide an accounting framework for entities that are not of the size or have not the resources to adopt full IFRSs. Another aim is to provide countries that already have established national GAAPs with an alternative, respectively SMEs standard that will be recognised and understood across different territories. This will ease transition to full IFRSs for growing entities once they become publicly accountable (PriceWaterhouseCoopers, 2009). After the publication, it is a matter for authorities in each territory to decide which entities are permitted or even required to apply the IFRS for SMEs.

2. SME as subject for specific accounting regulation

The term 'small and medium-sized entities', has different meanings across jurisdictions (PricewaterhouseCoopers, 2009). According to Holt, there is no universally agreed definition of a SME, as no single definition can capture all the dimensions of a small or medium-sized enterprise, nor can it be expected to reflect the differences between firms, sectors, or countries at different levels of development (Holt, 2009). SMEs operate in an uncertain environment due to their small number of customers and suppliers. They generally have an inability to drive prices, therefore owners may frequently make choices not to maximise profits, but some other value (Cordery and Baskerville, 2006).

When SMEs have differential reporting or a separate set of standards, two main schools of thought define SMEs. The first is public accountability (qualitative), whilst another is a size (quantitative) measure. Irrespective of the title of the standard, the IASB deliberately excluded size as one of the criteria. The IFRS for SMEs sets out its intended scope by describing the entities that the IASB believes would use the standard, namely those entities that:

- do not have public accountability; and
- publish general purpose financial statements for external users, i.e. financial statements directed towards the common information needs of a wide range of users.

We note that 'public accountability' is the principle for identifying the entities for which the IFRS for SMEs is intended and those for which it is not intended. The IASB did not include a size test to determine a SME, preferring to propose only qualitative factors such as 'public accountability'. The standard is therefore applicable to entities of all sizes as long as the entity is not publicly accountable (KPMG, 2010). Some authors are taking into consideration other qualitative criteria for identifying the SMEs, such as the separation between ownership and control. According to Cordery and Baskerville (2006), small and medium enterprises have distinguishing characteristics; they are unlisted entities, run by owners who, along with perhaps family members and friends, provide the equity base. Alternatively, large scale entities (LSEs) are managed by employees (not owner/entrepreneurs) who must report to dispersed owners. They argue that the separation between ownership and control is the most significant point of differentiation, giving rise to different accounting standards.

Other authors consider that the size of the enterprise represent one significant feature which is relevant to the quality of an accounting system (see Haase et al., 2009). The size of the enterprise is of great importance for the form of the annual financial statements of SMEs, because these statements tie in with a range of accounting characteristics such as the widespread preparation of the annual financial statements by tax consultants. Most definitions based on size use measures such as number of employees, balance sheet total or annual turnover. For example, in the EU, SMEs are enterprises in the non-financial business economy, qualified as micro, small and medium-sized enterprises if they fulfil some quantitative criteria, according to the Recommendation 2003/361/EC regarding the SME definition (article 2). These criteria are expressed as maximum ceilings for staff headcount and either a turnover ceiling or a balance sheet ceiling, as follows: (1) The category of micro, small and medium-sized enterprises is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million; (2) Within the SME category, a small enterprise is defined as an enterprise which employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million; (3) Within the SME category, a micro-enterprise is defined as an enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million.

However, none of these measures apply well across national borders. As we could see above, the definition in the context of the IFRS for SMEs is entities that do not have public accountability (i.e., their debt or equity instruments are not publicly traded) and that publish general purpose financial statements. Every entity has some form of accountability, if only to its owners and the local tax authorities. According to the standard, public accountability is defined to cover entities with or seeking to have securities traded in a public market or that hold assets in a fiduciary capacity as their main business activity. The definition is therefore based on the nature of an entity rather than on its size.

Bertoni and De Rosa notes the interesting fact that, not having adopted a quantified size criterion for the identification of SMEs, the standard is applicable, at least in theory, even to very small entities, the so-called 'micros', with two or three employees. It is worth noting, however, that the actual extension of IFRS to these entities (and the actual application of IFRS for SMEs in general) is subjected to the decisions of the national legislators, for the IASB lacks any power to impose its standards (Bertoni and De Rosa, 2010).

In terms of their importance to be subject to specific regulation, we argue that, all around the world SMEs have an enormous economic significance (Tiron Tudor and Mutiu, 2008). For example, according to the latest edition of the Annual Report on EU Small and Medium-sized Enterprises for 2008 (published in 2009), the EU non-financial business economy counts over 20 million enterprises, over 99% of which are SMEs (i.e., having less than 250 occupied persons). Within the SME sector, the vast majority (92%) are micro enterprises, having less than 10 occupied persons. These enterprises account for a significant amount of European work experience and economic activity. Furthermore, SMEs make an important contribution to the dynamism and innovative performance of an economy, thus enhancing economic growth especially in the medium and long term (Audretsch et al., 2009).

Most accounting regulatory regimes recognize differences between larger and smaller enterprises and between those that are listed and unlisted and/or non-publicly accountable. Tiron Tudor and Mutiu (2008) argue that recognizing the burden placed upon smaller enterprises by financial reporting, many countries exempt smaller enterprises from statutory audit and subject them to differential reporting requirements, like option of filing abbreviated reports with reduced levels of disclosure.

The objective of financial statements is to provide information about the financial position, performance and changes in financial position of an entity that is useful to a wide range of users in making economic decisions. In establishing standards for the form and content of general purpose financial statements, the needs of users of financial statements are paramount. According to the training material for the IFRS for SMEs, published by IASC Foundation in 2009, the main groups of external users of SMEs' financial statements include banks that make loans to SMEs and vendors that sell to SMEs and use SMEs' financial statements to make credit and pricing decisions (IASB Foundation, 2009).

Small companies pursue different strategies, and their goals are more likely to be survival and stability rather than growth and profit maximisation. The stewardship function is often absent in small companies, with the accounts playing an agency role between the owner-manager and the bank (Holt, 2009). Considering the above mentioned, we discuss a few arguments for introducing a separate SME accounting standard.

Different users' needs. The IASB makes it clear that the prime users of IFRSs are the capital markets. This means that IFRSs are primarily designed to meet the needs of equity investors in companies in public capital markets, i.e. for quoted companies, and not SMEs. They cover a wide range of issues, contain a sizeable amount of implementation guidance and include disclosures appropriate for public companies. The vast majority of the world's companies are small and privately owned, and it could be argued that full IFRSs are not relevant to their needs or to their users (Holt, 2009), as they are rather focused on assessing shorter-term cash flows, liquidity and solvency (IASB, 2009a). Further, much of the current reporting framework is based on the needs of large business, so SMEs perceive that the full statutory financial statements are less relevant to the users of SME accounts. According to Holt, SMEs also use financial statements for a narrower range of decisions, as they have less complex transactions and therefore less need for a sophisticated analysis of financial statements (Holt, 2009).

One of the arguments that support the necessity of a standard for SMEs is the interest of credit institutions as users of the financial statements prepared by the SMEs. Moreover, IASB considers banks as the most important users of accounting information in case of SMEs. If generally the listed companies apply for financing to the potential share buyers, the unlisted entities do not choose the same path, as SMEs are not listed and do not have a market where to negotiate their shares (Neag et al., 2009). Therefore, a bank loan is much more accessible from all points of view than looking for a person interested in the development of a small enterprise. A controversial issue is the IASB position concerning the shareholders of SMEs that are also the managers, which are mentioned after the clients and sellers as users of financial statement. We conclude that providing information for the sole proprietors in order to help them make management decisions does not represent the primary goal of the IFRS for SMEs. The Board argues, in the Basis for Conclusions of the standard, that managers may get any information they need in order to run their business and subsequently explains that "SMEs often develop financial statements only for the use of sole proprietors or for the fiscal reporting or for other regulation goals that do not make reference to securities. The financial statements written only for these reasons are not necessarily financial statements with a general purpose" (IASB, 2009b). Bertoni and De Rosa (2010) also note that "users of financial statements of SMEs are certainly a narrower group than those of entities with public accountability", citing an Italian survey that showed that the main users of SMEs' financial statements are (in order of relevance): (1) tax authorities; (2) banks; (3) investors not involved in the day-to-day management of the business; (4) customers and suppliers; (5) employees.

Research on the external users of SMEs' financial statements simply assumes that specific outsiders use financial reports to improve their economic decisions. This assumption prevents researchers from identifying external users by applying rigorous (interdisciplinary) methodologies. Research identifying the information needs of external users has generally focused on one group of external users and on one region or country at a time. There is no evidence concerning the common information needs of different external user groups at national or international levels. To fill the research gaps, the IASB should have examined the common information needs of external users of SMEs' financial statements with an international focus (Schiebel, 2008).

Cost-benefit considerations. Considering the cost-benefit analysis, it is often thought that small business managers perceive the cost of compliance with accounting standards to be greater than their benefit. As IFRS have gained greater acceptance around the world, many jurisdictions have adopted them or have developed national GAAPs based on IFRSs. According to IASB, at the date on which the standard was published, full IFRSs were required for listed companies in over 80 jurisdictions and permitted for listed firms in another 25 jurisdictions, according to IASB; as for unlisted (private) companies, nearly 30 jurisdictions required full IFRSs for all, another 20 jurisdictions required them for some, while another 36 jurisdictions permitted (rather than require) private entities to use full IFRSs. Many other jurisdictions that did not require IFRSs directly were increasingly converging their national standards with IFRSs, which means that, de facto, IFRSs are being 'pushed down' to private entities, which often do not have the expertise or ability to bear the costs of complying with full IFRSs (IASB, 2009a). Additionally, many private entities say that full IFRSs impose a growing burden on small private entity preparers, as IFRSs have become more detailed and more countries have begun to use them.

Under these circumstances, one argument for separate SME accounting standard is the undue cost burden of reporting, which is proportionately heavier for smaller firms, as the cost of applying the full set of IFRSs may simply not be justified comparing to user needs. Thus, in developing this standard, IASB twin goals were to meet users' needs while balancing costs and benefits from a preparer perspective.

Lower quality of accounting information. In most countries, many or even all entities have a statutory obligation to prepare financial statements that conform to a required set of generally accepted accounting principles (GAAP). Often, an audit is required by law (with tiny companies often exempted). Those statutory financial statements are normally filed with a government agency or put on a website and thus are available to creditors, suppliers, employees, governments and others. Virtually every country has developed its own simplified national GAAP for private entities, or having one or more individual national GAAP for private entities in each jurisdiction, results in lower quality of accounting information. Furthermore, IASB argues that the accounting standards for private entities in many countries have not been developed with the needs of lenders, vendors and other external users in mind. This has harmed private entities' access to capital or, at a minimum, raised the cost of capital, particularly in small and developing countries. In jurisdictions that require private entities to use full IFRSs, the quality of implementation often is problematic (IASB, 2009a).

Lack of comparability in global markets. The world's business markets are integrated, even for small private entities. In this context, accounting differences reduce intelligibility, obscure comparisons and lead to sub-optimal decisions. Few examples where there is need for comparability: in most jurisdictions, half to three-quarters of all private entities, including the very small ones, have bank loans. Banks operate across borders and rely on financial statements in making lending decisions, establishing terms and interest rates and monitoring loans; companies buy and sell goods/services across borders, and vendors want to evaluate the financial health of buyers before they sell on credit; also, buyers use a supplier's financial statements to assess the prospects of a viable long-term business relationship.

3. Considerations Prior the Adoption of the IFRS for SMEs

The IFRS for SMEs aims to simplify and reduce the costs of preparing financial statements. Any entity is permitted to adopt the standard, but there are many issues to consider in determining whether to adopt the standard.

Local financial reporting requirements. The adoption of IFRS for SMEs depends, among other things, on whether the standard fits in with local laws (KPMG, 2010; Ernst & Young, 2009b). Even if it fits in with local laws and a jurisdiction requires or permits the standard as an acceptable financial reporting framework, then individual entities considering applying standard still need to determine whether they can claim compliance with the standard in their particular circumstances. They will also need to consider whether changes are required to information systems and financial statements processes as in some cases the

requirements may be significantly different to those currently applied under either full IFRSs or national GAAPs. As the IFRS for SMEs is a complete standard, any entity wishing to apply it will also need to consider the impact of not applying full IFRSs, particularly as there is no short-cut approach if the entity later decides to adopt full IFRSs (Ernst & Young, 2009b).

Another issue to consider is whether the IFRS for SMEs is a widely accepted financial reporting framework in the business environment in which the entities operate. One important question is whether users such as local finance providers would accept or prefer financial information in accordance with the standard, or whether they would require additional disclosures and statements. If additional disclosures and statements would be required, then a cost-benefit test might be met. On the other hand, entities involved in cross-border trade or seeking foreign investment would benefit from adopting a standard developed by an independent international standard setter that is based on similar principles as the widely accepted full IFRSs, is simplified to be more fit for purpose for SMEs than full IFRSs, but still result in the presentation of high-quality financial information, and is a more widely recognised framework than the local GAAPs (KPMG, 2010).

Users and comparability to other entities. Given that the requirements in the IFRS for SMEs are not as exhaustive as those in the full IFRSs, it appears inevitable that entities reporting under the standard will, in certain circumstances, use different accounting treatments, which may result in financial statements of entities reporting under the IFRS for SMEs initially being less comparable than those of entities applying full IFRSs. This may be a short-term concern for users that might be interested in comparing the financial statements of different entities, but most likely reduce over time as more entities adopt the standard and the interpretation of the requirements of the standard becomes more standardised. In addition, financial statements prepared under IFRS for SMEs may be easier to understand given that its requirements are less complex and the disclosures less voluminous.

Fair value accounting. To the extent that fair value accounting improves the transparency and timeliness of financial information, the IFRS for SMEs may offer better access to financial markets and a potential to lower the cost of equity capital. The opposite opinion is that the fair value accounting may increase the volatility of reported earnings, and as a consequence of this lead to an increased cost of equity capital (Ikäheimo, 2010). The fair value requires an ongoing time assessment of the assets with major drawbacks. The entities – including SMEs – financial performance is greatly influenced by changes in value that are driven by chance, which might not only completely consume the informative operational core profit, but also intensify cyclical swings. In particular, according to Haase et al. (2009), the calculation of current fair values creates great problems. In the context of the financial crises of 2008, they can only be continuously monitored in a small number of markets and, even then, they are not free from the risk of being seriously distorted. The market price estimates that are normally required are not linked to operational performance, this creating great scope for discretion and manipulation (Haase et al., 2009). Bertoni and De Rosa (2010) also consider that the introduction of fair value in SMEs' reporting could be detrimental to the needs of the users. They argue that the fair value is usually considered as being more value relevant than historical costs, at the price of a decreased verifiability. The reduced verifiability can be acceptable in public-interest entities, since they are usually subjected to statutory audits and other forms of control. SMEs, on the other hand, are subjected to fewer controls: the introduction of fair value accounting in this context could widen preparers' subjective judgement and, eventually, could lead to more creative accounting. Also, it should take into consideration the risk of increased litigation between owners-managers, due to a reduced verifiability of financial figures.

Business impact. Some of the key business aspects to consider include the effect of an entity's financial metrics, existing debt covenants and the term and conditions for contractual agreement. It also may impact on the items such as:

- The amount of taxes payable: if the net profit changes and/or tax law is based on the accounting treatment, then taxable income and the amount of taxes payable could change;
- The ability to pay dividends and the amount of dividends that could be paid: in jurisdictions in which dividends are limited to distributable reserves or are subject to capital management requirements, the ability to pay dividends and/or the amount of dividends that could be paid could be impacted;
- Management compensation: if management compensation, including incentives, is based on net profit or other financial metrics, then the amount payable could change.

The significance of these impacts depends on the facts and circumstances of each entity, including local jurisdictional requirements. The key is to ensure that sufficient forward planning is undertaken to limit any adverse impacts, but also to capitalise on the favourable impacts.

Long-term goals. Entities should consider their long-term goals when determining whether to adopt the IFRS for SMEs. When an entity has growth ambitions or is planning a listing in the future that would require the adoption of full IFRSs, an earlier adoption of the standard may be a useful step towards adopting full IFRSs when coming from a less detailed and less complex local GAAPs. On the other hand, it could be considered an additional costly change if local GAAPs are already similar to full IFRSs. Similarly, existing reporters under full IFRSs that are considering applying the IFRS for SMEs should contemplate future transactions or events that might require it to revert to full IFRSs.

Cost. Adopting the IFRS for SMEs may have various cost implications to consider, depending on entity and jurisdiction specific circumstances. They could include the following:

- Upfront investment: it results from system changes, reformatting of the financial statements and training costs. Company's management may be forced to undertake a costly upgrade of the management accounting systems - for example, fair value accounting requires advanced techniques for forecasting future cash flows (Ikäheimo, 2010);

- Ongoing training: as for the IFRS for SMEs will not be updated every year, ongoing training costs may be less than those which be incurred under a rapidly and constantly changing financial reporting framework;

- Financial reporting: as the standard may be considered a more widely recognised financial reporting framework because of its international status may result in entities no longer having to prepare information for regulators or finance providers to supplement their local GAAP financial statements;

- Disclosure requirements: the extent of disclosures in financial statements prepared under the IFRS for SMEs is expected to be significantly less than in those prepared under full IFRSs, thereby resulting in lower costs to prepare financial statements under the new standard. The opposite might be true if the local GAAP requirements are less onerous than the standard;

- Advisers: many complex accounting areas in full IFRSs are simplified in the IFRS for SMEs, potentially reducing the need for experts (valuation experts, actuaries etc.) in some areas. On the other hand, the standard provides less guidance than the full IFRSs in some areas and does not address certain topics. The absence of detailed guidance may require additional consultation with experts (KPMG, 2010);

- The update process: IASB plans to update the SME standard approximately once every three years by considering changes to full IFRSs in the intervening years and issuing an omnibus amendment to IFRS for SMEs with the changes the Board believes should be made. This approach is intended to give this standard a more stable platform than full IFRSs, which have historically been changed much more frequently (Munter et al., 2009).

As mentioned above, this may reduce the level of investment and the costs involved in considering standard-setting developments on a regular basis from a training perspective, which could provide significant relief to SMEs given the IASB's recent level of activity. However, this update process may increase costs if the IFRS for SMEs reporter reports to an entity using full IFRSs (KPMG, 2010).

Practically, taking into consideration the adoption of the standard for SMEs means that non-publicly accountable entities will want to evaluate how converting to the standard will affect their organization and the recipients of their financial statements. Several issues involved by converting to the SMEs standard consist in: initial conversion costs; in some cases, may in fact give more information than private entities provide currently under national GAAPs; some users may in the short-term still request financial statements prepared based on national GAAPs; legal, tax and financial implications of differences; and simplification does not necessary mean better (Moss-Adams, 2009).

Munter et al. (2009) summarise the decision-making considerations in adopting the standard:

- key financial-statement users' willingness to accept financial statements prepared in accordance with the standard, and what period it would be most desirable to convert to IFRS for SMEs,

- the training in IFRS for SMEs the organization's personnel will need and the information needed for conversion,

- whether systems changes are needed locally and across the entire entity,

- whether new controls or control modifications are needed to maintain an effective internal control environment,

- communication plans to minimize surprises to stakeholders, such as investors, creditors, customers, and suppliers,

- the need to renegotiate current business contracts, such as debt agreements and covenants to reference IFRS for SMEs instead of the national GAAP and the potential impact of using the standard on covenants based on financial information,

- the effect on customer and supplier contracts, on management compensation metrics, on income-tax reporting, compliance, and planning, and
- coordinating with the external auditor.

4. Pros, cons and challenges of adopting the IFRS for SMEs

Global financial reporting standards, applied consistently, enhance the comparability of financial information. Accounting differences can obscure the comparisons that investors, lenders and others make. By requiring the presentation of useful financial information (i.e., information that is relevant, reliable, comparable etc), high quality global financial reporting standards improve the efficiency of the allocation and pricing of capital. This benefits not only those who provide debt or equity capital; it also benefits those entities that seek capital because it reduces their compliance costs and removes uncertainties that affect their cost of capital. Global standards also improve consistency in audit quality and facilitate education and training (IASB Foundation, 2009).

The publication of a simplified form of IFRS for private entities has been long awaited by national standard setters and SMEs that have been required to apply full IFRSs in the past. Application of this standard is expected to reduce the compliance costs for many smaller entities and help make the financial statements of such entities less complex (Ernst & Young, 2009b). The IFRS for SMEs is a self-contained standard of about 230 pages, and, according to IASB, it is tailored for the needs and capabilities of smaller businesses (IASB, 2009c). The standard responds to strong international demand from both developed and emerging economies for a rigorous and common set of accounting standards for smaller and medium-sized businesses that is much simpler than full IFRSs. In particular, the IFRS for SMEs provides improved comparability for users of accounts; it enhances the overall confidence in the accounts of SMEs, and reduces the significant costs involved of maintaining standards on a national basis. Additionally, IASB notes that the standard also provides a platform for growing businesses that are preparing to enter public capital markets, where application of full IFRSs is required.

The standard is separate from full IFRSs and is therefore available for any jurisdiction to adopt whether or not it has adopted the full IFRSs. It is effective immediately on issue.

Introducing the IFRS for SMEs, Sir David Tweedie, IASB Chairman, said: «The publication of “IFRS for SMEs” is a major breakthrough for companies throughout the world. For the first time, SMEs will have a common high quality and internationally respected set of accounting requirements. We believe the benefits will be felt in both developed and emerging economies» (IASB, 2009c). Being a concise, complete set of simplified accounting principles organized by topic, it might better meet the needs of financial statement users. Most companies that are eligible for IFRS for SMEs focus on shorter-term cash flows, liquidity and solvency. The complex and sometimes detailed accounting and reporting requirements of national GAAPs/full IFRSs are not always relevant and can be costly to apply in practice.

From the perspective of the entity's management, the IFRS for SMEs may improve the quality of financial information and trigger improvements in management accounting systems (Ikäheimo, 2010), referring to the most useful methods for the internal decision-making and management purposes of the IFRS for SMEs, like as: revaluation model for property, plant and equipment if a market price exists compared to the cost model, recognition of contract revenues based on the stage of completion of the contract activity compared to revenue recognition only after completion of the entire contract, and capitalization of development costs compared to the recognition of development costs as expenses.

As noted above, the IASB took a cost-benefit approach in developing the IFRS for SMEs (see also Tiron Tudor and Mutiu, 2008). Nevertheless, converting to new accounting principles always involves some degree of financial and resource cost, which can sometimes be harder for smaller companies to handle. These costs need to be carefully considered by companies thinking of adopting the standard. Challenges that private businesses may face include the obligation to learn new terminology and accounting techniques and also to make changes to their information systems and accounting software. Management reporting processes may need to be reviewed and businesses may need to collect additional data about some of their transactions (Grant Thornton, 2009). Furthermore, for companies that have used local GAAPs that is not based on IFRSs, some of the terminology and concepts in the IFRS for SMEs may be unfamiliar (e.g., the need to apply fair value accounting for some transactions, to prepare a Statement of Cash Flows or to consolidate subsidiaries).

Under these circumstances, our opinion is that the audit firms are likely to obtain net benefits if IFRS for SMEs is adopted, as they possess the level of understanding that is needed in the audits and consultancy because of their experience of full IFRSs (Ikäheimo, 2010). The net benefit to accounting firms may depend on the type of firm. Accounting firms' revenue base is likely to grow because of the increased amount of

work for current and new SME customers. The increased complexity of regulation may also increase customers' interest in keeping accounting as an outsourced activity.

Those who argue against different reporting requirements for SMEs say the system could lead to a two-tier system of reporting. Entities should not be subject to different rules, which could give rise to different 'true and fair views' (Holt, 2009). Considering valuation issues, while the IFRS for SMEs has attempted to limit the use of fair value to situations where the benefits from its use outweigh the costs, the use of fair values may still be more widespread than under local GAAPs. For example, the requirement to recognise an expense for share-based payments based on the fair value of the instruments provided will be a new concept in many countries (Grant Thornton, 2009). The use of a valuation expert may be necessary in some situations in order to arrive at the fair value.

Fitzpatrick and Frank (2009) notes some disadvantages of adoption of IFRS for SMEs. The standard is not currently well known. Among investors, businesses, lenders, educators and financial statement users, few have spent the time necessary to understand the differences from national GAAPs and the corresponding impacts and are not prepared to adopt, or make important business decisions with these standards in mind.

A Deloitte survey, including small and mid-size private companies with less than \$1 billion in revenues, conducted in June 2009 to gather data and information about the challenges of current U.S. GAAP and the level of interest in IFRS for private companies, showed that many respondents supported separate accounting standards for private and public companies, yet a significant number of respondents were still unaware of the IASB's newly issued standard, IFRS for SMEs. Highlights of the survey report include: 51 percent of SME respondents believe that there should be separate accounting standards for public and private companies; and 43 percent of SME respondents are not aware or don't know of the IASB's standard IFRS for SMEs, indicating the need for more education. SME respondents view fair value measurement (42 percent), accounting for income taxes (23 percent), and consolidations (10 percent) as the top areas of U.S. GAAP in need of simplification. 10 percentage of SME respondents either currently use IFRS or would consider adopting the standard in the near term, while 63 percent would adopt when required.

Furthermore, the adoption of the standard may possible result in a lack of comparability (Fitzpatrick and Frank, 2009; Ernst & Young, 2009b). As the standard is very much principles based, interpretation issues are likely to arise, which will require a globally consistent resolution. In order to ensure the standard achieves international consistency and comparability of financial reporting, it is important that interpretations are not developed that are specific to particular jurisdictions (Ernst & Young, 2009b).

Because IFRS for SMEs, like full IFRSs, has more flexibility, less-specific rules and more opportunities to apply professional judgment, there is a distinct possibility that the same type of transaction entered into by different companies could be reported differently in the financial statements. Thus, comparability may suffer (Fitzpatrick and Frank, 2009). Moreover, IFRS for SMEs includes a number of references to requirements not having to be applied if they require undue cost or effort to determine. This is likely to require significant judgment by preparers of financial statements to ensure consistent and high quality application of the standard. Another disadvantage consists in a possible misinterpretation of the standard. Despite that the wording of the IFRS for SMEs is 'short and simple', which makes it easier to read than the full IFRSs, it should be remembered, however, that many of the explanatory paragraphs included in non-bold type in full IFRSs have not been included in the IFRS for SMEs. This may complicate the standard's interpretation (Ernst & Young, 2009a).

One controversial aspect is that the IASB based the SMEs standard on the IASB Conceptual Framework taking into consideration the particularities of the corresponding entity category. The IASB objective was an independent IFRS for SMEs, therefore its dependence on the full IFRS system may affect the quality of the differential financial reporting model (Tiron Tudor and Mutiu, 2008). There were many arguments for using the IASB Framework, for the IFRS for SMEs. Here we mention some of them:

- this would ease the transition for growing small entities wishing to become public in the future (Cordery and Baskerville, 2006), although this does rather assume that a significant number of small entities have a growth objective, which is not always the case (Tiron Tudor and Mutiu, 2008);
- because both full IFRSs and IFRS for SMEs are based on the same accounting principles, SMEs can use the proposed standards as a basis for upgrading to the full IFRSs if their size increases or private status changes.

The IASB judged that this approach is appropriate because the needs of users of financial statements of SMEs are similar in many ways to the needs of users of financial statements of publicly accountable entities. Therefore, full IFRSs are the logical starting point for developing an IFRS for SMEs. The alternative 'fresh start' approach was rejected because that approach "could have resulted in different objectives of

financial reports, different qualitative characteristics of financial information, different definitions of the elements of financial statements, and different concepts of recognition and measurement. The Board concluded that a 'fresh start' approach would be costly and time-consuming and ultimately futile. This is because, in the Board's view, there is sufficient convergence of users' needs relative to the general purpose financial statements of entities with and without public accountability" (IASB, 2009b). Also, some researchers consider that it would be sufficient to have only one conceptual framework, and, consequently, only one set of financial statements that should answer all needs, with differences only in the reporting methods according to sector, tax requirements and size of the company (see Tiron Tudor and Mutiu, 2008).

But there were also arguments against using the IFRS conceptual framework for SMEs, because of the lack of independence. Schiebel (2006) mentions few opinions: the full IFRS system will necessarily exert a strong influence on how the draft standard IFRS for SMEs is applied, this becoming unusable in practice without reference back to the full IFRS system (Haller et al, cited by Schiebel, 2006).

Moreover, Schiebel demonstrates that provisions governing similar transactions in the full IFRS system are to be treated as mandatory sources of authority by analogy for interpretations and in remedying obvious deficiencies. In the IASB's opinion the IFRS for SMEs is based on the same concepts and principles as the full IFRS system, which is being advertised as one of the advantages of the standard (as we mentioned above; see IASB, 2009b). If there is no guidance for certain transactions, or only uncertain guidance, and at the same time the full IFRS system provides the information on which to base measurement and accounting for such transactions, it can hardly be said that use of the sources is optional. In this reasoning by analogy, the sources are mandatory in character. IASB's contention that its standard does not incorporate mandatory general referral back to full IFRSs is hollow.

5. Conclusions

IFRS for SMEs is a response to international demand from developed and emerging economies for a rigorous and common set of accounting standards for smaller and medium-sized enterprises that is much easier to use than the full set of IFRSs. It should provide improved comparability for users of financial statements while enhancing the overall confidence in the accounts of SMEs, and reduce the significant costs involved in maintaining standards on a national basis.

Regarding the advantages of introducing the standard for SMEs, our conclusion is that the potential benefits are the following: improved access to capital; improved quality and comparability of reporting; facilitates cross-border trading; focused on the needs of users of SMEs' financial statements; stability, given by an initial 2-year comprehensive review followed by 3-yearly omnibus updates; eases burden where full IFRSs has previously been required; stepping stone to full IFRSs for private entities aiming for an Initial Public Offering. Application of the new IFRS to private entities, in particular small and medium-sized entities, is highly controversial, given the main features of IFRSs: orientation to the investors' financial information needs, no or little relation between financial and tax accounting, high degree of disclosure, and emphasis on financial income as a measure of a firm's financial performance. Private entities, however, have no or little separation of ownership and control, and the extension of an accounting system focused on strong equity to such entities could produce financial statements that are not consistent with the needs of the users of financial information.

Our conclusion is that, despite the controversial issues, a common framework for financial reporting for public and private entities is in the best interest of the users of financial information and that the efforts of the IASB in these directions are welcomed. Our arguments is that the new standard will reduce the degree of differential reporting between public and private entities, thus providing users and preparers with one single 'true and fair view' when describing their financial performance and financial position.

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PREMISES OF IMPLEMENTING ACTIVITY-BASED COSTING WITHIN UNIVERSITIES

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Abstract: *Costs indicate the financial performance, measuring how well resources have been allocated and consumed. In this paper we have conducted a theoretical research on the general principles of Activity-Based Costing method, investigating how it can be applied within higher education institutions and we have provided a practical research on the particular aspect of allocating the costs to activities and programs. The conclusion is that the Activity-Based Costing provides a reliable method to report, define and capture the resources spent by higher education institutions within specified activities contributing to their overall performance, and insures these operate on a financial sustainable basis.*

Keywords: universities, activity-based costing, activities, cost objects, cost drivers

JEL classification: M41, I22

1. Introduction

Demands and expectations on higher education institutions (HEIs) both in teaching and research are growing rapidly. According to a European University Association (EUA) report published in 2008, the costs of universities' activities are rising for different reasons, like as: advances in the field of technology, particularly information technology and its wider usage in higher education and research, a growing participation rate, new societal demands on institutions, rising pension costs and tougher quality requirements. These result in increasing costs and necessitate additional financing; therefore the financial sustainability of universities becomes the primary issue of concern in the 21st century. Under these circumstances, we subscribe the opinion that the first step in responding to the financial pressures is for universities to identify the real costs of their activities (EUA, 2008). We believe that proper cost information and computation are essential ingredients of cost control and containment.

The objective of the paper is to investigate the potential of Activity-Based Costing (ABC) system to be extended to teaching and other activities of universities, considering the possibilities for adapting the common principles of this method to the universities' specific context. The research methodology is a combination of both theoretical and practical research, as follows: we conduct a theoretical research on the Activity-Based Costing method, emphasizing its general principles and investigating how they can be applied within higher education institutions, in order to better understand their activities and costs, and, thus, to manage them more effectively; we also provide a practical research in order to reveal the particular aspect of allocating the universities' costs to activities and programs, thus providing the structure for establishing a true management-oriented accounting system. The conclusion of the paper is that the Activity-Based Costing is a reliable method to report, define and capture the resources spent by higher education institutions within specified activities contributing to their overall performance, and insures these operate on a financial sustainable basis.

2. About Activity-Based Costing

The current financial crisis has brought a truly unprecedented level of financial chaos to HEIs all around the world: programs are being reduced, staff and faculty are being furloughed, class sizes are increasing, departments are being cut, and tuitions are rising (Wellman, 2010). Also, unlike earlier recessions, the prevailing view is that this time the higher education 'cost disease' has reached a point where it is unsustainable, as a result of a chronic mismatch between revenues and spending in an environment of growing need for increased access and degree attainment. Higher education is faced with discovering ways to manage resources so as to find the best fit between revenues and mission. As they deal with the current recessionary economy and a constriction similar to that of the early 1990s, most colleges face the question of how best to reallocate existing resources to fund new and meritorious initiatives in the absence of new revenue streams and/or growth in existing revenue streams (Wellman, 2010; Seybert and Rossol, 2010).

These trends are forcing universities to respond fast by taking action. Universities have strained their resources and assets in such a way that their future sustainability is under pressure. The first step in responding to these pressures is to identify the real costs of their activities for both internal and external purposes. For all types of institutions, this means that it is particularly important to develop costing and information system, in order to 'control' the cost and to identify the policy levers that influence cost behaviours, for tackling the higher education cost disease.

HEIs often lack even rudimentary information about the costs. According to Granof et al. (2000), "large universities may maintain intricate accounting systems, often with thousands of accounts". Their accounting systems are almost always based on a form of fund accounting and are intended to satisfy legal stipulations rather than to provide information for administrative decisions. As an argument, we note that, in Romania, universities report an analysis of expenses using a classification based on their nature, according to the legal requirements. Under the 'nature of expense' method, an institution aggregates expenses within profit or loss according to their nature (e.g. salaries and wages, utilities, depreciation, purchases of materials, transport costs and advertising costs), and does not reallocate them among functions within the entity. This method may be simple to apply because no allocations of expenses to functional classifications are necessary. The second form of analysis is the 'function of expense' method. In case of using this method, an institution would classify expenses according to their function as part of cost of instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, scholarships, or administrative activities. In our opinion, this method can provide more relevant information to stakeholders, despite that allocating cost to functions may require arbitrary allocations and involve considerable judgement.

Ernst and Young (2000) came up with a number of factors to justify Activity-Based Costing and Management in Australian universities. Analyzing these factors throughout the perspective of the necessity of implementing the managerial accounting in HEIs, our opinion is that they are the same within Romanian academic environment. The Accounting Law no 81/1991 (republished in 2008), subsequently modified and amended, does not impose to the universities to apply the managerial accounting, this being a legal obligation generally for companies and research and development institutions and not for public institutions. The factors can be summarized as follows: 1) The current state of cost management in most universities is not adequate to support the needs of the entity and its changing environment; 2) Traditionally, in Romanian universities, the financial managers have focused on meeting the external reporting and basic management accounting requirements, in order to fulfil the accounting regulation; 3) Effective use of cost management is essential in Romanian universities as this allows them to understand how they create, maintain or destroy value by their decisions and actions; 4) Cost management is a business tool that allows university managers to obtain information and feedback necessary to meet the goals and track progress towards the achievement of the strategic agenda.

We conclude that *the costing information should be required in the universities* for purposes of financial reporting and strategic requirements; understanding the cost of activities, products, services and customers; and providing feedback and insight to management on what causes costs.

Our research is focused on Activity-Based Costing as this approach is the most common in universities that have already implemented such a system. It is also a model recommended by the International Federation of Accountants (IFAC) because it reflects the underlying reality of an organisation's workings as closely as affordability allows. According to IFAC Exposure Draft "Costing to Drive Organizational Performance" (2008), *ABC is both a product costing method and a resource consumption model that can provide information useful in making decisions concerning product and process improvements*. Granof et al. (2000) note that ABC is now an accepted element of the accounting and control systems of industrial and service firms, and it has been employed in both governmental and not-for-profit organizations, being, in fact, a product of the technological era.

ABC focuses on the costs of activities (Heskin, 2001). Literature reveals two views of ABC (Moore, 2000): 1) The cost assignment view assigns costs to the significant activities of an organization. Activities are then assigned to a cost object that uses the activities such as a product or customer; 2) The process view provides operational intelligence about the processes of an organization. A process is a series of activities that are linked together to achieve an objective. The process view provides information about cost drivers and performance measures for each activity or series of activities in a process.

The cost assignment view comprises three building blocks: resources, activities, and cost objects. Resources are economic elements that are the sources of cost, including direct labour, direct material, and indirect costs (e.g., overhead and management salaries). Activities are the processes or procedures that

produce work (e.g., logistics activities can include transportation, distribution, warehousing, order processing, and customer service). Since activities use resources, they are connected to activities via resource drivers that approximate the use of resources by activities (e.g., square footage, percent of effort, etc.). Each resource that is traced to an activity becomes a cost element in an activity cost pool that measures the total cost associated with an activity. This provides a better understanding of why resources are used. The information provided can help identify which activities consume the most resources and where cost reduction opportunities may exist.

The next step after assigning resources to activities is to trace the activities to cost objects. A cost object is typically a product, product line, or customer, so it is the reason why work is performed. Activity drivers measure the use of activities by the cost object, thus linking activities to cost objects. The total cost of the cost object is the sum of all the activity costs used by the cost object. This process provides economic information to help in analyzing decisions such as pricing, product mix, sourcing, product design, and improvement efforts.

Pineno (2008) considers that ABC application consists in three steps: determining cost pools; understanding activities as they relate to each cost pool; identifying the activities need to be in relation with cost objects. IFAC (2009b) mentions that an ABC system typically involves four stages: (1) identifying activities performed to produce outputs, (2) assigning or mapping resources to the activities using resource drivers, (3) identifying outputs for which the activities are performed, and (4) assigning activity costs to the outputs. Additionally, it is noted that the sophistication of ABC systems varies between organizations, greater sophistication being associated with a higher number of cost pools to better capture resource consumption by different products/services; a variety of cost drivers to more accurately measure resources consumed by cost objects; a directly assigning costs to cost pools or using a cause-and-effect resource drivers; and the extent to which transaction and duration drivers are used in the second stage allocation process (a transaction driver, like the number of setups, assumes the same quantity of resources is used every time an activity is performed, whereas a duration driver, like setup hours, represents the amount of time to perform an activity) (IFAC, 2009b).

A brief comparison between this method and the traditional accounting, provided by Granof et al. (2000), reveals that ABC accumulates costs into activity cost pools, which are designed to correspond to the major activities or business processes. The costs in each cost pool are largely caused by a single factor - the cost driver. ABC systems allocate costs to products, services, and other cost objects from the activity cost pools using allocation bases corresponding to cost drivers of activity costs. Therefore, allows for non-linearity of costs within the organization by explicitly recognizing that some costs are not caused by the number of units produced. Traditional costing systems accumulate costs into facility-wide or departmental cost pools. The costs in each cost pool are heterogeneous - they are costs of many major processes and generally are not caused by a single factor. Costs are allocated to products using volume-based allocation bases: units, direct labour input, machine hours, and revenue, generally estimating all of the costs of an organization as being driven by the volume of product or service delivered.

ABC system focuses on estimating the costs of many cost objects of interest: units, batches, product lines, business processes, customers, and suppliers. Because of the ability to align allocation bases with cost drivers, provides more accurate information to support managerial decisions. By providing summary costs of organizational activities, ABC allows for prioritization of cost-management efforts. Traditional accounting focuses on estimating the cost of a single cost object - unit of product or service. The inability to align allocation bases with cost drivers leads to over-costing and under-costing problems. Cost control is viewed as a departmental exercise rather than a cross-functional effort.

Under these circumstances, we subscribe to the conclusion expressed by IFAC, that ABC addresses certain weaknesses of traditional absorption costing and identifies the most appropriate way of tracing and assigning indirect and shared expenses to final cost objects (IFAC, 2009a).

3. Literature Review

Costing in higher education has received considerable attention in the literature over the past four decades. Since 1970s, numerous studies have examined institutional costs to analyze internal efficiency, using various frameworks and methods, based on full costing or partial costing systems. The essence of ABC method is that activities produce results and generate costs. Such an approach suggests careful and sustained attention to the links between instructional strategies, student learning and costs (Hubbard, 2008). In his research paper, Heskin (2001) provides a literature review considering the research that studied the implementation of ABC method within institutions of higher education (published until 2000). We briefly

overview this prior work. Coy and Goh (1995) advocate the use of ABC within a university environment, particularly the method of allocating the overhead costs. They are critical of allocating overheads on a single basis such as the use of student numbers, as the costing which results from such broad-based approach fails to capture the cause and effect relationships and they indicate that ABC helps focus institutions' attention on improving activities, which will have the biggest impact on course costs.

Gibbon et al. (1996) researched the benefits of ABC and Activity-Based Management (ABM) in both manufacturing and service organisations. They rank the benefits in order of importance as follows: understanding activities and cost; cost savings; enhancing financial responsibilities; improved communications; improving the profile of the accounting function; useful documentation; relevant decision support information; prioritising improvement efforts; catalyst for change; and waste reduction.

Our contribution consists in reviewing the literature on this subject after 2000, emphasizing the main contribution. In Australia, Ernst & Young developed and demonstrated an ABC methodology for use in Australian Higher Education Institutions, the final report being released in 2000. According to this study, ABC information reflects: which activities are performed in the institution; what resources they consume; and for what purpose those activities are performed. It is suggested that with this sort of information, university managers can make their decisions about what, how and for whom they provide services or products and at what price. This study has recently been followed up by another study of KPMG with a view to reviewing the relative funding model and in particular costing research training in Australian higher education. According to Heskin (2001), KPMG advocated two main approaches to costing, including top-down (Activity-Based) costing and bottom-up cost estimation. The top-down ABC substantially increases the accuracy of output, product, and standard service-line costs by tracing indirect expenses to outputs in a way that is more consistent with the causality principle. Resource expenses are 'pushed' (top down) through activity costs, and eventually re-assigned to final cost objects (IFAC, 2009b). This contrasts with a quantitative bottom up costing. KPMG suggests that top-down costing involves the allocation of all cost to activities and departments and drivers. They proposed top-down costing as an approach for obtaining institutional, subject, discipline but not course costing or obtaining cost information about types of students and teaching methods. For the latter they suggest bottom-up costing, which involves drawing up the cost of a set of programs of courses on a zero base budgeting approach. Therefore they suggest that bottom-up costing approach should be used to compute the cost of level of program, teaching mode, industry placement, efficient and effective university practices, disadvantaged students and specialist institutions.

Cox, Downey and Smith (2000) used the time-driven activity-based costing (TDABC) approach, emphasizing that ABC approach is a tool to accomplish: match utilization of resources with departmental missions; obtain a better sense of the effectiveness of faculty members' time and effort differentiation within departments; discuss with departments heads and deans the efficient and most effective allocation of resources to meet the needs of the department, college and university; organize the information in a way that makes sense across units; and act as an essential relations tool.

An important study was elaborated by Granof, Platt and Vaysman (2000). They outlined the virtues of ABC in case of implementation in universities, given their unique characteristics. The study is focused on the implementation of ABC at the level of the department. Some key findings are briefly presented: great disparities existing among various programs; unused capacity is costly; ABC accounting provides useful efficiency information; support services do not benefit programs uniformly; and space costs are significant. Heskin and Sharma (2001) argued that the costing of Australian higher education has become a national issue. The study applies principles of ABC to the discipline of Social and Behavioural Sciences undertaken as part of a pilot study within an Australian university. It presents analysis of cost data using three cost objects: teaching and learning, research and professional and community service. Whelan (2003) provided a discussion of the impact of the progressive implementation of ABC methodologies and the ramification for the financial management of the department.

In 2006, a case study of Krishnan, had as a purpose to study the application of ABC in service sectors, particularly higher learning institutions and to investigate whether this cost system provides better control over the cost in comparison with the traditional costing system. He argued his attempt that an appropriate costing system is necessary as the university is under great pressure to lower costs and improve the quality and efficiency of operations due to a competitive education industry. Particularly, the university requires cost information to improve the quality, timeliness, and efficiency of the activities they perform, and to understand accurately the cost of the individual department at the university. McChlery, McKendrick and Rolfe (2007) described an ABM model which has been successfully used to cost institutions' activities down to appropriate levels of focus, linking the activities to income streams and arriving at a form of value

added. The model characterised by the authors as being extremely flexible, allows information to be collected for different levels of focus: faculty, department, programme, module/project or support unit. Pineno (2008) outlined the application of the ABC concept and the balanced scorecard (BSC) approach, along with a debate as to whether the concept or approach should be used to drive the university strategy for continuous improvement. The paper includes both the theoretical outlay and practical applications of the ABC concept and the BSC approach to continuous improvement in for-profit and non-for-profit organizations. It worth mentioned another study of Qinhu, Geng and Li (2009), a research paper which analyzed the status of the school-running cost and efficiency of the pilot universities for distance education in China. Additionally, the research has established the cost function of the case college applying to the future cost budget and calculation, offering the decision-making support to the colleges in practice. The research has proved that ABC is favourable for survey of the cost information influenced by multiple factors, and can help the colleges to adjust the school-running structure according to different cost efficiency.

4. Activity-Based Costing Methodology

The objectives of colleges and universities differ from those of commercial enterprises for which profit is the primary motive; colleges and universities seek to provide educational services within the existing levels of revenues available. A balanced budget where expenditures remain within available revenues is always expected of a financially responsible college or university (Davis and Adams, 2003). A major reduction in the net assets of an institution should be cause for concern and may be a sign of financial instability. The primary sources of revenue vary depending on whether an institution is public or private. Most private institutions depend heavily on student tuition as the major source of revenue, while public institutions receive a mixture of state appropriations and student tuition. As regards the expenditures, higher education institutions are very labour intensive, with the major portion of expenditures being devoted to salaries and benefits. Other expenditure requirements include utilities, travel, scholarships and fellowships, communication costs, debt service on capital assets, supplies, and contractual services. This classification is made based on the nature of expenses. But managerial accounting classifies the expenses based on their function. Furthermore, the Activity-Based Costing concept draws attention to what is driving costs within a university. According to Pineno (2008), applying ABC in the specific context of HEIs involves the following:

- Identifying cost objects - cost objects are a sum of individual curriculum consisting of a number of courses, being, in fact, what ABC seeks to measure, e.g. the cost of delivering a single course; if the cost of a single course is the cost object, the cost unit is the cost per student.
- Identifying output - the desired end results are called output, e.g. courses and programs; degree programs, the primary output of HEIs, are a collection of courses that form a special curriculum.
- Identifying activities - these are the activities that are needed to deliver the outputs.
- Allocating resources and making cost pools - resource costs are allocated to cost pools based on direct or indirect costs.
- Linking activity costs to output - once the cost pools are made and cost drivers identified, costs from these pools are assigned to cost objects according to activity levels.
- Analysis and cost reporting analyze the cost information generated by ABC applications and make conclusions such as whether to keep, modify, or remove a specific course within a curriculum.

Ernst & Young's study (2000) groups the steps of implementing ABC into two phases, designed to speed the development of the ABC model as well as to quickly provide insights. Phase I is fully costing activities and phase II is fully costing cost objects. The following is a list of the steps in each phase:

Phase I - Activities consists in the following:

- Identifying all the activities that occur in the university - this includes support (administrative and financial) as well as service activities - or an area subject to an ABC study.
- Identifying all the resources consumed in the university (people/salaries, depreciation, utilities).
- Identifying a resource driver (the number of people, number of computers, amount of space, etc.) for each resource, to link resources to activities which consume them.
- Fully costing activities with the resource they consume via resource drivers.

Phase II – Cost Objects consists in the following:

- Identifying cost objects, the ultimate purpose of activities - list of courses, services, types of students, modes of delivery, etc.
- Identifying an activity driver for each fully costing activity (e.g., the number of people) and linking activities to the cost objects which consume the costs.

- Fully costing cost objects with the activity they consume via activity drivers.

The two phases help to identify opportunities to improve processes and at the end of each phase managers will be able to use the results to begin to pursue improvement opportunities.

Phase I. Costing Activities

The costing activities phase primarily focuses on (a) defining the activities performed within the institution, or area of focus, and (b) gathering data that will enable costs, from the general ledger or budget, to be attributed to activities and for these costs then to be attributed to the required cost objects (for example courses or students).

- *Cost analysis.* Resources are economic elements directed to the performance of activities, being the sources of cost. In a university, resources include the salaries of academics, professionals and support staff, consumables, telecommunications, computers and information systems, energy, travel, etc. The costs in the general ledger are the typical starting point for any costing study; deciding which source of resource cost data to use is an important consideration.

- *Activity analysis.* An activity is a unit of work performed within an institution, a description of the work that goes on in an institution and consumes resources (e.g., conducting research). We subscribe the opinion that the description of activities determines the effectiveness of the system and the information it provides. A clear description enhances the ability to communicate the work that each activity represents. According to Ernst & Young's study (2000), defining activities too narrowly or in too much detail may complicate the overall analysis without adding useful information. Instead, develop an understanding of the work performed in the natural course of doing business.

The analysis of departmental activities is the first step of designing the system, in order to identify the following: the activities within each department and why, and under what circumstances each activity is done; how often, and for whom, the activity is performed; resources consumed in doing the activity; and, what factors determine or drive the activity or resource. The department's organization chart in the university is a good starting point to convert to ABC cost model elements.

Regarding the activities of HEIs, there are some controversial opinions. The EUA study (2008) emphasizes that each costing model should include a process by which its activities can be identified. This will usually comprise teaching, research and support, but can be extended to include a much larger range of activities. Some authors (Pinenò, 2008) argues that the core activities are teaching, research, service, and outreach, these being supported by functions such as registration and administration, facilities maintenance, security, library and learning resources, and various types of labs. College and university department budgets are typically based on several factors: credit hours produced, sections offered, number of students, and size of the teaching staff. Comparing with the traditional costing at HEIs, this assumes that all courses are the same, and cost accounting usually tracks only budget compliance, not taking into consideration that. Different academic units consume resources (i.e. teacher salaries, computers, facilities, and student support services) in different proportions.

In the Ernst & Young study (2000) it is suggested that the major activities cost pools in the universities include: infrastructure, administrative support, student support, and teaching and research. The cost objects are the purpose of costing and include products, services, customers, etc. Taking the mission oriented approach, one can delineate teaching and learning, research and community service as the major cost objects for this pilot study. Other cost objects, which might be considered, could include the following: type of student (full time, part time, undergraduate, postgraduate, local, overseas etc.); cost of individual programs or subjects; different approaches to teaching and learning including traditional lecture, tutorial and practicum; various distance education methodologies.

The development of ABC costing systems within universities should consider using macro activities in the initial projects, this ensuring that the project does not get bogged down in too much detail (Ernst & Young, 2000). The advantage of limiting the number of activities identified is that it makes the process of data gathering and allocation simpler (EUA, 2008). Examples of macro activities undertaken within universities are the following:

- Student related activities: developing new courses, enrolling students, teaching students, assessing students, supporting students, and graduating students;
- Research related activities: submitting research proposals, developing relationships with industry, conducting research, providing research material and books, providing support to research students;
- Enabling activities: providing IT support, providing HR support, preparing financial accounts, purchasing goods and services, paying bills.

Once established, the activities can be further categorised. The EUA report offers some detailed examples. “Teaching students” could be split into undergraduate teaching, postgraduate teaching, and continuing education. “Research” could be categorised according to the funding bodies for which research is undertaken. In a number of cases it will not be easy to identify whether an activity is either teaching or research. A seminar in a doctoral school, for example could be classified as teaching or as research depending on the aim and purpose. This is why the concrete choice and allocation of activities needs to be made on an individual basis.

The most common methods of attributing costs to activities include: 1) direct assignment: for example the costs of agency fees paid to organisations that locate international students would best be directly attributed to an activity named “marketing of international students”; 2) assignment on an activity or causal basis: for example, the costs of an academics salary would best be attributed to the various activities undertaken on the basis of effort or hours spent on each activity.

Attributing costs to activities is based on gathering resource driver information. A resource driver is a measure of the quantity of resources consumed by an activity. An example of a resource driver is the percentage of effort an academic spends across the various activities performed (i.e., conducting research). Two major characteristics have to be considered when specifying resource drivers: firstly, a resource driver must bear a logical relationship to its activity and secondly, statistics must be available (or be able to collect) allowing it to associate the costs with the activities. Typical resource drivers include: headcount or full time equivalents (FTEs); square metres; number of computers; and managerial estimates of relative effort. Once the resource drivers are specified, it needs to collect information about the quantity of each resource driver associated with each of the activities it wants to cost.

In our opinion, analyzing and identifying the resource drivers are important tasks in the ABC system, as they are the links between the resources and the activities. The resource driver allocates the total budget to each resource centre and is also used to disseminate the centre budget to other sub division (Krishnan, 2006).

Phase II. Costing Cost Objects

Designing the costing model is a critical stage in the ABC implementation process. This is where the structure of the system is created and the intelligence added. It’s the designer’s job to meet the system objectives at a minimum cost and complexity (Ernst & Young, 2000). At the same time, the system should provide the right kind of information at the right level of detail.

- *Perform cost object analysis.* Each model needs to identify cost objects. According to ABC theory, a cost object creates a demand for activities, which in turn incur costs. The concrete choice of cost objects depends on specific institutional context and their objectives (EUA, 2008). The common types of cost objects include: faculties or schools; courses or subjects; student types (i.e., international fee paying undergraduate); various commercial operations; delivery channels (i.e., chalk and talk or the Internet); and process groupings (i.e., research).

- *Gather activity driver information to attribute activity costs to cost objects.* Activity drivers are methods for assigning the cost of activities to cost objects. They measure how often activities are performed on each type of course or student and the effort involved in carrying them out. An example of an activity driver is the number of students or number of equivalent full time student units (EFTSUs). There are two main methods of establishing a cost basis, one uses historical data, the other extracts costs on an actual basis, usually derived from current financial and human resources systems, requiring complex and sophisticated software and data structure. The historical method analyses costs from previous periods from a wide range of sources, for example financial statements.

Cost objects are costing accurately when activity drivers measure the use of activities directly or correlate closely with their use. The choice of sources will be determined to a certain extent by the data and systems available, but these should be evaluated to see if they are fit for this purpose. For example, the most appropriate cost driver for “enrolling students” is the “number of students enrolled”. This recognises that it costs the same amount to enrol a full-time student as it does a part time student. Other types of activity drivers that are likely to be required include the number of: lecture hours; tutorial hours; examinations; graduations; research grant submissions; research projects; students; EFTSUs; new enrolments; student counselling sessions; academics; staff; and applications.

Once an activity driver for each activity has been finalised, it will need to collect or develop data about each activity driver for each cost object. If for instance, the number of teaching hours as an activity driver is named, it must gather the information about how many teaching hours there are for each cost object i.e. course. Based on discussions with a cross section of staff from various universities it is believed that a large volume of activity driver data is readily available within most institutions.

Table 1. Example of activity cost and activity driver

Activities	Activity cost (lei)	Activity driver	Activity driver volume	Unit cost (lei)
Teaching	720,000	Teaching hours	6,000 hours	120
Research	160,000	Research hours	2,000 hours	80
Total	880,000	-	8,000	-

Table 2. Example of activity drivers and cost object calculation

Activities	Activity driver description/ volume	Unit cost (lei)	Cost object cost (lei)
Teaching	Course A / 4,000 hours	120	480,000
	Course B / 2,000 hours		240,000
Research	Grant X / 800 hours	80	64,000
	Grant Y / 1,200 hours		96,000
Total	8,000	-	880,000

Table 3. Example of teaching related activities unit cost calculation

Teaching related activities	Activity cost (lei)	Activity driver description	Activity driver volume	Unit cost (lei)
Developing new course	50,000	# New courses	1	50,000
Enrolling students	75,000	# Students	5,000	15
Teaching students	1,250,000	# Teaching hours	10,000	125
Assessing students	225,000	# EFTSU	4,500	50
Graduating students	150,000	# graduands	1,200	125
Total	1,750,000	-	-	-

Table 4. Example of course cost calculation

Teaching related activities	Activity cost (lei)	Course A	Course B
Developing new courses	50,000	20,000	30,000
Enrolling students	75,000	30,000	45,000
Teaching students	1,250,000	500,000	750,000
Assessing students	225,000	100,000	125,000
Graduating students	150,000	70,000	80,000
Total	1,750,000	720,000	1,030,000
No. of EFTSU's	-	3,000	4,000
Cost per EFTSU	-	240	257.50

5. Conclusions

The conclusion of this paper is that the Activity-Based Costing provides a reliable method to report, define and capture the resources spent by higher education institutions within specified activities contributing to their overall performance, and insures these operate on a financial sustainable basis. This paper should be useful for all types of institutions of higher education and for their professional managers engaged in costing, also for the governing boards, administrators, and others whose decisions directly affect the cost of higher education, its value consisting in underlying the need for costing information, required in universities for purposes of allocating their scarce resources. Moreover, it is a first step on the way of implementing full cost accounting within the Romanian higher education institutions, discussing and investigating the feasibility of Activity-Based Costing system implementation.

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THE REPERCUSSIONS OF THE TAX BURDEN ON THE BEHAVIOUR OF THE ROMANIAN TAXPAYERS DURING 2009

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Abstract: *The existence of any modern state is unconceivable without a tax system - efficient through performance and pressure on taxpayers. The purpose of this paper is to highlight a series of reactions which the romanian taxpayer has when confronted with any fiscal decisions taken by the authorities. This paper is a presentation of the repercussions which the tax burden has on the tax arrears accumulated by the romanian taxpayers to budgetary revenues, the repercussions on the number of cases of tax evasion or the dynamics of economic agents. Often, the increase of the tax burden is a premise for a conflict and doesn't generate a motivation to work. Most tax liability encourages illegal employment and tax evasion. Policy should consider that taxation may not exceed a critical threshold, because otherwise it negatively affects economic development.*

Key words: *tax burden, tax arrears, budgetary revenues*

JEL classification: H 23, H 26, H 30

1. Introduction

The existence of any modern state is unconceivable without a tax system - efficient through performance and pressure on taxpayers. Usually the current situation where a country or another is, depends on the historical evolution of its tax system, especially on the way it was designed and implemented in practice. The finances of a state are closely linked to its social and political situation. There is a strong interdependence between the political regime in power and the finance of a state. The last decades are characterized by a successive series of significant changes, due to the adoption of new understandings for taxes. Global economic crises, excessive increases of the complexity of tax systems, the negative influence which taxes had on the growth of economy are the major factors that led to fiscal reforms. Through the reforms – implemented or in progress- developed countries have a difficult task to accomplish, namely finding a way to ensure that public institutions have enough resources to function and also reduce the tax burden of taxpayers.

2. Dilemma: tax burden cause or effect of tax evasion

In the last three years the overall tax burden (including social contributions) in Romania has seen a downward trend, from 29,4% in 2007, to 27,7% in 2008 and 26,9% in 2009. In terms of the tax burden obtained by reporting levies in the form of taxes to Romania's GDP there was the same trend, dropping from 19,54% in 2007, to 18,3% in 2008 and 17,5% in 2009. The income tax rate in Romania in 2007 reached a level of 29.4%, below the UE-27 average, the lowest level of the community.

One of the topics of high interest among tax professionals is the issue: is the tax burden a cause of tax evasion or is tax burden a result of tax evasion. Literature has a known sphere which states that tax burden is both a cause and an effect of tax evasion: 1. high tax rates lead to an increase of the dimension of tax evasion, therefore the tax burden is a cause of tax evasion; 2. the incidence of tax evasion acts has the effect of reducing state budget and of increasing tax burden, tax burden is therefore a result of tax evasion.

A taxpayer, no matter how much public civic sense one has, will never voluntarily consent to pay taxes and high tax burden will lead him to a tireless and continuous search for breaches, loopholes, gaps and voids in the tax law, especially when the increase of tax burden overlaps a drop of the real income. A limit of the tax burden is difficult to determine because of the multitude of factors involved: the historical period, economic conditions, country, international economic context, domestic and international political conditions, etc.. Most times it is considered that an optimal tax burden is obtained at the point where marginal social utility of public expenditure is higher than the marginal social utility of mandatory levy. We will continue by approaching the consequences of a high tax burden level on the taxpayers, both individuals and juridical persons:

2.1. Tax burden – dynamics of the number of economic entities

At the microeconomic level, tax burden has an effect on the number of companies and their territorial distribution, on the size of companies, on the legal and organizational structure (Corduneanu

C.,1998). The different fiscal treatment applied to companies may lead to changes in the number and structure of companies. Public authorities should realize that the increase of the number of economic entities won't always lead to increased tax revenues, but this increase is due to certain granted tax concessions, appearing thus legal tax evasion.

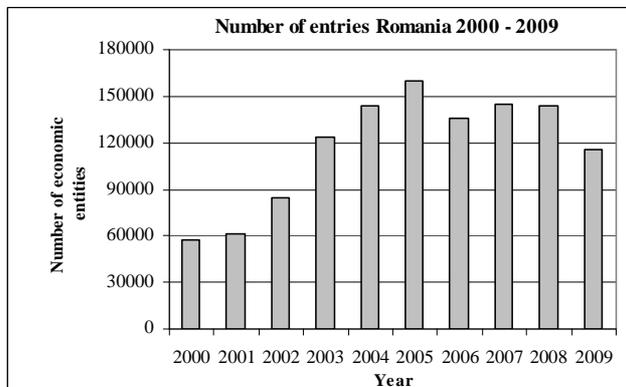
Table 1: Enrollment situation at the Registry, Trade Registry between 2000-2009

Year	Number of enrollments
2000	57.278
2001	61.265
2002	84.780
2003	123.582
2004	144.284
2005	159.464
2006	135.371
2007	144.728
2008	144.177
2009	116.037
Tota	1.231.880

1

Source: Oficiul National al Registrului Comertului www.onrc.ro

Figure 1: Enrollment situation at the Trade Registry between 2000-2009



By analyzing the situation of the enrollments in the Trade Registry between 2001- 2009 (ONRC, 2010) we can see a steady evolution of company enrollments between 2000-2002 and 2003-2008, but these may be correlated with the fiscal decisions of the Romanian authorities. One can notice an increase in the number of economic entities registered in 2003 compared to 2002 with 38,802, i.e. with 45.77%. Compared to 2001 this evolution is even more spectacular, the number of registrations increasing by 101,72%. Is there a plausible explanation for this situation? These developments are due to changes of the Romanian Fiscal Code stipulations, granting special tax regime for microenterprises. A lower tax rate has been set for this category of taxpayers, 1.5%, while other categories of taxpayers owed a 25% quota on profits. The natural desire of taxpayers to escape tax obligations determined an increase of the number of economic entities registered in this category. All these actions and decisions of contributors reflects in a negative evolution of budgetary revenues.

Continuing analysis of temporal enrollment number in the Trade Register in 2005 we find them with a 29.03% increase compared to 2003, i.e. 35,882 units, and 16.75% compared to 2004, i.e. 15,180 taxpayers. The explanation of these developments is the decision of the Romanian authorities to introduce a system based on flat tax of 16%. Changes of tax laws and the reduction of the profits tax rate from 25% to 16% determined Romanians to set up new companies, 2005 recording the highest number of enrollments in the last 10 years. The impact of these fiscal decisions on budget revenues, in monetary terms, has a particular interest and will be examined in later chapters.

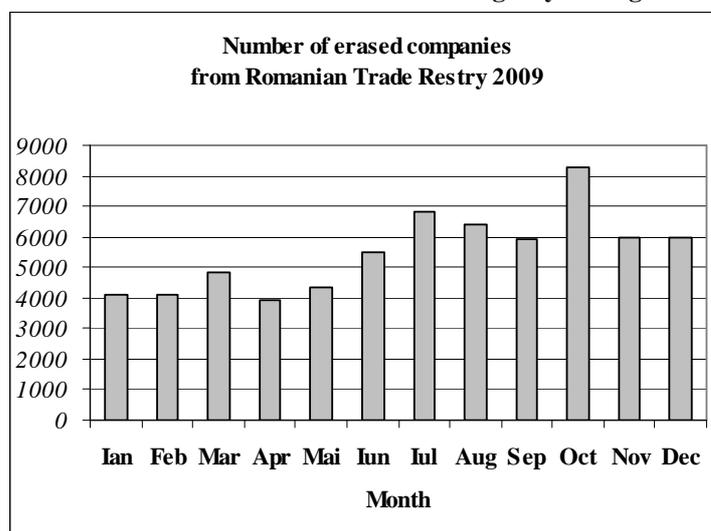
The year 2009 is noted by a decrease in the number of registrations by 19.52% over the previous year, ie 28,140 economic entities, amid a new anti-crisis fiscal decision to introduce a minimum tax for both micro as well as other companies since May 1, 2009. The study of the impact of higher tax burden on taxpayers by introducing minimum tax requires careful analysis by linking it to the effects of economic and financial crisis manifested in the same period. The effects of such decisions, although perhaps not immediately seen, will certainly not delay to appear. Lack of understanding of economic policy, namely fiscal policy, will not go unpunished by economic reality.

Initially regarded as a measure to combat tax evasion and improve the collecting of money for the budget, the introduction of minimum tax from May 1, 2009 caused serious problems for Romanian companies, which were already in difficulty due to the economic crisis. Faced with increased tax burden, taxpayers sought a number of ways for fiscal optimization such as the dissolution of companies with no activity or suspension of business activity, dissolving existing companies and creating new ones, changing forms of organization to authorized individual or freelancer – when dealing with incomes from independent activities one does not owe a minimum tax, although discouraged by the costs of dissolution/suspension and the final financial situations they had to realize in case of dissolution.

Table 2: The situation of recorded transactions in the Trade Registry during January - December 2009

Month	Enrollments	From which, with private funds		Remained	Erased
		PFA	SC		
January	9880	4416	5455	101782	4109
February	13630	7088	6531	171064	4131
March	12714	5855	6850	175945	4823
April	9131	4152	4971	220357	3942
May	8870	4743	4115	216416	4340
June	8714	4444	4238	195235	5526
July	9516	5091	4395	136131	6822
August	10172	6393	3761	100442	6416
September	7022	4590	2393	67046	5920
October	10759	4555	6183	104730	8256
November	8867	4283	6183	85653	5956
December	6663	3171	3485	79011	5956
Total 2009	115938	58781	58560	1653812	66197

Sursa: ONRC

Figure 2: The situation of cancellations in the Trade registry during January – December 2009

The minimum tax caused the closure of many companies, which reported several thousand euros per year and did not have the capacity to pay the minimum tax. Many small entrepreneurs suspended their business activities or even closed and annulled the companies. The Trade Registry recorded in May 2009, 4340 annulled firms, with more than one third over the level recorded in the same month in 2008. In April 2009, over 14,000 companies suspended their activity to avoid paying the new tax (Botea C., 2009). The entire Romanian media commented, using quotes from press releases of ONRC officials, on a series of numbers regarding the reaction of economic entities to the introduction of this minimum tax. In the first 6 months of 2009 the Trade Registry recorded 38.833 suspended activities compared to 3.654 in the same period of 2008, 17.917 voluntary annulments compared to 5.965 in 2008 and 4.902 voluntary dissolutions compared to 1.111 in the same period of 2008.

A monthly analysis of transactions recorded in the Trade Registry in 2009 reflects an increase in the number of entries in the Trade Registry in the months February to July, reaching its peak in April with 220,357 entries, followed in May with 216,416 entries. Certainly a large share of these entries is held by the suspensions of economic activities. After the Ministry of Finance announced the introduction of a minimum tax from 1 May 2009, in April the number of entries in the Trade Registry have doubled compared to January of that year, the increase was 116.5%. The same trend was maintained in May and June. Therefore, about 8 times more entries were made in the records of the Trade Registry within 4 months (May-June 2009).

Taxpayers who didn't suspend their activity, were left with the option of remained voluntary annulment. Statistical data released by ONRC, shows a slight increase of 17% in the number of economic entities removed in March 2009, from January of that year. The trend continued at a fast pace peaking in July, when 66% more companies than in January 2009 were annulled, and October, when 8.256 annulments were recorded at the Trade Registry, double the amount of a regular month. Also, National Tax Administration Agency reported by OP ANAF nr. 20/08.01.2010 a total of 86,765 inactive companies throughout the country.

The third option of tax optimization in terms of minimum tax is to change the legal form for micro, namely transforming into an authorized individual. The allegation is supported by two periods during 2009 (February-March and July-August) when the number of authorized individuals has increased. Most authorized individuals during 2009 were recorded in February, with 60,50% more than in January, followed by august with 6.393 authorized individuals, i.e. with 44,77% more than in January.

The main effect of introducing flat tax is that it increased tax burden on taxpayers with low economic power, cash flow imbalance strongly affecting small businesses and independents, such as lawyers, accountants, notaries, tax advisors. In my opinion, with the intensification of globalization as a background, the introduction of the minimum tax will tax burden on companies and will lead then to transfer activity to other European countries, for example, Bulgaria or Cyprus, meaning they will relocate. If big companies start moving to other countries because of the tax burden in Romania, the effect will be considerable, opposed to the one expected by authorities. I'm inclined to think that flat tax will increase tax evasion and the risk of insolvency, any solution to counteract the negative effects of it will eventually involve additional cost. Tax burden for the purposes discussed above becomes a cause of tax evasion, which appears in a "masked" form.

2.2. Tax burden - the accumulation of tax arrears

The sudden transition to a new economic mechanism in the early '90s found the Romanian companies totally unprepared, the existence of many being conditioned by unpaid debts and accumulation of arrears. Evolution of arrears also had subjective causes, resulting either from the quality of management or the oscillations of decision makers to apply the appropriate economic policies. Delayed restructuring of the energy sector and poor tax collection capacity were other important causes that allowed the accumulation of arrears and the financing of structural inefficiency of state enterprises. Arrears consist of financial obligations falling due and unpaid, filed by taxpayers. The Ministry of Finance defines arrears as payments delayed for more than 30 days over the contractual or legal terms which generate liabilities. Arrears are an indirect form of financing that some companies prefer to loans because they are much cheaper. State firms, having lost access to direct credit and budgetary subsidies in 1990, began to use payment compensations and arrears in order to maintain activity.

Transparency in business was ensured by publishing on the website of MFP of the list of big taxpayers, and also small and medium ones, which recorded residual liabilities. The publication of residual liabilities resulted in reducing the amount of arrears made by taxpayers and discouraged the accumulation of new arrears. Increased capacity of tax administration is achieved by eliminating the practices on debt relief or rescheduling of public budgets. Also, to reduce budget arrears and prevent the formation of new arrears, further enforcement actions and insolvency proceedings were put in motion.

The tax authorities have big problems in effectively managing the collection process and downsizing arrears. Reducing arrears of the largest debtors to the state budget and the social security budget will be a performance criterion. The total amount of arrears to the public budget must not exceed a certain percentage set in advance, from the total budgetary revenues. It is preferable that the overall level of arrears to the public budget to be reduced each year by a appointed percentage. The average age of arrears to the public budget should be reduced each year, with a certain value. The annual cost of administering the collection of arrears should be determined as a percentage of arrears collected

The number of taxpayers with unpaid tax obligations to the state budget is growing. The main reason claimed by debtor taxpayers for having residual tax obligation is primarily the size of the tax burden.

Ministry of Finance monitors taxpayers with overdue obligations to the state budget, state social insurance budget, the budget for health insurance and unemployment budget. After analyzing the situation of large taxpayers regarding nonpayment of tax obligations to the state budget, we can see that the situation is alarming (MPF, 2010). According to the law, quarterly, lists of taxpayers who recorded residual budgetary obligations are made public on the website of the Ministry of Finance - ANAF website. Thus, on 31.01.2010 the lists of corporate taxpayers who had made residual budgetary obligations on 31.12.2009 were published.

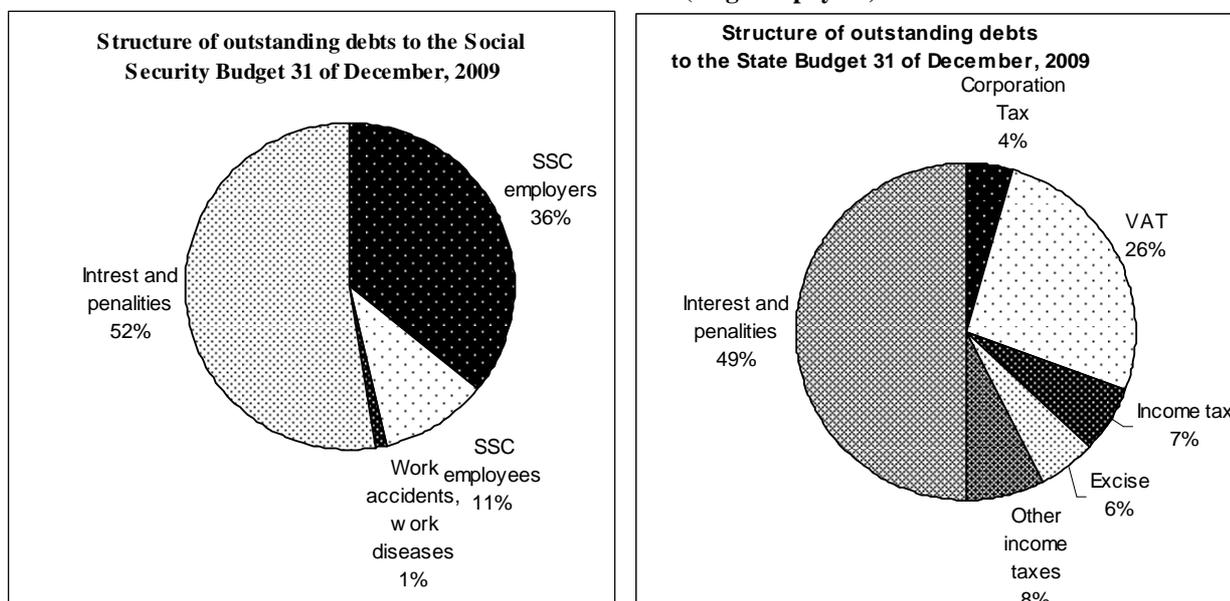
The Romanian state has to recover over one billion euros from large taxpayers which recorded debts to the budget on December 31, 2009, according to the National Agency for Fiscal Administration (ANAF). The large debtors list, published by ANAF, shows 440 taxpayers whose debts to the budget total about 4,2 billion euros. In just two months these have increased by about 500 million amid economic crisis. If at the end of September 2009, total liabilities of large taxpayers to the budget was 3.72 billion lei at the end of December the sum exceeded of 4.2 billion lei. State companies are among the largest debtors, this attracts the attention of representatives of the International Monetary Fund. The largest debtor to the state budget in late 2009 was The National Coal Company (CNH), whose debt was of 1.53 billion lei, followed by Galaxy TOBACCO LLC, listed in ANAF records with a debt of 475.7 million lei. The following places are taken by CFR Electrification (162 million), National Railway Company CFR SA (128.3 million lei) and UCM Resita SA (118.4 million lei).

Table 3: Situation of residual liabilities to the state budget and state social security budget on 31.12.2009 (large taxpayers)

State Budget			State social security budget		
	mil. RON			mil. RON	
Total	4,273.60	100 %	Total	3,466.90	100 %
Profit tax	187.90	4 %	CAS employers	1,242.90	36 %
VAT	1,116.40	26 %	CAS employees	366.50	11 %
Wage tax	280.70	7 %	Security contributions for work accidents and occupational diseases	30.80	1 %
Duty	236.30	6 %	Interest and penalties	1,819.30	52 %
Other profit taxes	321.40	8 %			
Interest and penalties	2,132.00	50 %			

Source: Data processed according to the official lists of ANAF

Figure 3 Situation of residual liabilities to the state budget and state social security budget on 31.12.2009 (large taxpayers)



As shown in the table and figure above, the largest share in the residual liabilities to the state budget is represented by interests and penalties for late payment (49%), followed by value added tax (22.33%) and the lowest share is that of profit tax (4%). In the case of the state social security budget, the largest share is also held by interests and penalties (52%), followed by the contribution for social security owed by employers to the state (36%).

Taxpayers with residual liabilities to the state budget on 31.12.2009 qualify for deferred payment, payment facilities, compensation, special administration, contrary enforcement proceedings will be applied. Romanian authorities have proceeded to the implementation of three of the measures listed above: enforcement proceedings began for more than half of the debtors (289 taxpayers out of 440 debtors to the

state budget, 216 taxpayers out of 350 debtors to the state social security budget), one third of them already having compensation claims about to be solved (144 debtors from the state budget, 127 from large debtors to the state social security budget), and only 7 taxpayers are under special administration according to Law No. 137/2002.

A comparative analysis of the social security budget deficit of 958.6 million lei and the amount of residual liabilities to the budget of 3466.9 million shows that the recovery of remaining debts would be sufficient to cover the needs of the public pension system. In the case of the state budget, on 31.12.2009, the amounts owed by large taxpayers of 4.273,6 million lei represent 12% of the budget deficit of 35.173,16 million lei published by the Ministry of Finance. Even though this study focuses on the debts of large taxpayers we shouldn't overlook the considerable amounts owed by thousands of small and medium taxpayers. Most certainly, by collecting these amounts, budget revenues would significantly increase and the tax burden would become lighter.

If these obligations are not paid, public decision-makers will have to find new ways to cover budget expenditures and tax burden will push even harder on those who understand and respect the rules and principles of taxation. Not paying tax liabilities (another form of tax evasion) becomes a cause of tax burden.

The low level of state budget revenues collected over the years can be explained by four factors. First we can talk about a poor collection of tax obligations determined by the inefficiency of tax administration, the effect being the increase of tax arrears. A second factor consists of the exceptions and exemptions from taxes granted to encourage investment, which led to the existence of little taxable matter. The third factor is the annulment and rescheduling of tax liabilities, which led to increased propensity of taxpayers to ignore the payment of taxes. The fourth factor is the existence of a high burden of social security contributions, encouraging tax evasion.

In conclusion, a reduction in the pace of implementation of these measures will make the arrears continue to represent a risk to the Romanian economy, by maintaining a constant pressure on aggregate demand, inflation and current account. Late collection of budget rights affects normal financial flows, with implications on the entire economy.

2.3. Tax burden – incidence towards tax evasion

Tax evasion is how business entities respond to tax burden when this exceeds a certain threshold deemed necessary to initiate, maintain and develop a business or any gainful activities, and also about their current wealth or income (Dinga E., 2008). Tax evasion means not declaring a bigger or smaller part of the taxable matter (Văcărel I., 2006). Although tax evasion has connotations which usually apply to the underground economy, it is not part of this economy but it is rather found at the inherent interference of the underground and official economy.

The first cause of tax evasion is considered to be excessive tax burden. Most times we are dealing with a vicious circle of fiscal pressure - tax evasion, as the tax burden increases, the phenomenon of tax evasion spreads, and, as tax evasion increases, the task and hence the tax burden will push taxpayers who fulfil their legal obligations harder.

In practice, tax burden determines the taxpayer to turn his fiscal behavior towards tax evasion or fiscal fraud. Although it is sad to admit, taxpayers' behavior of bypassing legal stipulation started to be considered normal using the dictum "if the law doesn't prohibit, then it allows". Unfortunately we are dealing with a tax legislation full of gaps and inaccuracies, enabling the emergence of this form of tax evasion. When the taxpayer is compelled with tax obligations, he resorts to a form of "self defense", but this time of fiscal nature. This fiscal self defense consists in taking the most favorable position relative to industry regulations. It partly depends on each taxpayer if they are willing or not to risk to evade taxes and also the way they do it, legally or illegally. Drawing a line between the two forms of tax evasion is an arbitrary procedure because there is continuity between them and the border is extremely sensitive, often being drawn depending on the particular case.

In 2009, tax auditors from the central and territorial structures of the National Agency for Tax Administration have conducted 112,160 inspections to individual taxpayers (29,150 actions) and legal ones (83,010 actions), of which 40,908 general tax inspections, 32,571 partial tax inspections, 22,471 unannounced, 8285 cross-checks, 7925 on-site researches (ANAF, 2010).

After the findings of tax auditors the general consolidated budget attracted additional amounts worth 5,848,162,217 lei (including: differences in taxes and contributions - worth 4,277,828,749 lei and related accessories - worth to 1,570,333,468 lei). Offences were fined with the amount of .206.431 lei (ANAF, 2010). The actions of tax inspectors mainly focused on taxpayers who operate in areas such as: wholesale trade of fruit and vegetables; handlers in commerce with various products; handlers in commerce with timber

and construction materials; wholesale trade of grains, seeds, feedingstuffs and raw tobacco; retail sales in non-specialized stores with food, beverages and tobacco; road haulage; electricity distribution; construction and engineering works; the clothing retail.

To combat this phenomenon, which has deep economic, social and even political implications, a consistent strategy should be identified and implemented. The efficiency of a tax system is measured by the degree of willingness to pay taxes, mostly opposed to the degree of resistance of taxpayers for taxes, so to tax evasion. In my opinion, when establishing a specific national tax burden, regardless of the form that it occurs in, we must not overlook a key feature of tax obligations, namely their reversibility. We must remember that the amounts collected by the state via taxes and contributions return to the economy and population in the form of actions, services, gratuities for those who have contributed to the general funds of the society. In other words, the only beneficiary of the tax obligations is the society as a whole.

3. Conclusions

Tax burden may be regarded as the part of income that taxpayers surrender to the State as mandatory levies. Looking at tax burden as a mathematical expression of the ratio between tax and aggregate economic indicators is in fact designed to express tax return. The increase of taxes above certain limits incentives not work, investments and savings, but prolongs a crisis, already installed. Also, the increase of tax burden is a prerequisite for conflict and doesn't generate motivation to work. Most tax liability encourages illegal employment and tax evasion. Reduced tax burden can be obtained on the basis of tax reforms which should aim at increasing the tax base while reducing tax rates without depriving the state budget of the revenues it needs.

Romania is in the category of countries with an average tax constraint, where although the tax burden is not excessive, for certain categories of taxpayers it is oppressive. The action of „tax smoothing” consists in the way of redistributing incomes through the budget mechanism, redistribution that depends on the alternative chosen by authorities for the distribution of tax burden on various structures of taxpayers. The problem that arises in relation to how fiscal policy is perceived at the individual and micro level is the tax burden. Policy should consider that taxation may not exceed a critical threshold, because otherwise it negatively affects economic development.

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PERFORMANCE ANALYSIS MODEL FOR COMPANIES USING THE LIQUIDITY, SOLVENCY, PROFITABILITY CORRELATION

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Abstract: *The paper presents an analysis model for economic performance built on the basis of the correlations between the companies' liquidity, solvency and profitability. The purpose of the research is to highlight through techniques specific for economic analysis the factors influencing performance, thus providing adequate support to base decisions. The results of the analysis materialized in a case study confirmed that the company's expected profitability depends on the proper management of resources, on the company's liquidity level and on the appropriate financing structure, which will determine adequate solvency.*

Key words: economic performance, financial position, profitability, liquidity, solvency

JEL classification: G32, L25

1. Introduction

The current legislative framework provides the possibility to justify managerial decisions in economy based on careful analysis of the financial situation that characterizes the activity of the economic agents. The accounting regulations in force stipulate that all legal persons applying the International Financial Reporting Standards (IFRS) must prepare and report annual financial statements. Besides the fact they allow continuous monitoring and adjusting of the activities in a company, they are also a source of information for various beneficiaries (shareholders, creditors, investors, employees, managers, fiscal organisms, etc.) to whom they provide coherent, relevant, reliable and comparable information, needed to justify economic decisions and to assess the management of the company's leaders (Feleagă, 2006).

Various aspects regarding the operational, financial and investment activities in an enterprise and the manner in which these aspects influence economic performance are important in the decision-making processes, as well as in informing processes. Stating the financial status of the enterprise involves conducting a diagnosis-analysis of the situation of the involved economic resources by starting from the information provided by the balance sheet, based on which we can calculate relevant financial indicators, such as: liquidity indicators, solvency indicators, management indicators, financial balance indicators (Ospishev; Nagornaj, 2009).

The information regarding economic performance is primarily provided by the profit and loss account. They are useful for assessing potential changes of the economic resources that the enterprise will be able to control in the future and for predicting the capacity to generate treasury flows with the existent resources.

Because there is a strong link between the financial position of the enterprise and its performance, using and expanding financial analysis techniques are more and more important within the steps taken by internal management to identify and mobilize own reserves to increase efficiency, another pivotal role belonging to the analysis areas of liquidity, solvency and profitability. Using adequate analysis models allows identifying causal links between influence factors and puts forward the internal reserves that lead to increased efficiency of the activities in conditions of financial balance and risk mitigation.

2. Liquidity, solvency and profitability indicators

Liquidity reflects the capacity of the company to pay its short term debts by quickly converting the current assets into liquid assets. Achieving optimal liquidity is the requirement for smooth economic activities that removes the risk for the company to be insolvent on short term and, at the same time, the financial resources are efficiently allotted in the operational and investment activities.

Positive cash flows ensure the amount of money for financing the activity throughout the economic cycle. The analysis of these flows provides information about the liquidity of an enterprise, the main

information source used by the analysis being the cash flow statement. This is a mandatory component of the annual financial statements, comprising a representation of the financial statement, which allows assessing how the economic operations of the company are acting upon its financial structure and the structure of the treasury (Lezeu, 2004)

The liquidity analysis can also be done with the help of the indicators in the Balance sheet of the company, both in absolute values, through the working capital, and in relative values, with the help of the liquidity rates.

The most used rates for the liquidity analysis are Current Ration (*CR*) and Quick Ratio (*QR*), calculated as follows:

$$CR = \frac{\text{Current Assets}}{\text{Current Liabilities}} \quad QR = \frac{\text{Current Assets} - \text{Inventories}}{\text{Current Liabilities}} \quad (1)$$

These indicators express the company's assurance to cover current debts from current assets, and the acceptable recommended value is around 2 for current liquidity (MFP, 2009). A company situated below the mentioned level indicates a deterioration of the short-term solvency capacity and a risk to mitigate the possibilities to honour the obligations contracted by the company to carry out its operational activity (Mărgulescu, et al, 2008).

The absolute expression of liquidity is represented by the Working Capital (*WK*), established as a surplus of permanent capital, used to finance the operation. This represents a "sensor" used to assess the financial situation of the company at a given moment (Dănuleşiu, 2009) and is calculated as follows:

$$WK = \text{Current Assets} - \text{Current liabilities} \quad (2)$$

$$WK = \text{Shareholders' Equity} + \text{Long Term Debt} - \text{Non Current Assets}$$

A positive expression of the working capital reflects a favourable situation for the enterprise, which has available cash to guarantee the good functioning of the basic activities and, at the same time, the payment of the financial, commercial or other type of commitments during one year. The negative value of the working capital means a lack of liquidity and the inability to pay short term obligations. The interpretation of the working capital must be nuanced by considering the cost of the permanent capitals, the size of the indicator being dependent on the activity sector, the financial policy, the maturity stage of the company, etc. (Avare et al, 2002).

Solvency represents the capacity of the enterprise to met long-term accounts payable, which corresponds with the possibility to achieve increased production capacity based on investments and therefore to economically develop. A high level of solvency indicates a good financial statement of the company and a positive signal for creditors and business partners. A reverse situation often leads to bankruptcy if it is accompanied by poor economic performance.

The company's solvency is closely related to the indebtedness level, which is why the solvency's analysis can be done through Long-Term Debt Ratio (*LTDR*) or Debt/Equity Ratio (*DER*) calculated as follows:

$$LTDR = \frac{\text{Long - Term Debt}}{\text{Long - Term Debt} + \text{Shareholders' Equity}} \quad (3)$$

$$DER = \frac{\text{Long - Term Debt}}{\text{Shareholders' Equity}} \quad (4)$$

Expressing solvency through the mentioned rates illustrates the structure of the capital within the company, an indicator known as having the function of financial leverage, with direct influence over the economic performance of the company. The effect over the performance may be positive when the efficient management of resources (assets) generates an economic profitability superior to the cost of the borrowed capitals. If the management of the assets is not adequate and their productive use doesn't lead to profitability higher than the interest rate associated to the long-term credits, then the indebtedness level no longer ensures a positive effect and the performance diminishes.

An economic analysis of the effects of the indebtedness level may be conducted regarding economic performance (Berstein; Wild, 2000) by calculating the Leverage Index as a ratio between Return on Assets (*ROA*) and Return on Equity (*ROE*):

$$\text{Leverage Index} = \frac{ROA}{ROE} \quad (5)$$

The favourable effects of the financial leverage occur when the Leverage Index is super-unitary.

Profitability expressed in absolute or relative values show the capacity of an enterprise to achieve profit by using available resources. The profit and loss account, which is an important component of the annual financial statements, allows the assessment of profitability in various forms: profit in absolute value, the profitability of the consumed resources, income profitability, commercial profitability, economic profitability, financial profitability, etc.

A common method to express economic performance is the return on equity, which links the obtained net profit with the shareholders' equity (Helfert, 2003):

$$ROE = \frac{\text{Net Income}}{\text{Shareholder's Equity}} \quad (6)$$

This financial rate is considered the most important profitability rate of a company because it expresses the extent to which the management of the shareholders' investment leads to increased earnings. The size of this rate guides the decisions of the capital owners to invest in business or to withdraw.

3. Modelling the liquidity, solvency, profitability correlation

In order to establish an inter-conditioning relationship between the liquidity, solvency and economic performance indicators we start from the determining formula of return on equity (relation 6). By introducing within the formula the long-term borrowed capital we can notice both financing sources of the activity, which leads to highlighting the capital's structure as a Debt/Equity Ratio:

$$ROE = \frac{NI}{LTD} \cdot \frac{LTD}{SE} = \frac{NI}{LTD} \cdot DER \quad (7)$$

where:

NI represents Net Income;

LTD - Long-Term- Debt;

SE - Shareholders' Equity;

Long term debts (*LTD*) are contracted to supplement equity (*SE*) to the level requested by the need to finance non-current assets (*NCA*) and the working capital (*WK*) and they can be calculated by starting from relation 2 as follows:

$$LTD = NCA + WK - SE \quad (8)$$

By introducing long-term debts in the formula of the equity capital's profitability (relation 7) we get the relation:

$$ROE = \frac{NI}{NCA + WK - SE} \cdot DER \quad (9)$$

The calculus formula for the financial profitability expressed like this allows indentifying the elements that determine the profitability level of a company: the absolute value of the earnings achieved from the activity of the company, the indebtedness level (the structure of the financing sources), the liquidity state expressed through the working capital and the technical capital.

By following the action method of these influence factors, we can see that profitability is increased when a growth of the net profit and of the indebtedness level is recorded, which also means taking an

increased financial risk. Increased indebtedness will have a positive effect on financial profitability only if the return on assets (*ROA*) will exceed the interest rate (Bodie; Kane; Marcus, 2004).

The working capital and the frozen assets act in reverse over the economic performance of the company, which means that profitability is decreasing as a growing need of funds for capital investments or for running the exploiting activity manifests.

The situation is interpretable because companies that don't need a large amount of assets due to their nature have high profitability and the opposite happens for companies that need a strong technical infrastructure, the profitability rate being lower. For these companies there are certain barriers to the penetration of the capital, the assumed risks are lower and shareholders will be rewarded in time from the reinvested profit and the strong economic growth. That is why it is recommended to interpret with caution the results obtained from the analysis based on the presented model, the comparison base being the competitors that have similar characteristics and operate in the same activity sector.

The informational valences of the model increase if it is used within a comparative analysis conducted in dynamic, in which case we may emphasize the influence of the factors that have acted over changing the profitability and on this basis we can justify decisions to increase economic performance.

Changing return on equity is influenced by the action of the following factors:

a) Changing non-current assets:

$$\Delta ROE(NCA) = \left(\frac{NI_0}{NCA_1 + WK_0 - SE_0} - \frac{NI_0}{NCA_0 + WK_0 - SE_0} \right) \cdot DER_0 \quad (10)$$

b) Changing the working capital:

$$\Delta ROE(WK) = \left(\frac{NI_0}{NCA_1 + WK_1 - SE_0} - \frac{NI_0}{NCA_1 + WK_0 - SE_0} \right) \cdot DER_0 \quad (11)$$

c) Changing equity capitals:

$$\Delta ROE(Kpr) = \left(\frac{Pn_0}{AI_1 + FR_1 - Kpr_1} - \frac{Pn_0}{AI_1 + FR_1 - Kpr_0} \right) \cdot Rs_0 \quad (12)$$

$$\Delta ROE(SE) = \left(\frac{NI_0}{NCA_1 + WK_1 - SE_1} - \frac{NI_0}{NCA_1 + WK_1 - SE_0} \right) \cdot DER_0 \quad (13)$$

d) Changing the indebtedness level:

$$\Delta ROE(DER) = \frac{NI_0}{NCA_1 + WK_1 - SE_1} \cdot (DER_1 - DER_0) \quad (14)$$

e) Changing the net profit:

$$\Delta ROE(NI) = \left(\frac{NI_1 - NI_0}{NCA_1 + WK_1 - SE_1} \right) \cdot DER_1 \quad (15)$$

4. Results and discussions

We extracted from the financial statements of an enterprise from the automotive industry a series of necessary information in order to validate the analysis model for profitability in relation to liquidity and solvency indicators (table 1).

Table 1: The evolution of economic-financial indicators, thousand lei

Indicators	01.01.	31.12.	Absolute deviations	Relative deviations (%)
Non-Current Assets	14660	17721	3061	20,9
Current Assets	8552	10260	1708	20
Current Liabilities	2387	1898	-489	-20,5
Current Ratio Current Assets/Current Liabilities	3,6	5,4	1,8	50
Working Capital	6165	8362	2197	35,6
Total Assets	23212	27981	4769	20,5
Shareholders' equity	19912	22739	2827	14,2
Long-Term Debt	913	3344	2431	266,3
Net Income	2251	2326	75	3,3
Debt/Equity Ratio %	4,585	14,706	10,1	220,3
Return on Equity, %	11,3	10,2	-1,1	-9,7
Return on Assets, %	9,7	8,3	-1,4	-14,4
Leverage Index	0,86	0,81	-0,05	-5,8

Source: The financial statements of the analyzed company

We can see from table 1 that the net profit of the analyzed company increased by 75 million lei, meaning 3.3%, but return on equity dropped by 1.1%. By applying the information in table 1 in the analysis model presented previously, we can determine how the influence factors acted over changing *ROE*. The results are the following:

- The influence of changing non-current assets $\Delta ROE(AI) = -8,7\%$;
- The influence of the working capital's variation $\Delta ROE(FR) = -0,9\%$;
- The influence of changing the equity capital $\Delta ROE(Kpr) = 1,4\%$;
- The influence of changing the financial structure $\Delta ROE(Rs) = 6,8\%$;
- The influence of the net profit's variation $\Delta ROE(Pn) = 0,3\%$.

Interpreting the results shows the evolution of the economic performance of the analyzed company and the factors that determined this evolution.

Although the net result of the financial exercise grew by 3.3% over a year, the company's profitability dropped by 1.1%, which is a negative signal for shareholders because the company reduced its capacity to efficiently managing the capitals invested by them. The value over 10% of the financial profitability from the end of the period is still considered satisfying for shareholders, who actually recorded a 14.2% growth of their wealth (if we only consider the equity capital indicator).

The superior growing rhythm of equity capitals and of assimilated elements compared with the growing rhythm of the net profit reflects the main cause that lead to the financial deterioration of the company's profitability. It can be not only the expression of a less efficient management of the company's resources, but it can also be due to the made investments and to the economic development trend, materialized in non-current assets increased by 20.9% and in working capital increased by 35.6%. The active investment policy is also suggested by the strong increase of the long-term credits, more than 3 times. Another debatable aspect is the highly increased current liquidity rate, which has increased during the analyzed period (by 50%), suggesting an excessive use of the stable resources in financing the exploiting activities at the expense of investment funding.

In these circumstances, the structure of the capitals changed by excessively using loans for financing the activity at the expense of equity capitals, which also means taking a higher risk regarding the adopted financial structure, as well as a reduction of the company's solvency by 10.1%.

The stronger pace of reducing assets profitability (-14.4%) in comparison to the profitability of equity capitals (-9.7%) led to the deterioration of the leverage index from 0.86 to 0.81, which illustrates again the fact that the chosen financial structure is risky, but we can see that the change of the financial structure had the largest contribution (6.8%) for the return on equity increase, which means that although it was preferred to take an increased financial risk and to accept the adequate decrease of the company's solvency, this was a good solution in implementing the economic growth policy for the enterprise. If the

conditions of the capital market change and the interests are looser, it is expected that in the future the investment efforts made by the company may ensure a strong growth of the total assets profitability.

These developments of the financial indicators have influenced the dynamic of the company's financial profitability. Certain influence factors have contributed to the increase of financial profitability, as well as changing equity capitals, changing indebtedness level and the profit's size, while the changes in non-current assets and in the working capital led to a drop in the invested capitals' profitability.

For the same reasons of noticing an active policy of economic development, the negative influence over the financial profitability induced by the growth of the non-current assets and of the working capital seems justified.

5. Conclusions

The need of a performing decisional management requires the use of a complex of analysis methods, procedures and techniques that find information support in the current structure of the financial statements in Romania. For a better justification of the financial decisions, the indicators that characterize liquidity, solvency and profitability are critical for the analysis. The dynamic analysis of these indicators characterize the trends regarding the adopted financial policy and its consequences at the level of the company, of the creditors and of the investors, the economic policy, the efficient management of the patrimony, etc. Introducing quality elements in the conducted analyses also require the use of analysis models, which can be used to study the effect of changing each determining factor over the evolution of the enterprise's profitability.

The model presented in the paper allows studying the correlation between liquidity, solvency and performance indicators and a better understanding of the financial situation specific for a company. At the same time, it allows to identify action courses and solutions to increase efficiency by starting from the economic meaning of the influence factors for the profitability indicator, in the sense in which they exercise their influence and of course, from the actual situation manifested in time.

On this basis we can enunciate a few general courses of action recommended to increase the efficiency of the financial management and the general performance of an enterprise:

- The proper management of the elements on which the liquidity level of the enterprise depends, usually expressed through the working capital, namely the current assets and the current debts. Although the existence of a positive working capital expresses the assurance of paying short-term debts, one of its too large dimensions reflected in a current liquidity rate higher than 2 suggests that the company has a large volume of own resources that can be involved in investment activities. The efficient management of the working capital requires increased efficiency in managing stocks, receivables and liquid assets. Maximizing the shareholders' assets will depend on how well the resources are managed to reduce costs (Fridson; Álvarez);

- Adopting an adequate and advantageous financing structure for the enterprise, meaning to carefully use a growing financial leverage, so that the increase of the indebtedness level will potentiate the efforts in the economic field. Taking an increased financial risk, reducing solvency and implicitly, the negative signals transmitted to capital suppliers are elements that find justification and can be compensated only through a better management of the patrimony, so that the assets' profitability will increase and the obtained profit will cover the interest level for the borrowed capital and the dividends of the shareholders (Hey-Cunningham, 2006);

- As a summary indicator where all the effects of the management manner of all the enterprise's resources, profitability characterizes the quality of a company's activity regarding all its aspects and must be carefully monitored.

The set of the financial analysis indicators and modelling the phenomena specific to enterprises are important instruments for justifying financial decisions, which can contribute to increasing the capacity of the economic agents to create value in conditions of efficiency.

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THE FUZZY MODEL FOR THE EVALUATION OF PUBLIC INVESTMENT PROJECTS

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Abstract: *This paper proposes a fuzzy model for making decisions regarding the evaluation and selection of the public investment projects, illustrated in an appropriate case study. The classic evaluation of the economic, social and ecological performance of the public investments is not enough and it is not possible because the indicators used to highlight the quantitative and qualitative aspects have a certain incertitude degree and they cannot be expressed in rigorous monetary terms in all the situations. The models based on the fuzzy logic offer to the managers of the public administrations a reasonable solution for substantiating their decisions.*

Key words: public sector, investments projects, performance, evaluation, fuzzy model

JEL classification: D81, G11

1. Introduction

In the development strategies conceived by the public administrations, investments represent the instrument which puts into practice the scheduled objectives, projects and programs. The public investments are project type activities, which generate into their deployment important public spending that is materialized in material, human and financial economic resources that add to the public physical stock (Anderson et. all, 2006).

The public investments are destined for objectives with an industrial feature of great complexity (electricity works, wastewater treatment plants and waste processing stations), infrastructure projects, transportation and communication projects, urbanism projects, environment protection, the development and modernization of public services, developing the infrastructure of education, culture, public health care and social protection, sports, leisure time activities, etc.

Public investment projects have a series of particularities as compared to the private investment projects, which derive from the initiators and the beneficiaries of the investments, the financing sources, the goals, the evaluation criteria, the complexity degree and from their methodology of approval and evolution (Stoian, 2003). The initiators of public investments are the local, regional and national administrations, and the beneficiaries are their communities. The financing sources for public investments are public money, which must be handled by taking into consideration the general interests of the population. The evaluation criteria of public investments aim at a sustainable development and take into account the economic, social and ambient aspects, while private investments aim with priority at the economic aspect related to maximizing the profit. The big public investment projects have a high degree of complexity, a low economic profitability and thus are unattractive for the private trading companies, which are financed from public funds. The approval, implementation and monitoring of the public investment projects are carried out by the main credit coordinators from the central and local public administration or the managers of some public institutions according to the competencies assigned by the Law of Public Finance (Law no. 273/2006, Law no. 500/2002), while the decision regarding private investments is made by the Board of Directors of the different business organisations.

Another particularity of public investments refers to the return of their financing expenses and to the covering of their operating expenses. From this point of view, there are public investments that are integrally self-financed and which recover their expenses from their own incomes, public investments which are partially self-financed covering only a part of their expenses from own incomes and public investments that do not generate incomes.

The particularities of the public investment projects call for their rigorous substantiating through feasibility studies that must emphasize the economic, social and ecological performances, to allow the ranking and selection of the projects so that there is a maximum general efficiency of the project. This is difficult to achieve considering the multitude of performance criteria considered for public investments and their quantification possibilities. Therefore, this paper proposes an evaluation methodology for these investments, based on the fuzzy logic.

2. The evaluation of public investment projects based on the economic performance

The economic performance of public investment projects must be assessed by taking into consideration the nature of the investment and the possibility to generate incomes. For the investment objectives that are completely self-financed (there is a full return of investment expenses and the operating expenses are covered entirely during the exploitation period) and which result in profit, the economic performance is assessed in terms of profitability, which is similar for private investment projects. For projects that generate incomes occasionally (education, health care, social protection), the economic performance is assessed in accordance to the necessary expenses for those services.

The economic efficiency of the investment projects measures their economic performance from the point of view of the ratio between the effects and the efforts of the investment process. The effects of the public investment projects can be emphasized at macroeconomic and microeconomic levels.

At a macroeconomic level, public investments boost economic growth through the increase of the capital stock (Aschauer, 2000; Milbourne et. all, 2003) and through the stimulation of the aggregated demand (Anderson et.all, 2006). The investments in infrastructure and education have economic effects diffused at a national level and contribute to the growth of the efficient use of the production factors.

At a regional level, public investment projects can contribute to the development of underprivileged areas, the achievement of social objectives, the improvement of life conditions in the rural area, fighting poverty and social inequity, the environmental protection and preservation, the improvement of the quality of life.

The microeconomic effects of the public investments are visible directly and indirectly as propagated outcomes. The private companies are the main beneficiaries of the facilities and infrastructure in the area (Huru, 2007). The population, the local communities and the private companies and partnerships are the main beneficiaries of public services, and any investment carried out to improve their quantitative and qualitative aspects is found in the welfare of these beneficiaries. At the same time, the fiscal and financial facilities and opportunities for the economic agents are actually induced investments of the community and their outcomes must be quantified.

Carrying out public investments means significant efforts generated by the human, material and financial resources needed for their implementation. Optimizing their economic performance requires many options, from which we use pre-established selection criteria. The option that uses the resources allotted by the public administrations with maximum efficiency is chosen.

The assessment of the investments' efficiency is usually done on the basis of *general and specific indicators*: the specific investment, term for the investment return, the efficiency coefficient, the rate of economic profitability, the specific recalculated expenses, the expenses for 1000 RON incomes, financial profitability, etc. The interpretation of efficiency must be carried out by taking into consideration the fact that many public services provided by different institutions are assessed and transitioned at their cost.

The selection criterion based on *the internal rate of return (IRR)* can be used if the investment options cannot be differentiated with the help of the mentioned efficiency indicators or there are contradictions between their values. It can be assimilated with the profitability of the lost chance, which is the earning that could have been obtained from the capital invested in the project on the money market on a period of time equal with the life duration of the project. It is calculated similarly to a discount rate for which the present value of the incomes flows is equal with zero and represents the minimum level of financial profitability for which the investment project becomes attractive (Salehi, 2008). The project with the highest internal rate of return will be preferred.

In the financial practice, the selection process also uses the *net present value (NPV)* criterion which has as a basis the profit earned from the investment project, determined as a difference between the total of the discounted flows resulted in the future from the project and the initial investment. If the net present value is zero, the project will return only the investment made at the discount rate taken into account. The positive value of the indicator shows the investment recovering in the functioning period, and the negative value means the investment cannot be recovered (Salehi, 2008).

Traditionally, the alternative projects are selected on the basis of a *cost-benefit analysis*, which is an explicit method to compare and assess the advantages and disadvantages of the projects expressed in money (Bănaşu, 2008). The cost-benefit analysis is a part of the feasibility study's content, which is a compulsory document for the approval of the public investments and includes:

- Identifying the investment and defining the objectives, including the specification of the reference period;
- The options analysis (no investments, maximum investment, medium investment);
- The financial analysis, including the calculus of the financial performance indicators: the cumulated flow, the net present value, the internal rate of return and the cost-benefit ratio;
- The economic analysis (compulsory only for major public investments), including the calculus of the economic performance indicators: the net present value, the internal rate of return and the cost-benefit ratio;
- The sensitivity analysis;
- The risk analysis.

In the fair assessment of the economic performance for public investment projects other indicators are also taken into consideration, such as: the time period, the capacities, the number of jobs created in the execution and operation phases, specific indicators for the activity field in which the investment is made etc.

3. Assessing the ecological and social performances of the investment projects

Sustainable development requires investments for ensuring environment protection and for improving the quality of life. Assessing the effects generated by these investments can be carried out through a series of indicators specific for sustainable development, such as: economic development indicators; poverty and social exclusion; the ageing society, public health; climate change and energy; production and consumption models; natural resources management; transportation. According to the architecture suggested by Eurostat, these basic indicators are divided into indicators used for the monitoring and revising of the sustainable development programs, which at their turn include analytical indicators. For example, the indicator of production and consumption models includes on the second level the ecological efficiency, which has many analytical indicators, such as: municipal waste collected per inhabitant, municipal waste treatment (from landfills), and recovered waste.

Most of these indicators are not quantified in money, and are generally difficult to assess in a money value, although on a long term any effect, no matter its source, will be transformed in elements that are possible to identify from an economic perspective.

The analysis of the public investment projects' performance, which generates non-monetary effects (for example: social equity, environmental protection, opportunity), is presently done on the basis of costs criteria, tracing the level and the structure of the efforts and the cost of an effect unit.

A useful methodology recommended by the international practice for the study of non-monetary benefits of a project is the *multi-criteria analysis* (Van Huylbroeck; Martens, 1992). This allows to take into consideration of all the rewards generated by the project and, at the same time, of the associated risks in an integrated framework (Ghaeli et. all, 2003). The evaluation of the projects on the basis of the multi-criteria analysis assesses the feasibility of the solutions proposed by the project from both a quantitative (the previous methods) and a qualitative point of view.

The necessary steps for applying the multi-criteria analysis are: identifying the problem the project must respond to, establishing alternative solutions to carry it out, establishing measurement criteria for the performances of the analyzed projects, expressing the weight of the highlighted criteria and of the project's value, making a project hierarchy.

The method of the multi-criteria analysis is frequently used internationally for strategic planning and the management of the public projects, from which we mention: Bio-electricity project in Greece, 2005; The airport expansion project, Netherlands, 2005; Monte Varita road project, Switzerland, 2003 (Getachew, 2008).

If the environmental and social impact of the project can be expressed in values, and the effects are not measurable, the descriptive specification of the affected elements is recommended in order to assess what is the admeasurements order in the ensemble of the effects generated by the project.

4. The use of the fuzzy sets in the evaluation of the public investment projects

The description and the presentation of the evaluation and selection techniques for public investment projects in the fuzzy logic has the role to prove that because of its specificity, it offers the possibility to

substantiate the decisions regarding the allotment of public resources on the basis of economic, social and ecological criteria, specific for sustainable development.

If the economic aspects that are evaluated within a project have a quantifiable expression which results from the financial analysis (*IRR*, *NPV* etc), the elements referring to the consequences of social or ecological projects need a different approach, and the specialized literature presents various ways to evaluate the performances criteria, such as: analytical hierarchy processes, multi-attributive utility functions, the PROMETHEE II technique, etc (Novak, 2005). Sometimes, even the level of the indicators resulted from the financial analysis are not known precisely, and in this case it is given in the form of fuzzy number (Dorota, 2001).

Because of these aspects, the evaluation and selection of the public investment projects is treated in a fuzzy logic, which tries the unitary measurement, especially of those vague and imprecise elements introduced by the assessment of the evolution for the social and ecological phenomena, which are difficult to quantify in money. This is possible by using linguistic variables (Beheshti; Lollar, 2008).

The fuzzy analysis applied in the field of the public investment projects' analysis is based on the general principles of composing the fuzzy sets, which requires the completion of different stages.

The verbal variables are set first, among which we mention opportunity, economic earning, social equity, environmental protection, and the list can be extended to other elements, which actually represent appreciation criteria for the project's performance.

Dealing the variables in the fuzzy logic needs to express the performance criteria in a universe [0,1]. On a scale of 0 to 1, they take the shape of important weights for the assessment of the project's performance, established on the basis of the evaluators' estimation. The experts' opinion depends on their experience and on the evaluation method of the risk to fail to integrally achieve the estimations made in the project. It is admitted that the preferences expressed by the evaluators can introduce a certain subjectivism degree, but they are generally based on scientific estimations.

For each project there is a fuzzy set which includes elements for the assessment of its quality according to the performance criteria.

These sets are subjected to a series of operations which will result in assessing the performance of the projects expressed in a fuzzy type value, which allows choosing the most viable project in accordance with the formulated criteria.

In order to exemplify the algorithm, we analyze three public investment projects (*PI*, *PII*, *PIII*) which represent alternative solutions to reach a goal that is part of the sustainable development strategy of a locality.

We establish for these projects as evaluation variables the performance criteria expressed linguistically, such as: opportunity, economic earning, social equity, environmental protection, written as CP_i $i = 1,2,3,4$.

If CP is the fuzzy type function of the performance criteria, its application for the U universe defined on the [0,1] scale becomes a fuzzy set:

$$CP = \{\mu_{CP}(u), u \in U\} \quad (1)$$

The evaluation action by the experts of the established performance criteria leads to expressing their importance through the correlated assessing of all the aspects considered of interest at the time of the evaluation (table 1).

Table 1. The hierarchy of the evaluation criteria for project performance

Performance criteria	Relative importance
Economic earning	0.60
Opportunity	0.70
Social equity	0.80
Environment protection	0.90

Source: experts' opinion

It can be seen in table 1 that the highest score is given for the environment performance. Next in the hierarchy of the performance criteria is the preference for ensuring social equity, which means a project will be highly appreciated if it ensures earnings for all the participants involved in its implementation and

operation, and thus contributing to the welfare of all the habitants from that area. On a lower level is the project's opportunity, which is the extent to which it meets the development needs at a microeconomic and macroeconomic level, as well as the right moment of implementing the project.

In the opinion of the experts, the economic performance of the projects is less important, but it still remains important, which shows that the spending of the public financial resources is not indifferent for ecological and social investments objectives.

The fuzzy set corresponding to importance of the performance criteria (CP_i) is:

$$\mu_{cp} = \{0.60; 0.70; 0.80; 0.90\} \quad (2)$$

The levels of qualitative and quantitative assessment defined on the [0,1] scale are established in order to differentiate the projects from the point of view of the performance afferent to each criterion (table 2).

Table 2. Levels for performance assessment

Performanace criteria	Relative assessment
Unacceptable (<i>NA</i>)	0.10
Low (<i>S</i>)	0.30
Average (<i>M</i>)	0.60
Over average (<i>PM</i>)	0.70
High (<i>R</i>)	1

Source: calculated data

The chart shows the way in which all the performance criteria of the projects will be assessed, which means in the opinion of the experts that if a project achieves an unsatisfying performance for a certain criterion, it will be quantified with 0.10, and if for a different criterion the performance is average then it will get the 0.60 value. The new resulted fuzzy set, the performance categories set, marked with C , has for the same [0,1] scale an application like:

$$C = \{\mu_C(u), u \in U\} \quad (3)$$

$$\mu_c = \{0.10; 0.30; 0.60; 0.70; 1\} \quad (4)$$

As a result of the assessment of the project variants by a group of experts the set of the project evaluation's results is settled on performance criteria, by taking into account the established categories ($E = \{\mu_E(u), u \in U\}$). It can be shown as (Novak, 2005):

$$E = \left\{ \begin{array}{c|ccc} & P I & P II & P III \\ \hline CP_1 & S & M & PM \\ CP_2 & R & NA & M \\ CP_3 & PM & PM & M \\ CP_4 & PM & R & PM \end{array} \right\} \quad (5)$$

The information obtained in the E matrix represents the qualitative assessment of the projects in accordance with the established performance criteria, and table 3 shows the numeric quantification of the E fuzzy set, which is the affiliation degree of the projects to the mentioned performance criteria.

Table 3: The evaluation of the investments projects

Performance criteria	Project I	Project II	Project III
Economic earning	0.30	0.60	0.70
Opportunity	1	0.10	0.60
Social equity	0.70	0.70	0.60
Environment protection	0.70	1	0.70

Source: calculated data

Underlying the decision regarding the choice of the project with optimum performance is in this case, a problem of the multi-criteria analysis.

The fuzzy sets are compiled in accordance to the performance assessed depending on each criterion, for the three projects:

$$\begin{aligned} \mu_{EPI} &= \{0.30; 1; 0.70; 0.70\} \\ \mu_{EPII} &= \{0.60; 0.10; 0.70; 1\} \\ \mu_{EPIII} &= \{0.70; 0.60; 0.60; 0.70\} \end{aligned} \quad (6)$$

Because the performance criteria have a different importance for the evaluation and the making of a hierarchy of the public investment projects (table1), it is necessary to assess the quality of each project depending on the level of performance recorded on each criterion and its importance.

In order to have a unitary scale of assessment for the proposed subjects, the next step is to homogenize them by calculating the involvement level of each project for the expected performance. This stage of the fuzzy logic means setting an implication function determined through the union of the complement of the performance criteria's importance set with the set of the project evaluation's results (Beheshti; Lollar, 2008) and is shown as follows:

$$I = \{\mu_I(u), u \in U \text{ and } I = \overline{CP} \cup E \quad (7)$$

The following values are obtained:

$$\begin{aligned} \mu_{IPI} &= \mu_{\overline{CP}} \vee \mu_{EPI} = \max[\{0.40; 0.30; 0.20; 0.10\} \cup \{0.30; 1; 0.70; 0.70\}] = \\ &= \{0.40; 1; 0.70; 0.70\} \end{aligned} \quad (8)$$

$$\begin{aligned} \mu_{IPII} &= \mu_{\overline{CP}} \vee \mu_{EPII} = \max[\{0.40; 0.30; 0.20; 0.10\} \cup \{0.60; 0.10; 0.70; 1\}] = \\ &= \{0.60; 0.30; 0.70; 1\} \end{aligned} \quad (9)$$

$$\begin{aligned} \mu_{IPIII} &= \mu_{\overline{CP}} \vee \mu_{EPIII} = \max[\{0.40; 0.30; 0.20; 0.10\} \cup \{0.70; 0.60; 0.60; 0.70\}] = \\ &= \{0.70; 0.60; 0.60; 0.70\} \end{aligned} \quad (10)$$

The values of the implication function for the investment projects are actually fuzzy affiliation degrees of a project to the performance criteria, taking into consideration the importance and the result of the experts' evaluation, which allows a unitary assessment (table 4).

Considering the performance criteria established for the analysis of the public investment projects and their hierarchy constructed in accordance to the main sustainable development directions (environment, social, economic), the projects have different features. The first project has a better performance related to the opportunity criterion against the second project, but it is inferior towards the other two from the point of view of the economic earning. The second project is superior when it comes to the environment protection, but has a disadvantage regarding the opportunity. The third project is favoured from the point of view of the economic earning, but records a lower performance for the social equity criterion. The analysis based on the

involvement degree of the project in accordance to the imposed performance steps does not ease the selection activity because a syntactical indicator which allows the construction of a hierarchy is missing.

Table 4: The project's performance for the evaluation options

Performance criteria	Project I	Project II	Project III
Economic earning	0.40	0.60	0.70
Opportunity	1	0.30	0.60
Social equity	0.70	0.70	0.60
Environment protection	0.70	1	0.70

Source: calculated data

In order to achieve a general evaluation of each project, the implication of the project for all the performance criteria is combined, which means applying a minimum function on the sets previously determined:

$$\begin{aligned} \min \mu_{PI} &= 0.40 \\ \min \mu_{PII} &= 0.30 \\ \min \mu_{PIII} &= 0.60 \end{aligned} \quad (11)$$

The obtained values allow the hierarchy of the alternative projects for achieving the investment because the minimum function has generated a general indicator which includes the qualitative assessment of reaching all the performance criteria taken into consideration.

The use of the most advantageous selection criteria with the maximum optimum alternative seems to belong to the third project, which has a fuzzy value of 0.60 points. In the fuzzy logic, this project will be preferred for making the investment, if the score obtained is considered acceptable.

5. Conclusions

The local, regional and national public administrations initiate and carry on investment projects which have major implications at a micro- and macroeconomic level, achieving the implementation of the sustainable development's objectives.

Because of the large volume of involved resources, the extensive time period and the multiple generated implications, the public investment projects are subjected to a deep analysis starting from the phase of drawing up the technical-economic documents.

The analysis of the investment projects feasibility must underline the quality of the alternative solutions for reaching the investment objectives presented in each project and must allow the hierarchy and the selection of the most advantageous options.

The classical scaling and selection techniques of the projects are based on quantitative assessments expressed through monetary indicators. They are considering especially the economic aspects of the investment projects, and the public administrations take into account the sustainable development projects, which also aim at achieving social and ecological objectives. Therefore, the qualitative quantification of the performance related to the established goals is often displayed in linguistic terms, which makes the decision process difficult. This process is even more complicated when there are several projects proposed, which have different values for each performance criterion.

The methodology presented in the paper allows the evaluation of the public investment projects after the concomitant consideration of different criteria, quantitative or qualitative, so that the selection of the investment alternative is done in accordance to the exigencies of sustainable development.

The unitary approach of the economic, ecological and social components is done within the fuzzy logic, where the "fuzzy sets" feature of the investment projects' performances results from taking into consideration the incertitude factors inherent to a future evolution.

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ALTERNATIVE ACCOUNTING TREATMENT REGARDING THE TANGIBLE ASSETS BELONGING TO ENTITIES IN TOURISM INDUSTRY

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Abstract: *In Romania, the revaluation of tangible assets was either mandatory either optional. Later development in the real estate sector led to new increases in the fair value. Since 2009, financial-economic crisis determined the decrease in the market value of the buildings and constructions. Numerous legislative changes determined us to create a comparative presentation of the legislation in force. This is why the conclusions to this study specify the tax treatment in the present and future period and results in a global analysis of revaluation and its incidence on the results of accounting, tax and equity.*

Key words: revaluation of tangible assets, gross net worth method, accounting treatment for revaluation difference, capitalization of revaluation reserve, tax depreciation and amortization.

JEL classification: M41, M48

1. Introduction

Our approach to research aims to clarify the main issues on revaluation of tangible assets, income tax impact of revaluation and the presentation of buildings and fixed assets in annual financial statements. Revaluation is computed for tax reasons (tax reduction on buildings) or to improve the financial position by increasing equity. The same tax reasons determine the Romanians to reevaluate buildings and constructions. Why? Tax on buildings belonging to legal persons is between 5 and 10% for non-reevaluated buildings for the past three years, and between 0.5 and 1% provided the reevaluation of the building in the last three years.

2. Specific concepts, moments and impact of revaluation on the final financial statements

2.1. Revaluation of tangible assets and the objectives pursued by the revaluation

The main basis of evaluation is the historical cost financial statements. To reflect the economic reality, the revaluation of fixed assets at fair value is allowed. Therefore, further measurements of the initial recognition of intangible and tangible assets can be done in accordance with one of these accounting treatments:

- a) according to the base treatment on historical cost less the accumulated depreciation and any accumulated impairment losses, or
- b) according to the alternative treatment, for the revalued value, which represents the fair value at the revaluation date, less the cumulated depreciation and any subsequent accumulated impairment losses.

The main objective should be represented by the tangible assets recognition in the balance sheet at their fair value (market value). From surveys conducted in the accounting practice we have found that not even 10% of traders follow this.

Regarding the reevaluation one should know the following answers:

- a) When revaluation is made and who determines the new value?

Revaluation of tangible assets is made on December 31, by professional evaluators, members of a professional body in the field.

- b) What condition must be respected for reassessment?

If we proceed to an asset revaluation in a group, the revaluation of all assets in that group it is necessary.

- c) What is the net book value of a tangible asset?

It is the value obtained by subtracting from the cost the accumulated depreciation and any impairment of value.

d) How to determine the outcome of the review and how to treat it?

The result from revaluation is determined by comparing the market value (fair value) with the net carrying amount (VNC).

If the revaluation is an increase with regard to VNC, it is treated as follows:

- as an increase in revaluation reserve, in case there was no previous unknown decrease as an expense in relation to the asset;
- as an income which compensates the expense with the previously recognized decrease for that asset.

If the revaluation is a decrease of VNC it is treated as follows:

- as an expense with the integral value of depreciation, if there was no previous revaluation;
- as a decrease of the reserve from revaluation to the minimum of existing stock value and the decreasing value, and the difference remained uncovered is recorded as an expense.

e) How to deal with accumulated depreciation on revaluation?

There are two modes of treatment:

- depreciation is recalculated proportionally to the change of gross book value of the asset so that the asset's book value, after revaluation, is equal to its reevaluated value. Recalculation is made in case of index based revaluation;
- cumulated depreciation is canceled from the gross carrying amount of the asset, which remains registered at revalued amount;

Then we proceed to the determination of depreciation on revalued amount of the asset.

f) What happens to the revaluation reserve?

The revaluation surplus included in the revaluation reserve is capitalized through the transfer in the account 1065 "Reserves representing the surplus achieved in the revaluation reserve" when it is considered that the surplus represents an achieved gain. Earnings can be considered attained:

- for decreasing from the asset records for that asset for which the revaluation reserve was established;
- following the use of the asset transferred as the difference between book depreciation based on original cost of the asset.

2.2. Tax treatment for reassessment and the revaluation techniques

The character for revaluation was either mandatory - GD 500/1994 and GD 983/1998, either optional - GD 403/2000 and GD 1553/2003. Accounting regulations in line with the European directives gave reevaluation a free character after 01/01/2004. The following evaluation techniques are known:

- gross value method, when it proceeds to recalculate depreciation;
- net worth method involving cancellation of the accumulated depreciation to revaluation date;

While accounting regulations recognize differences from revaluation, tax law generally manifests reluctance in recognizing the revaluation especially the negative ones. Therefore, we proposed, as target of our research, to examine the implications of revaluation of tangible assets on income tax and tax on buildings. Also we wish to clarify the issues on tax revaluation difference and tax depreciation treatment.

2.2.1. Tax treatment for the fixed assets existing in the balance at 31.12.2003

Fiscal input values of tangible assets also include the computed revaluation, according to the legal provisions until December 31st, 2003.

Consequently, tax depreciation, recognized when computing income tax is equal to the amortization.

If the revaluations took place on 31st December 2004, 31st December 2005, and 31st December 2006, the fiscal treatment takes into consideration the nature and the revaluation size, as follows:

- a) in case of a revaluation surplus: (i) annual accounting depreciation is enhanced, including revaluation surplus; (ii) surplus is not included in the fiscal value, having as a consequence the maintenance of tax depreciation at the previous level before revaluation.

Results that tax depreciation is equal to the one before revaluation computed in this period because tax value does not include the revaluation surplus from 2004-2006. Revaluation reserve is not taxed.

The periodically capitalized reserve while depreciating or when decreasing from the record of the asset is not capitalized.

- b) in case of a negative difference (i) the annual accounting depreciation is reduced; (ii) the negative difference is not included in the fiscal value; (iii) tax depreciation does not change, remaining the same as the valid one for the year 2004; (iv) the reserve used to cover the negative difference is taxed only for the part which was not deducted by tax depreciation; (v) the expense recognized for the negative difference uncovered from the existing reserve on revaluation is considered tax non-deductible.

Same tax treatment applies to tangible assets entered in 01.01.2004-01.12.2006. Fiscal value is represented by historical cost. On this basis we compute tax depreciation. If revaluation is done during this period, it is not recognized in the calculation of tax value respectively of tax depreciation. Consequently, accounting depreciation is calculated according to the revaluated value (fair value) and tax depreciation, depending on the initial value input, regardless of revaluation purposes.

2.2.2. Tax treatment during 01.01.2007 - 30.04.2009

For tangible assets outstanding at December 31st, 2003 and which have not undergone revaluation in 2004-2006, the tax treatment is described above.

For tangible assets outstanding at December 31st, 2003, and which were submitted for review prior to 01/01/2004 and / or during 2004-2006, within the fiscal value is recognized there the revaluation computed both on 31st December 2003 and the revaluation within 01.01.2004-31.12.2006, highlighted on December 31st 2006. In the same time accounting reassessments made after 01.01.2007 are recognized. Conclusion: tax depreciation includes the effect of accounting revaluation conducted in 2004-2006. If negative revaluation lead to decreases below the historical cost or the remaining value remained before revaluation, the new tax value may be lower than these.

Expense resulting from negative revaluation is not tax deductible:

- a) in the case of a revaluation surplus: (i) the annual accounting depreciation increases because it also includes revaluation surplus; (ii) the excess is included in the fiscal value, which includes the not harmonized part from the revaluation concluded in 2004-2006; (iii) annual tax depreciation increases and it is equal with the accounting one; (iv) the reserve is not taxed; (v) the reserve existing in the balance comprises wholly or partially, as appropriate also the revaluation surplus of up to 01/01/2007; (vi) the periodically capitalized reserve as depreciation reserve accounting (alternative treatment) or to lower the record is not taxed.
- b) in the case of a negative difference: (i) reduced annual accounting depreciation; (ii) negative difference value is included in the Fiscal Reserve used to competition of the used reserve; (iii) tax depreciation decreases being
 - equal with the depreciation resulting after revaluation , in the case of account balance 105;
 - equal to the amortization computed based on historical cost, if negative revaluation resulted in full consumption and decrease in revaluation reserve and the decrease of the value is below the historical cost or the carrying amount, as the case may be. (iv) reserve used to cover the negative difference is taxed only for the part that was deducted by tax depreciation; (v) expense recognized for the negative difference uncovered from the existing reserve on revaluation is considered tax non-deductible.

2.2.3. Tax treatment between 30.04.2009 - present

It is similar to the 2007-30.04.2009 period, with the difference that the reserve from revaluation computed after 01/01/2004 is taxed, according to asset depreciation, disposal or cassation.

Revaluation reserve derived from reassessments made by law to 31.12.2003 inclusive is not taxed.

The capitalized reserve from the account 1065, until 30/04/2009, even if reassessment was performed after 01/01/2004. If the economic operator will not capitalize on a periodic basis the reserve resulted from a free revaluation, after 01.01.2004, the depreciation surplus from the positive revaluation should be taxed.

3. Study case

In this study case on the impact of revaluation of the hotel building through net worth method on income tax and building tax, first review is computed on 31.12.2007 and results in a positive difference and the second on 31.12.2009 and results in a negative difference.

On December 10, 2005 the hotel was commissioned by the acquiring entity. According to the final acceptance certificate, the value of the construction is in amount of 120,000,000 lei. Duration of use is set at 40 years, the linear depreciation is expected to be recorded starting with January 2006. According to internal policies, amortization is not different from that determined by the tax rules.

On December 10th, 2007 the administrator of the organization proceeds to the first review of the construction, the fair value determined by the assessor in his report being 136,800,000 lei, the remaining useful life of 38 years. In applying accounting policies, the revaluation reserve is not periodically capitalized (for the depreciation of the revalued tangible asset), but to the disposal of the depreciable asset.

On December 31st, 2009 the second revaluation is registered. The fair value is determined by specialists is 113,400,000 lei, the remaining useful life of 36 years.

On March 31st, 2011 the building is sold, the price charged of 132,000,000 lei, VAT 19%. On the same occasion, the disposed building is removed from the balance.

3.1. Records for 2005

a) commissioning the building on 10.12.2005:

212 „Buildings”	=	231 „Tangible assets in progress”	120.000.000 lei
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Note: Linear depreciation plan provides an annual depreciation of 3,000,000 lei, by reporting the initial value to the time of use (120,000,000 lei / 40 years).

3.2. Records of 2006

a) registration of amortization for 2006 :

6811 „Depreciation of non-current assets”	=	2812 „Depreciation of buildings”	3.000.000 lei
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b) imputing the amortization in the income account:

121 „Profit/loss for the period”	=	6811 „Depreciation of non-current assets”	3.000.000 lei
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3.3. The records for 2007

a) registration of amortization for 2007:

6811 „Depreciation of non-current assets”	=	2812 „Depreciation of buildings”	3.000.000 lei
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b) payment of amortization expense on the income account:

121 „Profit/loss for the period”	=	6811 „Depreciated on of non-current assets”	3.000.000 lei
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c) Building revaluation: c1) cancellation of accumulated depreciation on 31.12.2007:

2812 „Depreciation of buildings”	=	212 „Buildings”	6.000.000 lei
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c2) difference from revaluation on 31.12.2007:

212 „Buildings”	=	105 „Revaluation reserve”	22.800.000 lei
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Outstanding tax amount on 31/12/2007 = Amount of input tax 120,000,000 lei - Cumulative tax depreciation 2006/2007 6.000.000 lei + Revaluation 31/12/2007 22,800,000 = 136,800,000 lei, that is exactly the time the fair value from revaluation.

3.4. The records for 2008

a) registration amortization for 2008:

6811 „Depreciation of non-current assets”	=	2812 „Depreciation of buildings”	3.600.000 lei
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b) imputing the amortization in the income account:

121 „Profit/loss for the period”	=	6811 „ Depreciation of non-current assets”	3.600.000 lei
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- remaining accounting value(recognized in the balance form 2008) is 133.200.000 lei (the fair value 136.800.000 minus 3.600.000 lei depreciation);
- remaining fiscal amount on 31.12.2008 is also 133.200.000 lei;
- so, the accounting of the construction is equal to the tax base because the revaluation reserve was included both in the book and tax value, therefore, in terms of methods of accounting for income tax, there are no temporary differences, deductible or taxable;
- accounting depreciation expense is recorded in the structure or the operating expenses at its annual level 3,600,000 lei;
- in the equity structure, the reported revaluation reserve is 22.800.000 lei;
- in terms of tax, the accounting expense with the amortization is non-deductible for an amount of 3.600.000 lei, and the tax deduction with amortization is 3.600.000 lei;

3.5. The records for year 2009

a) registration amortization for 2009:

6811 „ Depreciation of non-current assets”	=	2812 „Depreciation of buildings”	3.600.0
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b) imputing the amortization in the income account:

121 „Profit/loss for the period”	=	6811 „Depreciation of non-current assets”	3.600.000 lei
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Table 1: negative revaluation 31.12.2009: New fair value becomes 113.400.000 lei

No.	Elements	Values	Observations
1.	Substituted value (Vjo)	136.800.000	Account Balance 212 "Construction" before revaluation
2.	Depreciation period (years) Ao	38	
3.	Annual Depreciation (1:2 = RON)	3.600.000	2 nd annually expenditure before revaluation
4.	Accumulated depreciation revaluation before registration (lei)	7.200.000	Balance 2812 "Building Depreciation, amortization will be canceled by decreasing the amount of construction (2812 = 212)
5.	Net carrying amount (VNC = 1-4) (lei)	129.600.000	DFB 212 - CFB in 2812, before revaluation
6.	Amortized before the remainder of Reeve	36	
7.	Previous revaluation reserve balance	22.800.000	Credit Balance 105 before revaluation
8.	Fair value (VJ1) - Lei -	113.400.000	Value taken from the report of Revaluation. (Value of the building will become the new Balance 212)
9.	Revaluation difference (VJ1 - VNC) (8-5) (lei)	16.200.000	Decrease the amount "consumed" only reserve (212 = 105);
10.	Revalued depreciation duration (years) A1	36	Length remains the same
11.	Annual depreciation recalculated (lei) VJ 1 / A1	3.150.000	Annual depreciation expense
12.	Revaluation reserve available (7 - 9)	6.600.000	Credit balance after revaluation 105

c) cancelation of cumulated amortization 31.12.2009:

2812 „Depreciation of buildings”	=	212 „Buildings”	7.200.000 lei
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d) use of the revaluation reserve on 31.12.2009:

105 „Revaluation reserve”	=	212 „Buildings”	16.200.000 lei
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Remaining accounting value (recognized in the balance for exercise from 2009) is 113,400,000 lei (fair value of the second review);

Fiscal remaining amount on 31.12.2009 is also 113,400,000 lei (amount of input tax 120,000,000 lei - Cumulative tax depreciation 2006/2007 6.000.000 lei + Revaluation 31/12/2007 22,800,000 -cumulative tax depreciation 2008/2009 7,200,000 lei – use of reserve 16,200,000 lei) there are no temporary differences, deductible or taxable;

Revaluation reserve reported in the balance sheet is in amount of 6.600.000 lei;

According to art. 22(5) of the Tax Code, reducing the revaluation reserve should be taxed for the additional part deducted with depreciation. So, the reserve used for revaluation is 16,200,000 lei 31.12.2009 and the surplus between the first revaluation (one from 31.12.2007) and the second one (31/12/2009) is in amount of 1.200.000 lei [(ROL 3,600,000 - 3,000,000 lei) * 2 years].

In conclusion, for calculating income tax for the year 2009, taxable income will increase by 1.200.000 lei (it will be taking into account the plus sign 1,200,000 lei, as a common element with the revenues); We also remark that the calculation of income tax for: (i) second quarter 2009, the entity must pay 100,000 lei, similar to income items [(3,600,000lei - 3,000,000lei) * 2months / 12months]; (ii) third quarter 2009, the entity was obliged to additionally tax the surplus of deducted depreciation in the third quarter, in amount of 150,000 lei [(3,600,000lei - 3,000,000 lei) * 3 months / 12 months].

3.6. The records for year 2010

a) *registration amortization for the year 2010:*

6811 „Depreciation of non-current assets”	=	2812 „Depreciation of buildings”	3.150.000 lei
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b) *the transfer in the account no. 121 of the expenses with amortization in 2010:*

121 „Profit/loss for the period”	=	6811 „Depreciation of non-current assets”	3.150.000 lei
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At the end of 2010, we will consider that revenue cash equivalents 150,000 lei (3,150,000 lei less initial annual depreciation 3,000,000).

3.7. The records for year 2011

a) *registration depreciation for 2011 (3,150,000 lei * 3 months/12 months:*

6811 „Depreciation of non-current assets”	=	2812 „Depreciation of buildings”	787.500 lei
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b) *transfer in the account no 121 of the expenses with amortization from the first quarter 2011:*

121 „Profit/loss for the period”	=	6811 „epreciation of non-current assets”	787.500lei
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c) *selling the building, 132.000.000 lei, VAT 19% on 31.03.2011:*

461	=	%	<u>157.080.000 lei</u>
„Sundry debtors”		7583	132.000.000 lei
		„Proceeds from disposal of assets and other capital transactions”	25.080.000 lei
		4427	
		„OutputVAT“	

d) *registering the disposal of building:*

%	=	212	<u>113.400.000 lei</u>
2812		„Buildings”	3.937.500 lei
„Depreciation of buildings”			
6583			109.462.500 lei
„Net value of assets disposed of and other capital transactions”			

e) the income transfer of the remaining value:

121 „Profit/loss for the period”	=	6583 „Net value of assets disposed of and other capital transactions”	109.462.:
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f) closing the income account 31.03.2011:

7583 „Proceeds from disposal of assets and other capital transactions”	=	121 „Profit/loss for the period”	132.000.000 lei
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g) capitalizing the reserve for the attained gains:

105 „Revaluation reserve”	=	1065 „Reserves representing surplus achieved in the revaluation reserve”	6.600.000 lei
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Tax treatment for the exercise for 2011:

- the accounting depreciation is not deductible for first quarter 2011 (787.500 lei) and tax depreciation **is deducted** in calculating income tax for the same size);
- the remaining accounting value is equal to the amount of tax remaining 109,462,500 lei, which means that there are no temporary differences, situation in which the expense related to the disposal of the construction is fully deductible;
- income from disposal of assets is taxable under Art. 19 Tax Code;
- revaluation reserve capitalized upon the exercise from 2011, in total amount of 6.600.000 lei, it is taxable for 5.250.000 lei as income similar items (let's not forget that part of the reserve, in amount of 1.200.000 lei, was taxed on 31.12.2009, at the last revaluation in 2010 and 150.000 lei, the excess of depreciation);

Table 2

No.	Indicators	In the absence of revaluation	In the presence of revaluation
1.	Buliding registration value	120.000.000	113.400.000
2.	Cumulated depreciation on disposal	15.750.000	3.937.500
2bis	CPC Cumulative depreciation	15.750.000	17.137.500
3.	Remaining value accounting	104.250.000	109.462.500
4.	The sale price excluding VAT	132.000.000	132.000.000
5.	The result of the transfer sheet (5 = 4-3)	27.750.000	22.537.500
6.	Overall accounting result (6 = 5 -2 bis)	12.000.000	5.400.000
7.	Fiscal value input	120.000.000	120.000.000
8.	Revaluation reserves included in V Tax	-	6.600.000
9.	Depreciation for tax deducted	15.750.000	17.137.500
10.	Fiscal remaining amount (10 = 7 + 8 - 9)	104.250.000	109.462.500
11.	Taxable income from transfer	132.000.000	132.000.000
12.	Revaluation reserve taxed, in which:	-	6.600.000
13.	Taxed in the year book sale	-	5.250.000
14.	Reserve taxed in previous years	-	1.350.000
15.	The result of the transfer tax (15 = 11+ 13- 10)	27.750.000	27.787.500
16.	Comprehensive income tax (16 = 15 + 14 - 9)	12.000.000	12.000.000
17.	Online transactions capitalized at the end	0	6.600.000
18.	Impact on equity (6+ 17)	12.000.000	12.000.000

- regarding the results of global accounting, Comparison revealed a difference of 6,600,000 lei (12,000,000 lei, if no revaluation, less 5,400,000 lei for each other);
- whether or not the entity has reassessed the building, is seen as the final size of equity is the same, 12.000.000 lei, indicating that no revaluation results in a distributable profit higher than determined by recourse to reassessment;
- revaluation reserve included in the tax value, amounting to 6,600,000 lei, the difference between revaluation date of 2008 (22,800,000 lei) and use the second revaluation reserve (16,200,000 lei).

4. Conclusions

The incidence on income tax of an appropriate revaluation conducted from 2004 to 2006 is the same as after 30/04/2009. There is only one difference, given by the subject of taxation.

In 2009 the revaluation surplus is recognized (or, to a limit, revaluation decrease) on the account of depreciation expenses, but the revaluation reserve are taxed, according to depreciation. For positive reassessments conducted between 2004 and 2006 the revaluation reserve is not recorded, but there is taxation for excess depreciation recorded in accounting and not recognized on a tax level.

If the case of negative revaluation the temporary deductible difference generated in the negative revaluation year under cost/carrying amount, if necessary, is the same both between 2004 and 2006 and after 30/04/2009. Free revaluations, further to the one conducted under GD 1553/2003, are not tax allowed, except for the period 01.01.2007-30.04.2009, very short period for assets which usually have a useful life of more than 30 years, as are buildings for hotel accommodation or public food industry units.

While accounting depreciation is synchronized to the economic reality, in terms of taxation, we face a difficult registration of legislative items, appearing the risk of tax evasion, and also a distorted picture of performance.

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- Law 571/2003 regarding the Fiscal Code, Official Gazette nr. 927/23.XII.2003, updated changes and completion;

SPECIALIZED FINANCIAL INTERMEDIARIES IN EU RESIDENTIAL REAL ESTATE FINANCE. AN OVERVIEW

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Abstract: *The international financial crisis which started in 2007 proved that the trend in universal banking operations could be considered a threat for the financial stability of the banking systems.*

In this paper we make a short overview of the residential real estate specialized financial intermediaries markets of EU, underling the importance of their activity, the trends of diminishing of their role in the favor of universal banking and the threats of this tendencies. We consider that the most stable models for real estate finances are mutual banks and contract savings for housing because of their finance circuits' characteristics.

Key words: specialized financial intermediaries; real estate finance; universal banking; trends; crises

JEL classification: G01, G21, L85

1. Introduction

In the European Union, the real estate market is far from being unitary, there are differences from one country to another in terms of the types of financial intermediaries that take part in these funding actions, financing techniques and methods, traditions, the structure of the real estate market, the value of mortgage debt, per capita value of mortgage debt, mortgage debt to GDP, value and trends in nominal house prices, and so on.

In the same train of thought, banking systems from EU27 present differences in the degree of specialization of the credit institutions. Although the phenomenon of globalization and competition have created the trend towards universal banking operations, especially by creating financial conglomerates, in the EU countries there are several specialized credit institutions. We could mention the financial institutions specialized in residential real estate funding, which function according to specific financing circuits. Their role in the residential real estate funding has diminished in the last decades, as it has been gradually replaced by universal banks.

2. Special finance circuits in residential real estate development

Finances in the residential real estate have a great number of characteristics regarding financing systems. Historically, a characteristic of many housing finance systems was the existence of a special circuit in which particular types of lenders enjoyed preferential financing, often operating apart from the broader financial markets (Diamond and Lea 1992).

The literature in the field presents several classifications of the institutions which offer real estate funding. Lea considers there are four main institutional models for real estate funding (Lea, 2000, p. 5):

- *Commercial Bank Model:* Deposit-financed, diversified portfolio lenders;
- *Mortgage Bank Model:* Bond-financed, specialized portfolio lenders;
- *Contract Savings Model:* Specialized institutions offering subsidized, loan-linked savings contracts;
- *Secondary Market Model:* Second-tier institution lending to or purchasing loans from primary lenders.

We could also mention the *mutual banks model*, where we include building societies; savings banks specialized in real estate finance, cooperative banks and so on, as well as the *real estate funds model*, which functions as mutual funds, which place the amounts attracted by shares in real estate investment.

The State could also play an important role in the involvement of certain specific financial circuits, based on public financial resources (USA, Japan, Argentina, Australia, France, Korea and Spain). These financing circuits have gradually lost their importance due to the trend in privatization of the financial institutions which promoted them.

In developed countries, real estate financing circuits intermediated by mortgage brokers have gained more and more ground. These entities may be specialists in mortgage origination or originate mortgages in

conjunction with other activities such as real estate brokerage, providing financial advisory services, or building homes (Lea, 2009).

3. Features of main residential real estate finance markets in EU

At present, countries from northern Europe have financial institutions specialized in finances in the real estate field which are present in a greater number than in the countries in southern Europe, as well as in the former socialist countries.

In the banking systems of Scandinavian countries, traditionally, mortgage banks have a significant role. In Denmark and Sweden private mortgage banks are the dominant mortgage lenders. Thus, in the Danish banking system we find *mortgage institutions* such as:

- BRFKredit concentrates on loan activities in the residential field, offices and commercial spaces and certain types of industrial properties;
- DLR Kredit offers loans for agricultural, horticultural and forest properties, and so on;
- FIH Realkredit, is a branch of FIH Erhvervsbank;
- LR Realkredit offers mainly loans for public interest building projects, with state funds;
- Nordea Kredit is part of Nordea group and offers loans for all categories of real estate properties, except projects of public interest, with state funding;
- Nykredit Realkredit offers loans for all categories of real estate properties;
- Realkredit Danmark is part of Danske Bank Group and offers loans for all categories of real estate properties;
- Totalkredit, a branch of Nykredit, offers loans for residential households.

At the end of 2008, the housing loan portfolio of Finnish financial institutions was €68 billion, accounting for 42% of their total loan portfolio. Finnish banking groups have subsidiaries specialized in residential real estate funding. For example: OP-Pohjola Group: OP Mortgage Bank, Sampo Bank Group Sampo Housing Loan Bank plc, Aktia Group: Aktia Real Estate Mortgage Bank plc.

Suomen Hypoteekkiyhdistys (The Mortgage Society of Finland) is a financial institution specialized in real estate financing, in which the members are the borrower customers, who pay an initiation fee when raising a loan. The Mortgage Society of Finland has been the only mortgage society in Finland since 1979, when Suomen Asunohypoteekkipankki merged with the Mortgage Society of Finland.

Just like the Finnish groups, the Swedish banking groups have subsidiaries specialized in financing the residential real estate field. Thus, Nordea, SEB, Svenska Handelsbanken (SHB), Swedbank groups have subsidiaries specialized in financing the residential real estate field. In December 2007, they held a market share of 13% from the Swedish financial system.

Even though the German banking system is oriented towards the universal bank, its system includes *specialized banking institutions* as well. *The mortgage banks (Realkreditinstitute)* are institutions specialized in financing real estate, obtaining resources through deposits or bond issue (*Pfandbrief*). In 2008, they held 9,4% from the total of mortgage loans, in 19 institutions.

These institutions can be classified as follows:

- Private mortgage banks (*private Hypothekenbanken*);
- Joint – stock mortgage banks (*Aktiengesellschaft - AG*);
- association limited by shares mortgage banks (*Kommanditgesellschaft auf Aktien - KGaA*);
- Public mortgage banks (*öffentlich-rechtliche Grundkreditanstalten*).

The institutions specialized in savings and loans for households (Bausparkassen) and other institutions specialized in finances for real estate reached a number of 25 in 2008, holding 9,8% from the total loans for households.

The issue of mortgage bonds is allowed for several types of institutions, in 2008 there were 62 authorized institutions.

The Austrian banking system is similar to the German one, as they have common roots. Thus, the main intermediaries on the market of real estate funding in 2008 were the following:

- 11 state mortgage banks (*Landes-Hypothekenbanken*);
- 4 building and loan associations (*Bausparkassen*);
- 5 real estate funds.

The building societies started their activity in Great Britain in the 18th century and the members made regular payments with the purpose of financing house building. The members of these societies were not shareholders, in its proper meaning, but they had ownership rights on the shares.

The major change in the management of these societies was undertaken in 1986 due to the, *Building Societies Act*, which gave the right to these institutions to invest in commercial bonds and to offer loans without guarantee, but in a limited proportion. They were generally allowed to use the same tools and methods as the banks. At the same time, this regulation gave the right to these institutions to change into banks, going from mutual capital to shares. At the end of 2008, there were 55 institutions of this kind, with a network of 1.916 banking units (BSA, 2009).

Ireland is one of the European countries with a system specialized in financing the developed real estate field and it has diverse and numerous institutions: *building societies, mortgage intermediaries, retail credit firms, home reversion firms*.

In France, there is a network of financial institutions, specialized in real estate loans, which function after specific regulation. Thus, in 2008 there were 6 *mortgage credit companies*, 16 *home loan companies*, 38 *real estate leasing companies*, and 17 *real estate finance companies*.

The group of financial units in Spain has subsidiaries specialized in residential real estate financing, but their activity is insignificant in comparison with the volume of residential real estate financing offered by commercial banks. In Italy and Portugal, residential real estate financing is supported mainly by commercial banks.

The former socialist countries, which are EU members, generally have banking systems based on universal banks, and the structure of their banking systems is influenced mainly by foreign banks and financial institutions which enter the system by opening branches and subsidiaries. Thus, Austria is the country with the highest market share in the countries from the center and the south-east of Europe. In this context, we notice the presence of institutions specialized in financing the residential real estate field in the financial system, such as building and loan associations.

In Romania, the main source of financing residential real estate is the mortgage loans offered by commercial banks. Also there are 2 *building and loan associations (Bausparkassen)* – Raiffeisen Banca pentru locuințe, which has overtaken HVB Banca pentru Locuințe in 2009, and BCR Banca pentru Locuințe – and some *non-bank financial institutions* specialized in mortgage loans and real estate leasing.

4. Trends in residential real estate finance in EU

With respect to financial intermediaries specialized in residential real estate financing, there is a noticeable decrease in their importance, when the commercial banks spread on the market. They have become the leading actors on the real estate market, holding the greatest percentage in real estate financing, in most European countries.

The main factors which lead to the increase of the role of commercial banks in real estate financing are the following:

- changes in corporate behavior and the tendency of the companies to obtain funds on the capital markets;
- increase in the interest in the retail clients due to the advantages they bring, under the conditions of a decrease in the number of corporate banking activity;
- relatively low risk of the real estate financing, especially in the residential field, in the presence of real estate guarantees;
- the possibility to sell a diverse range of financial products on long term, especially using cross-selling strategies.

The diminished role of institutions specialized in real estate financing is also due to the phenomena of consolidation and creation of financial conglomerates. Consequently, many financial institutions specialized in real estate financing were purchased, included in financial groups and activated as specialized subsidiaries. For example, in Holland mortgage banks ran into liquidity difficulties in 1982 and were merged with commercial banks or insurance companies, and in Italy, specialized banks were eliminated in 1995 and mortgage banks were merged with commercial banks. Also, the possibility to issue mortgage bonds, specific to mortgage banks, was allowed to a various and greater number of institutions (Germany, Spain), especially to commercial banks.

The factors which have led to the diminishing role of specialized financial institutions are diverse: mergers, bankruptcy followed by crises, changes in norms and laws in finance and banking, competition, the phenomenon of globalization and the international activity of banks.

Due to the emergence of financial conglomerates, the new entities were exposed to new risks, which they had not faced before and that had to be integrated in the appropriate management. This phenomenon sometimes led to weakened financial stability. The financial innovations of the last two decades facilitate the

transfer of risks associated with mortgage credits. A significant part of the risks associated with mortgages have been transferred via securitization and sold to investors at global level. In principle, the broader spread of risks stabilizes the system, because in opposition with previous crises, banks no longer need to bear the ensuing losses alone. The broad spread of risks, however, changes the dynamics of the market. While a few years ago credit risks were evaluated only by a small number of experts, nowadays the market analyses them through thousands of participants. Doubts concerning rating quality and price formation caused, in the summer of 2007, the *abrupt exit of investors from the market, massive price falls and the total loss of liquidity of the market*. Owing to the ensuing uncertainty, the crisis has seized other segments of the market as well, such as the segment of commercial buildings or of credits to finance acquisitions. Because transaction positions are reported as *fair value* or net recovery value, many banks have registered huge losses (Căpraru, Anton, 2009, p. 142).

The American “subprime” crisis which started in 2007 has spread at international level and affected the EU countries as well. The effects of the crisis were seen in a decrease of housing prices, a decrease of the level of real estate finances and the bankruptcy of financial institutions. In other words, the aggregate volume of residential mortgage lending in EU27 fell by 1,2% in 2008, in comparison with 2009, and for the percentages in GDP, the decrease was from 51,2% to 49,8% (Hypostat, 2009).

5. Conclusions

In recent years, in EU, the role of the institutions specialized in residential real estate financing diminished, in favor of the development of universal banks. The international financial crisis which started in the summer of 2007 proved that the trend in universal banking operations could be considered a threat for the financial stability of the banking systems, when the techniques used for the risk management are not improved and adapted to the new conditions as well as if the authority surveillance ability is not strengthened.

We also consider that the most stable models for real estate finances are mutual banks and contract savings for housing because they correlate the process of funds attraction to the process of loan offering. They start from well established financial circuits in which the beneficiaries are also the source of funds, raising the level of accountability. At the same time, these systems are not exposed to fluctuations on the monetary and capital markets, but their great challenge is to manage the market risks of providing long-term fixed-rate loans vs. shorter-term variable rate liabilities.

Even though the EU countries have adopted more and more the principle of universal banking operations, there are significant differences between their banking systems and the financing circuits, especially as regards the residential real estate financing. At present, the countries from northern Europe have financial institutions in the system, which are specialized in financing the real estate field, to a greater extent than countries from southern Europe and the former socialist countries. These latter have a banking system structured following the model of foreign financial institutions which opened branches and subsidiaries on their territory.

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THE IMPACT OF THE ECONOMIC CRISIS UPON CORPORATE GOVERNANCE AND TRANSPARENCY OF FINANCIAL REPORTS

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Abstract: *All crisis manifested internationally have spread lately doubt and insecurity on the capital market, that have also effects upon the investors' trust in the managers' capacity to represent their interests, mostly that in some situations they have acted illegally or with malevolence regarding the interests of the companies. The practice has confirmed the necessity to intensify the efforts of accepting and imposing an efficient model of corporate governance able to control, evaluate and meet the demands of all interested parties. The persons charged with corporate governance must assure that the entity reaches the informing objectives to the interested parties.*

The actions and the events in the last few years regarding financial reporting, accounting, financial audit and corporate governance have tended, in general, to increase the trust in financial reporting, at international level.

Key words: financial crisis, corporate governance, audit committee, transparency, financial reporting.

JEL classification: G3, G30

1. Introduction

In the context of a global economy shaken by the effects of the financial crisis, we seem to face a new wave of mistrust in the managers' capacity to administrate companies and to report endogenous and exogenous risks, and, thus, coming back to actuality the efficiency of the governing systems upon which governments and authorities of regulation and control have focused after the well-known scandals in the last period (Enron and WorldCom).

In the last few years, at international level, the number of the companies that entered the zone of financial transactions considered "inadequate" has continuously increased. Frequently, there have also been bigger and bigger differences in approaching the top managers' role – that tend to have an independent and autocratic behavior – and the shareholders' expectations. The critical commentaries have brought into light the efficiency of the regulation measures regarding the capital markets and the management systems in accounting, as a legislative fundament of financial informing.

The result of some research, made in 2009 by the Association of Professional Accountants (ACCA) that examined five key-domains – corporate governance, remuneration and stimulus, risk identification and management, accounting, financial reporting and regulations – as some of the main causes that increased the present global economic situation, identified:

- the existence of some risk management domains that lacked influence and power;
- some weaknesses in reporting risk and financial transactions;
- the poor supervision from the executive managers and the lack of a rigorous supervision from other non executive independent managers;
- the lack of reporting within the organizations and between these organizations and their management.

If we talk at least about the above mentioned causes, we mainly observe that it was possible to avoid their effects in case of a better regulation, but also an efficient involvement of the boards of administration of the respective organizations in applying the rules and respecting and applying the existing ones, in a word a better and more efficient corporate governance. The crises started by the weaknesses in the corporate governance proved that they may have devastating effects upon companies and capital markets. Then and now, the causes were multiple, but among the most important ones we find the inefficiency of the management strategy in administrating and controlling the endogenous and exogenous risks and the bigger and bigger difference in approaching the top managers' role – that tend to have an independent and autocratic behavior – and the shareholders' expectations.

2. Corporate governance – responsibility and motivation

The way of managing and controlling companies influences the transparency and the initiative to investors, but also the access to financing sources, facilitating or not the increase of capital flows, as well as their level of performance development and improvement. The changes in the corporate structure change the norms on the basis of which they are managed, and the managers' responsibility.

Presently, the managers are responsible not only for the shareholders of the company they manage, but also for all the interested parties: creditors, suppliers, clients, future investors, employees, government and society in general.

Corporate governance has cleared up in order to assure the company management for the benefit of the owners and third parties, as a response to the delimitation of the company management from its owners, and to increase trust, which is favorable to a larger gate to the worldwide capital markets.

Corporate governance is considered a system through which corporations are managed, administered and controlled on the basis of a set of principles, relations, rules, legally turned into founding agreements, internal codes of rules, governance codes and which are applied to the Board of Administration managers, shareholders and other interested parties in order to pursue some company objectives, as well as the means to reach them.

In such conditions, the Board of Administration has an essential impact upon corporate success, being in the centre of the governance system. The board's responsibility is to make sure that the company operates smoothly and that the corporate governance system is efficient and in conformity with the applied governance code, being able to assure the transparency solicited by the investors and the public.

To have the shareholders exercise their influence through the board, it is required to introduce those mechanisms that make them reach the proposed objectives, using thus auto-regulation techniques, constituting special committees, such as the audit committee, or employing other parties from outside the company, such as the external audit.

In spite of all these, there have been continuous scandals regarding the managers' attitude that have illegally or malevolently acted upon their companies and, implicitly, upon those who delegated them to manage (the shareholders). They observed that many times, when there were no supervision and control mechanisms adequate for managers, they had the tendency to give priority to their personal interests or to postpone, in a deliberate manner, the communication of some obvious risks, thinking that time solves all of them and only the special situations could let them know. Most times, it was proved that these risks show their real size during crisis times, due to the fact that the managers' hope to have a self-attenuation of risks is suddenly interrupted.

Paradoxically, these negative situations had a beneficial effect upon the identification of the improvement of corporate governance that corresponds to the new challenges and evolutions of companies. As a reaction to these events, there appeared the need to regulate that explains the efforts of some national and international bodies to implement rules, standards and recommendations which could serve as models to be followed in company administration. The application of some mechanisms adequate for corporate governance is considered to be the cornerstone of a company protected against endogenous and exogenous shocks, being imposed by two main reasons:

a) the necessity to set the objectives of the company management in agreement with those of all the groups involved: investors/shareholders, the Board of Administration, the executive management, salaried workers, business partners, public institutions etc., each of them having different interests in content, level of priority or time horizon.

b) the necessity to line up the shareholders' interests that obviously cannot participate at the company's current administration, with the shares and the interests of those who spontaneously manage the company (the administrators), who in their turn may use managers for the daily management.

Corporate governance imposes, thus, the transparency of the operations and transactions, provides the application of the established strategies and monitors the internal system of control from the point of view of its capability to evaluate and administer all possible risks.

The principles of corporate governance are generally concentrated upon the companies publicly transacted and they were elaborated by many countries as a reference point in order to establish a good behavior at company level.

A fundamental role of the Board of Administration must be to direct, control and monitor the executive managers' operations and actions after they have previously established some clear objectives,

responsibilities, structures and adequate committees, policies and they have delegated authorities and provided the executive managers with the necessary resources in order to reach the company's targets.

As the structures and practices of the councils vary from one country to another, there is no singular way for corporate governance. A common principle is that according to which the entity must have a governance structure that allows the board of administration to exercise, independently, an objective reason for the company businesses and the financial reporting especially regarding management. The adequate mechanisms of corporate mechanisms provide safety and protection to the investors, but also confidence on the capital market that is ultimately translated by reducing the costs of accessing the supplementary capital, by increasing the liquidity of shares and, consequently, by extending the capital markets. Inducing confidence on the capital market depends greatly on the external communication of the company, which cannot be made efficient without a system of reporting and informing characterized by transparency and fidelity.

3. Alternatives of regulation and implementation of corporate governance

Instituting corporate governance is not a novelty; it appeared as an effect of the reaction of the economic environment based on the family property, banking capital, institutional investors or anonymous companies, activated by the scandals that happened along the time. In international practice, even to the creation of various codes or guiding good practice under the aegis of the stock exchanges or other institutions, imposing corporate governance represented a part of the law in the companies which, by their basic legislation or through the contracts and the founding agreements, as well as the accounting organization and management, become thus the result of some norms, traditions and behavior models developed by every legislative system.

At this regulation process, numerous specialists from United States of America, England, France or Italy brought their contribution; at the end of last century, they wrote in their "reports" a part of the essential problems that must be considered when we analyze the management mechanisms of a company. In this sense, we have to mention the Cadbury Report, the Greenbury Report, the Peberreau Report, the Vienot Report, the Marini Report and, more recently, the Sarbanes-Oxley Report.

The regulation efforts in the last decades have shaped the tendency that all the informal sources previously mentioned must be compiled in unitary documents under the name of *codes of corporate governance*.

The modern trends regarding the corporate governance and the codes of good practice started in the 1991 as a response to the events and the failures regarding the mistrust offered by the shareholders to the managers, but also their ineffective contribution to the company performance.

Most codes of corporate governance have been elaborated in the European Union (more than 35), and approximately one third have been elaborated in Great Britain. In 1991, as a result of diminishing competitiveness and bankruptcies of the great English corporations in the '80s, one of the earliest attempts to frame within a code the corporate governance belonged to the Cadbury Committee that had to respond to a series of problems regarding administrators' and managers' responsibility to financial reporting, the relations between the shareholders and the administration, the role of the audit committees etc. From the respective report it resulted that the corporation bankruptcies were due to the major problems of organizing and functioning the internal control system, which means problems that regarded the top managers. The general management not only that they did not succeeded in avoiding the produced catastrophes, but in some situations they even brought their contribution to the appearance of these failures. The report was meant to respect the principles considered to be important parts of good governance: integrity, transparency, responsibility, competence. The conclusions were published in 1992, under the shape of a code of "good practice" in business (the Cadbury Code) under the aegis of the London Stock Exchange and of the profession of accounting and audit, which later turned into worldwide references in what corporate governance was regarded.

One of the provisions specific to the code was the necessity to separate the board of administration from the firm management. This thing would not be possible when CEO is one and the same with the president of the board of administration.

The main recommendations of the code were meant to improve the company behavior and they referred to founding committees, especially the audit committee, the necessity to participate at the board of administration of some independent persons (non executive directors) and the necessity to control the information transparency before it is transmitted to the market. Admitting the importance of the provisions of corporate governance the recommendations were included in the conditions of market quotation and

encouraged thus the listed companies to accept their flexibility at the level of principles of *best practices* and not a law-abiding obligation. Thus, there is the new principle of *comply or explain*, which says that the companies must consider seriously the general principles of the relevant corporate governance codes, but in some respects they could not apply as long as they explain in their annual report the way in which they did not conform and the non-conformance motive (Feleagă- 2008).

In 1998 after several completion and improvements (the Hampel report in 1995), the *Combined Code* was published and became a compulsory requirement for the companies listed on the stock exchange. In 2003, at the initiative of Derek Higgs and Robert Smith, the Combined Code was renewed.

The influence of the British system in the world became real again as the corporate governance systems became operational in other zones of the world and implicitly in the USA, after the famous bankruptcies of Enron and World Com. The approach of the implementation was still different in the USA as compared to Great Britain, as it was applied by law. In this sense, in 2002, the USA Congress adopted the „Sarbanes-Oxley Act” (or the “SOX Act”). Although it approaches the same principle (“*comply or explain*”), the non-compliance is severely punished this time with fines and in certain situations with legal penalties. The act refers at various changes that strengthen the corporate governance system, offer investors’ protection, limit the managers’ power (admitting that the American management system provided absolute power to the company’s president is dangerous), the responsibilities of the listed companies, in what the financial and accounting report is regarded, are controlled by mechanisms of internal control and external audit etc.

According to the imposed rules of corporate governance, the companies must have committees of internal audit composed of independent administrators, and the certification of the financial situations has to be made by the president – general manager and the financial manager who are responsible for selecting the accounting standards and the interpretation of the financial results. In this sense, the act obliges the general manager to answer the question: “*How many of the company financial situations correctly reflect the financial statute of the company, according to your information?*” throwing thus the responsibility on his shoulders (Section 302 of the SOX Act). The SOX Act also founded, in the USA, an independent regulation board (the Public Company Accounting Oversight Board - PCAOB).

In 2006 the US Securities and Exchange Commission (SEC) submitted to the decisional bodies a new obligation, that of publishing in the annual reports the managers’ remuneration, the shares attribution or the option of shares acquisition, the company and the manager’s contributions to the pension funds etc.

The companies’ obligations to abide the SOX Act was criticized as the act starts from the presumption of approaching the corporate provisions of the type “the same measure for everyone”, regardless the size of the company, if they listed in New York, provisions generating pretty high additional costs (Campbell-2008).

According to some opinions, the SOX Act reduced the competitive flexibility of the USA as, beyond the useful reforms, it imposed an exaggerated legislation and “empowering without reason” generating additional costs also determined by the external auditors, obliged to attest the evaluation of the management regarding the efficiency of the structures and the procedures of the adopted internal control, which may lead to the reduction of the managers’ imperative actions in setting the corporate strategies and thus the corporate governance would have to suffer (Greenspan-2008).

In 1997, as a result of the financial crisis in Asia, the OECD Board asked OECD (the Organization for Economic Development and Co-Operation) to make up a set of principles and guiding lines, which could represent the foundation of the corporate governance in all the countries of the world. Generally, the objectives of the code had to aim at a transparent frame that clearly specifies and respect the applicable legislation regarding the shareholders’ rights, the information transparency, establishing the role of the board of administration so that it takes into account the shareholders’ interests.

The result was concretized in a set of standard principles that today are the basis of the corporate governance in all the countries of the world, being the only set of principles accepted at international level applicable to the entire corporate governance (juridical, institutional and regulation structures), as well as the practices that provide the environment where companies operate.

The principles of OECD represent an important component of the Report of Respecting Standards and Codes, realized by the World Bank and the International Monetary Fund. These principles were also adopted by the International Organization of Securities Commissions, as well as organisms of the private sector, such as the International Network for Corporate Governance. The principles have previously served as reference point in realizing a large number of national codes regarding corporate governance.

In 2003, on the basis of the Agreement of South-East Europe for reform, investments, integration and economic growth, the principles of OECD were revised and a consulting reference document was set up (the conceptual frame). "The White Book of Corporate Administration in the South-East Europe", according to which the corporate principles refer to: the role of the parties interested in the corporate governance, the information transparency, the shareholders' rights and protection, the responsibility of the Board of Administration. In elaborating these corporate governance principles they took into account the identification of the common elements of the most efficient practical models of corporate governance applied in the world and readapting them to the requirements of those times. In order to keep into account the evolutions appeared in the meantime and, consequently, to a large process of regional consulting, the principles of OECD were revised and approved by the governments of the member states in 2004.

At the level of the European Union, the community acquit refers to the trading companies, but there is no such thing for corporate governance (obligatory legislation or directives), only recommendations to introduce them in the national legislations. In the member states, the rules of corporate governance were issued by different entities: governmental groups, commissions organized by the government or the stock exchange, business or academic associations. In most cases, the rules were made by groups or associations of investors.

In order to face the evolution of the events which shaped the global field of corporate failures and the doubts regarding the investors' possibility to make the right decisions based on the information provided by the companies and the capital market, the governments and different competent bodies initiated changes, making harsh laws for corporate governance and especially introducing sanctions meant to determine ethical and transparent policies. Presently, most developed countries and developing countries have a corporate governance issued by various regulation bodies or they updated the existing acts, the most famous being "Sarbanes-Oxley Act" in the USA, the "Combined Act" in Great Britain, the Cromme Act in Germany, the Law of Financial security in France, the Act of the Stock Exchange in Bucharest, Romania.

At international level, the principles of corporate governance have started to harmonize, but the significant traits between the main models practiced today in the world continue to persist, that is:

- the Anglo-Saxon Model of governance (specific to the companies in Great Britain, USA, Hong Kong and Australia) that is based on the external influence exercised on the active capital markets, strongly developed, with institutions that regulate the markets which develop consistent practices and policies of corporate governance.

- the Model of continental corporate governance, respectively German-Japanese (specific to the companies in continental Europe as well as to those in Japan) that is based on internal control imposed by strong shareholders and investors, mainly by banks.

Regarding the effects of corporate governance in the companies' life there are also opinions claiming that some corporate governance systems, created and implemented in some OECD countries or in the Western Europe and even in the USA, led to an excessive bureaucracy of the big companies. Many of the elaborated codes of corporate governance consider as very important the commissions founded near the board of administration, especially in order to supervise, diminishing thus the flexibility of the board and increasing costs.

On the other hand, there are points of view that agree upon the fact that the capitalist system is not an ideal one; it must be based, more than any other system, on discipline, transparency, trust and individual responsibility. The errors must be publicly punished not to be repeated and to restore the investors' trust, as the market economy still faces a lack of performance, administration errors, accounting dissimulations, bankruptcies, firing, losses of assets value etc.

4. Communication and transparency of financial reports

The transparency and the continuous informing represent the basic condition in order to speak about corporate governance as well as some efficient principles of operating the capital market. Presently, the company managers' responsibility does not refer only to the fair and efficient usage of the existing resources, but it also implies a social, ethic responsible behavior and efficient corporate governance. These responsibilities require managers to fulfill two main obligations:

- to file a report regarding the way they administer the existing resources;
- to transmit these reports to examination and independent auditing by or on behalf of those responsible (Porter - 2009).

Without access to the information provided regularly and in real time based on trust, the investors, the creditors and other third interested parties are not able to control the company managers' activity and make decisions about and distinguish their performance.

According to these requirements, the financial communication has become an essential function for the companies that are liable, through their informing policies, for satisfying a larger supply of information in their annual and intermediation reports. This supply can also satisfy the necessities of governance by setting an administration report and describing the main control departments of the company, such as the structure of the board of administration and the audit committee, as well as the implemented corporate governance code.

Accounting is a key element of operating the liberal capitalism and the shareholders and the investors need communication and the right to obtain fair and objective information (Greenspan - 2007).

One of the basic modalities through which the managers fulfill their obligations is represented by the financial situation resulted according to the accounting records. Being an information instrument regarding the financial status and performance, in most cases of accounting frames, the responsibility for setting up the financial situations belongs to the managers.

In spite of the efforts made in the last few years by the international accounting standard board - IASB, FASB (Financial Accounting Standards Board) in the USA, through the standards issued IAS/IFRS (International Financial Reporting Standards) and GAAP (Generally Accepted Accounting Principles) – did not entirely succeeded in making a solitary convergence solicited to reach the proposed objectives to provide transparency of the financial and accounting information transmitted on the market, but, on the contrary, in some situations, they have laid doubts upon some basic notions. One of these notions is represented by the evaluation at its fair value. In the crisis conditions characterized by a market marked by a high volatility, the solicitation of re-evaluating the assets and the dues at regular intervals followed by the acknowledgement in the profit account of the differences stipulated in the assessment conventions of the IFRS, the re-evaluation approach at its fair value, can be appreciated as being a rigid one, which responds to various interests according to the economic context, which can become, at the level of perception, an adjusting instrument for the financial situations “desired” by those who set them up.

In such situations, we may say that the transparency of the financial reports supplies the pessimism or the investors' optimism sometimes exaggerated, turning thus into a factor generating a financial boom or crash especially on the stock exchange.

The essential role for the transparency of the financial reports and the monitoring of the internal control, meant to improve the risks assumed by the company, belongs to the internal and external auditors who must ensure the supervision techniques and executive management regarding the integrity of the financial reports and the adaptation of the internal control as they were solicited in the relevant professional norms: ISA (International Standard of Auditing) respectively IIAS (International Internal Audit Standard).

The auditors must be independent in order to be efficient. The professional norms regarding the two categories of auditors approach differently their relation with the corporate governance structures. If for the external auditors the professional standards (ISA 260) stipulates their relation with the governance as being one of communication based on consulting and continuous informing upon the problems identified in the company along the mission, for the internal auditors there is no clear standard in this sense, but, from the contents of many specific standards one may deduce that the internal auditors are functionally subordinated to the structures of corporate governance that monitor the activity of internal audit and get recommendations to improve the governance and the control of risks. In spite of all these, the professional norms stipulate that the internal audit must not limit the actions and the communication of the results obtained. In order to reach this objective, the executive audit manager has direct unrestricted access to the superior management and the Board of Administration, being thus a relation of double reporting.

The structure of corporate governance, which has an important role, that of evaluating and protecting the independence of the internal and external auditors is the Audit Committee, which represents an essential component in the process of financial report implemented by the corporate governance, having the mission to protect the investors' and other interested parties and through which the auditors' and the other governance structures' communication.

In order to contract the audit services, the contracting and negotiation authority is, in both systems (the American and the British one), in the duty of the Audit Committee, which lays some doubts on the auditors' independence of the possibility to influence their professional reason and, implicitly, that of the mission.

In spite of all these, at the level of the corporate governance codes, there is a difference in approaching the relation with the external auditors, in the sense that the “SOX” model based on regulation prohibits the external auditors to make simultaneously audit services or other types of services such as consulting; the British system does not have such a restriction. With all the efforts made by the accountants of the professional community IFAC ([International Federation of Accountants](#)), IAASB (International Auditing and Assurance Standards Board), the users’ perception regarding the external audit reports continues to be controversial.

First of all, every time there are cases of companies that fail financially, a frequent phenomenon in crisis periods – there are also doubts regarding the quality of the financial reports, which, most of the times, are attached to the external audit, considered to be guilty as its utility of financial credibility is attacked. The audit credibility is questioned mainly because of the suspicions on the auditors’ independence, founded on the relation of employing an audit company by various corporate governance structures, as well as their remuneration by the company, while the auditors’ report is meant to serve the external users’ interests (the large public).

The form of the audit report raises such issues on a perception level especially linked to the preference for the short or the long form of the audit report, but also on the ambiguity determined by the usage of a strict and hermetic language, much specialized, that attenuate its role of “reasonable insurance”. Generally, the users of the audit report are waiting for more than terms of the type: “clear image”, “signification threshold” etc. the perception of a conflict of interests is amplified mainly by the possibility of disobeying the ethical conditions in which the auditors make, at the same time with the audit services, some non-audit services, as they are accepted in the governance system of Great Britain.

All these examples underline the need to supervise the standards and the practices of the financial reporting by the international professional bodies in the field of accounting and financial audit.

The actions and the events in the last years regarding the field of financial reporting, accounting, financial auditing and corporate governance generally aimed at increasing trust in financial reports, at international level, and they were influenced by the following main factors:

- a) Revising the legislation regarding the companies and the elaboration of corporate governance codes in the member states, in agreement with the OECD principles;
- b) The process of permanent development and revision of IAS/IFRS and the global strategy regarding their application;
- c) The global strategy regarding the necessity of public supervision of the statutory audit of financial situations in some developed countries of the world.

In Europe, the revision process of the European directives considered the assimilation of some key-requirements regarding corporate governance in agreement with the OECD principles. In this sense, they adopted the Act 2006/46/CEE that stipulates in a distinct section of the administrators’ report the entities transacted on a legal market and must present relevant information regarding the corporate governance that is:

- the code of corporate governance applied by the entity (imposed or selected) ;
- the applied practices of corporate governance;
- the description of the characteristics of the applied internal control and of the risk administration system in the process of financial reporting;
- the structure and the way of action in the boards of administration, management, supervision and their committees;
- the key-attributions of the General Meeting of the Shareholders.

The Act 2006/43/CEE stipulates the obligation of founding the audit Committees by the entities defined in the national legislation of each member state as being of : “public interest”, establishing also the attributions of this structure with clearly defined objectives regarding the protection mechanisms against risks including against those risks linked to financial reporting.

Another important and full of consequences European decision was that of selecting the IAS/IFRS standards elaborated by IASB, which have a considerable importance, being a key-instrument of using a single accounting language in a world of economic globalization and qualitative improvement of the financial and accounting reports of the companies.

From the point of view of corporate governance, the IFRS supports the shareholder model contrary to the stakeholder model, which takes into account the interests of all the parties participating at the life of the enterprise.

An important event that confirmed the solidity of the financial reports based on the IFRS was that the USA, through the decision of the Stock Securities Commission, permitted all foreign companies to transmit the financial reports set up according to the IFRS without retreating on the basis of the US GAAP (Generally Accepted Accounting Principles).

The global strategy on public supervision of the statutory audit of the financial situations in some states of the world was already put into practice. The institutions involved in realizing this strategy (IFAC/IAASB) aimed at making a convergence between the principles of a public supervision stipulated in Act 2006/43/CEE regarding the external statutory audit of the annual accounts and the consolidated accounts and principles established in the Regulation of the American Commission of public supervision as well as in various countries, such as Switzerland, Japan, Canada. These principles refer to:

- d) the degree of adaptation and the integrity of the public supervision system;
- e) the independence and the safety of the financing sources of the public supervision system;
- f) the independence in functioning the public supervision system from the audit profession;
- g) the transparency of the public supervision system;
- h) the performance of the public supervision system.

In 2007, the European Commission adopted some measures to complete the legal frame established by the Act 2004/109/CEE regarding the obligations of transparency that belong to the companies listed on the stock exchange. The act regarding the obligations of transparency and the measures of applying it intends to improve the quality of the information available for the investors about the returns of the trading companies as well as the modifications of the important participations.

In spite of the various legal systems in different countries, the institutional differences and the traditions, the national codes of corporate governance in Europe have common points as most codes had as model the OECD principles of corporate governance.

5. Corporate governance in Romania

In Romania, in the context of the integration to the European Union, the authorities have started to pay a special attention to the improvement of the practices of corporate governance, by taking for its national legal frame (Law 31/1990) some components of the principles of corporate governance of OECD: the unitary and dualist system of management; the responsibilities of the Board of Administration and the Board of Supervision; exercising permanent control on the company management; creating consultative committees (the Audit Committee) and operating independent administrators; responsibility to the society of the executive and non-executive functions; the protection offered to the shareholders; the organization of the internal control and the internal audit.

The legal frame in the field of the financial audit was completed with the regulations regarding the public supervision that entirely borrow the principles of this supervision, as well as the other requirements imposed by the Act 2006/43/CEE.

In 2008, the Board of the Bucharest Stock Exchange approved a new code of corporate governance (after the one in 2001), made up according to the model on the European markets and after a series of consulting sessions with the issuing companies, with the purpose of increasing the level of communication and transparency of the capital market in Romania.

The code comprises a set of recommendations referring to the corporate norms of behavior and deontology applied to the companies admitted to be listed on the market (BVB and Rasdaq) and a series of recommendations regarding the administrators' and the managers' remuneration.

According to the rules of corporate governance, the company management must found an Audit Committee formed of the non-executive members of the Board of Administration, most of whom should be independent, so that no one or a limited number people could dominate the decisional process of the Board of Administration.

BVB (Bucharest Stock Exchange) does not oblige the management of the listed companies to adopt all these requirements, but it solicits them to transmit annually a declaration of compliance or non-compliance with the provisions in the Codes of Governance. In the yearly declaration of the companies, they must motivate why the company did not entirely respect the recommendations made by the Stock Exchange, according to the principle "comply or explain".

In spite of all these, many of the listed companies did not respect the existing recommendations, in 2001, of BVB, or other instructions regarding the independence of the Board of Administration. The principles of corporate governance are continuously ignored by the smaller emittents and applied with in consequence by the larger ones. Most companies do not fulfill the new requirements regarding the

independent administrators, the members of the Audit Committee and the general recommendations of transparency and they consider too complicated to adopt the rules of corporate governance as it implies the modification of the founding agreement of the company.

The legal frame in accounting has borrowed the exact provisions of the Act 1606/2002 of the European Commission regarding the application of the IFRS/IAS by OMFP no. 1121/2006, as well as the provisions of the European directives including the Act 2006/46/CEE, in OMFP 2001/2006 regarding the modification and the completion of OMFP no. 1,752 / 2005.

Recently, by OMFP 3055/2009, the accounting regulations were approved according to the European directives that introduced the obligation of applying the accounting policies by the administrators, understanding by them “the specific principles, bases, conventions, rules and practices” applied by an entity to set up and present the situations.

The above mentioned normative act also introduced, starting with the financial exercise of 2010, the obligation of the entities’ management to apply the provisions referring to the internal control, which through the pursued objectives secures to subscribe the entity activity and the personnel behavior in the frame defined by the applicable legislation, the values and norms and the internal procedures, as well as the verification of the financial - accounting and administrative, correctly reflect the entity activity and situation.

In spite of all these, we consider that some provisions of the law of corporations no. 31/1990, should be improved, as there are no references about the responsibilities regarding the accounting policies and the internal control, and the provisions regarding the audit committees seem to have an optional character, by the lack of responsibilities for non-organization.

6. Conclusions

Faced with the present tendencies on the international market, a natural conclusion would be that the model of corporate governance represents a continuous preoccupation of the companies' managers that become aware that efficient and transparent corporate governance may contribute to protect the investors' interests, but also to increase the price of the shares on the capital market.

The existence of a large number of corporate governance codes at the company level is permanent. The existence of a large number of corporate governance and good practice codes at global level represents an acknowledgement of the fact that the corporate governance at the company level is permanent. The implementation of corporate governance by most countries was made and continues to be made differently, on the basis of some governance codes imposed by principles or law, but in some states the implementation was made formally and mechanically, by modifying the legislation of commercial companies or conventionally by various codes elaborated by the ownership associations without taking into consideration the specific conditions determined by administrative, cultural, entrepreneurial factors and the level of development of businesses.

Although the regulations and the codes of governance applied in the world have undergone through remarkable transformations at national level, an issue that be solved is that, at global level, there are still different approaches of some identical situations. This situation requires identifying common elements in the most efficient practical models of corporate governance applied in the world and readapting them to the present requirements.

The capital markets need a high quality financial reporting, but the suspicions regarding the transparency of financial reporting of the audit independence and utility continues to persist.

At international level, there have been large steps taken to improve the system of financial reporting. The actions and the events in the last few years regarding the financial reporting in accounting financial audit and corporate governance have generally aimed at increasing trust in financial reports. At the same time, the perception of the auditors' mission and their independence imposes a larger and larger pressure upon their roles of announcing the alarm when they face rule breaking, so that the audit could represent an additional assurance that the corporate governance operate sand is efficient.

The solutions elaborated at international level to avoid various financial scandals are oriented to the services ethics and the independence specific to the accounting and audit profession that requires a close supervision and application of a quality control in the professionals' activities.

An important dimension of the convergence in accounting continues to be the convergence between the US GAAP and IAS/IFRS, knowing the significant differences of perspective between the two accounting references: while the American standards are based upon a set of norms and rules carefully detailed and contain information regarding the enterprises that are looking for clients on the American markets. The

international accounting standards are based on fundamental principles and contain information regarding the enterprises that are looking for clients on the international markets.

Accounting and audit regulation cannot be taken into consideration in isolation, but they must be seen in a global economic context in which the companies develop their activity, an objective that must motivate all international accounting and audit bodies to cooperate. We consider that there should be only one set of high quality standards in accounting and audit that must be used on all the capital markets in the world, as an assurance of a quality financial reporting.

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STUDY ON THE ENTITY'S ACCOUNTING LIABILITIES AND THE EMPLOYEES' SALARY DEDUCTIONS

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Abstract: *One of the problems that employers are facing is the salary contributions' calculation and the legislative regulations in the matter. It is impossible to capture all aspects regarding the salaries in one paper. Therefore, this paper focuses on presenting the entity's contributions regarding salaries and salary deductions, the accent being on the evolution of their quotas during 2006-2010. Moreover, we have made a case study on how the recreation leave is calculated, since it is common knowledge that in practice this aspect is often ignored.*

Key words: contribution, salary, fund, accounting

JEL classification: M41, M48, J30

1. Introduction

The salary deductions and the company's liabilities regarding salaries are a very important part of any economic entity's activity, the responsibility and professional risk of the people involved in this sector of accounting being more pronounced. Moreover, if the wage activity is not properly organized, in accordance with the permanently changing legal provisions, both from the financial-accounting point of view and the administrative one, the employees will not be motivated accordingly and the economic entity will not get the expected profit, being liable for additional costs, generated for example by fines or delay penalties.

2. Legislative and accounting aspects regarding the economic entity's liabilities for the employers

One first type of contribution of the employer is *the social insurance contribution* (Law 19/2000). It represents the difference between the social contributions' rates established differentially, depending on the working conditions and the individual social insurance contribution rate. The calculation and the payment of social insurance contribution owed by the employer are made monthly. As an exception, the employers from the category of non-profit organizations make this payment on semesters. The statement on the nominal evidence of employees and payment liabilities for the state social insurance budget is submitted monthly by the employer, until the 25th day, of the month following the reporting one, at the territorial house of pensions where its headquarters is located.

During 2006-2010, the social insurance contribution owed by the employer has had the values presented in table 1, established by the annual budget laws of the state social insurance.

Another contribution of the employer is represented by *the insurance for work accidents and professional diseases* which is part of the state social insurance system, guaranteed by the state and it includes specific relations which insure social protection against the following types of professional risks: loss or reduction of work capacity and death as a result of work accidents and professional diseases (Law 346/2002 regarding the insurance for work accidents and professional diseases).

The value of the contribution for work accidents and professional diseases is established according to the rates and risk classes. The qualification in risk classes is made by the employer, according to the basic activity developed in every unit, who will submit a statement on his own responsibility in this respect. The rates of the insurance contribution for work accidents and professional diseases owed by the employer, depending on the risk class, are established through the annual budget laws of the state social insurance, and the rates and risk classes are established according to the methodological calculation laws of the insurance contribution for work accidents and professional diseases, issued by the National House for Pensions and Social Insurance and approved by government decision.

The value payable by the employer is established depending on the NACE code of the activity it undergoes. The calculation and payment of the contribution for work accidents and professional diseases payable by the employer is made monthly, except for non-profit organizations. The insurance contribution for work accidents and professional diseases payable by the employer is reported through the statement on the nominal record of insured people and payment obligations to the budget of state social insurance which is

If the first variant of accounting recording is used, the introduction of a distinct subsidiary of the 4311 account for the contribution of social insurance payable by the employer is requested.

The legal or natural persons where the employees develop their activity have the obligation to calculate and pay a contribution to the Single national health insurance fund, established under applicable law. This contribution is an element of the Single national health insurance fund, from which, the medical services offered to the employees are mainly covered. The rate of the *contribution for health insurance*, payable by the employer, set by law (Law 95/2006, regarding the health reform), may be changed by state budget annual law.

The calculation and payment of the health insurance contribution payable by the employer is made monthly, except the non-profit organizations. The health insurance contribution payable by the employer is reported by means of the statement on the nominal record of the employee and the payment obligations of the employer to FNUASS, which is submitted monthly by the employer until the 25th date of the month following the reporting one, at the territorial house of health insurance where its headquarters is located.

During 2006-2010, the health insurance contribution payable by the employer has had the values presented in table 3.

Table 3: The rates of the health insurance contribution payable by the employer during 2006-2010

Year	Calendar period	Rate (%)
2006	01.01. – 31.12	7
2007	01.01. – 31.12	6
2008	01.01. – 30.11	5,5
	01.12. – 31.12	5,2
2009	01.01. – 31.12	5,2
2010	01.01. – 31.12	5,2

This contribution's recording mode in the employer's bookkeeping is the following:

$$\begin{array}{ccc}
 6453 & = & 4313 \\
 \text{(The employer's contribution for health insurance)} & & \text{(The employer's contribution for health insurance)}
 \end{array}$$

The contribution for leaves and compensations has been introduced beginning with 01.01.2006, by applicable law (Emergency Ordinance 158/2005, regarding the leaves and health insurance compensations). This contribution is paid in the account of the Single national health insurance fund, from which the following services are insured: medical leaves and health insurance compensations. The rate of the contribution for leaves and compensations payable by the employer is established by law (Law no.399/2006, regarding the leaves and health insurance compensations).

The contribution for leaves and compensations payable by the employer is reported through the statement on the record of payment obligations towards the FNUASS budget for leaves and compensations, which is submitted monthly by the employer until the 25th date of the month following the reporting one, at the territorial house of health insurance where its headquarters is located.

During 2006-2010, the contribution for leaves and compensations has evolved according to the data presented in table 4.

Table 4: The rates of the contribution for leaves and compensations during 2006-2010

Year	Calendar period	Rate (%)
2006	01.01. – 31.12	0,75
2007	01.01. – 31.12	0,85
2008	01.01. – 31.12	0,85
2009	01.01. – 31.12	0,85
2010	01.01. – 31.12	0,85

This contribution's recording mode in the employer's bookkeeping is the following:

$$\begin{array}{ccc}
 6453 & = & 4313 \\
 \text{(The employer's contribution for health insurance)} & & \text{(The employer's contribution for health insurance – distinct subsidiary)}
 \end{array}$$

or

$$\begin{array}{ccc}
 635 & = & 447 \\
 \text{(Expenses with other taxes, duties and} & & \text{(Special funds – taxes and assimilated payments} \\
 \text{assimilated payments)} & & \text{– distinct subsidiary)}
 \end{array}$$

If the first type of recording is used, the introduction of distinct subsidiary of the 4313 account is also requested for the contribution of health insurance contribution payable by the employer.

Moreover, the employers must pay a monthly contribution to the *unemployment insurance fund*, whose rate applies for the monthly salary fund (Law 76/2002 regarding the unemployment insurance system and the stimulation of labour force).

The employer's contribution rate to the unemployment insurance fund is established by annual budget law of social insurance. The unemployment compensations are paid, as a main service, from the unemployment insurance fund.

The calculation and payment contribution to the unemployment insurance fund payable by the employer is done monthly, except for the non-profit employers. Employers have to submit, until the 25th date of the month following the one for which remuneration is due, to the employment agency where its headquarters is located, the monthly statement on the nominal record of employees and payment obligations to the unemployment insurance fund.

This contribution's values during 2006-2010 are shown in table 5.

Table 5: The rates of the employer's contribution to the unemployment insurance fund during 2006-2010

Year	Calendar year	Rate (%)
2006	01.01 – 31.12	2,5
2007	01.01 – 31.12	2
2008	01.01 – 30.11	1
	01.12 – 31.12	0,5
2009	01.01 – 31.12	0,5
2010	01.01 – 31.12	0,5

This contribution's recording mode in the employer's bookkeeping is the following:

$$\begin{array}{ccc}
 6452 & = & 4371 \\
 \text{(The unit's contribution for the} & & \text{(The unit's contribution to the} \\
 \text{unemployment benefit)} & & \text{unemployment fund)}
 \end{array}$$

The contribution to the guarantee fund for payment of wage claims has been introduced beginning with 01.01.2007, under applicable law (Law 200/2006, regarding the establishment and use of the guarantee fund for payment of wage claims).

The payment of wage claims that come from individual work contracts and from collective work contracts concluded between the employees and the employers against whom court decisions of insolvency procedures have been decided and for whom the management right has been partially or totally removed, are insured from the guarantee fund.

Employers must pay a monthly contribution to the guarantee fund for payment of wage claims in a percentage of 0,25%. During 2007-2010, the contribution's rate to the guarantee fund for payment of wage claims has not been changed. Together with the introduction of this contribution, the employer's contribution to the unemployment insurance fund was diminished, with its percentage value. In the statement on the nominal record of employees and payment obligations to the unemployment insurance fund which is submitted monthly at the employment agency where its headquarters is located, the contribution to the diminished contribution to the unemployment insurance fund payable by the employer is outlined.

The way to register the contribution to the guarantee fund for the payment of wage claims payable by the employer is the following:

$$\begin{array}{ccc}
 6452 & = & 4371 \\
 \text{(The unit's contribution to the} & & \text{(The unit's contribution to the} \\
 \text{unemployment benefit)} & & \text{unemployment benefit – distinct subsidiary)}
 \end{array}$$

or

$$\begin{array}{ccc}
 635 & = & 447 \\
 \text{(Expenses with other taxes, duties and} & & \text{(Special funds – taxes and assimilated} \\
 \text{assimilated payments)} & & \text{payments – distinct subsidiary)}
 \end{array}$$

If the first type of recording is used, the introduction of distinct subsidiary of the 4313 account is also requested for the contribution of health insurance contribution payable by the employer.

For the preservation and filling in of the employees' records of service that the employer has to submit at the territorial labour inspectorate where their headquarters is located, a commission is charged, according to the legal stipulations (Law 130/1999 regarding some protection measures for the employees).

This commission's percentage rate is differentiated as it follows: 0,75% from the monthly wage fund, for the employers for which the territorial labour inspectorates preserve and fill in the record of service; 25% from the monthly wage fund, for the employers for which the territorial labour inspectorates only check and certify their records. During 2006-2010, the commission's rates have not been changed.

The commission's calculation and payment payable by the employer is done monthly, until the 25th date of the month following the one for which remuneration is due. Employers must submit until the 25th date of the month following the one for which remuneration is due, at the territorial labour inspectorate where their headquarters is, a financial statement regarding the establishment of the commission.

The way the accounting record of the commission for the territorial labour inspectorate payable by the employer is done, in the bookkeeping, is the following:

$$\begin{array}{ccc}
 635 & = & 447 \\
 \text{(Expenses with other taxes, duties and} & & \text{(Special funds – taxes and assimilated payments} \\
 \text{assimilated payments)} & & \text{– distinct subsidiary)} \\
 \text{or} & & \\
 628 & = & 462 \\
 \text{(Other expenses for services done by third} & & \text{(Different creditors – distinct subsidiary)} \\
 \text{parties)} & &
 \end{array}$$

3. Legislative and accounting aspects regarding salary deductions:

The individual social insurance contribution payable by the insured (employees) is deducted entirely from the salary or, according to the case, from the gross monthly income of the insured according to the legal stipulations (Law 19/2000 regarding the public pension system and other social insurance rights).

The calculation and payment of individual social insurance contribution is done monthly, until the 25th date of the month following the one for which remuneration is due, by the employer. As an exception, employers from the category of non-profit organizations make the payment for this contribution on semesters.

The rate of the individual social insurance contribution is established through the annual budget social insurance during 2006-2010 have been shown in table 1.

The individual social insurance contribution is reported in the statement regarding the nominal record of insured and of payment obligations for the social insurance fund, which is submitted monthly by the employer until the 25th date of the month following the reporting one, at the territorial house of pensions where its headquarters is located.

The way the contribution for the individual social insurance contribution is registered in the employer's bookkeeping is done is the following:

$$\begin{array}{ccc}
 421 & = & 4312 \\
 \text{(Personnel – owed salaries)} & & \text{(Personnel's contribution to social insurance)}
 \end{array}$$

The health insurance contribution owed by the insured (employees) is deducted entirely from their salaries or, according to the case, from the gross monthly income of the insured according to the legal stipulations.

The calculation and payment of the health insurance contribution owed by the insured is done monthly, until the 25th date of the month following the remuneration payment by the employer, exception being the employers who belong to the category of non-profit organizations and who make this payment on semesters. The contribution owed by the insured is reported through the statement on the nominal record of the insured

From the monthly net income an amount can be deducted, which is called personal deduction and which can be granted only at the job where the employer has its basic function. The amount of this sum, legally regulated (O.M.F.P. 1016/2005) is influenced by the obtained gross income and the number of dependents.

The beneficiaries of incomes from salaries owe a monthly tax, which is calculated and withheld at source by the employer. The rate of this tax is of 16% applied on the base calculation determined as the difference between the net income obtained from the deduction of the mandatory obligations gross income and the following: the personal deduction granted for that particular month; the union due paid in that month; the contributions to the optional pension funds which can not exceed 15% of the monthly net income and which are deductible at the level of 400 euro amount annually. During 2006-2010, the tax rate has not been changed.

Employers must calculate and withhold the tax for each month as well as to transfer it to the state budget at the 25th date of the month following the one for which these incomes are paid, exception making the employers which belong to the category of non-profit organizations and who pay this tax on semesters.

Employers must declare this tax in the statement regarding liabilities to the state budget. This statement is submitted monthly or, according to the case, on semesters, to the competent fiscal body, until the 25th date of the month following the one for which these incomes are paid or of the following semester.

Moreover, employers must draw up and submit, at the competent fiscal body the financial statements, until the last day of February, the current year, for the ended fiscal year. These statements include the information regarding the income tax calculation on wages.

The way the accounting recording for the income tax from wages is done in the employer's bookkeeping is the following:

$$421 \quad = \quad 444$$

(Personnel – owed salaries) \qquad \qquad \qquad (The income tax from the wage nature)

4. The calculation of compensation for the annual resting leave

The right to an annual resting leave is guaranteed by law (Law 53/2003, the labour Code), to all employees. The money compensation of this leave is not allowed but in special situations, legally stipulated (for example, when the individual labour contract ends, if the resting leave has not been performed).

Further on, we shall present a case study for outlining the way in which the annual resting leave is calculated and recorded in the company's accountancy.

Therefore, according to the individual planning of the resting leave for 2008, the employee Popescu Ioan has the right to take a 21 resting days leave, in the period between 01.10.2008 and 29.10.2009.

The employee did not have un-excused absences during 01.01.2008-30.09.2008, consequently, the initial period of 21 working days of the annual resting leave for the year 2009 remains unchanged.

The actual calculation of the compensation for the resting leave for 2008 performed on the 22.09.2008 is as follows:

a) the calculation of the daily average for the last three months before the first day of holiday, performed according to the data in table 8.

Table 8: Necessary information for the calculation of daily average (D. a.) for the last 3 months before the first day of holiday

Month	No. of working days	No. of days worked	Achieved gross salary (RON)
July	23	23	1700
August	21	21	1700
September	22	22	1700
Total:	66	66	5100

Daily average before the first day of holiday = 5100 RON / 66 days = 77,27 RON

b) the calculation of the daily average for the period of the leave, performed according to the data in table 9.

Table 9: Necessary information for the calculation of daily average (D. a.) for the period of the leave

Month of the leave	No. of working days	Gross salary (RON)
October	23	1700

Daily average for the period of the leave = 1700 RON / 23 days = 73,91 RON

It can be noticed that from the two calculated daily averages, namely the daily average for the last three months before the first day of the resting leave and the daily average for the period of being awarded the leave, the highest value is held by the daily average for the last three months before the first day of the resting leave. According to the applicable legislation, the employee benefits from a resting leave compensation, which can not be smaller than the basic salary, the compensations and the permanent benefits for that period, stipulated in the individual working contract. As a consequence, this is the daily average of calculating the related resting leave compensation.

c) the calculation of the gross resting leave compensation:

$$\text{Gross resting leave compensation} = 77,27 \text{ RON} \times 21 \text{ days} = 1622,67 \text{ RON} = 1623 \text{ RON}$$

Starting from the calculated gross resting leave compensation, the calculation of the net resting leave compensation was made, the resulting amount being paid to the employee.

d) the calculation of the net resting leave compensation, made after subtracting the related salary deductions, according to the data in table 10:

Table 10: The situation of salary deductions related to the gross resting leave compensation

Salary deductions	Percentage (%)	Amount (RON)
Social insurance contribution	9,5	154
Health insurance contribution	5,5	89
Unemployment insurance contribution	0,5	8
Salary tax (basic personal deduction = 180 RON; basic calculation income = 1192 RON)	16	191
Total:		442

$$\text{Total net resting leave compensation: } 1623 - 442 = 1181 \text{ RON.}$$

The net resting leave compensation, according to the legal stipulations, is paid to the employee at least 5 days prior to the beginning of the leave. Thus, the net resting leave compensation for 2008 has been paid to the employee on the 22.09.2008. It must be stated that, the final calculation of the salary deductions will be made when the payroll for the month of October 2008 is accomplished, the calculation from table 69, being made only for the establishment of the net resting leave compensation.

Since the month of October 2008 had 23 working days and the duration of the resting leave for 2008 had 21 days, we have a difference of 2 working days. When the actual gross salary is calculated, the daily average for October 2008 is used, calculated at point b), namely 73,91 RON.

$$\text{Actual gross salary} = 73,91 \text{ RON} \times 2 \text{ days} = 147,82 \text{ RON} = 148 \text{ RON}$$

From the previous calculations, the gross income of the employee Popescu Ioan, for October 2008 is the following:

$$\text{The gross resting leave compensation} + \text{actual gross salary} = 1623 + 148 = 1771 \text{ RON.}$$

The calculation of salary deductions, gross salary, as well as of the payment difference resulted from paying, in advance, the net resting leave compensation, for the previously calculated gross income, in amount of 1771 RON, is shown according to table 11, as it follows:

Table 11: The situation of salary deductions related to the gross leave compensation and of the accomplished gross salary (the gross income)

Salary deductions	Percentage (%)	Amount (RON)
Social insurance contribution	9,5	168
Health insurance contribution	5,5	97
Unemployment insurance contribution	0,5	9
Net income	-	1497
Basic personal deduction	-	160
Basic calculation income	-	1337
Salary tax	16	214
Net salary	-	1283
Advance payment	-	1181
Rest of payment	-	102

From the accounting point of view, the resting leave compensation does not imply specific recordings, the accounting notes being identical to the ones normally used for introducing the salary calculations into accountancy.

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SIGNIFICANCE OF THE CONCEPT OF „TAXPAYER” IN ROMANIA

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Abstract: *Frequently asked questions like: What is the taxpayer? Who has the status of the taxpayer? How should I react against taxpayer rights and obligations? We will try to answer these questions from the classic definition of taxpayer, then identifying its typology based on work performed and the results of this work, without neglecting the report rights - obligations. Romania's status as European Union membership brings in attention the quality of taxpayer EU budget, which is why we capture general issues arising from this quality.*

Key words: taxpayers, typology of taxpayers, rihts, obligations, contribution

Jel classification: G30, G38, H30, H31, H32, H39

According to Explanatory Dictionary of Romanian Language the taxpayer is "a person or entity required by law to pay tax". So, we must identify those persons who are liable under the law in force on calculation, reporting, carrying and payment fiscal obligations.

Fiscal obligations arising as a result of obtaining income, acquiring ownership of certain goods, carrying out activities in relation to state insitutions, so, taxpayer is the person on whom there is direct or indirect repercussions of taxes and contributions.

Eighteenth-century typology taxpayers of Romania (with particular individuals) target size of the tax burden or existence of tax incentives. So, residents from Umbrăreștilor, of Gavril Conachi's time, were divided into the following categories of social and fiscal: privileged - class people enjoyed minor duty, many facilities or debt relief from the state; poors - class people suffered the greatest burden of obligations, in addition to toll in money and they were forced to carry out public works; leaders - households were obliged to pay taxes to the state and the rich; midfielders - households which working with two oxen and the payment options were lower than those of leaders; slacker - disadvantaged people of different situations (<http://www.bvau.ro/judet/localitati/umbraresti/monograf.htm>).

In the present period, taxpayers typology consider the tax system, legal form of incorporation, capital structure, activity, obtaining income, possession of dutiable goods, obligations and rights.

Based on these allegations, we analyze: taxpayers liable to registration in the Commercial Register; conditions for small and medium enterprises; administrate taxpayers depending on turnover registered; Romanian contribution to the EU budget; taxpayer rights and obligations.

1. Taxpayers liable to registration in the Commercial Register

To receive official "status" of the taxpayer, certain categories of natural or legal persons are obliged, under law, registration in the Commercial Register. Thus "traders, before the start of trade, and other natural or legal persons, expressly provided by law, before starting their work, are required to seek registration in the commercial register, and during exercise and cessation of trade or, appropriate to that activity, require registration in the registry of the particulars of the acts and deeds of which registration is required by law" (Law 26/1990).

Taxpayers required to perform operations (registration, indications, radiation) in the Trade Register are:

- **Individuals (OU no. 44/2008):** **Authorized individual** - individual authorized to conduct any form of economic activity permitted by law, using mainly its labor force; **Individual enterprise** - economic enterprise, unincorporated, organized by an individual entrepreneur; **Family business** - economic enterprise, unincorporated, organized by an individual entrepreneur with his family.
- **Legal entities:** **Companies** - group of persons formed under a bylaw and enjoying legal personality, the partners agree to pool certain items, for the exercise of acts of trade, in order to achieve results and sharing benefits; **Companies and domestic companies** - state economic units, except those established as autonomous, organized as joint stock companies or limited liability company; **National Research and development institutes** - entities organized to stimulate research and development, increasing scientific and technological competitiveness and the degree of involvement of this activity in progress addressing the needs of national economy and society (Ordinance No. 25/11.08.1995); **Autonomous** - state economic units regardless of the subordinate body which operates, to be organized and

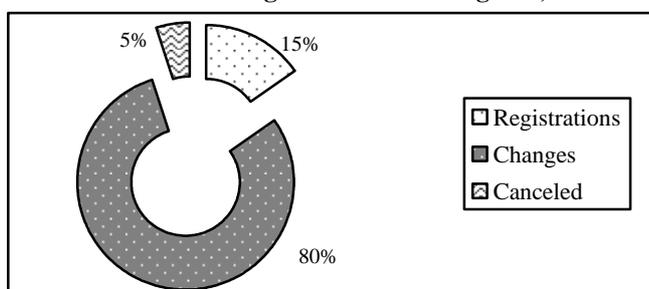
operated in strategic branches of national economy - arms industry, energy, mines and natural gas, post and rail transport - and some areas belonging other branches of government established (Law 15/ 07.08.1990); **Cooperative societies** - autonomous associations of individuals and / or legal, as appropriate, based on the freely expressed consent of them, to promote the economic, social and cultural needs of members, is jointly owned and democratically controlled by its members in accordance with cooperative principles (Law 1/21.02.2005); **Agricultural cooperatives** - association of individuals who are aiming to exploit agricultural land owned jointly by members, to conduct joint land reclamation works, to use common machinery and equipment and take advantage of agricultural products; **Cooperative organizations** - cooperative credit organizations are credit unions and central bodies authorized to operate. Credit cooperative credit institution is established as an independent association of persons united voluntarily to meet their needs and aspirations of common economic, social and cultural activity which takes place predominantly to the principle of mutual aid cooperative members (O.U. no. 97/29.06.2000); **Economic Interest Groups** - a combination of two or more natural or legal persons, established over a given period, the purpose of facilitating or developing economic activity of its members and improving the results of that activity (Law no. 161/19.04.2003); **European economic interest groups** - profit legal persons that are recognized and can operate in Romania, under Council Regulation (EEC) 2.137/85 of 25.07.1985 establishing the European Economic Interest Group (EEIG), published in the Official Journal of the European Communities no. L 199 of 31.07.1985, and the Emergency Ordinance no. 119/2006 (O.U. no. 119/ 21.12.2006); **European companies** - entities resulting from the merger, formation of joint holdings or subsidiaries of companies incorporated in different Member States, in a faster, avoiding obstacles inherent in different national legal systems in the EU (Regulation 2157/2001); **European Cooperative Societies** - entities established in order closely linked internal market and improving economic and social situation throughout the Community, by removing obstacles to trade and production structures adapt to market dimension of Community (Resolution of 13 April 1983, Resolution from 9.07.1987, Resolution of 26.05.1989, Resolution of 11.02.1994, Resolution of 18.09.1998, Regulation 1435/2003 of 22.07.2003); **Company Subsidiaries** - a company with legal personality established by the parent company which owns most of its capital. Branch is dependent and are controlled by the parent and legal relationships involved in his own name by legal acts of its representatives, thus gaining the rights and obligations, and responsibilities.

All these individuals and legal entities have status of the taxpayer, based on grounds that were formed to raise revenue, it becomes a source of training of public money on account of taxation. According to data from the National Trade Register Office, at any time known contributors position on Romania's territory and thus, the substantial and relevant analysis can be determined the amount of tax revenue that can shape public financial resources for a certain period.

Based on data provided by the National Trade Register Office on 31 december 2009 situation is as follows:

⇒ During december 1990 - december 2009, the total number of transactions in the trade register was 12.738.515, of which 1.963.172 registrations, 10.149.600 changes and 625.743 canceled. This data underlines that, on 31 december 2009, in Romania there was 1.337.429 taxpayers.

Figure. no. 1 Structure transactions into categories of Trade Register, december 1990 - december 2009



(Source: National Trade Register Office, Summary Statistics no. 217 pp. 6)

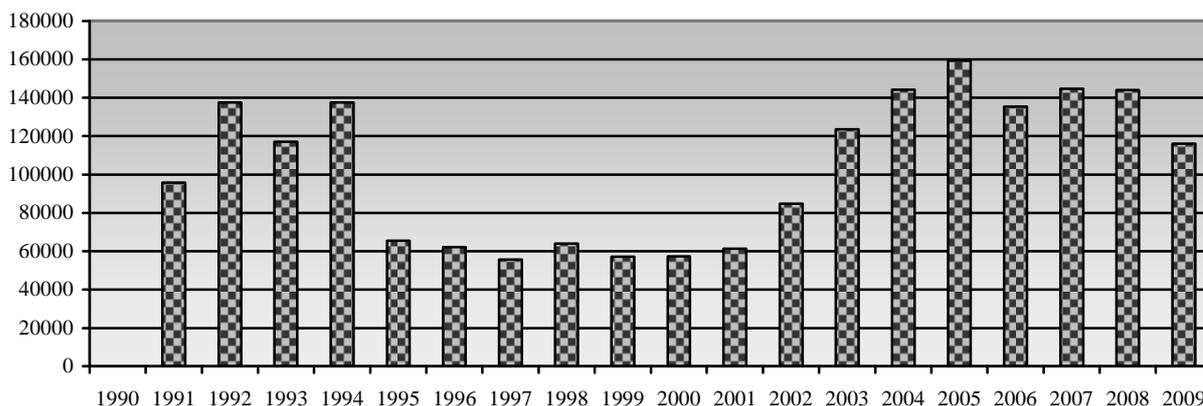
⇒ Analyzing the number of registrations recorded by county, it appears that most were made in Bucharest (18.7% of total enrollment), followed in descending order of share of total enrollment counties: Cluj and Constanta (4,6% și 4,2%); Timis, Iasi, Prahova, Bihor, Brasov (3,5% - 3,1%); Arges, Dolj, Bacau, Mures, Maramures, Suceava, Arad, Galati, Neamt, Hunedoara, Sibiu (2,6% - 2,0%); Dambovita, Buzau,

Ilfov, Satu Mare, Alba, Harghita, Valcea, Braila, Olt, Vaslui, Bistrita Nasaud, Botosani, Caras Severin, Gorj, Vrancea, Mehedinti, Teleorman, Calarasi, Salaj, Tulcea (1,9% - 1,0%); Covasna, Ialomita, Giurgiu (0,9% - 0,8%).

⇒ For chapter canceled, in Bucharest have been canceled 128.996 (representing 20,6% of all removals), then the number of canceled ranging between 30.020 (in Constanta - 4,8% of removals) and 5.507 (in Teleorman - 0,9% of the total removals).

⇒ During december 1990 - december 2009, changes the number of registrations was volatile, the lowest recorded in december 1990 (81 registrations), and highest during 2005 (159.464 registrations), according to the schedule below:

Figure. no. 2 Evolution of the number of registrations, december 1990 - december 2009

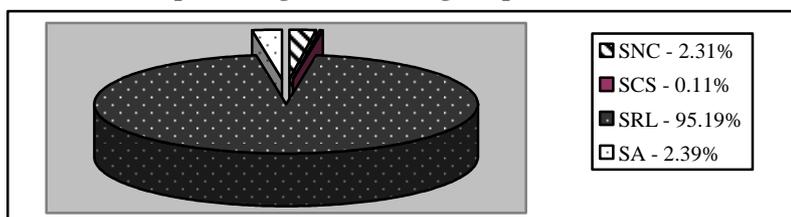


(source: National Trade Register Office, Summary Statistics no. 217, p. 8)

⇒ After the source of the capital, of a total of 1.963.172 registrations, the number of registered private entities was 1.950.711 (respectively 99,37%), those with majority state was 3.782 (respectively 0,19%) and those with mixed ownership (state + private) was 8.637 (respectively 0,44%), with following structure: *Private capital*: authorized individuals, family associations, individual companies, family businesses - 541.782; companies - 1401276, cooperative societies - 2051; other legal person registration requirement - 5.602; *Majority state capital*: autonomous - 1.388; companies - 2.394; *Joint Capital (state + private)*: companies - 8.637.

⇒ The structure of registered companies include: 32.677 SNC; 1.607 limited partnership (SCS), 1.344.379 limited liability company (SRL); 33.686 SA, respectively:

Figure no. 3 Structure companies registered during the period december 1990 - december 2009



(Source: National Trade Register Office, Summary Statistics no. 217, p. 10)

Changes in the social, economic and political life in Romania allowed to attract foreign investment. In this regard, information provided by the National Trade Register Office, present the following situation (http://www.onrc.ro/statistici/is_octombrie_2009.pdf):

➤ Participation of foreign capital companies in Romania brought investors from 50 countries, which may be listed: Austria, Belgium, Canada, Cyprus, China, Egypt, Switzerland, France, Germany, Greece, Jordan, Iraq, Iran, Israel, Italy, Lebanon, Great Britain, Moldavia, Netherlands, Syrian Arab Republic, Spain, USA, Sweden, Turkey, Hungary.)

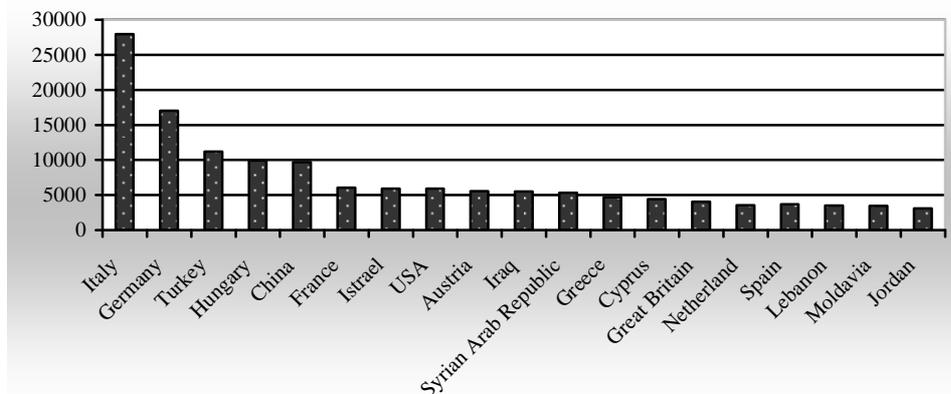
➤ During december 1990 - december 2008 evolution of companies with foreign participation and value share capital was as follows:

Table no.1 Situation companies with foreign capital participation

Year	Number of companies	Value of share capital		
		Total expressed in local currency (thousands lei)	Total expressed in foreign currency equivalent (thousand dollars)	Total expressed in foreign currency equivalent (thousand EUR)
1991	5499	258165,5	1058260,8	817975,6
1992	11765	65153,0	573271,2	443106,2
1993	10583	92793,2	417844,8	322970,3
1994	11053	230535,9	881673,3	681483,5
1995	3400	67893,9	237717,0	183741,8
1996	3630	229256,3	573594,2	443355,8
1997	5251	232229,8	359912,8	278192,2
1998	8801	728612,4	755475,3	583939,6
1999	7383	1214843,7	944365,3	729940,9
2000	8567	1870247,9	839143,8	648610,6
2001	7175	4820820,8	1540810,8	1190959,4
2002	7518	3541822,9	1078746,2	833809,6
2003	6609	4441402,8	1288885,0	996235,1
2004	10167	9040577,5	3032218,4	2343732,9
2005	11719	7173157,1	3149681,6	2434525,4
2006	12823	6646972,2	3127314,6	2417237
2007	15720	7737574,2	3314201,6	2389392,2
2008	12264	15034925,8	5924852,8	3984432,8

(Source National Trade Register Office, Summary Statistics no. 138, p. 22)

Figure no. 4 Rank by country of residence of investors in companies with foreign participation in equity, in relation to the number of companies - 31 october 2009



(Source: National Trade Register Office, Summary Statistics no. 138, p. 8)

➤ In relation to the size of total subscribed capital equivalent dollars, ranking the country of residence of investor in companies with foreign participation in capital, placing the top 10: the Netherlands, Austria, Germany, France, Greece, Cyprus, Italy, USA, Spain, United Kingdom (with values between 6.000.028,5 thousand dollars and 101.311,8 thousand dollars).

➤ Activity areas that have attracted foreign investments were mainly: professional services (27,8%), wholesale trade (23,7%), industry (16,5%), retail trade (11,1%) construction (8,0%), tourism (5,2%), agriculture (4,3%), transport (3,3%).

2. Category Small and Medium Enterprises (SME)

According to Law no. 175/2006 *enterprise* is "any form of organizing economic activity and permissible under applicable laws to make acts and deeds trade, to obtain profit, in competitive conditions, respectively: companies, cooperative societies, individuals doing business independently and family associations authorized by the legal provisions" (Law no. 175/16.05.2006).

An organization falling within Small and Medium Enterprises, where satisfies all conditions relating to staff and turnover or total assets. In this respect, for the SME category, companies must meet the

following conditions: have an average annual number of less than 250; to achieve an annual net turnover of 50 million, equivalent in lei, or have total assets (fixed assets + current assets + accrued expenses) not exceeding the equivalent in lei of 43 million euros, according to the latest financial statements approved.

In light of these, **SME's are classified: micro enterprises** - enterprises that have up to 9 employees și produce an annual net turnover or have total assets exceeding 2 million euros, equivalent in lei; **small enterprises** - enterprises that have between 10 and 49 employees and achieved a net annual turnover or have total assets exceeding 10 million euros, equivalent in lei; **medium enterprises** - enterprises that have between 50 and 249 employees and achieved a net annual turnover of 50 million euros, equivalent in lei, or have total assets not exceeding the equivalent in lei of 43 million euros.

Satisfying multiple economic, technical and social functions, **SME's have a vital contribution to economic and social development through** (National Council of Small and Medium Private Enterprises in Romania "White Paper on SME's in Romania in 2007", pp 22-24): generate a significant share of GDP; providing jobs; generate a significant amount of technical innovation in applied economics; generating a high dynamic market economy, with slight adaptation to changes in economic, social and political; manufacturing of products and services at lower costs than large companies; significant participation in the formation of public financial resources, on account of taxes and contributions; providing a good "start" for large and powerful businesses; directly or indirectly exercise a major role in reshaping the economic environment.

3. Contributors administered according to turnover

The turnover of the corporate taxpayers to 31 december of the previous fiscal year is considered an indicator as to how to carry out their management by central and regional tax units, and to identify how tax.

Thus, the question arises, on one hand the number of large and medium taxpayers, and secondly, how to manage them.

Under the provisions OMFP 753/2006 the category of **large taxpayers** include (Order no. 753/2006 of Minister of Public Finance): companies have turnover (reported in financial statements at 31 december last year) greater than or equal to 70 million, excluding those in insolvency proceedings; companies performing specific: National Bank, banks, insurance companies, financial investment companies, companies gambling organizer of "Casino".

Large taxpayers are in administration in General Directorate for Management of Large Taxpayers (DGAMC) from the Ministry of Public Finance.

According OMFP 2400/2009 since 01.08.2009, a number of 1.434 large taxpayers are in administration DGAMC, and since 01.01.2010 it will be in administration yet 541 large contributors.

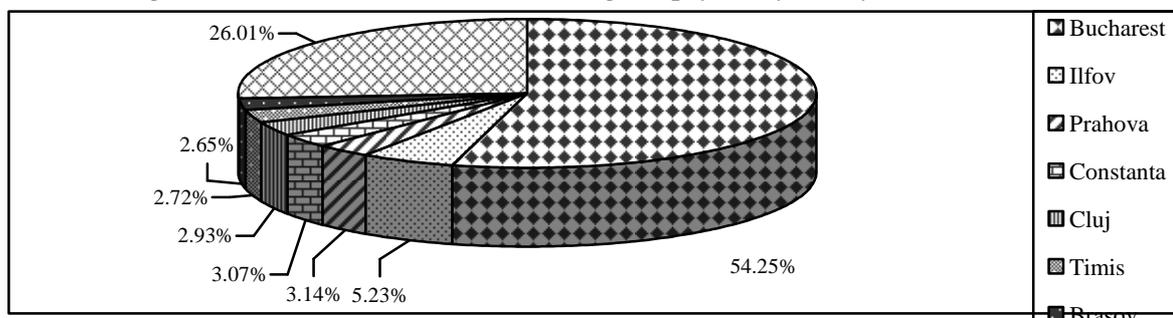
Table no. 2 Statement of large taxpayers in administration in General Directorate of Administration of Large Taxpayers

Indicators	County and Number of large taxpayers	Total large taxpayers
Administer since 01.08.2009	Alba -10; Arad - 20; Arges - 27; Bacau - 22; Bihor - 23; Bistrita Nasaud - 10; Botosani - 5; Brasov - 38; Braila - 2; Buzau - 16; Caras Severin - 3; Calarasi - 6; Cluj - 42; Constanta - 44; Covasna - 3; Dambovita - 8; Dolj - 21; Galati - 21; Giurgiu - 7; Gorj - 7; Hargita - 8; Hunedoara - 11; Ialomita - 5; Iasi - 16; Ilfov - 75; Maramures - 6; Mehedinti - 8; Mures - 15; Neamt - 9; Olt - 7; Prahova - 45; Satu Mare - 9; Salaj - 5; Sibiu - 25; Suceava - 6; Teleorman - 3; Timis - 39; Tulcea - 6; Valcea - 14; Vaslui - 3; Vrancea - 6; Bucharest - 778.	1434
Unmanaged since 01.08.2009	Arges - 3; Bacau - 1; Bihor - 2; Brasov - 4; Cluj - 3; Constanta - 1; Covasna - 1; Galati - 1; Giurgiu - 1; Gorj - 1; Hargita - 1; Hunedoara - 2; Ialomita - 2; Iasi - 2; Ilfov - 2; Maramures - 1; Mures - 1; Prahova - 2; Salaj - 3; Sibiu - 3; Suceava - 1; Teleorman - 1; Valcea - 1; Bucharest - 29.	69
Take the administration, starting with 01.01.2010	Alba -7; Arad - 13; Arges - 17; Bacau - 7; Bihor - 12; Bistrita Nasaud - 5; Botosani - 4; Brasov - 31; Braila - 8; Buzau - 11; Caras Severin - 3; Calarasi - 7; Cluj - 32; Constanta - 27; Covasna - 4; Dambovita - 1; Dolj - 9; Galati - 13; Giurgiu - 6; Gorj - 1; Hargita - 3; Hunedoara - 8; Ialomita - 1; Iasi - 18; Ilfov - 57; Maramures - 2; Mehedinti - 2; Mures - 14; Neamt - 4; Olt - 4; Prahova - 24; Satu Mare - 8; Salaj - 6; Sibiu - 12; Suceava - 6; Teleorman - 2; Timis - 32; Tulcea - 2; Valcea - 6; Vaslui - 3; Vrancea - 4; Bucharest - 105.	541

(Source: Order no. 2400/2009 of Minister of Public Finance)

The data presented in the table above, show that the largest number of economic entities in category large contributors come from Bucharest (54,2% of all large taxpayers). A large number of operators who have achieved a turnover of or less than 70 million occur in counties: Ilfov (75 large taxpayers), Prahova (45 large taxpayers), Constanta (44 large taxpayers), Cluj (42 large taxpayers). At the opposite end are districts: Braila (2 large taxpayers), Caras Severin, Covasna, Teleorman, Vaslui (3 large taxpayers), Botosani, Ialomita, Salaj (5 large taxpayers).

Figure no. 5 Distribution of number of large taxpayers, by county, from 01.08.2009



(Source: Order no. 2400/2009 of Minister of Public Finance)

According OMEF 2607/2008 (Order no. 2607/04.09.2008 of Minister of Economy and Finance), from 01.01.2009, General Directorates of Public Finance District, administrate by Public Financial Management for Medium Contributors, the first 500 corporate taxpayers, with tax resident in the territorial districts, called **medium taxpayers**, selected for the following criteria: taxpayers residing on the territory of each county tax, which recorded a turnover of 31 december last year below 70 million, select it in descending order. According OMFP 2402/2009, turnover reported in the financial statements ended 31 december last year, after which selection is made is between 6,7 million and 70 million lei; taxpayers with tax domicile radius of each county, are in insolvency proceedings, which have tax debts more of than 3 million.

So, total number of medium taxpayers that are administered since 01.08.2009 by Public Financial Management for Medium Contributors from General Directorates of Public Finance District (D.G.F.P.) is 14.201 medium taxpayers. The six counties with the highest number of large taxpayers are the counties with the highest number of medium taxpayers, hierarchy is changed a little, respectively: Ilfov (777 medium taxpayers), Cluj (679 medium taxpayers), Constanta (658 medium taxpayers), Timis (650 medium taxpayers), Brasov (604 medium taxpayers) and Prahova (520 medium taxpayers). Lowest number of medium contributors can be found in Mehedinti (216 medium taxpayers), Botosani and Salaj (231 medium taxpayers) and Covasna (234 medium taxpayers).

Table no. 3 Number of medium taxpayers administrate by D.G.F.P. since 01.08.2009

County	Medium taxpayers	County	Medium taxpayers	County	Medium taxpayers
Alba	275	Covasna	234	Neamt	290
Arad	371	Dambovita	269	Olt	263
Arges	470	Dolj	349	Prahova	520
Bacau	330	Galati	371	Satu Mare	291
Bihor	504	Giurgiu	278	Salaj	231
Bistrita Nasaud	257	Gorj	237	Sibiu	365
Botosani	231	Harghita	298	Suceava	307
Brasov	604	Hunedoara	316	Teleorman	240
Braila	250	Ialomita	243	Timis	650
Buzau	267	Iasi	433	Tulcea	235
Caras Severin	250	Ilfov	777	Valcea	247
Calarasi	252	Maramures	305	Vaslui	254
Cluj	679	Mehedinti	216	Vrancea	235
Constanta	658	Mures	349		
Total 14201					

(Source: Annex no. 1 of OMFP 2402/2009)

According with Annex no. 2 of OMFP 2402/2009, since 01.08.2009, 332 taxpayers are no longer administrate by General Directorates of Public Finance District, but since 01.01.2010 the number of such taxpayers increase with 338.

In Bucharest, General Directorates of Public Finance District Bucharest administrate since 01.08.2009 a number of 4.372 medium taxpayers, following that all of this time number of 233 medium taxpayers no longer administrate (OMFP no.2401/2009).

From the data presented, is found that at 01.08.2009 number of large taxpayers was 1.434 (which is 0,11% of all taxpayers registered at the period december 1990 - july 2009), and the medium taxpayers was 18.573 (which is 1,40% of all taxpayers registered at the period december 1990 - july 2009).

4. Romania's contribution to EU budget

EU funding is based primarily on contributions based on gross national income of Member States. Before 22 september of each year, member states must provide information on gross national income, so the construction of EU budget can be made in accordance with agreed regulations.

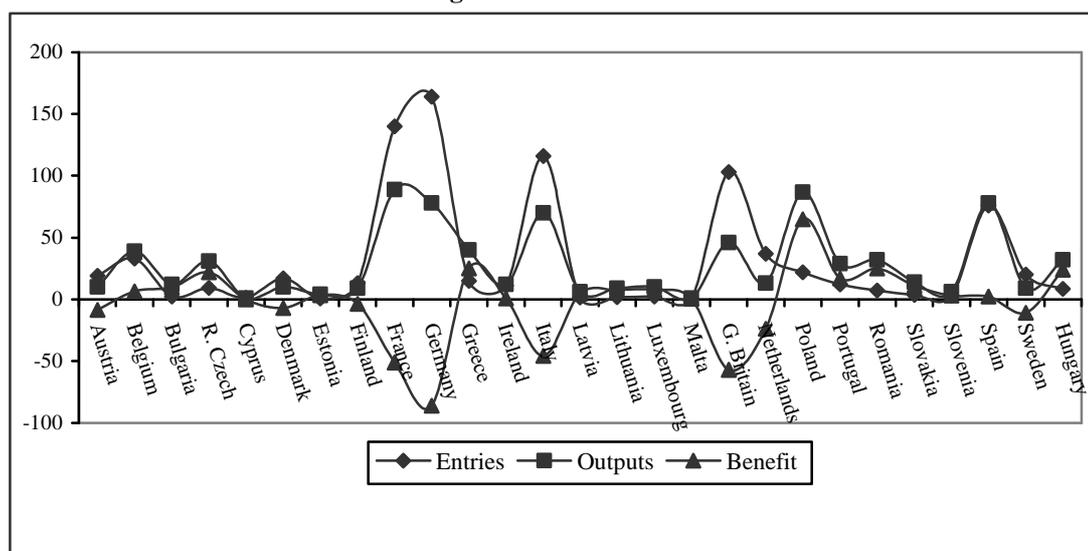
From these considerations may have Romania taxpayer status? The answer is yes, since the Treaty of Accession, for Romania has been established the payment amount to the Community budget and deadlines for payment. In this respect, we can say that classical technical elements of the tax are found in relation Romania - EU budget, respectively: basis for determining the contribution, amount due and payment deadline. According by the Traty of Accession, after accession, for Romania established a payment to the Community budget for 42.300.000 euros, in eight equal installments, to 31.05.2007, 31.05.2008, 31.05.2009, 30.11.2009, 31.05.2010, 30.11.2010, 31.05.2011 and 30.11.2011.

Romania's contribution to EU budget has four main components, namely: traditional own revenue (customs duties, agricultural duties, sugar contribution); value add tax (VAT); UK rebate granted to cover the imbalance between the amounts paid by Britain to the EU budget and expenses incurred in its territory; resource of Gross National Income. For year 2008, Romania's contribution to EU budget was 4.2 billion lei, with an increase of 0,3 billion lei versus contribution to the year 2007 (an increase of 7,69%). This contribution considers 1,13% of total own resources and 0,96% of GDP. For period 2009-2011 contribution will be retained at around 4 billion lei.

As any taxpayer expects to identify an optimal ratio between payments and "services" received, each EU member state as a "contributor" to the EU budget expected net benefit as much of report "payments to the EU - EU receipts".

In European Union the situation is Table no. 4.

Figure no. 6 Statement of the net benefit of EU Member States, as a result of the relationship with the EU budget for 2007-2013



(Source: <http://www.openeurope.org.uk/research/budget07.pdf>)

According to estimates (<http://www.openeurope.org.uk/research/budget07.pdf>), in 2007-2013, net benefit per capita in the European Union will be felt mainly in Belgium, Bulgaria, Estonia, Greece, Ireland, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Hungary.

Table no. 4 Estimates for the EU budget for 2007-2013

EU Member State	I - Entry into the EU budget (bill. euros)	E - Entries from the EU budget (bill. euros)	Net benefit (bill. euros)	Report E/I	Population (2007)	Net benefit per capita (euros)
Austria	19,0	10,0	-8,5	0,526	8298923	-1024
Belgium	33,0	39,0	+6,4	1,820	10584534	605
Bulgaria	2,3	12,0	+9,7	5,218	7679290	1263
R.Czech	9,2	31,0	+22,0	3,370	10287189	2139
Cyprus	1,1	1,0	-0,1	0,909	778684	-128
Denmark	17,0	10,0	-7,2	0,588	5444242	-1322
Estonia	0,8	4,0	+3,2	5,000	1342409	2384
Finland	13,0	9,0	-3,7	0,692	5276955	-701
France	140	89,0	-51,0	0,636	63392140	-805
Germany	164,0	78,0	-86,0	0,476	82314906	-1045
Greece	15,0	40,0	+25,0	2,667	11171740	2238
Ireland	11,0	12,0	+0,6	1,091	4312526	139
Italy	116,0	70,0	-46,0	0,603	59131287	-778
Latvia	1,4	6,0	+4,6	4,286	2281305	2016
Lithuania	1,7	9,0	+7,3	5,294	3384879	2157
Luxembourg	2,3	10,0	+7,7	4,348	476187	16170
G. Britain	103,0	46,0	-57,0	0,447	60816701	-937
Malta	0,5	1,0	+0,5	2,000	407810	1226
Netherlands	37,0	13,0	-24,0	0,351	16357992	-1467
Poland	22,0	87,0	+65,0	3,955	38125479	1705
Portugal	12,0	29,0	+17,0	2,417	10599095	1504
Romania	7,2	32,0	+25,0	4,444	21565119	1159
Slovakia	3,5	14,0	+11,0	4,000	5393637	2039
Slovenia	3,1	6,0	+2,9	1,935	2010377	1443
Spain	76,0	78,0	+2,2	1,026	44474631	49
Sweden	20,0	9,0	-11,0	0,450	9113257	-1207
Hungary	8,4	32,0	+24,0	3,810	10066158	2384

(Source: <http://www.openeurope.org.uk/research/budget07.pdf>)

If entries in the EU budget for 2007-2013 is estimated at 839.5 billion euros (with a significant contribution the EU10 to 638.3 billion euros, respectively 76.03%) output is estimated at 777 billion euros (for EU 10 is back 407 billion euros, respectively 52.38%).

Data presented in the table and chart above shows that countries such as Germany, France, Italy and Great Britain contribute most to the EU budget (respectively 62,3% of all entries in the EU budget of 839.5 billion euros) and obtained a negative net benefit with values between -86 billion euros in Germany and -46 billion euros in Italy. Estimates bring positive values, between 16.170 euros per inhabitant in Luxembourg and 49 euros per capita in Spain. During the same period, negative ratio between inputs and payments to / from the EU budget recorded values between -128 euros per inhabitant in Cyprus and -1.467 euros per capita in the Netherlands.

Only appropriate budgetary and fiscal policy, with the principles of efficiency and effectiveness, Romania as a contributor to EU budget will feel the effect of contribution. Estimated net benefit per capita records the amount of 1.159 euros, placing Rumania on position 14, based on this indicator.

5. Rights and obligations of taxpayers

By its nature, the taxpayer has the burden calculation, registration, lodging, and pay tax obligations (according to the typology), reason for both he and the tax authorities with powers to collect tax liabilities, to know and respect the rights and obligations.

They were issued under O.M.F.no. 1486/1999 and include the following **taxpayers rights** (Chapter 1 of "Charter Contributor" OMF 1486/1999):

⇒ ***Fundamental rights: Right of access to justice*** - according to Art. 21 of Romania's Constitution to protect the rights, freedoms and legitimate interests any person is entitled to justice; ***Individual freedom*** - article 23 from the Romanian Constitution stipulates that searching, detention or arrest of a person shall be permitted only in cases and procedure provided by law; ***Inviolability of residence*** - domicile and residence of a person are inviolable, according to art. 27 of the Constitution of Romania, except in seeking enforcement of an arrest warrant or a court; ***Right to Information*** - access to any information of public interest is

guaranteed by Art. 31 of the Constitution of Romania; *Right to petition* - any person may apply to public authorities by petitions formulated signatories, according to art. 47 of the Constitution of Romania; *The right person aggrieved by a public authority* - if there is an act of an administrative units that produced an injury to a right or legal interest of a taxpayer is entitled to obtain recognition of his right, annulment of the act and damages under the conditions and limits set by law according to art. 48 of the Constitution of Romania.

⇒ *Specific rights: Right to secrecy and confidentiality* - civil servants in the tax unit, even people who do not have that capacity, are required to keep secret the information they have, by reason of duties relating to taxpayers. In specific cases established by law, this information may be shared with other authorities; *Right of appeal and review* - where the taxpayer finds errors in determining the tax liability, erroneous decisions on taxes, wrong resolution of tax matters, they are the right to challenge or revise advertising problem / situation; *Eligibility for tax relief* - partial or total exemption from tax obligations may be granted to a taxpayer, if the situation is justified, according to official regulations; *Entitled to compensation or repayment of amounts overpaid* - under the law, amounts paid in addition to the obligations set can be compensated or reimbursed, ex officio or upon request; *Prescription* - the taxpayer may claim limitation when fiscal action on the establishment and collection of taxes has exceeded the time limit set by law.

⇒ *Other rights: Right to respect* - in any case, fiscal officials must meet with respect and promptly assignments; *Right support and information* - depending on the facts and fiscal documents, officials in tax administrations will provide the support needed to address fiscal problems; *Entitled to courtesy and consideration* - in any case, the taxpayer is entitled to courteous and attentive treatment from officials of the tax; *Right to non-discrimination and fair* - taxpayers are treated equally before the law and establishing an impartial tax liability of units with responsibilities in the tax area; *Right to be believed* - partnership taxpayers - tax administration requires honesty in all relationships of a tax; *Consistent Administration* - tax authorities will administer the law consistently and apply them firmly to those who try to evade the payment of legal obligations; *Explaining corrections* - any correction in the taxpayer's tax return is explained, specifying the reasons for the correction; *Protecting Rights* - officials of tax units will always explain and defend the rights of taxpayers; *Right to know the identity and jurisdiction of the tax authority* - taxpayers have a right to know the identity and jurisdiction of the tax authority

Nobody smiles when you pay taxes, but taking into account the rights and observance of them can smile.

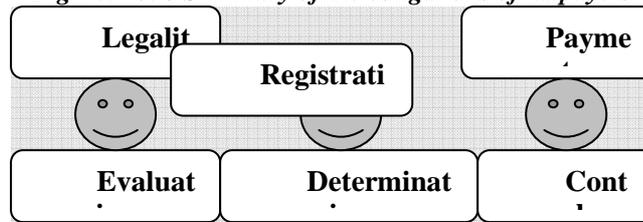
Figure no. 2.7 Summary of taxpayer rights

Privacy	Freedom	Information	Inviolability	Petition
Review				Support
Respect	Consideration	Protection	Nondiscrimination	Honesty

The same smile must occur when the taxpayer's obligations are taken into account, because they come to strengthen the role that play in forming financial resources, and in fact, assurance the public needs.

The main obligations of the taxpayers are (Chapter 2 of "Charter Contributor", OMF 1486/1999): *Bound by the Constitution and laws of the country* - each person must carry out those actions that are prescribed by law and to refrain from those which the law prohibits; *Obligation to pay the taxes and fees* - legal and natural persons in receipt of income from different sources, or carrying out certain activities, are obliged to pay taxes and contributions; *Obligation to hold regular bookkeeping* - under law, taxpayers are required to take regular accounts, through which the taxable amount an taxes can be determined fairly; *Must calculate the correct taxes due* - taxpayers are directly responsible for the calculation of taxes and contributions, where it is for this task; *Must submit the documents specified by law at specified time* - taxpayers are obliged, under existing tax legislation to make all documents at the deadline set by law, to the fiscal authorities in the area in which they reside or are registered or is taxable goods or taxable; *Obligation to comply with payment deadlines prescribed by law* - failure to pay within the period specified by the prescriptions of taxes and contributions due entail delay increases for each day of delay, calculated from the day following the tax or the tax was due until the date of payment; *Obligation to allow control* - taxpayers are required to allow inspection and to provide tax inspectors all documents, records and any other materials or elements required for understanding reality value targets or sources of taxable.

Figure. no. 8 Summary of the obligations of taxpayers



Conclusions

Human nature always put first individual interests to the detriment of general interest. While not understand the purpose and role of taxation, and action measures are not reflected in a real partnership "state - the taxpayer", we assist to neglect taxpayers obligations and the existence of a serious harm for economic growth and welfare.

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AMERICAN TROUBLED ASSET RELIEF PROGRAM- A GENERAL OVERVIEW OF MEASURES AGAINST CRISIS

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Abstract

Troubled Asset Relief Program (TARP) is already known as the greatest governmental measure in the world. This is a program of the [United States government](#) to purchase assets and equity from financial institutions to strengthen its financial sector. The purpose of this paper is to present administrative structure, eligible assets and valuation criteria, participants and controversies arise about this measure against crisis. The aim of research is to spread the specialized glossary and to understand the whole problematic by progress through sharing method. Conclusions raised are linked to sharing this experience to other specialists, other governments and other countries.

Key words: crisis, [collateralized debt obligations](#), Troubled Asset Relief Program, Mortgage-backed securities purchase program, Equity purchase program

JEL classification: G0, G12

1. Introduction

Troubled Asset Relief Program (TARP) allows the [United States Department of the Treasury](#) to purchase or insure up to \$700 billion of "troubled" assets. "Troubled assets" are defined as: (i) residential or commercial mortgages and any securities, obligations, or other instruments that are based on or related to such mortgages, that in each case was originated or issued on or before March 14, 2008, the purchase of which the Secretary determines promotes financial market stability; (ii) any other financial instrument that the Secretary, after consultation with the Chairman of the Board of Governors of the Federal Reserve System, determines the purchase of which is necessary to promote financial market stability, but only upon transmittal of such determination, in writing, to the appropriate committees of Congress.

The most important feature of this program is that TARP does not allow banks to recoup losses already incurred on troubled assets, but officials hope that once trading of these assets resumes, their prices will stabilize and ultimately increase in value, resulting in gains to both participating banks and the Treasury itself. The concept of future gains from troubled assets comes from the hypothesis in the financial industry that these assets are oversold, as only a small percentage of all mortgages are in default, while the relative fall in prices represents losses from a much higher default rate.

The Act requires financial institutions selling assets to TARP to issue equity warrants (a type of security that entitles its holder to purchase shares in the company issuing the security for a specific price), or equity or senior debt securities (for non-publicly listed companies) to the Treasury. In the case of warrants, the Treasury will only receive warrants for non-voting shares, or will agree not to vote the stock. This measure is designed to protect taxpayers by giving the Treasury the possibility of profiting through its new ownership stakes in these institutions. Ideally, if the financial institutions benefit from government assistance and recover their former strength, the government will also be able to profit from their recovery.

Another important goal of TARP is to encourage banks to resume lending again at levels seen before the crisis, both to each other and to consumers and businesses. If TARP can stabilize bank capital ratios, it should theoretically allow them to increase lending instead of hoarding cash to cushion against future unforeseen losses from troubled assets. Increased lending equates to "loosening" of credit, which the government hopes will restore order to the financial markets and improve investor confidence in financial institutions and the markets. As banks gain increased lending confidence, the interbank lending interest rates (the rates at which the banks lend to each other on a short term basis) should decrease, further facilitating lending.

The TARP will operate as a "revolving purchase facility." The Treasury will have a set spending limit, \$250 billion at the start of the program, with which it will purchase the assets and then either sell them or hold the assets and collect the 'coupons'. The money received from sales and coupons will go back into the pool, facilitating the purchase of more assets. The initial \$250 billion can be increased to \$350 billion upon the [President's](#) certification to [Congress](#) that such an increase is necessary. The remaining \$350 billion may

be released to the Treasury upon a written report to Congress from the Treasury with details of its plan for the money. Congress then has 15 days to vote to disapprove the increase before the money will be automatically released. The first \$350 billion was released on October 3, 2008, and Congress voted to approve the release of the second \$350 billion on January 15, 2009. One way that TARP money is being spent is to support the "Making Homes Affordable" plan, which was implemented on March 4, 2009, using TARP money by the Department of Treasury. Because "at risk" mortgages are defined as "troubled assets" under TARP, the Treasury has the power to implement the plan. Generally, it provides refinancing for mortgages held by Fannie Mae or Freddie Mac. Privately held mortgages will be eligible for other incentives, including a favorable loan modification for five years.

2. Administrative structure

The program is run by the Treasury's new Office of Financial Stability. According to a speech made by specialists,^[23] the fund will be split into the following administrative units:

1. *Mortgage-backed securities purchase program*: This team is identifying which troubled assets to purchase, from whom to buy them and which purchase mechanism will best meet our policy objectives. Here, we are designing the detailed auction protocols and will work with vendors to implement the program.

2. *Whole loan purchase program*: Regional banks are particularly clogged with whole residential mortgage loans. This team is working with bank regulators to identify which types of loans to purchase first, how to value them, and which purchase mechanism will best meet our policy objectives.

3. *Insurance program*: We are establishing a program to insure troubled assets. We have several innovative ideas on how to structure this program, including how to insure mortgage-backed securities as well as whole loans. At the same time, we recognize that there are likely other good ideas out there that we could benefit from. Accordingly, on Friday we submitted to the Federal Register a public Request for Comment to solicit the best ideas on structuring options. We are requiring responses within fourteen days so we can consider them quickly, and begin designing the program.

4. *Equity purchase program*: We are designing a standardized program to purchase equity in a broad array of financial institutions. As with the other programs, the equity purchase program will be voluntary and designed with attractive terms to encourage participation from healthy institutions. It will also encourage firms to raise new private capital to complement public capital.

5. *Homeownership preservation*: When we purchase mortgages and mortgage-backed securities, we will look for every opportunity possible to help homeowners. This goal is consistent with other programs - such as HOPE NOW - aimed at working with borrowers, counselors and servicers to keep people in their homes. In this case, we are working with the Department of Housing and Urban Development to maximize these opportunities to help as many homeowners as possible, while also protecting taxpayers.

6. *Executive compensation*: The law sets out important requirements regarding executive compensation for firms that participate in the TARP. This team is working hard to define the requirements for financial institutions to participate in three possible scenarios: One, an auction purchase of troubled assets; two, a broad equity or direct purchase program; and three, a case of an intervention to prevent the impending failure of a systemically significant institution.

7. *Compliance*: The law establishes important oversight and compliance structures, including establishing an Oversight Board, on-site participation of the General Accounting Office and the creation of a Special Inspector General, with thorough reporting requirements. We welcome this oversight and have a team focused on making sure we get it right.

Officials responsible for the oversight of the TARP has already expressed concerns about the difficulty of properly overseeing the complex program in addition to his regular responsibilities. They called oversight of TARP a "mess" and later clarified this to say "The word 'mess' was a description of the difficulty my office would have in providing the proper level of oversight of the TARP while handling its growing workload, including conducting audits of certain failed banks and thrifts at the same time that efforts are underway to nominate a special inspector general." [\[10\]](#)

3. Participation criteria

The Act's criteria for participation states that "financial institutions" will be included in TARP if they are "established and regulated" under the laws of the United States and if they have "significant operations" in the United States. The Treasury will need to define what institutions will be included under the term "financial institution" and what will constitute "significant operations." Companies that sell their bad assets to the government must provide *warrants* so that taxpayers will benefit from future growth of the

companies. Certain institutions seem to be guaranteed participation. These include: U.S. banks, U.S. branches of a foreign bank, U.S. savings banks or credit unions, U.S. broker-dealers, U.S. insurance companies, U.S. mutual funds or other U.S. registered investment companies, tax-qualified U.S. employee retirement plans, and bank holding companies.

To participate in the bailout program, "...companies will lose certain tax benefits and, in some cases, must limit executive pay. In addition, the bill limits 'golden parachutes' and requires that unearned bonuses be returned." The fund has an Oversight Board so that the U.S. Treasury cannot act in an arbitrary manner. There is also an inspector general to protect against waste, fraud and abuse.

CAMELS ratings (US supervisory ratings used to classify the nation's 8,500 banks) are being used by the United States government in response to the global financial crisis of 2008 to help it decide which banks to provide special help for and which to not as part of its capitalization program authorized by the Emergency Economic Stabilization Act of 2008. It is being used to classify the nation's 8,500 banks into five categories, where a ranking of 1 means they are most likely to be helped and a 5 most likely to not be helped. Regulators are applying a short list of criteria based on a secret ratings system they use to gauge this.

The *New York Times* states: "The criteria being used to choose who gets money appears to be setting the stage for consolidation in the industry by favoring those most likely to survive" because the criteria appears to favor the financially best off banks and banks too big to let fail. Some lawmakers are upset that the capitalization program will end up culling banks in their districts. However, the Wall Street Journal suggested that some lawmakers are actively using TARP to funnel money to weak regional banks in their districts.

Known aspects of the capitalization program "suggest that the government may be loosely defining what constitutes healthy institutions. [...] Banks] that have been profitable over the last year are the most likely to receive capital. Banks that have lost money over the last year, however, must pass additional tests. [...] They are also asking if a bank has enough capital and reserves to withstand severe losses to its construction loan portfolio, nonperforming loans and other troubled assets."^[26] Some banks received capital with the understanding the banks would try to find a merger partner. To receive capital under the program banks are also "required to provide a specific business plan for the next two or three years and explain how they plan to deploy the capital."^[26]

Whether hedge funds, as virtually unregulated institutions, will be included depends on the discretion of the Treasury, but it seems unlikely. Hedge funds (partnerships in which experienced investors' pool their money to make complex, and often risky, investments using advanced investment strategies) have recently become politically unpopular in the U.S. as a result of their perceived role in creating the crisis. This perception of hedge funds makes it difficult for the Treasury to allow them to participate in a taxpayer-funded bailout program.^[2]

4. Eligible assets and asset valuation

TARP allows the Treasury to purchase both "troubled assets" and any other asset the purchase of which the Treasury determines is "necessary" to further economic stability. Troubled assets include real estate and mortgage-related assets and securities based on those assets. This includes both the mortgages themselves and the various financial instruments created by pooling groups of mortgages into one security to be bought on the market. This category probably includes foreclosed properties as well.^[2] Real estate and mortgage-related assets (and securities based on those kinds of assets) are eligible if they originated (that is, were created) or were issued on or before March 14, 2008, the date of the Bear Stearns bailout.^[2]

One of the most difficult issues facing the Treasury in managing TARP is the pricing of the troubled assets. The Treasury must find a way to price extremely complex and sometimes unwieldy instruments for which a market does not exist. In addition, the pricing must strike a balance between efficiently using public funds provided by the taxpayer and providing adequate assistance to the financial institutions that need it.^[2]

The Act encourages the Treasury to design a program using market mechanisms to the extent possible. This has led to the expectation that the Treasury will use a "reverse auction" mechanism to price assets. A reverse auction means that bidders (that is, the potential sellers of the troubled assets) will place bids with the Treasury for the right to sell a specified type of assets. The sale price will be the lowest price at which the bid will provide the required quantity of the item. Theoretically, the system creates a market price because the bidders will want to sell at the highest price they can get, but they also want to be able to make a sale, so they must set a low enough price to be competitive. The Treasury is required to publish its methods for pricing, purchasing, and valuing troubled assets no later than two days after the purchase of their first asset.^[2] The Congressional Budget Office (CBO) uses procedures similar to those specified in the Federal

Credit Reform Act (FCRA) to value assets purchased under the TARP.^[28] In a report dated February 6, 2009, the Congressional Oversight Panel concluded that the Treasury paid substantially more for the assets it purchased under the TARP than their then-current market value. The COP found the Treasury paid \$254 billion, for which it received assets worth approximately \$176 billion, for a shortfall of \$78 billion. The Cop's valuation analysis assumed that "*securities similar to those issued under the TARP were trading in the capital markets at fair values*" and employed multiple approaches to cross-check and validate the results. The value was estimated for each security as of the time immediately following the announcement by Treasury of its purchase. For example, the COP found that the Treasury bought \$25 billion of assets from Citigroup on 10/14/08, however, the actual value was estimated to be \$15.5, creating a 38% (or \$9.5 billion) subsidy.^[29]

5. Expenditures and commitments

As of February 9, 2009, \$388 billion had been allotted, and \$296 billion spent, according to the Committee for a Responsible Federal Budget. Among the money committed, includes:^[30]

- \$250 billion to purchase bank equity shares through the *Capital Purchase Program* (\$195 billion spent);
- \$40 billion to purchase preferred shares of *American International Group* (AIG), then among the top 10 US companies, through the program for Systemically Significant Failing Institutions (\$40 billion spent);
- \$20 billion to back any losses that the *Federal Reserve Bank of New York* might incur under the *Term Asset-Backed Securities Loan Facility* (none spent);
- \$40 billion in stock purchases of *Citigroup* and *Bank of America* (\$20 billion each) through the *Targeted Investment Program* (\$40 billion spent)
- \$12.5 billion in loan guarantees for *Citigroup* (\$5 billion) and *Bank of America* (\$7.5 billion) through the *Asset Guarantee Program* (none spent);
- \$25 billion in loans to automakers and their financing arms through the *Automotive Industry Financing Program* (\$21 billion spent)

The Congressional Budget Office released a report in January 2009 reviewing the transactions enacted through the TARP. The CBO found that through December 31, 2008, transactions under the TARP totaled \$247 billion. According to the CBO's report, the Treasury had purchased \$178 billion in shares of preferred stock and warrants from 214 U.S. financial institutions through its Capital Purchase Program (CPP). This included the purchase of \$40 billion of preferred stock in AIG, \$25 billion of preferred stock in Citigroup, and \$15 billion of preferred stock in Bank of America. The Treasury also agreed to lend \$18.4 billion to General Motors and Chrysler. The Treasury, along with the FDIC and the Federal Reserve, has also agreed to guarantee a \$306 billion portfolio of assets owned by Citigroup.^[31]

6. Participants

The banks agreeing to receive preferred stock investments from the Treasury include *Goldman Sachs Group Inc.*, *Morgan Stanley*, *J.P. Morgan Chase & Co.*, *Bank of America Corp. (including Merrill Lynch)*, *Citigroup Inc.*, *Wells Fargo & Co.*, *Bank of New York Mellon* and *State Street Corp.* The Bank of New York Mellon is to serve as *master custodian* overseeing the fund.

As of 2009, the U.S. Treasury has not yet released an official list of TARP recipients (though it periodically announces recipients in batches). News organizations *ProPublica* and the *New York Times* have kept lists of the recipients based on Treasury and individual institution announcements. Beneficiaries of TARP include:^[37]

Table 1: Beneficiaries of TARP

Company	Preferred Stock purchased (millions USD)	Assets guaranteed (millions USD)	Repaid TARP money	Additional details
Citigroup	\$50,000	\$306,000		Two allocations: \$25,000 on October 28, 2008
Bank of America	\$45,000	\$118,000		Two allocations: \$25,000 on October 28, 2008 and \$20,000 in Jan 2009
AIG (American International)	\$40,000			

Group)				
JPMorgan Chase	\$25,000		Y	October 28, 2008
Wells Fargo	\$25,000			October 28, 2008
General Motors	\$13,400			
Goldman Sachs	\$10,000		Y	October 28, 2008
Morgan Stanley	\$10,000		Y	
PNC Financial Services Group	\$7,579			Bought longtime rival <i>National City Corp.</i> within hours of receiving TARP money.
U.S. Bancorp	\$6,600		Y	
GMAC Financial Services	\$5,000			
Chrysler	\$4,000			
Capital One Financial	\$3,555		Y	
Regions Financial Corporation	\$3,500			
American Express	\$3,389		Y	
Bank of New York Mellon Corp	\$2,000 to \$3,000		Y	
State Street Corporation	\$2,000 to \$3,000		Y	
Discover Financial	\$1,230			

Of these banks, *JPMorgan Chase & Co.*, *Morgan Stanley*, *American Express Co.*, *Goldman Sachs Group Inc.*, *U.S. Bancorp*, *Capital One Financial Corp.*, *Bank of New York Mellon Corp.*, *State Street Corp.* and *BB&T Corp* have repaid TARP money.

7. Similar historical federal banking programs

The nearest parallel action the federal government has taken was in investments made by the *Reconstruction Finance Corporation* (RFC) in the 1930s. The RFC, an agency chartered during the Herbert Hoover administration in 1932, made loans to distressed banks and bought stock in 6,000 banks, totaling \$1.3 billion. "A similar effort these days, in proportion to today's economy, would be about \$200 billion." When the economy had stabilized, the government sold its bank stock to private investors or the banks, and is estimated to have received approximately the same amount previously invested.^[41]

In 1984, the government took an 80% stake in the nation's then seventh-largest bank *Continental Illinois Bank and Trust*. *Continental Illinois* made loans to oil drillers and service companies in Oklahoma and Texas. The government was estimated to have lost \$1 billion because of bad loans purchased as part of *Continental Illinois*, which ultimately became part of *Bank of America*.^[41]

8. Controversies

The effects of the TARP have been widely debated in large part because the purpose of the fund is not easily understood. For example, a review of investor presentations and conference calls by executives of some two dozen US-based banks by the *New York Times* found that few banks cited lending as a priority. Further, an overwhelming majority saw the program as a no-strings-attached windfall that could be used to pay down debt, acquire other businesses or invest for the future.^[42] The article cited several bank chairmen as stating that they had no intention of changing their lending practices to "accommodate the needs of the public sector" and that they viewed the money as available for strategic acquisitions in the future. Nonetheless, it achieved its primary purpose of providing liquidity in response to the global financial crisis of 2008–2009. Moreover, while TARP funds have been provided to bank holding companies, those holding companies have only used a fraction of such funds to recapitalize their bank subsidiaries.^[43] Many analysts have speculated that TARP funds could be used by stronger banks to buy weaker ones.^[44] This was proven true when on October 24, 2008, *PNC Financial Services* received \$7.7 billion in TARP funds, then only hours later agreed to buy *National City Corp.* for \$5.58 billion, an amount that was considered a bargain.^[45] Despite ongoing speculation that more TARP funds could be used by large-but-weak banks to gobble up small banks, as of October 2009 none since the PNC-National City deal has occurred. The Congressional Oversight Panel

created to oversee the TARP concluded on January 9, 2009: "In particular, the Panel sees no evidence that the U.S. Treasury has used TARP funds to support the housing market by avoiding preventable foreclosures". The panel also concluded that "Although half the money has not yet been received by the banks, hundreds of billions of dollars have been injected into the marketplace with no demonstrable effects on lending."^[46] Government officials overseeing the bailout have acknowledged difficulties in tracking the money and in measuring the bailout's effectiveness.^[47] On February 2009 the chairperson of the *Congressional Oversight Panel*, told the *Senate Banking Committee* that during 2008, the federal government paid \$254 billion for assets that were worth only \$176 billion.^[48]

During 2008, the companies that received bailout money had spent \$114 million on lobbying and campaign contributions. These companies received \$295 billion in bailout money. The executive director of *The Center for Responsive Politics*, said of this information, "Even in the best economic times, you won't find an investment with a greater payoff than what these companies have been getting."^[49] Banks that received bailout money had paid their top executives nearly \$1.6 billion in salaries, bonuses, and other benefits in 2007. Benefits included cash bonuses, stock options, personal use of company jets and chauffeurs, home security, country club memberships, and professional money management.^[50] Obama's administration has promised to set a \$500,000 cap on executive pay at companies that receive bailout money,^[51] but the proposal would also allow banks to give unlimited amounts of stock to these same executives.^[52] A former compensation consultant and author of "The Crystal Report on Executive Compensation," claimed that the limits on executive pay were "a joke" and that "they're just allowing companies to defer compensation."^[53] A lawsuit has been filed which challenges the constitutionality of using TARP funds to pay for the Chrysler bailout.^[54]

9. Conclusions

The effects of the TARP have been widely debated in large part because the purpose of the fund is not easily understood. It's about need to stabile crisis and progress through sharing method is a good one. Conclusions raised are linked to sharing this experience of such a measure against crisis to other specialists, other governments and even, other countries.

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TAX POLICY AND ECONOMIC DEVELOPMENT

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Abstract: *The paper progressively presents aspects regarding tax policy and economic growth, Romania's tax policy, comparisons with other countries in the European Union, and the correlation between it and economic growth. Perspectives regarding tax pressure differ a lot from one expert to another, from one governmental administration to another, according to their interests and to the factual situations they seek to mirror and defend. The influence it has on economic development can be intercepted by means of econometric tests, the explanatory variables taken into account for Romanian economy being revenue budgets, taxation degree, income tax, unemployment rate and inflation rate. In conclusion the impact of tax policy on economic growth has to be commensurated concordantly with other macroeconomic indicators, with the involvement of the state in economy by means of tax key-factors as well as that high taxation affects economic growth negatively.*

Key words: tax policy, economic growth, taxation degree, unemployment rate

JEL classification: E62; H21

1. Introduction

Tax policy is a widely defined and analyzed concept, a permanently debated and in continuous dynamics element. Frequently there arise questions regarding the possibility to formulate and bring into force an active tax policy, based on fairness and the establishment of a viable partnership between the state and contributors. At the same time, one can also reckon that an essential goal of tax policy is guaranteeing economic growth, which implies a high quality and active tax mentality. The involvement of state in economy represented and still represents the subject of numerous controversies. Thus, there were many opinions according to which a direct and complete interference of the state in economy is necessary, which is totally opposed to those focused on a total non-interference, both being unrealistic. In addition, there were also views according to which there is a continuous decay of the role of state interference up to complete extinction. In fact, however, one can observe more and more the need to put into force some sustainable and balanced medium and long-term economic growth policies, having a beneficial impact at a social level. Moreover, we can certainly assert the fact that an insecure tax policy (determined by repeated legislative amendments), with no consistency or predictability, non-transparent, cannot encourage the development of the economic environment.

Economic growth is commensurated, as a rule, by GDP growth rate or GDP evolution per capita. Regarding empirical studies on the effects of tax policy on economic growth, there have been taken into account a series of exogenetic factors, in some regression equations. In specialized literature numerous authors analyze the relationship between taxation and economic growth. Thus, a study made on a number of more than 100 developing countries (Rabushka, 1987) points out a positive relationship in the dependence between direct taxes and economic growth. Easterly and Rebelo (1993) maintained that between the level of development and the tax and budget structure of a state there is a strong connection reflected by the fact that in poor countries incomes are prevalently earned from international trade taxes, while in developed countries income taxes are significant. Using data regarding 100 countries corresponding to the period of 1970-1988, respectively regarding 28 countries corresponding to the period 1870-1988, the two economists presented the following aspects revealed by the study:

1. There is a strong connection between public investments in transportation and communications and economic growth, as well as between budget surplus, economic growth and private investments;
2. There appears an important connection between tax and budget variables and income level, the weight of budget incomes in GDP increasing according to the growth of income per inhabitant;

3. Income growth is accompanied by the decrease in the weight of international trade taxes and the increase in the weight of income taxes;
4. An increase in the number of population is accompanied by a decrease in the weight of trade taxes in total income and an increase in the weight of income taxes; at the same time, in countries with higher number of population there are more resources granted for defence and less for transportation and communications.

Engen and Skinner (1996) analyzed the effect of the decrease in marginal tax rates with 0.5 percentage points on the long term increase rate, regarding USA economy, in order to identify the relation between tax reduction and economic growth, finding that there might be some alterations of economic growth rate of approximately 0.2-0.3 percentage points. They considered that the states having the possibility to mobilize incomes by means of efficiently managed tax structures might reach higher growth rates in comparison to the states where there is a frail tax collection, the design of tax system exerting a modest, still important influence on long-term growth rate.

In Schumpeter's opinion, there can exist numerous institutional powers that can provide the advance or deterrence of economic growth, but an essential one is putting into practice a "do no harm" tax policy based on reduced tax rates or on decreasing tax rates. Ricardo (Principles of Political Economy and Taxation) considered that there are no taxes that can generate a diminution of the capital accumulation power and that affecting capital by taxation leads to the proportionate reduction of the fund regularizing the development degree of national industry.

Since among the major unbalances registered in contemporary economies we find unemployment and inflation manifesting under different forms and dimensions from one state to another or from a development stage to another within the same state, many economists analyzed the correlation between them and taxes. Thus, Garcia and Sala (2006), investigated the relation taxes - unemployment in countries of OECD, as well as the influence of tax variables, inflation and work productivity on unemployment. Carey (1989) analyzed the correlation inflation – tax system, and Ocnean (2006) studied the connection between economic growth and tax and budget policy in 21 European countries in terms of GDP – tax pressure, the weigh of public expenditure in GDP and the weight of budget balance in GDP, considering that the process of economic development can be influenced by means of tax policy measures.

Fabriya, Moly (2006), after econometric analysis made between 1997 and 2003 regarding Romania, Bulgaria, Lithuania, Latvia, Estonia, Poland, Hungary, Czech Republic, Slovakia and Slovenia reached to the conclusion that tax and budget policy represents more a political priority than an economic one. The regression equation they used allowed the formulation of the affirmation that not even 50% of the alterations in tax incomes cannot be explained by virtue of the alterations of macroeconomic variables.

Weller and Rao (2008), using data from 1981-2002, analyzed the relation between progressive taxation and economic balance, between economic growth, inequality and tax policy, mentioning that using a progressive taxation system allows adopting some countercyclical tax and budget measures that may significantly influence economic balance. However, they also remarked that progressive taxation is influenced by capital mobility and the level of governmental expenditures and that it cannot be demonstrated that progressive taxation negatively affects economic balance by reducing economic growth.

Talpos, et.al.(2008) analyzed the UE-25 group in terms of the correlation tax policy – economic growth and elaborated a model of analysis, reaching the conclusion that between indirect taxation and the real GDP growth there is a direct correlation (except Great Britain, Poland and Hungary) while the results regarding social transfers and direct taxation are different.

2. Effects of Tax Policy

Tax policy materializes the decisions that underlie the structuring of tax system, the guaranteeing of its functionality in order to achieve the effects aimed in economy. The manifestation of economic and financial phenomena and processes is different from one country to another, from one development stage to another, but against mutual interconditioning and, sometimes, having negative effects on the economy of the respective country, requiring state interference.

In order to prevent or restrict economic and financial crises, public authorities aimed at identifying some solutions by formulating and putting financial policy into practice, together with its two essential structural constituents, that is tax policy and budget policy. Practically tax policy embodies the state's option in terms of taxes, based on the evolution predicted for the economic variables, obeying the essential principles of taxation.

Although the fundamental role of taxes consists of obtaining income for the budget necessary for the state to wield its functions, in the case of market economy there is also an orientation of tax policy goals towards elimination or diminution of the consequences of disturbing factors upon economic development. Tax policy measures generate effects on short term as well as on medium and long term. Within the first category fall the alterations upon aggregate demand, and within the second those related to investments, savings, economic growth. In other words, it is important not only the amount of revenues resulted out of taxation, but also the categories of contributors involved in the taxation process, the extent to which their incomes are affected, potential economic effects generated by using the amounts undergoing such an influence. Even though there are opinions according to which the state should not disrupt the market mechanism in any way, but also opposing opinions, it can be easily observed that during the last decades there have been frequent requests for the state's attributes in order to guarantee macroeconomic balance. Still, it has to be mentioned that sometimes the tax measures adopted had also economic effects in contradiction to those expected, especially in the case when an excessive tax policy was adopted, leading to failure in attaining the goal of economic growth that the governments of the respective countries aimed at.

In order to achieve positive effects, there can be targeted certain essential goals of tax policy, including: achieving tax efficiency that comes up to the level of the resources collected by means of a taxation system fit for the structure of the general development policy of the state; rationally distributing collected resources and obtaining an optimum use by catering as highly as possible to the demands for efficiency and opportunity; providing the resources necessary for the state and its institutions (most of the budget resources derive from taxation); substantiating the process of redistribution of national product, obeying the essential principles of any tax system; exerting the activities of adjustment of economic and financial phenomena and processes; realizing the process of redistribution of the national product between fields, domains of activity, categories of persons and individuals. In realizing this process, tax policy has to be focused on principles of fairness, social protection and economic rationality; influencing (adjusting) some economic and economic processes, corresponding to the general policy goals. Under this aspect, contemporary society assimilated as tax policy goals, interconnected with those of other financial policies, the concern for stabilizing the economy affected by operation of some disturbing factors; production adjustment in terms of the existing economic circumstances, inclusively its modernization and reorganization; and sustainable development of the society.

3. Tax pressure and its effects

Tax pressure is thoroughly studied by taking into account its different areas of manifestation, of calculation and estimation: in terms of national economy, of the individual level (upon individual contributors), of economic agents (of organizations). The interference of the state to a greater extent during the last two centuries, both in economy and in society, led to the growth of tax pressure. This assertion is supported by the similar evolution of financial resources, of tax pressure and of public expenditures, which has been a growing evolution lately.

In a study carried out by PricewaterhouseCoopers, Romania ranked first in the European Union regarding the number of taxes paid by companies. The study indicated that during a year a company in Romania has to pay 96 taxes, that is twice more than other states in the European Union. Worldwide, our country ranked fourth, being outrun by Belarus with 124 taxes, Uzbekistan with 118 taxes and Ukraine with 99 taxes. The states members of the European Union levy, in general, a number of taxes lower than 30. The states with a high number of taxes are Slovakia with 30, Lithuania, Hungary and France exceeding little over 20 taxes. The lowest number of taxes are paid in Sweden - only 2 taxes, Latvia 7, and Portugal, Spain and Great Britain 8 taxes each. While in terms of the number of taxes our country ranks first, in terms of tax attractiveness it ranks last but one in Europe, Romania being outrun only by the Czech Republic. The ranking was realized starting from the attractiveness of the tax regime in terms of legislation complexity and its frequent amendments. Conversely, that is the most attractive countries are: Ciprus, Ireland and Switzerland, because they show consistency regarding the interpretation of tax legislation, stability of legislation and a low number of taxes. The attractiveness of the Romanian tax system on a scale ad 0 to 100% was 21, while state ranking first, Ciprus, reached 90%.

According to a study of Forbes magazine, that takes into account 26 European economies, the country having the lowest level of taxation was Ireland (in 2004), with a taxation index of 90,3% (without contributions for health), in comparison to 174,8%, the highest index belonging to France. Romania ranked 16 in this classification, being outrun by 15 countries (France, Belgium, Sweden, Italy, Austria, Norway, Greece, Spain, Slovenia, the Netherlands, the Czech Republic, Finland, Hungary, Denmark, Portugal) and

outrunning 11 countries (Poland, Germany, Great Britain, Luxemburg, Slovakia, Switzerland, Lithuania, Latvia, Russia, Ireland).

If we relate to the taxation degree in Romania after 2000, we find that the ratio between taxation incomes and GDP did not exceed the level of 30%. In this context, it is obvious the fact that it cannot be considered that we have to bear a high taxation charge (in comparison to the levels of other countries). Nevertheless, the following aspects have to be mentioned:

Taxation degree is established by reporting the level of collected incomes, not that of the owed incomes (or, Romania had no excellent results regarding collection level, nor fighting the tax circumvention phenomenon);

- Legal regulations established numerous tax facilities granted to contributors after 1990;
- Not always do comparisons between specific indicators of the various economies allow obtaining conclusive results; more precisely, the components of tax systems and the level of economic development are different;
- It is not sufficient a single analysis of the tax pressure level, but it is also required a correlation of this level with the purchasing power of net income, economic growth, unemployment rate, the level of tax delay etc.;
- Taxation measures adopted during different periods may determine a higher tax pressure than the pressure determinable in terms of the levy level; to that effect, the minimum tax is a conclusive example (it can be reached a taxation level of 30% under the condition that profit obtained cannot be homogeneously distributed for each trimester; in addition, there also arise abnormal situations when for the same profit amount there have to be paid different amounts representing income taxes);
- An analysis of tax pressure is necessary regarding the structure of tax obligations (direct taxes, indirect taxes, social contributions) and implicitly of the effects they determine (for example, a high level of social contributions leads to a reduction in the number of jobs, to obtaining some products at a higher price and an increase in the tendency towards illegal working, with a correlated effect of tax circumvention regarding the incomes resulted from this type of work);
- A reduction of tax level does not generate positive effects unless it is followed by a diminution of budget expenditures;
- An increase in tax income weight resulted from indirect taxes out of the total tax income, in comparison to an increase in direct taxes correlated with a high level of work taxation, determine a more sensitive perception of tax level by natural persons, which may lead to the accentuation of the tendency towards their tax avoidance.

However, economic agents and the population of our country considered and keep considering that fiscality in Romania is onerous. Especially it is the case of salary taxation. Regarding the level of social contributions in Romania, taxation of salaries in particular recorded the highest level in 2001 in comparison to the other Central European countries analyzed. Nevertheless, the weight of taxes collected out of social insurance contributions and salary taxation was much lower than in the other countries (justified by the tendency towards tax circumvention). Although starting from 2002 contributions owed regarding salary incomes were reduced both for the employees and for the employers, the total reductions operated during 2002-2007 being of 8 percentage points, work taxation continues to indicate a high level in comparison to other Eastern European states. Reductions in contribution levels (1 percentage point for employees and 0,3 percentage points for employers regarding the health fund contribution, and 0,5 percentage points for unemployment fund contribution in the case of employees) did not lead to an increase in budget incomes in 2009, on the contrary (but this situation should be interpreted in correlation with the effects of the worldwide economic and financial crisis and with the increase in the number of the unemployed).

For substantiating the opinion that in Romania there is an excessive taxation level contributed, along time, the existence of a very high number of taxes levied on natural and legal persons, as well as legislative instability that characterized the Romanian tax system. Continual amendments of tax legislation often led to disturbances in the economic field, regarding attracting foreign investments, the correct quantification of the amount of tax obligations, the negative perception upon tax system of the contributors. Moreover, we can emphasize another negative aspect of the Romanian tax system, materialized in terms of the difficulty to pay off tax obligations. Thus, according to “Paying Taxes” Report (November 2009), in a classification comprising 182 countries, Romania ranked last from the point of view of the number of payments that make

up tax obligations (113 payments). Also, with respect to the countries in Central and Eastern Europe, our country ranks low from the point of view of facilities with tax paying.

The high level of tax pressure was generated by a series of factors such as: the corruption phenomena that affected Romanian economy after 1989; the manifestation of the phenomenon of inflation; the instauration of a very high number of parafiscal taxes (at present there have been found 300 parafiscal taxes, these actually being a form of concealing fiscality, as they are not taken into account when calculating taxation level); the diminution of the number of contributors; the increase in the number of persons who benefit from public utilities; the centralized administration of funds collected by means of budgets; the manifestation of tax evasion and dealing with a high weight of informal economy in GDP.

Regarding the development of informal economy, the main causes that led to it can be considered the increase in taxation and contributions for social insurances. The contributors' way of perceiving fiscal debts may decisively influence the phenomenon of tax evasion. On that effect, Fraser Institute avers that informal economy may increase or decrease depending on the way in which individuals perceive the level of direct and indirect taxes, governmental regulations and the amount of governmental expenditures. The economist Peter Spiro affirmed that regarding OECD countries, characterized by the highest tax levels, to their increase with one percent there corresponds an increase of 0.25% in the level of informal economy. On the same effect, Richard Cebula asserted that if income tax rate increases with one percent, the increase in informal economy is of 1.4 %. In the USA, econometric studies estimated that there is a 0.2% increase in unregistered incomes with every percent the amount of tax resulting state income increases with. In our country, under the circumstances of the economic and financial crisis, there is a significant increase in economic crimes (for 2009 experts estimated a percentage of approximately 40% of GDP).

In this context, in the category of fiscal regulations that may favour informal economy fall: continual amendments of tax legislation; issuing some arbitrary regulations, giving the possibility for random interpretation; discriminations regarding taxation field; lack of credibility of the competent authorities' actions; the existence of a thick legislation etc.

4. Testing the impact of taxation level upon economic growth in Romania

The connection between economic growth and gradual taxation level can be emphasized by means of a regression equation between GDP increase rate and the weight of taxation incomes in GDP. In order to analyze the impact of the total amount of budget and taxation incomes (considered as a percentage out of GDP) on economic growth, we will present their evolution during the interval 2000-2009. Also, we will present the evolution of other important indicators that allow for a complex analysis, respectively inflation rate, unemployment rate and the weight of income tax in GDP.

Table no. 1. Evolution of economic growth rate, taxation level, income tax weight, unemployment rate and inflation rate in Romania during 2000-2009

Indicators Years	R _{PIB}	VT	VF	I _p	R _i	R _s
2000	2,4	33,8	30,6	3	45.7	11.2
2001	5,7	32,5	28,9	2,5	34.5	9
2002	5,1	33	28,5	2.6	22.5	10.2
2003	5,2	32	28,1	2.8	15.3	7.6
2004	8,5	32,3	27,7	3.2	11.9	6.8
2005	4,2	32,3	28,5	2.7	9.1	5.8
2006	7,9	33,1	29,2	2.8	6.6	5.4
2007	6,3	33,5	30,1	3.1	4.9	4.3
2008	7,3	32,8	28,3	2.9	7.9	4
2009	-7,1	31	27,5	2.8	5.6	7.8

Source: personal calculations based on the data from www.insse.ro

After the graphic processing of data results the correlation matrix among the indicators presented in table no.1.

Matrix Plot (NEW.STA 10v*10c)

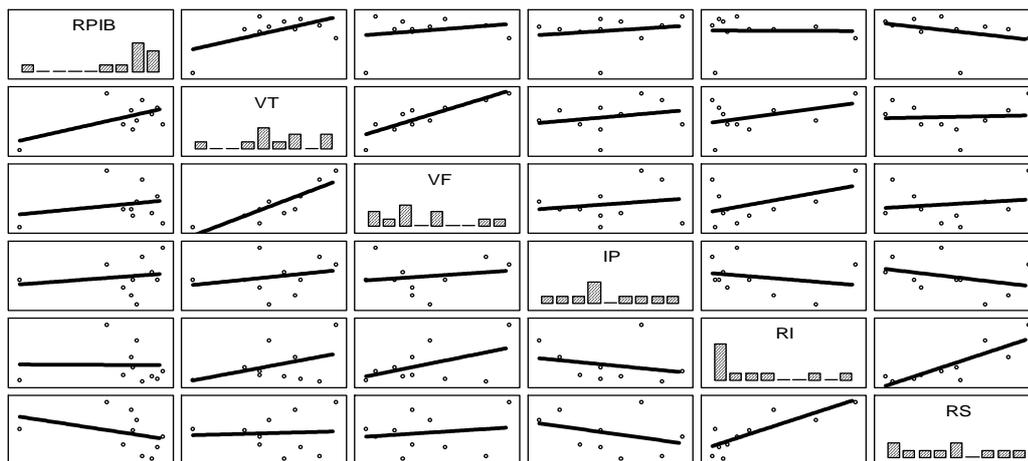


Figure no. 1 Correlation matrix of R_{PIB}, VT, VF, Ip, Ri and Rs indicators

The correlation matrix indicates the influence exerted by each indicator upon the other indicators. If we follow the influence of each indicator in turn on the GDP increase rate, it can be observed the fact that VT, VF and Ip have a positive influence, and Rs and Ri have a negative influence. However, at the macroeconomic level it is not sufficient and relevant only the individual analysis without measuring the cumulated influences of the essential factors as well as other indicators (for example, in analyzing the correlation between total incomes and economic growth it is also required the identification of the level of budget expenditures and implicitly of admitted deficit – in our country we remark that the goal of budget deficit reduction from approximately 7,4% in 2009 was proposed to a lower level of 3% for 2012, which may distort the result obtained in the analysis of the impact of taxation on increase rate).

On this effect, the regression analysis of the indicators previously presented shows that an increase in the level of taxation leads to a diminution of economic development (beta indicates a value of -1.2), this requiring a correlation with the level of tax delays collected during certain periods, which rised the level of recovered taxes. A similar situation is noted in the case of the income tax (beta = -0.07) as well as of unemployment rate (beta = -0.79).

We also included the weight of tax income in GDP due to the significant effects it has on the number of economic agents - figure no. 2 (we refer to tax relief granted for different periods, which, on a short term leads to an increase in the degree of resource usage and tempering social tensions by reducing unemployment, having a direct impact on consumption; on a medium term it will positively influence tax incomes of public budget by extending chargeable material; and on a long term it will be the opposite, reaching a false increase in the number of commercial companies and thus an accentuation of tax evasion), on their dimension, as well as on their treasury and investments. A study investigating the emphasis upon the influence of direct taxation on economic agents, showed, by means of mathematical simulation, that a modification of one unit in the value of the income tax variable determines a modification of the number of active commercial companies with 3.23 unities.

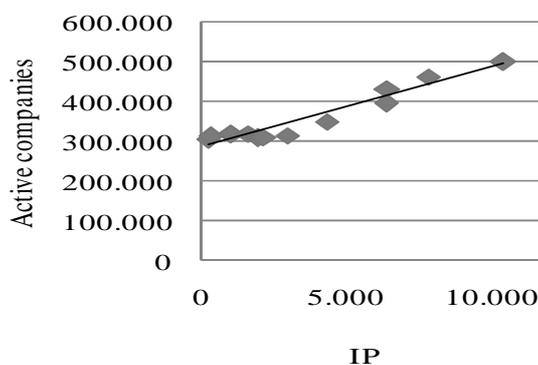


Figure no. 2 Evolution of active companies according to income tax in Romania during 1995- 2007

In total, if we take into account all the factors mentioned, the variation of economic growth is explained in the ratio of 78%, the rest being determined by other indicators, but especially by the influence of the measures adopted during the various evolution periods of Romanian economy, which denotes the state interference with the economy (considering that sometimes they had effects opposed to estimations).

5. Conclusions

Taxation system in our country underwent some continuous modifications after switching to market economy. Unfortunately, they did not always correspond to the reality of Romanian economy, which led to disturbances of the economic environment and implicitly of the social environment.

The analysis performed can lead to the following conclusions:

✓ Between economic growth and inflation there is a positive correlation under the circumstances of low levels of inflation rate, otherwise arising the diminution of capital accumulations and inefficient resource distribution, having negative repercussions on economic development (it should not be neglected the importance of providing financial stability, because financial conflicts reverberate on the business field and implicitly on economic growth);

✓ Taxation level influences GDP level, both from the point of view of the taxes that affect the activity of economic agents and by its level, that may lead to accentuation of tax evasion and informal economy development;

✓ The correlation between unemployment rate and economic growth is negative: an increase in the number of unemployed leads to a diminution of GDP increase rate and vice versa;

✓ Maintaining a balance at a macroeconomic level, both at a given moment and in dynamics, requires a correlation of tax, budget and monetary policies according to economic reality and goals set in the domain of employment and inflation;

✓ Public authorities have to be aware of the fact that any diminution of budget incomes is the result of a decrease in the level of taxes collected; an increase in tax income can be made only by rising the tax basis, but this thing can be achieved only under the circumstances of a real economic growth stimulated by taxation diminution and an improvement in the process of tax obligation collection (in our country the economic and financial crisis was not counteracted by appropriate taxation measures, a suggestive example being the minimum tax charged on economic agents, which led to unemployment increase and bankruptcy of small companies, as well as an accentuation of tax pressure regarding the period of obtaining taxable profit);

✓ In order to substantiate an efficient tax policy it is required to simultaneously keep track of the process of tax collection and of the need to issue some legislative acts containing clear statements, without any way that might facilitate tax evasion phenomena under law cover, so that the stimulation of economic development can be provided;

✓ Financial policies have to be formulated on a medium and long term, allowing for the establishment of security in the business environment (repeated legislative amendments disturb the economic activity, a fact redundantly relieved by the example of Romanian economy during the last years);

✓ Adjusting taxes to concrete situations that economic agents witness, eliminating bureaucracy, providing an optimum circuit of tax information, providing neutrality of taxation measures, eliminating taxation inequities and generalizing the right to fiscal choice can lead to improvements in using tax key-factors in attaining the goals of economic stability;

✓ Harmonizing tax policy with monetary policy may generate positive effects, otherwise leading to negative effects (an increase in interest rates may generate a reduction in real investments, which may lead to a regress of future economic growth);

✓ It is necessary to put into force a strong tax policy in order to protect the interests of the most vulnerable social categories on a long term.

Taking into account the aspects previously presented, we can consider that tax policy continues to be an instrument in the control of the state, by means of which it can influence the economic sector by measures regarding the stimulation of economic entities in the sense of achieving investments in domains of interest, obtaining products that are competitive on international markets, development of exportation, protecting the environment etc. At the same time, attaining some social goals can be achieved by taxation measures materialized under the form of tax exonerations and diminutions, the establishment of some deductions of the taxable material, tax facilities.

Unfortunately, tax policy can also be used according to the interests of the governing parties, especially during the periods preceding the elections, which may negatively influence the budget component. In the context of the aforementioned aspects, it can be asserted that adopting measures

regarding taxation may generate effects in the monetary domain and implicitly at the level of the entire economy, by inflation or interest rate increase or by diminution of economic growth rate.

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A BEHAVIOURAL APPROACH OF RISK CULTURE IN MODERN SOCIETIES

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Abstract: *The present economic crisis has shaped the world as we know it differently: the theories arguing the complete rationality of economic decisions face serious counter-arguments. Neither a perfect market, governed by equilibrium and rationality, nor economic field without behavioural assumptions, is longer viable. When adopting decisions of all types, and especially financial ones, one must consider a behavioural approach. Behavioural economics has changed the way the economists conceptualize today's world. Relevant features of human behaviour absent in so far assessments have been taken into account. Behavioural aspects focus on human behaviour and thereby it should be applied to all fields.*

Key words: financial crisis, bounded rationality, behavioural aspects

JEL classification: G

1. Introduction

For a considerable time, the financial world has experienced a certain degree of stability, allowing financial intermediaries to perform in a relatively undisturbed environment. But reaching stability on financial markets means an undivided attention to all the details concerning institutions, markets, infrastructure, and environment (Donath L., Cismaș L., 2008).

The globalisation that started more than 25 years ago had, in time, significant positive as well as negative consequences on the economic and financial activity. Recent empirical researches show that the deepening and intensification of financial flows through international markets brought unquestionable benefits to developing countries by stimulating economic growth and inducing a sustainable financial stability for the developed countries.

But the positive effects of financial flows appear if a number of preconditions already exist:

- a macroeconomic environment allowing growth, structural imbalances are mitigated;
- market mechanisms allow competition, a sustainable operational and supervised financial system,
- well functioning financial institutions and mechanisms, globally integrated markets.

If this climate exists then the domestic market allows the entry of healthy capital and is less vulnerable to speculative ones seeking high profit.

Nevertheless, the globalization may induce vulnerabilities by contagion and import of vulnerabilities: the interaction of markets also means a high exposure to risks that are often difficult to deal with, fuelling of instability all over the world because of risk contagion, information asymmetry, *herd behaviour*, speculative attacks on national currencies, creates often unsustainable imbalances.

The main identified determinants of financial crises lay in the sub prime mortgages and the credit crunch. The symptoms, though ignored were obvious and manifested themselves as in previous crises: *expectations of interest rates' increase, decline of stock prices, and unanticipated reduction of prices inducing a reduction of assets' value, housing and mortgage and to the increase of the cost of debts, of uncertainty, bank panic.*

The symptoms of the present crisis were felt long before it burst out, once the Lehman brothers went bankrupt in September 2008: the volatility of asset prices and the restlessness on different stock exchange indices worldwide, low scoring of borrowers and sub prime mortgages, the rising price of oil and of gold, the housing price bubbles followed by a sharp fall of house prices, changes in investors' behaviour towards risk aversion etc. All these aspects announced the same outcome: an inherent crisis proving that *no financial institution is too big to fail.*

It is generally believed that the housing bubble and the losses induced by the sub-prime loans are the causes of the present crisis. It is true to a certain extent, but we believe that this is only the tip of the iceberg and that the roots run much deeper. A brief survey on the worldwide statistics over the last years shows:

- large global imbalances;
 - a great volume of liquidity flowing through financial markets in search of high returns, but disregarding risks (turning into cheap money);
 - increase of consumption and of consumer's credit and low savings (thus feeding money supply),
 - securitization and its sophisticated and non-transparent layers;
 - a rift between domestic and international markets (given that domestic markets are often highly regulated and supervised whilst the international markets lack regulatory and supervision measures);
 - the often arguable assessments of the rating agencies.

2. Psychological determinants of financial behaviour

Undoubtedly, crises do not occur unless a number of preconditions exist in the economic and financial environment. The tensions, accumulated in time, lead to financial turmoil and possibly to crisis, built up starting from relatively obvious economic and financial foundations. But the area of determinants is larger, including *psychological, cultural, historical ones*. Basically, they can be recognised according to the extent of *asymmetric information, moral hazard and adverse selection* noticeable on one or several markets.

The presence of low transaction costs in financial markets explains the great part played by intermediaries in the financial flows. Under these circumstances, information is a crucial factor for all the parties involved in the financial process, i.e. *lenders – intermediaries – borrowers*. Therefore, in order to function well, markets need complete and transparent information enabling participants to make the right decision. But, actually, markets are characterized rather by inequality of information, known as *asymmetric information*. Obviously, then, when one party is better informed about the potential returns and risks associated with investments triggers problems from two perspectives: before and after the transaction takes place. Thus, before the transaction takes place, asymmetric information leads to *adverse selection*, meaning that potential borrowers are envisaging undesirable outcome (i.e. bad loans) induced mainly by inappropriate and unfair behaviour (high propensity toward risk that will be shared with the bank). In the aftermath of the transaction, the moral hazard may occur when the lender is subject to the hazard that the borrower engages in undesirable investments that may turn in loss for the lender, and therefore the latter becomes reluctant to grant loans making them more expensive.

According to adverse selection and moral hazard, debtors engaging in risky projects are the most inclined to accept high interest rates. As interests start having an upward trend, either because of a shrink in the loan supply or as a result of an increase of loan demand, borrowers engaging in low risk investments will renounce contracting loans, while high risk investors will continue to increase their demand for high interest loans, jeopardising the financial position of the banks. A decline in the assets' market value means a decline of the value of collateral, impeding the lending activity of banks. Banks become reluctant to grant loans bearing low value collateral thus raising the cost of lending. As a consequence, investments and consumption shrink reducing the economic activity. Moreover, the low level of assets means a decline in the stocks' price high risk borrowers being induced to accept, as an alternative, high interest loans. Further the bankruptcy of financial institutions determines a stock crunch and the inability of lenders to judge the quality of borrowers. The impossibility to solve moral hazard problems leads to more expensive loans reducing investments and aggregate economic activities.

Rationally, economists show that the tendency of a company to make one or another economic decision, considering the given alternatives, depends entirely on the market conditions, on demand and supply, yields, risk-profitability relationship, etc. Indeed, these are truly specific and not to be neglected determinants for each economic estimate, but they are not sufficient, because the final decision can ignore these aspects, and the economic subject can prefer a less profitable alternative, but one which would fit his psychological structure. Giving this situation, his behaviour is not one which could be considered an optimum one. The most common example, although it is not treated as an aspect of behavioural finance, is the "free rider" attitude. These individuals benefit on the expense of others, by imitating their behaviour or, they benefit from a series of public goods without financially contributing for covering them.

Presently, researchers admit that the market has its boundaries in influencing the human behaviour. Individuals' standard economic behaviour relies on three unrealistic aspects (Mullainathan, Thaler, 2000): boundless rationality, boundless will, boundless selflessness. The unrealism of these characteristics rises from the fact that individuals do not have unlimited capabilities of processing information and, so, it can not be expected of them to act optimally. This means that rationality can not be more than a relative concept, which considers the abilities of each individual, in a world where absolute rationality does not exist.

Out of the boundaries of reason arise, undoubtedly, our judgments and our options for a given situation. Literature quotes a large number of examples of deviations from common rationality, such as optimism or exaggerated confidence, decisions making based on similarities, exaggerated pessimism, unjustified aversion towards risk, living in the past, etc.

An investor, for example, can declare himself to be overoptimistic, being able to invest on a market based on asymmetric information, and this perspective can sometimes help understand the abnormal evolution of markets. On an efficient market, when acting rationally, no transaction may take place, but, in real life, there are millions of professional transactions daily. In this manner, there are millions of small investors who trade a large number of securities, who take into account the transactional costs, and often acquisitions are made, in far worse conditions than sales.

In this context, saving is a process through which the individuals postpone present consumption, in order to financially secure their future, in case of retirement for example. The theory of life cycle shows that in the first years of career, in which the revenues grow there is a tendency to use one part of these revenues for savings, postponing consumption for a later period of time, when, because revenues fall, consumption also has to have the same tendency. Even in these circumstances, often, people are not willing to adopt such an attitude, preferring to use their revenues for consumption. Similar behaviour is caused by the lack of self-control, of anticipating consequences. Another explanation is that tax payers are willing to pay a higher tax than the one they owe in order to benefit from the restitution of the difference, which is seen as "imposed saving".

The influence of the psychological factor on the financial behaviour draws the attention on a largely debated situation: the relationship debtor-creditor. This relationship is influenced in a strong measure by the attitude of the debtor regarding the payment of his debts, regardless of the nature of his credit: supplier, bank, fiscal administration, etc.

The debtor is influenced in his actions by the level of liquidities he can dispose of and of his propensity to pay or not his debts. In the case in which the payment of a debt is postponed or refused this means that such an action is not regarded as the best allocation of resources, when there are other alternatives for their usage.

Behavioural finance literature explains this situation through the theory of expected utility. In this context, the probabilities associated to each alternative are important (for example, it is up to the attitude of the lender if he will or will not initiate a juridical action against the non paying debtor). As a result, it is proven that the debtor's past actions are determinant when taking the decision.

Another possible determinant is the near closing date of the debt, the debtor's attitude being determined also by the maturity of the debt. The possibilities to negotiate the debt and the eventual postponing of the payment are also considered. If the debtor considers he can reach a favourable agreement with his creditor, he will start such an action, unless he assumes the consequences of not paying the debt.

Non-financial determining factors include the time which the debtor has in order to take the decision of negotiating with his creditors or ignoring them, but also the necessary time to respond to a juridical action started on the behalf of his creditors against him.

Subjective influencing factors hold into account the deviation of the debtor's behaviour from the rules society abides by. According to these rules, the debtor evaluates the consequences of his attitude starting with his perception regarding his power of control on external events. The rules society abides by are accepted by the group or by the community, especially by those who are concerned by the community's perception regarding their attitude, the others preferring a certain degree of deviation from these perceptions. Regarding the financial behaviour, this is influenced mainly by *the feeling of belonging to a certain community*. The consequences considered in case of not accepting the social rules are the ones which consider the possible sanctions given by the authority, up to the threat felt when self-respect is regarded. As a result, the debtors choose to pay their debts towards their creditors if they expect to be publicly blamed by the community and refuse to pay, if society does not react.

Finally, an extremely important role is given to the anticipation of the feeling of guilt which might follow the attitude adopted towards the creditor. The feeling of respect, shapes, mostly, the future debtor's attitude, anticipating his behaviour. Also, the anticipated negative emotions (fear, anxiety) in case of not paying the debt or positive ones (satisfaction) in case of the debt's restitution are capable of guiding the future behaviour. The regret triggered when starting one or another action, or the reproach of having adopted an unsuitable attitude shapes at this turn, the debtor's attitude towards his creditor, and the anticipation of this feeling might change profoundly the debtor's future behaviour. Encouraging the feeling of regret when

assuming an action might incline the debtor to ignore any sort of counselling which would determine him to act against his better judgement.

When selecting the available alternatives, the debtors consider, mostly, the degree of control they have on a given situation. In this context, the ability to determine the course of actions, self-suggestion can play an important role in the debtor's perception regarding his abilities to negotiate with his creditors and to reach the expected result. To these endogenous determinants are added a number of exogenous factors, which consider also the circumstances in which negotiations take place. These objective factors are often more powerful in determining the future behaviour than the subjective ones, especially when they favour a certain action.

Explaining the choice of an alternative of behaviour depends on the way the individual perceives the situations in which he is involved in and it can be influenced by internal and external factors, stable and unstable, specific and unspecific.

A relevant factor in determining future behaviour is the ability to face challenging situations, stressing and even threatening ones. The effort to face these situations can be of behavioural nature (when support is required) or cognitive (through the reinterpretation of events as being more favourable than they appear to be). In this way, events can be treated by denial (the reduction or the denial of the problem) or by acceptance. The most important aspect, when referring to a problem is the perception on gains and losses, which can be treated differently, depending on individual characteristics. The disproportionate, asymmetric appreciation of gains and losses depends on the aversion or the acceptance of risks. Common characteristics of individuals are confidence and optimism, and they are frequently more confident in their beliefs than reality requires.

Given these facts, it means that individuals and managers act under bounded rationality inducing unpredictability on markets and what more importantly lack of credibility, because they do not possess all the necessary information and because they cannot predict the outcomes of their actions. Therefore, one should grant great attention to the not so obvious variables that determine decisions, such as the behavioural ones. People are incapable of taking optimal decisions, are bounded in many dimensions, like: rationality, willpower and self-interest.

Bounded rationality is about the inability to completely process information. Individuals often manifest overconfidence when passing a judgement, they are loss averse, and do not maximize expected utility (Kahneman and Tversky, 1979).

Bounded willpower refers to the actions sometimes people make and which are in contradiction with their long term interests. This type of conduct can lead to addictive behaviour, under saving.

Bounded self-interest refers to the social dimension of preferences. Individuals act as if they care about one another (Kahneman et al. 1986), treat others in the way that they are treated or want to be treated.

Economists study more psychological and sociological factors which shape the process of decision making, except the three mentioned before. A new line of study whereas neuroeconomics is concerned, examines how decision is made, what are the triggers that determine human actions. Therefore, individual decisions can become a direct result of the choices individuals make.

The behaviour models of individual choice could help understand how financial decisions are made, how institutions function, based on the financial needs of individuals.

Because real life situations are more about the concept of "bounded rationality", the behavioural approach introduces an indispensable element when analysing decisions: the human factor, which is incapable of taking a decision under strict rationality. When analysing a situation as rational, one is only attempting to simplify it and ignore complex factors which would make the analysis much harder because it assumes difficult to quantify or unquantifiable factors such as emotions, desires, past activity influences, morality, intuition, coercion, deception, mistake, randomness. In complex situations complex decisions are made, which have little in common with rationality, bounded or not, which are mostly not optimal, which assume a certain emotional and financial cost, which have an impact on future decisions, which are often interrelated.

Unfortunately, real life decisions are not rational and cannot be rationalized; therefore cannot be modelled throughout linear models regressions. It is subject to constant change and variation, to everyday surprise, both positive and negative; they can alter all prior assumptions. We do not live in a perfect world with perfect market mechanisms. The concept of perfection is ideal, is a simplification often made when situations are too complex to analyse under all the given factors which contribute to its formation.

Therefore, the possible solutions to the present crisis, besides restoring market mechanisms should grant great attention to the not so obvious variable such as the behavioural ones.

3. The lending policies. Less is more

Debates on risks generally come up during economic turmoil, then being ignored in the aftermath of the crises. The recent downturn of the economy and of the financial system led to a major credit and liquidity crunch. Losses from excessively financed loans, the sophisticated financial securities based on weak investments, loans backed by co-debtors and guarantors led to the credit crunch with deep repercussion on the global economic slow down.

Under these circumstances, it is very important that decision-makers understand what are the advantages and the limitations of the financial markets, that the involved mechanisms are not efficient *per se* and that individuals act under bounded rationality.

The risk issue has been widely studied starting with the late 1950s (in celebrated papers of Arrow, Markowitz, Merton and Miller). The general assumption is that market mechanisms are efficient; there are no failure costs or asymmetric information. The risk management relied mainly on insuring the potential risks, and banks had no control over the interest rate risk or the lending risk and no real possibilities to curtail the risks.

Things started to change in the early 1990s when decision makers started to mitigate risks by using more sophisticated securities and derivatives. Companies started to quantify risks retaining those able to enhance profits and dispensed of the loss making ones. Such an approach allows decision makers to use their capital to cover the risks whose transfer would be costlier than to be managed directly.

Starting with the mid 1980s, once the financial markets became flooded with liquidity, the financial system became a mean of spreading risks from one entity to another each one seeking for competitive advantage.

Among the financial markets the mortgage segment shows best how risk managing tools change the nature and scope of a business, also emphasizing that relying too much (or solely) on the market mechanisms to mitigate may be harmful.

The roots of the credit crunch lies back in the 1980s when the mortgage risks started to be externalized because to internalize them meant greater costly provisions lowering profits. Thus, the existing portfolios were segmented and sold to other banks, pension funds, and insurance companies. The probability of mortgage default was limited and the books cleared of such risks, the banks continuing to grant other mortgage loans collecting interest and other fees. Consequently the profitability of the banks grew very much.

2007 marked a tumblestone when it became obvious that the exclusion of mortgages from the banks' books became too relaxed triggering severe crises once the default of exported mortgages became too high. The consequences are already known but ramifications still appear the final outcome not being known.

The main lesson of this experience is that banks relied too much on the markets to dissipate risks, but even the biggest and the most liquid markets depend on the quality of the assets that underlie securization.

Another development that influenced the present crisis is the consumer's loans. The financial innovations in the corporate field also influenced the dynamics of the retail loans. The consumer loans grew at a high pace, offering attractive interest rates and inducing clients to borrow significant amounts irrespective of their financial possibilities.

The consumer loan boom allowed banks to structure their portfolios in such a manner as to retain only those risks that that allow a comparative advantage/ probably an informational one on the market where clients are more idiosyncratic. Banks may use swaps and derivatives to protect themselves against financial stress and reduce the risk exposure. But, the over indebtedness of individuals accompanied by the loss of income unemployment, etc. put a major stress on the banks deal difficulty with this situation. Banks and individuals were touched by failure; by the easy manner consumer loans were granted. The outcome of the present crisis teaches a few lessons in order to prevent new financial turmoil.

The most important is to resuming the lending principles relying on credibility and prudential behaviour and a better quantification of the repayment possibilities, preventing the vicious circle of asymmetric information, moral hazard and adverse selection vicious circle. Financial securities should consider the quality of the underlying assets so that risks should not be spread from one market to another.

Then, it is obvious that the psychological aspects should not be disregarded in assessing future risks. As the latest experience shows, the propensity towards borrowing is triggered, besides economic reasons, by imitating behaviour, individuals tending to follow the example of other borrowers. This can be explained, *caeteri paribus*, by the social pressure to consume or to have its own house, regardless of the economic status.

Last but not least, a new organisation culture is required demanding risk management professionals, a strategic view, strong corporate governance and an insight concerning the behavioural habits.

3.1 The attitude towards risk

One of the most important determinants that should be considered in risk management is the degree of risk acceptance or risk adversity.

Stating rigorously one of the two behaviour alternatives is important in defining the risk limits a bank is willing to assume. The most important elements to consider are the upper possible limit of risk existing under the current supervision process, the level of risk the bank is willing to take according to the capital available to be involved in risk management process.

The financial markets emphasise a more general problem in defining and assessing the risks, i.e. the way the risks are to be combined and spread. Though there are a great number of alternatives and it is quite difficult to notice how relative risks, issuing from different sources, influence the decision making process. Basically the problem is an ethical one, i.e. knowing when the professional status should dominate the business partner and which the possible options are. The evaluator is often challenged with conflict of interests, cultural differences and cannot always avoid moral hazard. This is a risk *per se* increasing once the evaluator adopts a subjective position. For example, a severe downturn of events (a crisis) that the participants on the market want to avoid could be disregarded though there are previous experiences and the probability to reappear is higher than zero. Such tendencies belong to the human nature that rejects unpleasant events but also prevents the use of scientific management methods.

Moreover, all decision making processes under instability and uncertainty should consider cognitive differences: no group that assesses the risk is immune in accepting the wrong answers only because from social point of view it is painful to disagree. Under these circumstances, an effective possibility to frame the risk is to accept that the scenario may include an unpopular and difficultly accepted vision on the events.

As psychologists show, fear is a good indicator for the degree the risk is accepted. Therefore behavioural finance concentrates on the risk aversion, asymmetric regret and other ways by which the financial behaviour deviates from the rational one.

Uncertainty, at its turn, is an inevitable part of comprehension, being considered in all the economic and social areas. In cognitive psychology, uncertainty may be real or only a matter of perception, such as expectation or threat.

4. Instead of conclusions: Lessons to be learned

Though the financial crises (turned into an economic crises) is far from being solved, and no obvious solutions can be given until the last part would have been played, it is mandatory that the international community (governments, international financial institutions, market regulators, monetary authorities) must cooperate. Nevertheless, a few possible approaches can be outlined. First and foremost, it is obvious that the international community has to come to terms with the fact that the functioning of the global economy will be set in a new frame, and a new economic order will exist and therefore they should agree on the principles regarding the coordination of economic and financial processes: enhancing prudential supervision and regulations of risk management, promoting transparency and accountability, encouraging savings and investments as opposed to consumption and waste, thus making resources available and granting loans to small and medium firms that can launch economic growth, employment and productivity.

Moreover, on a wider level, because of the high level of contagiousness of markets, the international financial institutions should agree on antycyclical policies, enforce global accounting standards, regulating derivative markets and clearing systems, shape a new borrowing culture based on economic status, enhance rather savings than consumption.

But all these long term measures can be considered only after the liquidity problem had been solved. The core issue of the liquidity problem is now the *lack of credibility* blocking the inter bank markets, affecting the availability of loans, the fuelling of funds into the economy, and economic downturn. For these reasons, we believe that what mainly distinguishes the present crisis from the previous ones is mainly the *lack of credibility of financial markets and the high contagion*. Therefore past approaches and solutions might be now either inappropriate or may be reconsidered in order to meet the present needs. Dealing with credibility might be a sensitive issue given its complexity due to behavioural and psychological aspects of risk management that are embedded (either risk acceptance or aversion), besides economic ones. Nevertheless, a correct approach of the liquidity problem is essential because it allows the proper functioning of financial markets, the flow of capitals and the up-swing of the economy.

The present crisis rooted in the sub prime mortgage market is the result of a number of risky and irrational economic behaviour pursued in time by financial institutions, public decision makers and individuals, disregarding the risks and economic consequences that might have occurred by spreading through the open markets. The accumulating determinants spread by contagion to the whole world, eventually affecting the global economy and living standards.

Still, a number of lessons can be learned:

Firstly, the crisis should not be treated emotionally but rationally, setting up a smooth restoration of macroeconomic balance. Consumption should be restored cautiously and preconditions for savings should prevail in order to mitigate the lack of external funding.

Secondly, no financial institutions are “too big to fail” so, prudential supervision of the financial markets should be revisited and adjusted to present conditions. Under these circumstances, the fiscal stance becomes very important and public deficits’ management should become a priority preventing the fuelling of money supply. Still the question remains: should the state intervene to bail out ailing financial institutions or should the market restore transactions according to its mechanisms and insulate these entities? The first approach may be considered given the high contagion effects of bank failure on other institutions thus preventing chain spill over of effects. The dilemma is even greater because of the high costs born by tax payers and the burden on public budget. On the other hand, the market approach has more profound effects, the solid and efficient financial institutions remain in the system, but the approach could be painful for the intermediation process. Eventually, this is a problem of fine tuning between the state intervention and the market mechanisms in order to diminish the costs as much as possible. Indeed, the public budget can positively contribute to the solving of the crisis by channelling funds to financially support the small and medium enterprises, to improve the infrastructure (thus decreasing unemployment, and increasing personal income and consumption) and lower non productive spending. As a consequence, fiscal space can be created allowing sustainable public deficits used to boost the economy.

Last, but not least, the credibility problem should be at the core of either of the above approaches because the national as well as the international financial system cannot function, in a global environment, unless its conduct is transparent, accountable and most of all promotes credibility among partners.

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AN INTERNATIONAL ANALYSIS OF FINANCIAL AND POLITICAL DETERMINANTS FOR THE LIFE INSURANCE SECTOR DEVELOPMENT

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Abstract: *The life insurance provides protection inside an insecure world and it contributes by the invested money to the financial markets and national economies' development. In our research of insurance development and financial factors nexus, we estimate the life insurance equation using a panel (cross-country, time-series) dataset consisting of 42 countries over the period of 1996-2007. In draws on multivariate OLS regressions, we have found that the life insurance sector is influenced positively by the capital market development and the non-life penetration rate and it is negatively influenced by the political environment, the real interest rate and the economic development degree.*

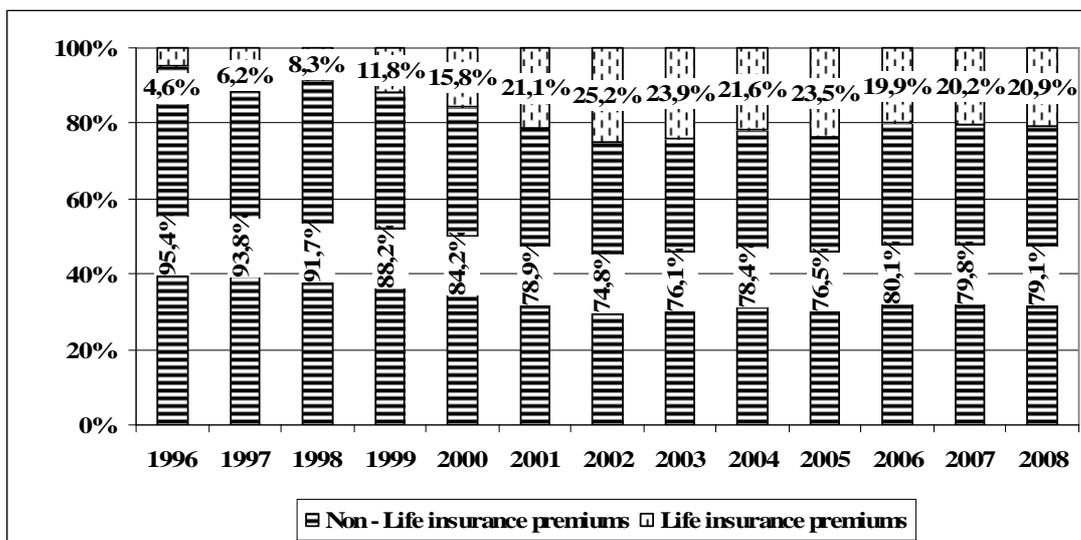
Keywords: life insurance penetration rate, political stability, monetary and capital market, panel analysis.

JEL classification: G22, G28

1. A short introduction. Some statistical evidences for the Romanian insurance market development

Văcărel and Bercea (1999) defined the life insurance aim as to ensure the payment of a certain amount by the insurer in the case of an event related to the insured individual as: personal injury, illness, death or survival. A rich literature had, theoretically and empirically, analysed the impact of insurance sector development on economic growth. Moreover, the insurance sector had a special regime in each economy due to its important social role. Providing protection, insurers could affect economic growth through the channels of capital marginal productivity, technological innovations and saving rate. Insurance companies indemnify the ones who suffer a loss and stabilize the individuals and firms financial position.

Figure 1: Structural analysis for gross insurance premiums on the Romanian insurance market from the period 1996-2008

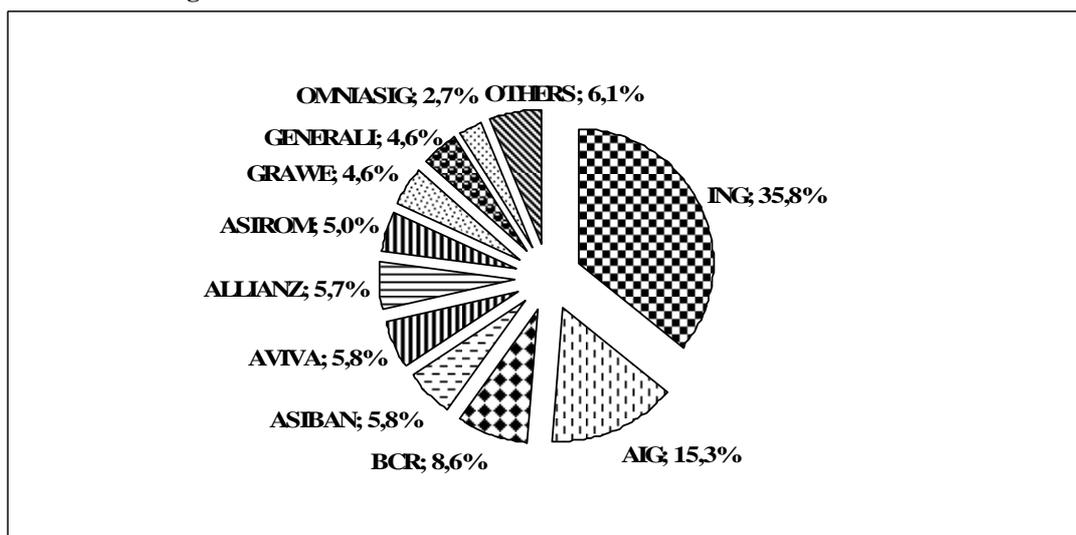


Source: our own findings based on data from the Romanian Insurance Supervisory Commission

Figure 1 revealed that the ratio of life insurance premiums in total insurance premiums oscillated between 4.6% in 1996 and 20.9% in 2008, reaching a peak of 25.2% in 2002. This trend is primarily due to the fact that the Romanian individuals have realized that the occurrence risks probability that affect their physical integrity had increased during this period of time.

Companies exposed to various risks of their liability, property, illness and disability of their employees, have the opportunity to manage those risks by transfer them to the insurance companies. This allows companies to concentrate their resources on their core business. Therefore, they are more willing and able to take real investments that result in a higher rate of economic growth as Ćurak; Lončar and Poposki (2009) considered. The significant economic and social role of the life insurance sector has led us to try to find the determinants for growth in this particular sector of financial intermediaries.

Figure 2: The structure of the Romanian life insurance market in 2008



Source: our own findings based on data from the Romanian Insurance Supervisory Commission

According to data from Figure 2, it can be noticed that the total market share of the first ten companies in the Romanian life insurance market is 93.9%. Therefore, we can conclude that the Romanian life insurance market is still controlled by a few powerful companies of which the most important is ING.

Our study is structured as follows: In the 2nd Section we have analysed some characteristics for life insurance sector and some statistic data in an international context. In the 3rd Section we have summarized some economical, political and social factors which could explain the life insurance penetration rate. In the 4th Section we have disclosed the database and methodology of the study. The 5th and 6th Sections contain numerical results and the main conclusions of our study.

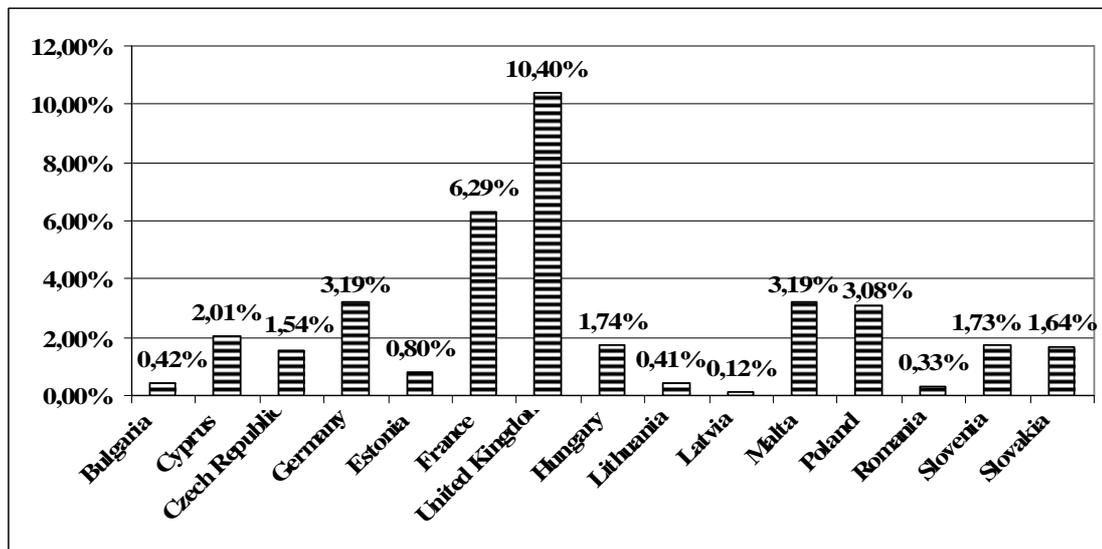
2. Why is it so special a life insurance policy? Some developments in this area in an international context

The insurance market of each European country was strongly influenced by competition between the national insurers. However, when the access of the insurance companies from the developed countries was allowed in the emerging economies, the competition has become more intense. This fact can be observed for the two main components of the insurance market, meaning that policyholders, which is the insurance demand, had available more and more varied insurance policies, which also affects the insurance supply, within the meaning where insurers are forced to fight a never-ending "war" between them to attract more customers from the other insurance companies. Dragotă et al. (2009) found that this competition between insurers for a bigger market share had no major consequences on the insurance companies number, as in 2007 at the European level was recorded a decrease of only 0.2% from the previous year, while the number of employees had not considerably fluctuated (an increase of 0.2% from the previous year).

Some of the national insurance markets have undergone major changes. It is the case of those countries aspirant to the EU membership or those countries that have recently joined the EU. In this respect, Croatia and Turkey, as non-EU member states recorded increases of 15% and 9.4%, one of the causes being, especially for the first mentioned country, the exponential growth in tourism. The living standard in the above mentioned countries is at a comparable level to that recorded in Romania and Bulgaria. In 2007, the

index GDP per capita was roughly 11.300 USD in Bulgaria and 11.400 USD in Romania. Meanwhile, Croatia has reported a value of 15.500 USD and Turkey 12.900 USD.

Figure 3: The life insurance premiums to GDP ratio



Source: our own findings based on data from the European insurance and reinsurance federation (CEA)

We have analysed in the figure 3 the life insurance premiums to GDP ratio for 15 EU members. This indicator has a minimum of 0.12% in Latvia and a maximum of 10.4% in the United Kingdom. We observe that for the life insurance premiums to GDP ratio the new EU members have the lowest levels and the older EU members have the highest levels. We judge that this index is determined mainly by the living standard of the population in those countries.

Our sample is more extent and contains 42 countries from around the world (see Annex 1) and the differences between those countries are significant, too, even if we analyse the gross written premiums for life or for non-life insurance. For example, for life insurance sector, the minimum value for gross written premium was of 11.65 millions USD in Costa Rica, with a maximum of 410210.71 millions USD in Japan. The total value for the gross insurance premiums for all 42 countries was 1119729.56 millions USD.

The gross insurance premiums for all 42 countries were 1717035.58 millions USD. According to data from Annex 1, the gross insurance premiums growth rate between 1996 and 2007 was about 53%. In 2007, the minimum value of this index was about 39.82 millions USD for the same country, Costa Rica, but the maximum value was for the United States, about 492.427.14 millions USD.

In order to underline the development of the life insurance sector at the national level, the life insurance penetration rates were determined for each country from the sample as share of the gross written premiums in the GDP. In 1996, the first year of our database, the minimum value was around **0.05% in Romania** and the maximum one was about 10.7% in South Africa (see Annex 1). In 2002, the minimum values were around 0.01% in Costa Rica, with a maximum one of 24.44% in Luxemburg. In 2007, the latest year of our database, the minimum value was 0.07% in Russia, but the maximum one was 31.25% in Luxemburg (it must be noticed that for this country, in 1996, this data is missing, that could explain the first South Africa's place). We notice a significant increase of the life insurance sector from 1996 to 2007 (see Annex 1).

For the non-life insurance sector, the differences between the minimum and the maximum values are not as dissimilar as for the life insurance sector. The minimum values varied from 0.44% in 1996, to 0.62% in 2002 and 0.44% in 2007, for Pakistan and India. The maximum values varied from 4.6% in 1996, to 5% in 2002 and 4.86% in 2007, for New Zealand, United States and Netherlands (see Annex 1).

In the recent years, the life insurance market has a speedy increase, and it has a diversification of the products offered to policyholders. In most cases, life insurance contracts are divided in main two categories: funded (capital accumulation) and unfunded (protection). The major difference between these two types of contracts is part of *accumulation*. Without this component, the insurer guarantees the insured amount in case of death or unending disability, and at the end of the contract, the cover from the insurance company is considered finished without any additional amount (capitalized) for the individual.

Unit-linked insurance is a joint venture life insurance-based investment. A mixed type of insurance product involves, in fact, a covering for two risk distinct categories: on the one hand, if the insured dies during the contract term insurance, the insurance company will pay to the successors the amount agreed by contract and, on the other hand, if the insured remains alive until the maturity of the contract, will receive the sum insured himself, based on the insurance premiums previously paid.

Unit-linked insurance also provides protection through insurance and investment opportunity. A part of the premium paid by the insured is used to purchase life insurance and the difference is invested in one or more investment funds. Then, the policy holder receives a number of fund units. In order to share the life premium in these two components the insurers take into consideration the age and sex of the insured and the sum of money required by the insured individual. Dragotă; Dragotă; Hândoreanu; Stoian; Șerbănescu and Obreja Brașoveanu (2009) stated that whenever this combination shows a higher risk of death or permanent disability, a significant component of the premium is allocated to protection. The rest of the available amount, taking into account administrative costs, is the sum to be invested, which will be allocated according to customer wishes.

3. Which economical, political or social factors can explain the life insurance penetration rate?

A short investigation

The financial literature identifies and tests the influence of various economic, political, social and regulatory factors on the development of financial intermediaries around the world. For example, Khorana; Servaes and Tufano (2005) consider factors related to the economic development of the countries under survey, to the institutional structure of the mutual fund industry itself, to the competition or stimulus provided by the financial system or to the population social characteristics for each country that constitute the basis of the demand for mutual fund shares.

Economic development regarded as GDP and GDP per capita, measures of wealth and financial openness, as well as indicators about real interest rates and inflation. Other financial system components, especially the banking system, can be an alternative to life insurance sector, as they compete for the same investment capitals. Therefore, different authors analyze the banking system development, the banking concentration or the deposit insurance schemes role in stimulating investor's confidence. Finally, certain social development indicators, closely related and statistically correlated with those of economic development, can be used as factors to explain the life insurance industries development: personal wealth, the education level, the newspaper circulation and the number of internet users in the country.

For other financial intermediaries - the mutual funds, Klapper; Sulla and Vittas (2004) use a restricted number of indicators among which the GDP per capita, the deviation and the average of stock market return, the stock market capitalization over GDP, the stock market value traded ratio, the bond market capitalization and dummies for financial crises and the type of financial system. In addition, the authors include a number of variables about the legal system quality, the political risk in each country and the voice and accountability as proxy for the governance quality in each country.

4. Data base and methodology

The central aim of our study is to analyse some economic, financial and political factors influence on the life insurance penetration rate in a cross-country analysis. We have gathered multi-annual data for the dependent variable and a multitude of explanatory variables (see **Annex 2** for a list of dependent and explanatory variables) for a sample of 42 countries around the world. In order to obtain more relevant results from the OLS regressions, we have used pool data for the period between 1996 and 2007.

We have taken the basic statistics for the analysed countries (population size, GDP, GDP per capita) from the World Development Indicators (WDI) Database of the World Bank and from the International Financial Statistics (IFS) Database of the International Monetary Fund. We have used the data both as explanatory variables and to compute the dependent variable utilized in the analysis and for the robustness checks.

A group of indicators measuring the relative size of financial flows from and into each country (the Foreign Direct Investments to GDP ratio, the Remittances per GDP, non-life insurance penetration rate etc.) are taken from Beck; Demirgüç-Kunt and Levine (2000). Initiated in the 1990s, the database has been updated periodically, including as recently as the end of 2008, containing data for all the countries in the survey for every year in the analysis.

We have used indicators for the securities markets, the banking system and the overall financial system development in each of these countries. Competing financial institutions (banks, pension funds,

capital market) can act both as alternatives to life insurance investments with an expected negative effect on the industry development. We have included a number of such indicators taken from Demirgüç-Kunt, Karacaovali and Laeven (2005) in our regressions that offer a more technical description of the “supply side” characteristics of the banking industry in the country.

Various measures of political stability and the quality of the political environment are taken from Kaufmann; Kraay and Mastruzzi (2008) with data running through 2007 and from the Political Risk Ratings published by the International Country Risk Guide. The laws and regulations quality and the corruption perception are also reflected by indicators from Kaufmann, Kraay and Mastruzzi (2008) and from Transparency International’s Corruption Perception Index. Further data about social development and the life indicators quality is taken from the WDI Database of the World Bank.

We have taken annual data series and we have done an analysis of pair wise correlations between all the variables. In consequence we will identify both the variables that determine the dependent variables and also the pairs of highly correlated explanatory variables. On the basis of the above analysis we are able to select a more limited set of variables which we use in the multivariate regression. In this paper we have reported only the regression models whose coefficients are statistically significant and provide interesting information for our analysis.

The basic regression model, using panel data, is as follows:

$$\text{Equation (1)} \quad Y_{it} = \alpha_{it} + \beta_{it} NLIPV_{it} + \sum_{k=2}^M b_k C_{it} + \varepsilon_{it}$$

The subscripts i indicates the country and the subscripts t indicates the time. α is the intercept term. Y_{it} is the dependent variable representing the life insurance penetration rate. $NLIPV_{it}$ represents the non-life insurance variable. C_{it} is the vector of observations on the control variables that include political stability, stock market capitalization, remittance inflows and real interest rate. β and b are the vectors of coefficients to be estimated on the explanatory variables. The disturbance term is $\varepsilon_{it} \sim \text{N.I.D.}(0, \sigma^2)$.

5. Empirical results

One aim of this study was to identify the size and the direction of different economic, financial and political variables impact on the life insurance penetration rate. Based on the pair wise correlation matrix for all the variables we are able to see both the explanatory variables that are highly correlated with our dependent variables and the high correlation among certain explanatory variables (see **Table 1** for the pair wise correlation matrix of dependent and explanatory variables). So, we are able to exclude a number of variables from the analysis that are highly correlated between the explanatory variables and with the dependent variable and could induce multicollinearity into OLS regression.

Table 1 provides a Pair wise correlation analysis of the variables used in the regression model to check for any correlations which can affect the results of the study. Based on the results in Table no. 1, it is unlikely that multicollinearity can be an issue in the regression analysis.

Table 1: Pair wise Correlation Analysis

	LIPV	PSAV	RINTR	SMKGDP	NLIPV	REMIT
LIPV	1.000000					
PSAV	0.231734	1.000000				
RINTR	-0.185338	-0.155943	1.000000			
SMKGDP	0.578935	0.199910	-0.075538	1.000000		
NLIPV	0.499347	0.554836	-0.140706	0.261338	1.000000	
REMIT	-0.271874	-0.467771	-0.037035	-0.172086	-0.336145	1.000000

Source: our own findings based on data from the Annex 2

Some descriptive statistics are presented in Table no.2. Taking into account also the lack of available relevant information, a number of 424-504 observations were used in regressions.

The results from Table 2 indicates the significant differences between countries, especially from the political stability and absence of violence/terrorism (PSAV), and secondly from the degree of capital markets development point of view. The dependent variable had a significantly lower value for standard deviation, even if we identified differences between all 42 countries from our database. The real interest rate (RINTR) varied between a very high values, of 78.79% to a significant negative values, of (-30.23%). Non-life insurance premium volume to GDP is a more stable variable compared with the life insurance penetration rate, with a standard deviation only of 1.28%.

Table 2: Descriptive Statistics of the dependent and the statistically significant variables

	LIPV	PSAV	RINTR	SMKGDP	NLIPV	REMIT
Mean	0.041872	0.544019	6.376866	0.740012	0.025051	0.010399
Median	0.026690	0.810000	4.947010	0.503275	0.023809	0.004430
Maximum	0.357356	1.680000	78.79439	5.279370	0.053695	0.137430
Minimum	0.000319	-2.440000	-30.23855	0.002244	0.003527	1.53E-05
Std. Dev.	0.049511	0.780205	9.465225	0.727591	0.012835	0.018273
Skewness	3.006787	-1.052756	3.991810	2.508300	0.213984	4.321346
Kurtosis	15.28442	3.407883	26.28487	12.00954	2.006761	25.56789
Jarque-Bera	3788.166	96.59060	10704.64	2228.670	23.68603	11728.78
Probability	0.000000	0.000000	0.000000	0.000000	0.000007	0.000000
Sum	20.34963	274.1856	2703.791	372.2262	12.17483	5.012415
Sum Sq. Dev.	1.188914	306.1864	37896.78	265.7531	0.079902	0.160605
Observations	486	504	424	503	486	482

Source: our own findings based on data from the Annex 2

In the following table we present only the results from the OLS regression with the most significant coefficients, obtained after several attempts in order to identify the most relevant determinants for life insurance penetration ratio for 42 countries.

Table 3: Pool OLS Regressions Testing for the Determinants of Life Insurance Penetration Rate for the period 1996-2007 for 42 countries

Dependent Variable: LIPV				
Method: Least Squares				
Date: 04/02/10 Time: 00:43				
Sample: 1 504				
Included observations: 386				
Excluded observations: 118				
LIPV=C(1)+C(11)*PSAV+C(13)*RINTR+C(15)*SMKGDP+C(16)*NLIPV+C(18)*REMIT				
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	0.005253	0.003478	1.510227	0.1318
C(11)	-0.008129	0.002212	-3.674232	0.0003
C(13)	-0.000465	0.000139	-3.342055	0.0009
C(15)	0.020785	0.001661	12.51252	0.0000
C(16)	1.082993	0.118834	9.113498	0.0000
C(18)	-0.241571	0.072619	-3.326557	0.0010
R-squared	0.498471	Mean dependent var		0.037559
Adjusted R-squared	0.491872	S.D. dependent var		0.034128
S.E. of regression	0.024328	Akaike info criterion		-4.578973
Sum squared resid	0.224900	Schwarz criterion		-4.517483
Log likelihood	889.7417	Durbin-Watson stat		2.041314

Source: our own findings based on data from the Annex 2

The results from Table 3 reveal that five independent variables are significant for life insurance penetration rate. The values of R-squared and Adjusted R-squared bring into light the fact that all the explanatory variables explain together almost 50% from the variation of life insurance penetration rate. T-statistic and p-values comply with conditions imposed by an OLS model.

The highest value of the volatility coefficient corresponds to **non-life insurance penetration rate**, explaining the fact that these two insurance classes are positively correlated, and they can increase or decrease together, with almost the same measure. Thus, in the countries having a less developed non-life insurance class, also the life insurance sector will be less developed, and vice versa.

The remittances are a [transfer of money](#) by a [foreign worker](#) to his native country. The money sent home by migrants constitutes the second largest financial inflow for many [developing countries](#), exceeding [international aid](#). Estimates of remittances to developing countries vary from [International Fund for Agricultural Development's](#) 301 billion USD (including informal flows) to the [World Bank's](#) 250 billion

USD in 2006 (excluding informal flows). Remittances contribute to economic growth and to the livelihoods of needy people worldwide. Moreover, remittance transfers can also promote access to [financial services](#) for the sender and recipient, in this manner increasing financial and social insertion. Remittances also foster, in the receiving countries, a further economic dependence on the global economy as an alternative of building sustainable, local economies.

The remittances are not a new phenomenon in the world, being a usual fact concomitant to migration which has ever been a part of human history. Several European countries, for example Spain, Italy and Ireland were heavily dependent on remittances received from their emigrants during the 19th and 20th centuries. In the case of Spain, remittances amounted to the 21% of all of its current account income in 1946. All of those countries created policies on remittances developed after significant research efforts in the field. For instance, Italy was the first country in the world to enact a law to protect remittances in 1901 while Spain was the first country to sign an international treaty (with Argentina in 1960) to lower the cost of the remittances received (<http://en.wikipedia.org>).

From our statistical analysis, the sign of the correlation between the ratio of remittance inflows to GDP and the life insurance penetration rate is negative and statistically significant, which revealed the fact that the impact of the transfer of money from outside of the origin country is negative for the life insurance sector. It is possible that the “foreign” money to be invested in bank deposits or can be consumed. We consider that the received money gives a certain security for the future and the demand for the life insurance will is no longer a priority for the individuals.

These results indicate a certain relationship between capital, monetary and insurance markets. Consequently, if the **market capitalization** to GDP ratio will increase, a slight positive influence can be felt in the life insurance market.

Political Stability and Absence of Violence measures the perceptions about the possibility that government will be overthrown or changed. The scale is from (-2.5) to 2.5: higher value means better outcome. Our model revealed a slightly negative correlation between this explanatory variable and the dependent one, which can mean that an insecurity feeling from the macroeconomic level can determine population to more appreciate the utility of a life insurance policy.

The last variable with some significance for the life insurance sector seems to be the **real interest rate**. A very low correlation between those two variables can be explainable because these economic sectors are rather in competition for the same financial resources available to the population.

6. Conclusions

Our investigation significance consists in analysing the data for 42 countries over the period 1996-2007. Also, we have studied 16 potential determinants which we have grouped in 6 clusters: (i) general economic indicators, (ii) variables measuring institutional and political factors, (iii) variables measuring financial resources, (iv) variables measuring financial flows, (v) proxies for financial information and (vi) macroeconomic variables. In the context of increasing importance for the life insurance sector, this article has emphasised five financial and political determinants which explain together about 50% of the life insurance penetration rate. Thus, the determinants positively correlated with the life insurance penetration rate are: (i) the non-life insurance penetration rate and (ii) the market capitalization to GDP ratio. The determinants negatively correlated with the life insurance penetration rate are: (i) the remittances [transferred](#) by [foreign workers](#) to their native country, (ii) the political stability and absence of violence and (iii) the real interest rate.

7. Acknowledgements

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Annex 1: Life and non life penetration rate for 42 countries around the world for the years 1996, 2002 and 2007

Countries	LIPV1996	NLIPV1996	LIPV2002	NLIPV2002	LIPV2007	NLIPV 2007
Argentina	0.00507	0.012807	0.007126	0.016184	0.00702928	0.01704334
Brazil	0.003635	0.015767	0.010322	0.017066	0.01391372	0.01559995
Canada	0.024426	0.034545	0.028124	0.037728	0.03437413	0.04131937
Chile	0.019988	0.011733	0.024932	0.014945	0.02313391	0.0145014
Costa Rica	0.000921	0.017426	0.001706	0.018643	0.00174427	0.01740309
Mexico	0.004203	0.008122	0.009253	0.010713	0.0085665	0.01092835
United States	0.036646	0.046889	0.045801	0.050099	0.04187594	0.04715817
Austria	0.024621	0.034168	0.026161	0.032052	0.02618636	0.03149631
Belgium	0.025319	0.031654	0.056699	0.040854	0.06946003	0.03273362
Czech Republic	0.006528	0.017573	0.014158	0.023467	0.01578431	0.02239184
Denmark	0.036062	0.024694	0.048542	0.02714	0.05971892	0.03041936
Finland	0.060833	0.018368	0.06965	0.018655	0.06610034	0.01736851
France	0.058405	0.029609	0.05581	0.031155	0.07297892	0.03196635
Germany	0.026184	0.03768	0.030628	0.037702	0.03106211	0.03651759
Greece	0.008076	0.008662	0.009258	0.011201	0.00859371	0.00780488
Hungary	0.006998	0.015165	0.011988	0.017219	0.01990127	0.01580523
Ireland	0.05297	0.036511	0.056609	0.049672	0.19583903	0.04220111
Italy	0.013722	0.021924	0.044182	0.026635	0.04185803	0.02567615
Luxembourg		0.04603	0.24442	0.042813	0.31254405	0.04267653
Netherlands	0.047795	0.039942	0.049777	0.04518	0.04772984	0.04861538
Norway	0.01901	0.024608	0.025748	0.023662	0.02999341	0.02082992
Poland	0.006044	0.015126	0.010236	0.018916	0.0189141	0.0182646
Portugal	0.02626	0.02923	0.034548	0.031121	0.05882642	0.02744265
Romania	0.000492	0.004559	0.002905	0.009587	0.00337993	0.01408005
Russia					0.00067621	0.0224421
Slovakia	0.005553	0.016042	0.014263	0.018753	0.01389265	0.01728241
Slovenia	0.007378	0.037276	0.011397	0.03883	0.01834942	0.03867899
Spain	0.021594	0.02793	0.038038	0.031215	0.0218062	0.03045703
Sweden	0.026535	0.021716	0.045354	0.02068	0.05393045	0.02177108
Switzerland	0.072615	0.036417	0.08035	0.047692	0.05771624	0.04716789
Turkey	0.001273	0.007312	0.002431	0.010735	0.00165122	0.01097565
United Kingdom	0.070744	0.04437	0.10186	0.049143	0.12821293	0.04177203
Australia	0.045843	0.036004	0.050061	0.034463	0.04225911	0.02739145
China	0.004829	0.006878	0.019828	0.009252		
Hong Kong	0.022842	0.011854	0.05254	0.01465	0.10569613	0.01190097

India	0.011953	0.005132	0.022566	0.006172	0.04025045	0.00618548
Japan	0.089804	0.024902	0.086536	0.022503	0.07554793	0.02151893
Korea, Rep. of	0.086937	0.028087	0.071704	0.029491	0.08383012	0.03680367
New Zealand	0.01668	0.042945	0.013788	0.0467	0.00790745	0.04197211
Pakistan	0.003612	0.004477			0.00298055	0.00443601
Philippines	0.006785	0.008276	0.00887	0.006183	0.00923479	0.00537019
South Africa	0.107369	0.028853	0.15013	0.026991	0.12582622	0.02791615

Note: **LIPV** = Life Insurance Premium Volume/GDP; **NLIPV** = Non-Life Insurance Premium Volume/GDP

Annex 2: Description of dependent and explanatory variables with the corresponding data sources

Variable	Significance	Factor of development	Source of data
Dependent Variables			
LIPV	Ratio of life insurance premiums in the economy to GDP.	Financial system development	Beck, Demirgüç-Kunt and Levine (2000), "A New Database on Financial Development and Structure"; updated in November 2008
General Economic Indicators			
GDP	The Gross Domestic Product measured in USD taken from the World Development Indicators Database of the World Bank and from the International Financial Statistics Database of the IMF. Measured in USD.		World Development Indicators (WDI) Database, the World Bank, and International Financial Statistics database, IMF
POP	Number of inhabitants in each country. Million inhabitants.	Population size	International Financial Statistics (IFS), IMF
GDPCAP	Ratio of GDP per capita (ct. 2000 US\$).	Economic development	World Development Indicators (WDI) Indicators, the World Bank
Variables measuring institutional and political factors			
CPI	Corruption Perception Index published by Transparency International. CPI Score: 1 – very high corruption; 10 – no corruption.	Political corruption / Quality of government	Transparency International
PSAV	<i>Political Stability and Absence of Violence measuring perceptions about the possibility that government will be overthrown or changed. Scale: -2.5 to 2.5; higher value means better outcome.</i>	<i>Political environment</i>	<i>Kaufmann et al., "Governance Matters VII: Aggregate and Individual Governance Indicators 1996-2007", 2008</i>
GEFF	Government Effectiveness measures the quality of public policies and of the civil service. Scale: -2.5 to 2.5; higher value means better outcome.	Political environment	Kaufmann et al., "Governance Matters VII: Aggregate and Individual Governance Indicators 1996-2007", 2008
REGQ	Regulatory Quality measures the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Scale: -2.5 to 2.5; higher value means better outcome.	Regulatory quality	Kaufmann et al., "Governance Matters VII: Aggregate and Individual Governance Indicators 1996-2007", 2008
RLAW	Rule of Law measures perceptions of the rules of society, the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. Scale: -2.5 to 2.5; higher value means better outcome.	Regulatory quality	Kaufmann et al., "Governance Matters VII: Aggregate and Individual Governance Indicators 1996-2007", 2008
Variables measuring financial resources / stocks / endowments			
SMKC	<i>Stock market capitalization as a ratio to GDP.</i>	<i>Capital market development</i>	<i>Beck, Demirgüç-Kunt and Levine (2000), "A New Database on Financial Development and Structure";</i>

			<i>updated in November 2008</i>
LIQLR	Ratio of liquid liabilities in the economy to GDP.	Financial system development	Beck, Demirgüç-Kunt and Levine (2000), "A New Database on Financial Development and Structure"; updated in November 2008
BDEP	Ratio of bank deposits in the economy to GDP.	Banking system development	Beck, Demirgüç-Kunt and Levine (2000), "A New Database on Financial Development and Structure"; updated in November 2008
Variables measuring financial flows			
FDIINF	Ratio of the net inflows of foreign direct investments to GDP.	Degree of financial openness	World Development Indicators (WDI) Indicators, the World Bank
REMIT	<i>Ratio of remittance inflows to GDP.</i>	<i>Economic development</i>	<i>Beck, Demirgüç-Kunt and Levine (2000), "A New Database on Financial Development and Structure"; updated in November 2008</i>
NLIPV	<i>Ratio of non-life insurance premiums in the economy to GDP.</i>	<i>Financial system development</i>	<i>Beck, Demirgüç-Kunt and Levine (2000), "A New Database on Financial Development and Structure"; updated in November 2008</i>
Proxies for financial information / literacy			
INTUS	Ratio of internet users per 100 people.	Social development	World Development Indicators (WDI) Indicators, the World Bank
Macroeconomic variables			
RINTR	<i>Real interest rates for the period 1996-2007. Computed by the authors.</i>	<i>Economic environment</i>	<i>World Development Indicators (WDI) Indicators, the World Bank</i>

EVALUATION OF THE INDICATORS PROGRAMS AND MULTI-ANNUAL COMMITMENT APPROPRIATIONS

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Abstract: *The complexity of public sector that is characterized by activities by the development and implementation of public policies and providing services not being directly connected with the resources available and required quality creates difficulties in establishing performance criteria.*

Throughout this work, the improvements brought by OMPF (Order of the Ministry of Public Finance) 1792/2002 for the approval of the methodological Norms are presented, with regards to the employment, liquidation, enactment and payment of public institutions' expenditures but also organization, evidence and account of budgetary and legal commitments through Order of the Ministry of Public Finance 547/2009 regarding its modification and addition. Ministry of Public Finance Ordinance no. 79/2010 for approving the methodological norms on closing the accounts of accounting, preparation and submission of financial statements of public institutions at December 31. 2009.

The research methodology aims to present the development of the concept of multi-annual commitment appropriations in public institutions, budget programs, the accounting as a support factor for managers in setting and reaching the proposed evaluation indicators. The author proposes an analysis of the accounting as a factor influencing the performance of public institutions. The method used was that of historical research and of data analysis through the study of available documents. Dynamic environment in which public entities operate, the downward trend of public resources, poorly presented objectives, and public distrust (though declining), are a challenge for public accounting as a factor in performance.

Keywords: Commitment credits, multiannual actions, budget, reflection within the financial states' annexes

JEL classification: M 41

1. Introduction

The dynamic environment in which public entities operate, the downward trend of public resources, poorly presented objectives, public distrust (though declining), are a challenge for public accounting as a factor in performance.

The research methodology aims to present the development of the concept of multi-annual commitment appropriations in public institutions, the accounting as a support factor for managers in setting and reaching the proposed evaluation indicators.

The author proposes an analysis of the accounting as a factor influencing the performance of public institutions.

The method used was that of historical research and of data analysis through the study of available documents.

General framework

General framework - accounting

Accounting is a technique for gathering, processing and interpreting the information resulting from economic flows.

As the service users, it should be neutral to meet the goal of all parties involved in the operation and the results of the institution.

Nowadays, public entities submit financial statements, which illustrate their activity and situation at a given time, for different internal as well as external users.

The situations regarding the existing status are elaborated at a specified time and those referring to the flow cover a period of time.

The Balance Sheet represents o status situation as part of the financial statements prepared by the public institutions. It provides information on resources that are available in an institution at a certain time.

The Balance Sheet represents o status situation as part of the financial statements prepared by the public institutions. It provides information on resources that are available in an institution at a certain time.

The carried out analysis based on the financial statuses in view of determining the performance of a present and durable unit on the market, being performed in time and not at a certain point.

The junction between implementing the reports based on the International Accounting Standards for Public Sector and the reform of the budgetary process based on the same principles precludes the performance assessment difficulties by clearly describing the public policies assessment process based on the analysis of results related to the targeted objectives.

A first step in modernizing – reforming the mode of entities' budget making is represented by the shift made from its elaboration, according to the needs of precedent year, correlated with the prediction regarding subsequent year's growth/reduction to the correlation with political objectives, predicted/achieved results, but not yet a multiannual budget entirely.

Meanwhile, the expenditures' sums and allotted sums ratio will be analyzed, resulting in the usage performance.

General framework - managers

A well-trained doctor can determine one's diagnosis by checking vital signs: pulse, blood pressure, breathing, temperature and cardiac rhythm whereas a good manager determines the diagnosis of an enterprise by carefully analyzing the financial situations.

This addresses to a large number of users, with extremely varied professional orientations. Each user solicits required information for evaluating the economic operator in terms of pursued purpose.

For instance, banks firstly analyze the enterprise ability of honoring their obligations on short terms and that's why they are using financial rates which estimate this characteristic. Long term creditors are more interested in gaining power and operational efficiency.

Shareholders are more interested of the profitability of the enterprise, as well as their capacity to pay dividends or to increase share value.

The managerial team will certainly be interested in all aspects of financial analysis because it has to be able to also acquit both short and long term debts and at the same time to obtain profit for the shareholders.

The most difficult resource to manage is the time. Time cannot be: stocked. Time cannot be: traded Time cannot be: bought. Time cannot be: sold Time can only be used..

People must be separated from problems: "participants should consider themselves as working side by side, attacking the problem and not each other." (Fisher, Ury)

Creating wealth and values is the result of intrinsic qualities of a product and of the immaterial catering component that comes along with it.

Studies by counseling offices show that advanced enterprises in human capital administration create twice more value than others.

The information is obtained, a precise meaning is given to the operational context to turn it into a helpful piece of information to their job, unfortunately to find good information, at the right time, for the right person, has become a difficult task as sequel to the immense volume of information.

Correlated analysis of the public entities performances and their managers

The manners in which people communicate and work together determine the results and performance of an organization. (according to internal marketing)

Access to the knowledge some individuals own is influenced by people's will of using their knowledge, because the interest can be different from the enterprise's, as well as depending on people's capacity of using the knowledge they have to make them aware of its true value.

"Individual competence represents the recognition of <<knowing how to act>>, a condition of the act recognized by a working group.

It is an operational set of knowing how to do, using the general and technical knowledge, professional behaviour that is structured, mobilized and applied according the defined goal and work situations.

Individual competence is composed of knowledge, expertise and ability (skills and personal qualities recognized by a working group).

This component is abstract (impalpable), finalised (to reach a goal), learned (through experience, training, etc.) and structured.

Competence has a short life, is more or less fragile (slow, fast erosion). Permanent changes imply new skills, given the complexity of the jobs (new technologies, qualitative approach, teamwork, decentralized decision taking).

The competence capital of an enterprise is a bio-degradable asset, loosing automatically its relevance if nothing is done to update and develop it. Competencies may be different depending on the players and the systems generating them, endogenous and exogenous competencies. "(Dupuich Françoise, Enlart Sandra 2007)

Today, for a good manager, it is not enough to know how to do, but to make others acknowledge as well.

The management of knowledge has to be replaced by a management of competencies. This involves the idea of integrated approach, know how to do (expertise) and the behaviour (ability, to know how to be).

"The expertise combines the experience of knowing what to do at the highest level, deep compression of mechanisms and processes implemented, a more intuitive capacity for diagnosis and vision for action

It is about a sequence of steps leading to outside information, knowledge and expertise in the end. (Nekka H.2006, Reims)

If we look to the management performed in public institutions in Romania we can note that it is characterized by dynamism, is results-oriented, but sometimes has emotional fluctuations

"An ideal organization is the one in which each manager is concerned by each employee. But in reality things are not at all like that: many managers are efficient only in matters relating to legislation and taxation, without having minimum knowledge regarding the psychology of work. They do well everything that is referring to issues of objectivity, clarity, tasks but fail to give enough weight to emotional side (listening, understanding, feedback), loosing sight of the fact that employees might react better and quicker to actions that are closely related to values, emotions.

Many times the managers prefer to act on positions of power over employees, empathy being seen as a sign of weakness " (Mitu Ioana Ecaterina, MituNarcis Eduard 2010)

The complexity of public sector that is characterized by activities by the development and implementation of public policies and providing services not being directly connected with the resources available and required quality creates difficulties in establishing performance criteria.

According the review of materials dealing with performance in public institutions made by Eugeniu Țurlea in the article "Performance of public sector entities, between present and future" two different opinions are emphasized.

The following authors Bouckaert & Balk, Jones & Pendlbury, Likierman wonder whether it is appropriate, possible and necessary to measure performance in public bodies.

They bring in supporting their opinion as an argument the difficulty of defining the concept, the impossibility to establish as an indicator of measurement, that its value decreases as valuable management tool, if not used properly.

On the other side, it is presented the positive opinion of the author Robert & Colibert.

Robert and Colibert sustain the public sector's performance measurement on the basis of engagements' accounting.

In their opinion, the performance concept simply means that current entities' revenues must be compared with current expenditures with the purpose of expenses' coverage as well as for surplus.

The authors believe that accrual accounting represents the most secure and feasible performance measurement instrument.

Their opinion is based on the recognition of the correlation between expenditures and revenues which are being related to the same practice.

The most eloquent influence in favour of adopting the accrual accounting is apparent in case of New Zealand which moved from a surplus result (based on cash accounting) of 1 billion dollars, during the first year new system way of reporting (based on accrual accounting) to ten times smaller surplus.

For analyzing the performance measurement markers (in accordance with the activity specificity of public entities) other markers than financial ones must be considered (program paper of financial reports' annex no.25 in which specific related activity domain markers are detailed, along with exceptions induced by each program application).

At present, public entities' performance is relevant financially in particular and is being measured through the patrimony result.

The competition cannot be created or destroyed, it is only transformed, and if it disappears in a certain part of life it appears, logically, in the same amount into another area (Dan Voiculescu 2009)

In order to manage its dependency, the manager tends to respond with priority to requirements of developing groups that control resources. As resources are limited in time and money, the organization cannot simultaneously equally treat all requests.(Nekka H 2005)

The managerial circuit regarding the commitments activity is based on the principle of separating the attributions of the people that have the capacity of credit release authority from the attributions of the people that have the capacity of accountants.

Credit release authorities for the budgets mentioned in art.1 para.(22) in Law no.500/2002 are authorized to commit, clear and authorize expenditures throughout the budgetary exercise, within the limit of the approved budgetary credit, while the payment of the expenditures is carried out by the people that, according to the law, bear the general title of accountant.

There was a need to re-approach the following concepts: commitment credit, budgetary credit, multiannual actions defined like this:

“The commitment credit represents the maximum limit of the expenditures to be made during the budgetary exercise and within the approved limits.

The budgetary credit is the budget approved sum, representing the maximum limit for the enactment and payment during the budgetary year of the commitments contracted during the budgetary exercise and/or from previous exercises for multiannual actions, respectively budget payments for other actions can be engaged, enacted and executed.

Multiannual actions represent programmes, projects and other similar actions occurring on periods longer than one year and which generates credit commitments and budgetary credits”.

Among the multiannual actions according to budget financed actions (with the greatest impact due to the sums and number of implementing beneficiaries) the following can be listed:

- programmes of public investment which are presented in the budget annexment of main credit regulators;

- programmes financed through irredeemable pre-adherence external funds, as well as projects and programmes financed through irredeemable post-adherence external funds afferent to European Union Cohesion politics, common agricultural and fishing politics but also other post-adherence facilities and instruments.

Funds afferent to multiannual actions will consist in commitment and budgetary credits, in budget annexments of main credit regulators.

Thus, the value of the legal commitments **cannot** exceed the value of the budgetary commitments and that of the approved budgetary credits by the incomes and expenditures budget.

For compliance with the approved annual credit limit, it is mandatory to reserve the committed budgetary credits for the payments that will be carried out in that budgetary year. The budgetary commitment by means of which the public funds were reserved for a certain use, within the limit of the approved budgetary credits, precedes the legal commitment. Thus, the value of the legal commitments **cannot** exceed the value of the budgetary commitments and that of the approved budgetary credits by the incomes and expenditures budget.

The budgetary credit represents a payment authorization, and the commitment credit represents a commitment authorization which, in part, may generate payments in the future exercises as well.

It is necessary that the whole budget (not just the budget for multiannual actions – so far limited to investments, loans, irredeemable external funds) ceases to be a planning act strictly limited to a budgetary exercise, and to allow it to become of the commitment credits due to the existence of specific activity sectors, so as not to be in contradiction with the principles of commitments' accounting.

The managers activity should be evaluated taking into account also the particularities of their field of activity correlated with norms, criteria, but also in relation with the effects in another area (e.g. a larger initial payment in the health sector followed by a lower cost in social sector, while in the health system if the person has not a later a hospitalization, the person may turned from an assisted to a contributor person), the national characteristics, degree of fulfilment of tasks, the bottlenecks occurred independently of the work done.

For Prevention Sub-Programme in Psycho-social and Psychiatric Pathology the achievement of physical indicators, compared with the proposed ones is shown in the following table (source website Ministry of Health – Analysis Report View Table number 1,.)

Table 1:Physical indicators tor Prevention Sub-Programme in Psycho-social and Psychiatric Pathology

No.	Indicator	No. of patients		Average cost per patient/person/company lei
		Proposed	Achieved	
1	No. of patients included in psycho-social rehabilitation programmes (ergo-therapy) since the beginning of year	4.000	16.746	17.006
2	No. of children included in psycho-social specialised treatment (autism, ADHD) since the beginning of year	400	657	637
3	No. of professionals trained in specialised treatment of mental diseases of children and teenagers	165	606	6.696
4	No. of local campaigns anti-stigma	5	5	83.005

Hospital managers are evaluated based on indicators that include:

Indicators related to human resource management:

- Average number of patients discharged by medical doctor. The proportion of medical doctors in the total number of staff, etc.;

Indicators related to use of services:

- The average length of hospitalization per hospital and each department, Number of patients on the waiting list, per department etc.;

Economic and financial indicators:

- Budget execution against budget expenditures, Percentage of total staff costs in total hospital costs, etc.;

Quality indicators:

-Hospital mortality rate per total hospital and per each department, Concordance indices between diagnosis at admission and diagnosis at discharge, Number of complaints from patients, etc..

-The development is based on performance and in order to reach it investments are needed.

As the resources are limited, in order to carry out them multi-annual commitment appropriations are used.

These allow contracting, that will be carried out even over an year duration, but reimbursement takes place over several years. The following table emphasise the way of recognizing multi-annual commitment appropriations (View Table number 2)

Table 2:First draft budget

Original table in the first year of the project in accordance with Minister of Public Finance Order number 79/2010	Budget Law	Budget estimate	Budget estimate	Total project
Year	2010	2011	2012	
Commitment appropriations	1000	600	400	2000
Budget Appropriations	500	700	800	2000

Contract value of the commitment appropriations limit is 900 lei, materialized in goods and services worth 500 lei, paid under the budget appropriations value of 500.

As a result debit balance the Special Account 8072"Commitment appropriations committed" is worth 100 lei, which is not no longer taken automatically in the next year (View **Table** number 3, View Figure number 4, View Figure number 5)

Table 3 Draft budget the second year of project

Original table in the the second year of the project in accordance with Minister of Public Finance Order number 79/2010	Achievements	Budget Law	Budget estimate	Total project
Year	2010	2011	2012	
Commitment appropriations	900	700	400	2000
Budget Appropriations	500	700	800	2000

Table 4 Minister of Public Finance Order number 547/2009

Original table in the first year of the project in accordance with Minister of Public Finance Order number 547/2009 (constantly during the project)	Budget Law	Budget estimate	Budget estimate	Total project
Year	2010	2011	2012	
Commitment appropriations	1000	600	400	2000
Budget Appropriations	500	700	800	2000

Table 5 Minister of Public Finance Order number 1792/2002

Original table in the first year of the project in accordance with Minister of Public Finance Order number 1792/2002 (equality during the project)	Budget Law	Budget estimate	Budget estimate	Total project
Year	2010	2011	2012	
Commitment appropriations	500	700	800	2000
Budget Appropriations	500	700	800	2000

2. Conclusions

As a personal opinion, the fact that in the new conditions the account balance 8072 "Commitment appropriations committed" is not no longer taken automatically in the next year, being considered when elaborating the budgets for the next years, leads to difficulties in managerial activity.

A delicate point is that the draft budget shall be elaborated up to September, and payment of investments is made mainly in the fourth quarter, thus it is not known the amount to be considered in the next year, rather in two years.

As a conclusion, this finding may lead to starting investments of which duration is extended beyond the estimated duration from the start, determining alterations in indicators of personal performance assessment.

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INVESTMENT MODELS THAT CAPTURE THE ACCELERATOR EFFECT

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Abstract: *The purpose of this article is to present the main models of investment that have accelerator effect included into their structure. The basic model that captures this effect is the accelerator model. Empirical evidence has brought to light that this model can't fully explain the investment behavior of firms. Therefore, have been proposed other investment models, more complex, which take account of the accelerator effect and other important determinants of investment.*

Key words: accelerator effect, investment, models.

JEL classification: G31

4. Introduction

Over time, have been proposed and tested several models that attempt to explain the investment behavior of firms. Some of these models have incorporated in their structure, in one form or another, the accelerator effect of investment. The investment theory of accelerator was developed, in particular by: Maurice Clark (1917), Hollis Chenery (1952), Leendert Koyck (1954) etc. The accelerator effect can be briefly described in the following manner: net investment during the growth of consumer goods sales and net disinvestment in the periods of crisis. The simplest investment model that incorporates the accelerator effect is the accelerator model.

5. The accelerator model

The accelerator model starting by the assumption that demand for capital goods (K_t) is determined by the forecasted level of production (Y_t):

$$K_t = \alpha Y_t \quad (1)$$

where:

α – coefficient that meets the following condition: $0 \leq \alpha < 1$.

In this case, it is considered that the level of net investment (net disinvestment) is equal to the difference between the optimal capital stock that is necessary to achieve the future production and the current capital stock:

$$I_{nt} = K_t - K_{t-1} = \lambda(K_t^* - K_{t-1}) \quad (2)$$

where:

I_{nt} – net investment in period t ;

K_t, K_{t-1} – the capital stock in period t , and $t-1$;

λ – adjustment coefficient;

K_t^* – the optimal stock of capital in period t .

There are two variants of this theory: the simple model (the fixed accelerator model) and the flexible model (the flexible accelerator model).

Maurice Clark (1917), who developed the first fixed accelerator model, considered that the adjustment coefficient λ has a value equal to unity. Therefore, in his opinion, the previous relationship can be written as follows:

$$I_{nt} = K_t^* - K_{t-1} \quad (3)$$

However, the empirical researches have refuted the hypothesis that the adjustment coefficient has the value equal to 1. Another assumption of the simple model is that the ratio between the capital stock and the sales is considered fix. For this it is necessary that the company to be able to instantly adjust its capital stock at any change in demand for its production.

Combining the previous relations can be obtained the fixed accelerator model:

$$I_{nt} = \alpha(Y_t - Y_{t-1}) \quad (4)$$

where: Y_t, Y_{t-1} – the production in period t , and $t-1$.

The fact that, in practice, there is a difference between changing in demand and the adjustment of capital stock to the new required level of production has necessitated the introduction of the flexible accelerator model. This model was proposed by Leendert Koyck in 1954. In his opinion, the adjustment coefficient λ is positive and strictly subunit ($0 \leq \lambda < 1$). The flexible accelerator model has the following form:

$$I_{nt} = \lambda \alpha \Delta Y_t + (1 - \lambda) I_{n(t-1)} \quad (5)$$

where:

$$\Delta Y_t = Y_t - Y_{t-1};$$

$I_{n(t-1)}$ – net investment in period $t-1$.

Using the accelerator model, investment behavior can be explained in a small part, a number of additional factors influencing this behavior, such as the relative price of capital goods, interest rates, profits etc.

However, the empirical evidences show the fact that the accelerator model reflects fairly well the behavior of investment, particularly in regard to investments in inventory goods. The larger production is, the larger is the investment made in such of inventory goods.

6. Complex investment models that capture accelerator effect

Because the accelerator model can explain only in a small part the investment behavior of firms, have been proposed other investment models, more complex, which also take account of the accelerator effect and other important determinants of investment.

One of these investment models is named accelerator - cash flow model. This model expresses the simultaneous effect of accelerator and of cash flow on investment levels:

$$\left(\frac{I_{it}}{K_{i(t-1)}} \right) = a_1 \left(\frac{\Delta S_{it}}{K_{i(t-1)}} \right) + a_2 \left(\frac{CF_{it}}{K_{i(t-1)}} \right) \quad (6)$$

where:

$S_{it}, S_{i(t-1)}$ – the volume of sales made by the firm i in period t , and $t-1$;

$$\Delta S_{it} = S_{it} - S_{i(t-1)}.$$

This model highlights the fact that investments made by firms are directly dependent on changes in the volume of sales and on the cash flow level.

The accelerator - cash flow model can be improved if in the equation of this model, we include another variable ($D_{i(t-1)}$ – the total debt of the firm in the period $t-1$), which summarizes the influence the of debt accumulated in the last period on the current investment. The larger debt is, the lesser is the investment made by firm.

$$\left(\frac{I_{it}}{K_{i(t-1)}} \right) = a_1 \left(\frac{\Delta S_{it}}{K_{i(t-1)}} \right) + a_2 \left(\frac{CF_{it}}{K_{i(t-1)}} \right) + a_3 \left(\frac{D_{i(t-1)}}{K_{i(t-1)}} \right) \quad (7)$$

In 1997, D. Harhoff proposed a lag variant of accelerator - cash flow model, by introducing, in the equation of this model, the influence of investment and cash flow realized in the previous period on the present investment (D. Harhoff, 1997):

$$\frac{I_{it}}{K_{i(t-1)}} = a_0 + a_1 \frac{I_{i(t-1)}}{K_{i(t-2)}} + a_2 \Delta Y_{it} + a_3 \Delta Y_{i(t-1)} + a_4 \frac{CF_{it}}{K_{i(t-1)}} + a_5 \frac{CF_{i(t-1)}}{K_{i(t-2)}} \quad (8)$$

where: $\Delta Y_{it} = Y_{it} - Y_{i(t-1)}$;

$$\Delta Y_{i(t-1)} = Y_{i(t-1)} - Y_{i(t-2)}.$$

In a paper published in 2003, Oscar Sanchez added, in the accelerator - cash flow investment model, a new macroeconomic variable, namely interest rate (r) (Sánchez, O., 2001):

$$\left(\frac{I_{it}}{K_{i(t-1)}} \right) = a_0 + a_1 \left(\frac{\Delta S_{it}}{K_{i(t-1)}} \right) + a_2 \left(\frac{CF_{it}}{K_{i(t-1)}} \right) + a_3 r_t \quad (9)$$

Based on this model, O. Sanchez examined the influence of monetary policy on several Mexican companies in the period 1984-1999. Research has highlighted the fact that the investments are closely linked of cash flow and of the changes recorded in the sales volume, especially for the case of small companies. Also, the interest rate changes affect the investment, stronger for large firms and less for smaller ones.

Another famous multifactorial investment model is Q - cash flow model. The Q factor is the ratio of the market value of the firm to the replacement cost of capital owned by that firm. The Q - cash flow of

investments has been proposed by (S. Fazzari, G. Hubbard and B. Petersen, 1988), and can be described by the following equation:

$$\left(\frac{I}{K}\right)_{it} = a_0 + a_1 Q_{it} + a_2 \left(\frac{CF}{K}\right)_{it} \quad (10)$$

If we adding in the q-cash-flow investment model the accelerator effect, then this model can be presented in the following form:

$$\frac{I_{it}}{K_{i(t-1)}} = a_0 + a_1 Q_{i(t-1)} + a_2 \frac{CF_{it}}{K_{i(t-1)}} + a_3 \left(\frac{S_{it}}{K_{i(t-1)}} - \frac{S_{i(t-1)}}{K_{i(t-2)}} \right) \quad (11)$$

Based on this model, in an article published in 2003, Jong - Hun Kim has studied the link between investment made by the South Korean companies and their financial structure before and after the great financial Asian crisis from 1997. The analysis was carried out starting from the financial and economic data of 418 South Korean companies, from the period 1992-2001. The empirical evidences obtained by Jong - Hun Kim highlighted that investments depend not only on the cash flow but also on the level of sales. The young firms are usually the most financially vulnerable. Instead, the mature firms have, in principle, a stronger financial situation.

A modified version of this model was proposed and tested by Gonzalo Castañeda, in 2002, on the example of several Mexican companies. This version can be presented in the following form (Gonzalo Castañeda, 2002):

$$\frac{I_{it}}{K_{i(t-1)}} = a_0 + a_1 \frac{I_{i(t-1)}}{K_{i(t-2)}} + a_2 \frac{S_{it}}{K_{i(t-1)}} + a_3 \frac{S_{i(t-1)}}{K_{i(t-2)}} + a_4 DU_{it} \frac{CF_{i(t-1)}}{K_{i(t-2)}} \quad (12)$$

where:

DU – dummy variable used to capture the influence of financial restrictions.

The dummy variables are variables introduced in a model to capture the influence of qualitative phenomena which can not be measured on a continuous scale. These variables can take only two values: 1 and 0. In the model above, this variable is assigned the value 1 if the firm is, a priori, financially constrained, and 0 if the firm is not subject to any restrictions.

The researches undertaken by G. Castañeda were undertaken to determine the influence of market imperfections and of financial constraints on the level of firm's investment. The conclusions drawn from the analysis are that the independent firms are generally more financial constrained than the firms which are affiliated with a particular group of firms. On the other hand, investments are strictly dependent on the sales (output), especially for the case of independent firms.

In the theory and in the practice of investment are used, also, autoregressive models that capture the influence of the accelerator effect. Such a model can be reproduced in the following manner Chatelain, J. B., Tiomo, A. (2001):

$$\frac{I_{it}}{K_{i(t-1)}} = a_0 + a_1 \frac{I_{i(t-1)}}{K_{i(t-2)}} + a_2 \frac{I_{i(t-2)}}{K_{i(t-3)}} - b_1 C_{i,t} - b_2 C_{i,t-1} - b_3 C_{i,t-2} + c_1 \frac{S_{it}}{K_{i(t-1)}} + c_2 \frac{S_{i(t-1)}}{K_{i(t-2)}} + c_3 \frac{S_{i(t-2)}}{K_{i(t-3)}} + d_1 \frac{CF_{it}}{p_s^I K_{i(t-1)}} + d_2 \frac{CF_{i(t-1)}}{p_{s(t-1)}^I K_{i(t-2)}} + d_3 \frac{CF_{i(t-2)}}{p_{s(t-2)}^I K_{i(t-3)}} \quad (13)$$

where:

C_i – the cost of capital for firm i ;

p_s^I - the market price of the capital goods.

As reflected in this model, current investments are dependent on the past and current values of some variables. A direct dependence is on the past investments, on the past and current sales and on the cash flow and indirectly dependence is on the cost of capital. A high cost of capital will lead to low level of investments, while a low level of capital cost will stimulate the appetite for investments. The empirical evidences show that, especially for the case of small and medium firms, the financial constraints and the high level of capital cost determine the decline of the level of investments.

In my doctoral thesis, I draw up an investment model that I tested it on case of an economic activity named “Electric and thermal energy, gas and water”. This model, that includes the accelerator effect, has the following form:

$$I_t = a_0 + a_1 \Delta IT_t + a_2 \Delta K_t + a_3 Y_t + a_4 r_t \quad (14)$$

where:

IT_t, IT_{t-1} – the total investments made in the national economy in period t , and $t-1$;

K_t, K_{t-1} – the tangible fixed assets existing within the economic activity named “Electric and thermal energy, gas and water” in period t , and $t-1$;

Y_t – industrial production realized within the economic activity named “Electric and thermal energy, gas and water” in period t ;

r_t – the average interest rate in period t ;

$$\Delta IT_t = IT_t - IT_{t-1};$$

$$\Delta K_t = K_t - K_{t-1}.$$

In concordance of this model, the current investment demand for case of the economic activity named “Electric and thermal energy, gas and water” is dependent on changes in the volume of investments made in the national economy recorded in the current period over the previous period, on variation of level of tangible fixed assets existing within this economic activity over the previous period, on the current average interest rate and in part on the industrial production realized within this economic activity.

7. Conclusions

This paper tried to present the main models that capture the investment accelerator effect. Even if, theoretically these models are fairly well grounded, their practical application for explaining the investment behavior did not give in all cases, positive results. However, the models that capture the influence of investment accelerator effect represent a usual manner by which we could explain the phenomenon of investment. Generally, the higher is the number of independent variables that are included in these models the better is that behavior explained. However, the inclusion of too many variables in the mathematic equation of these kind of models can lead to the phenomenon of multicollinearity between these variables with negative effects on the results obtained based of these models.

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CORPORATE RATING IN BANKS AND RATING AGENCIES: COMPARATIVE APPROACH

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***Abstract:** The objective of this paper is to concisely show the similarities and contrasts between rating agencies and banks in terms of the following components of rating systems: risk classes, relevant risk indicators, the used models and structure of the process of assigning the risk grade. This work is structured in the following manner: the first part briefly presents the scientific references, the second one encompasses the comparative analysis and the last part stands for conclusions.*

Key words: rating, rating agencies, banks, rating system

JEL classification: G24, G32

1. Introduction

The rating activity has known an exponential development after the '80s, given the development of the international financial market and the growth of the complexity of credit products. The risk grade attached to a corporation, a country, a project, a debt instrument or a security is the assessors' opinion on two aspects: the risk of ceasing payments and the recovery possibilities (Fitchratings, 2009, Moody's, 2009, Standard&Poor's, 2009). Rating is used to designate both the risk grade assigned to an entity/debt instrument, and the process through which this is generated. Working-out the rating for a corporation/credit facility is a complex process, well-defined in procedural terms, combining quantitative and qualitative analyses and it is based both on historical evidences and potential future evolutions.

The objective of this paper is to concisely show the similarities and contrasts between rating agencies and banks in terms of the components of rating systems they possess. In this respect, the comparative analysis of the two types of systems was directed on the following center lines: classes of risk, relevant indicators of risk, models used and the structure of the process to assign the risk grade. The documentation sources on the architecture of the rating systems were the professional articles published, official papers publicly available, of BNP Paribas, Deutsche Bank, Credit Lyonnais, Bank of America, Standard&Poor's, Moody's, Fitchratings and the internal regulations of two bank groups from Romania. This work is structured in the following manner: the first part briefly presents the scientific references, the second one encompasses the comparative analysis and the last part stands for conclusions.

2. Theoretical references

The rating agencies and their products for the international capital market represent the topic of many research papers, referring mainly to market organization, the architecture of the rating systems of agencies, the rating functions, the disputes related to rating activity and the role of agencies and to the rating quality, including here the validation methodologies. Therefore, Ganguin and Bilardello (2005), general managers at Standard&Poor's, describe and explain in their work the methodology of assessing credit risk. Their book focuses on explaining the risk factors and the manner they are integrated into the quantitative and qualitative analyses. Sinclair (2005), is rather concerned with the importance of rating agencies and the role of ratings in directing the international financial capital flows. His book, alongside the works of Dittrich (2007), Partnoy (2002) and Champsaur (2005) helped us in dividing the functions of external ratings. Moody's (1998), Fitchratings (2009) and Standard&Poor's (2009) describe in documents available on-line the terminology and methods of evaluating credit risk related to corporations. Instead, the professional literature is less rich in data concerning the systems of bank internal rating. Crouhy, Galai and Mark (2001), on the grounds of Standard&Poor's and Moody's rating systems, explain the manner in which a bank

internal rating system could be organized. The same authors, in a work published in 2000, were performing a comparative analysis of the credit risk models CreditMetrics, KMV, CreditRisk+ and CreditPortfolio View. Gouieroux and Tiomo (2007) describe in detail the credit risk models, referring mainly to those developed by companies in favour of banks and rating agencies. Altman, et al. (2002) and Giesecke (2004) describe synthetically the structural models, founded on Merton's model (1974) and the reduced-form models, having as basis the assumption that the cease of payments occurs unexpectedly, at a rate or intensity of exogenous cease, without depending on the value of the company assets. A synthesis of the modifications incurred in shaping the credit risk up to the year 2009 can be found in Capuano, Chan-Lau, et al. (2009). In his book on the credit risk management, Fight (2004), based on the experience of USA banks, explains the procedures and the quantitative and qualitative indicators that form the basis of evaluating credit risk. Krahen and Weber (2001) describe in their work the principles generally accepted, called also general standards governing the rating activity, giving thus an assessment framework of the of the quality of rating systems. Treacy and Carey (2000) analyse the rating process in fifty USA banks, by identifying two forms of organizing rating systems: a system with "only one dimension" - where grades are associated only to debtor and it bases facility ratings on borrower ratings - and a dual system, where two grades occur: one associated to the obligor and another, independent, to the credit instrument (e.g., based on loss given default). In their opinion, the second system ensures a better accuracy to evaluation. Bank of Japan (2005) confirms the choice of dual systems by most of the banks and describes thoroughly, in the report on architecture of a system of internal rating, the rating process and their fundamental models. Oesterreichische Nationalbank and Financial Market Authority (2004) released some guidelines for commercial banks and the public with reference to the framing of risk management systems so that they answer the new requirements stipulated into Basel II Agreement. Jacobson et al. (2006) describe the rating experience of two Swedish banks, pointing out the heterogenousness of risk classes and and the massing of clients into one or several classes.

The analysis of the systems of bank internal rating and of the methodologies of rating agencies based on the above works has underlined similarities, and above all, multiple contrasts of the perspective on rating. We do not intend to exhaustively list these similarities and contrasts, but to point out to those we have considered as significant in terms of informational value assigned to rating.

3. Comparative analysis

◆ Rating: meanings and classes of rating

The rating, associated by rating agencies to a corporation or a debt instrument (external rating, shortly ER) and disseminated to the public, incorporates information bringing it at least four functions on the capital market: the function of informing instrument regarding the credit quality (to this there is added the indirect information on the assessor's reputation¹⁹), the function of catalyst of transactions with companies (by certifying the issuers' quality, similarly to the external auditors), the function of standardization (assures the comparison of debtors) and the regulation one (by legal regulations depending on rating). ER is "an opinion" (Moody's, 2009) rather than a decisive recommendation, so that its usage depends on the financial investors choices, fact inducing uncertainty in respect of the boundaries of the operational value and the impact on the financial capital directors. Unlike this rating, the risk grade given by the credit institutions is not publicly available, being used internally into the credit risk management and into the surveys concerning profitability. Bank internal rating (in short IR) reflects, similarly to the external one, the risk of cease/delay of payments with the principal and/or the interest and risk on the recovery rate in case of cease of payments, but in addition, it offers, by combination, information about the risk of quality decay of credit portfolio (Gouieroux and Tiomo, 2007). While rating agencies propose an assessment through the cycle, IR is for most of the banks the point-in-time, based on current conditions, analyzed in terms of determined time perspective (depending on maturity) and under cover of various potential scenarios. Out of ER functions, IR keeps only three: the informing function, the one of standardization and the regulation function, limited to the level of the assessing bank. For the credit institutions which have implemented the internal rating based systems, the operational value of IR is much increased and more accurate in comparison with the one of ER, due to the fact that IR is crucial for the capital applicability and thus, for the profitability and competitive power of the bank. Therefore, it is legitimate to say that the rating system, defined as *the assembly of*

¹⁹ According to Dittrich (2007), rating has a reputation value because it embeds information upon the quality of the agency producing it.

methods, processes, control systems, data collecting systems and informatic systems allowing the assessment of individual and integral credit risk, the classification of obligors and facilities on different risk grades and the adequate assignment of financial resources, is one of the central pillar of any credit entity. The rating system components are synthetically and comparatively presented below:

Table 1. Rating systems: general components

Components	Rating agencies	Credit institutions
Assessment scale	YES	YES
Informatic machine	YES	YES
Grades assignment procedure and indicators	YES	YES
System of validation, monitoring and improvement	YES	YES
Financial resources allotment procedure	NO	YES

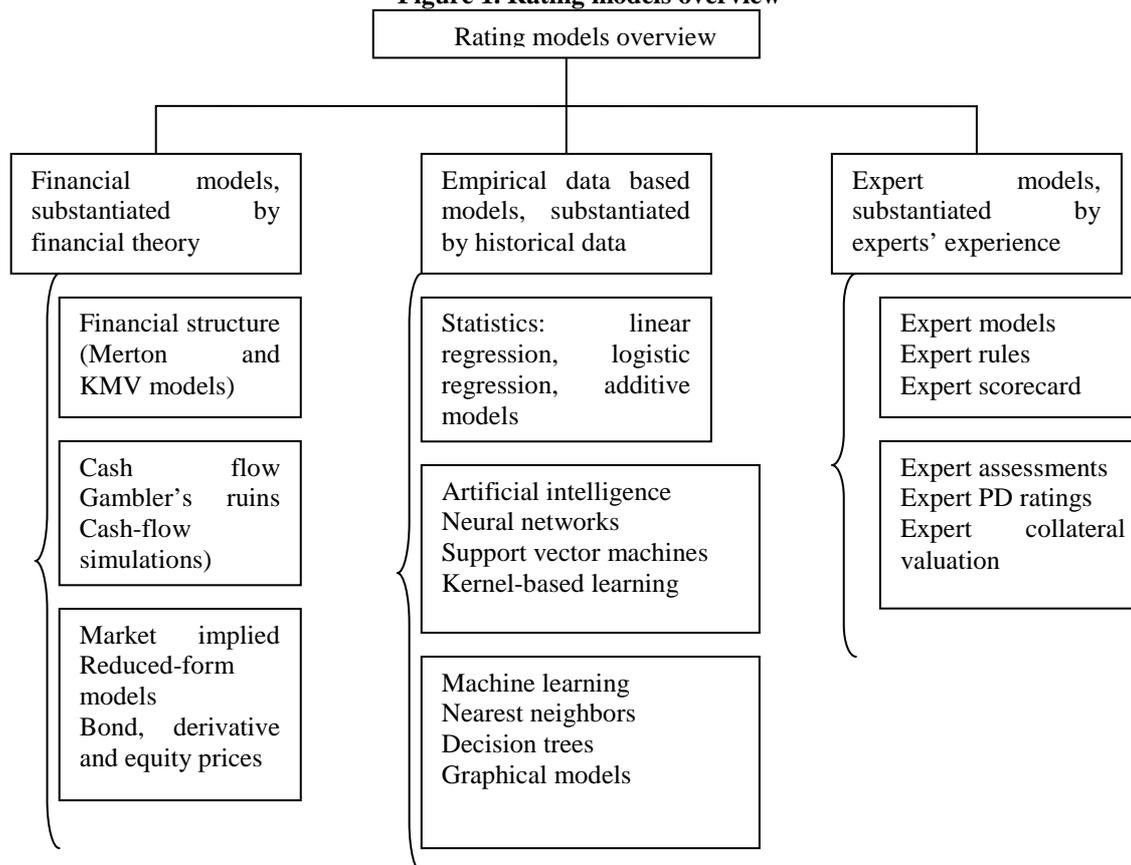
The long term assessment scales defined by rating agencies are similar in terms of number, symbol and significance, comprising two main categories of classes: investment and speculative. All agencies have as a characteristic a deep particularization of the speculative classes. Moreover, the increase of risk within the scale is not unitary, but exponential, this being valid also for banks. The three rating agencies under study use the complementar scale of measuring the recovery possibilities when the cease of payments into the account of a financial obligation is declared. The scales are very similar, in terms of number (six) and step referring to the percentage of recovery/loss (10% for extreme classes and 20% for the other classes). As for the banks, the scales are very different, being designed in accordance with the activity scale of the bank: if this one has receivables mostly on big clients, with low risk, it shall be interested in having more investment classes, whereas the banks targeting to small and medium businesses, which rarely belong to class A, shall range, according to rating agencies, speculative classes. The number of classes varies for the banks under study from 12 to 26, differently scored, either numerically, from 1 to n, or alphabetically, from A to D, E or F. Jacobson et al. (2006) noticed a concentration of clients into one or several risk classes, and they interpreted it as a disability of the scalar system to ensure an appropriate risk differentiation. Following the analysis of annual reports of the banks, we have noticed a concentration of clients in the classes ranging from A to BBB. Intuitively, this concentration can be the result of banks' focus on certain categories of clients with medium and low risk, through the optimization of the risk/profit ratio. Similarly to rating agencies, the banks under study define the global recovery rate (or loss given default), but they add "the credit conversion factor, which estimates the portion of off-balance sheet exposure at risk" (BNP Paribas, 2009). Generally, the credit entities define equivalence scales with rating issued by rating agencies, periodically reviewed and tested, not necessarily implying an overlap of IR and ER (the two categories of assessors of the credit quality can have different opinions).

◆ Rating models, indicators and procedures

Credit risk is defined in an operational favourable modelling manner, as "the distribution of financial losses given unpredictable modifications of credit quality of a counter-party involved into a financial contract" (Giesecke, 2004). Models referring to credit risk have as their main purpose the forecast of the distribution function of probabilities of loss associated to a credit portfolio (Lopez and Saindenberg, 1999). Credit risk modelling is substantiated on three parameters stipulated into Basel II Agreement, namely: probability of default (PD), loss given default (LGD), and exposure at default (EAD). Credit risk models, used in various forms and combinations by all financial organizations studied in this paper can be classified as it follows:

Rating grows out of a quantitative analysis, mainly based on balance-sheet, off-balance-sheet obligations and profit and loss account, doubled by a qualitative analysis of the entity's economic activity in macroeconomic context and industry-operating context, and of the management and corporate governance and guarantees. The studied indicators are the same, but unlike rating agencies, banks deal more with financial statements. Both categories of organizations lay emphasis on the major role of human factor for the quality of ratings, the risk grade ultimately being the result of experts' value judgement.

Figure 1. Rating models overview



Source: Gestel and Baesens, 2008, p.175

Rating assignment procedure is different from rating agencies to banks, due to the fact that the main purpose of assessment and the direct beneficiary are different. Thus, for the rating agencies rating is a product sold to obligors and free for the financial investors (who, in turn, are indirect beneficiaries). Rating buyers are obligors who intend to announce their quality (this quality determines the conditions of access to financing) and to differentiate themselves from competitors. Of course, rating buyers are interested in obtaining the best rating, and rating agencies are interested in selling their rating, fact leading to controversy on the agencies' existing conflict of interests. This is why the rating process is expected to be transparent, independent and objective, so that the assessing agency should get recognition on the market, by investors' acceptance of its rating, and subsequently, it should hold and consolidate its reputation. Rating agencies have standardized the drafting procedures of the rating grade and they have clear rules of corporate governance (the so-called "Code of Conduct"). The standard process of drafting rating can be briefly described:

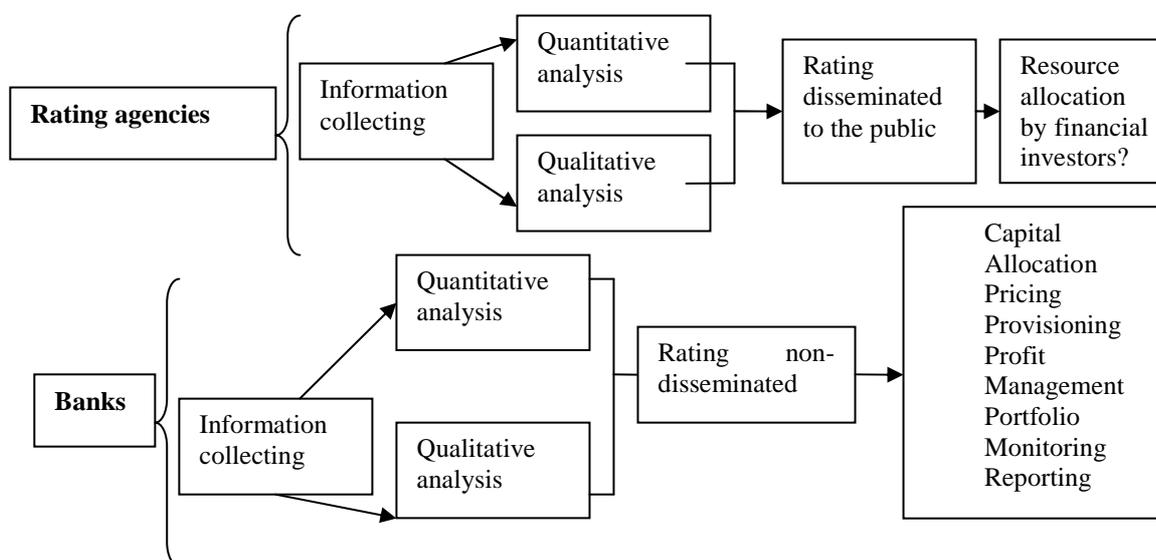
- election of the risk analyst; this is seconded by an experimented analyst and, eventually, by a team of experts;
- documentation on the studied corporation from all available sources, including meeting the company management at the financial manager and general manager level; the list of questions addressed to the management can be previously sent or not to this one; finally (in accordance with Standard&Poor's) it is taken into account the assurance of spontaneity;
- election of a committee to settle rating;
- the main analyst introduces the company and proposes a grade, then rating is voted. In case of failure to reach consensus, there are appeal procedures involving the increase of number of experimented analysts into the risk committee;
- rating is released to the company, and the company can request its review and bring additional information to this purpose, but the rating review on company's demand is not a usual procedure. After reaching a final rating, this is disseminated by the company or/and the agency.

In case of banks, these are the direct beneficiaries of rating, and the credit portfolio quality gives the long term viability of the credit institution. Performing modifications on the obligors' quality, immediately

rebounds on capital demand, financial resource and profit allocation, and rating accuracy affects directly rather than indirectly the bank, through means of reputation. The rating process corresponds to a hierarchical organization, is integrated into the general structure of the bank, which includes professional risk management departments subordinated directly to the managing board. In accordance with Bank of Japan (2005), “The process generally includes the following steps: (1) evaluation based on a quantitative rating model; (2) adjustments based on qualitative factors, such as industry trends; and (3) consideration of external information, such as ratings by outside agencies and stock prices...”. Thus, the analyst in charge of collecting information and drafting the first score, prevalingly quantitative, is the credit officer or a front office chief. Information is sent to the risk department drafting the rating by incorporating the qualitative factors and advising with the initial chief. In some credit institutions the rating activity is externalized but it is internally evaluated and supervised. The rating drawn up by the risk department is eventually corrected by taking into account the ER, the parent company situation and other pertinent information leading to the final rating, set up by the risk managers rather than a committee expressly created for this purpose, as it is the case of rating agencies. Banks do not make public individual ratings. Based on analysis and rating, the risk department recommends or not the financing, and its related conditions (cost, maturity a.o.). If the approval is obtained, the chief of front office department support the dossier in front of the committee in charge with its approval. The hierarchic level taking the final decision of approval – credit committees, direction committee, managing board and others – depends on the client quality, exposure size and the financing period of time.

Consequently, rating agencies proceedings are concentrated on the successful sale of the “rating product” in terms of maintaining reputation and credibility, so that survival and long term development should be assured. Unlike agencies, banks define these procedures on a larger extent offered by the internal rating systems, rating being an instrument determined within their financial resources allocation. The similarities and contrasts between the two entities are best emphasized by means of the following diagram:

Figure 2. Rating: procedures and usage



The diagram shows two common stages for banks and agencies: information collecting and quantitative and qualitative analyses, on the grounds of some indicators often identical. While the agency risk analyst performs the research with the immediate purpose to produce rating, the bank employee conceives rating as an instrument within the process of approval of the debt instrument. The dominant interest of the front office chief is the achievement of the sales target, fact bringing him close to the potential client, while the risk department seeks the assurance of an appropriate profit of the bank in case of risk. The agency analyst is closer to the committee deciding the final rating, in terms of responsibility and interests. In fact, in certain agencies (Moody’s case) the leader analyst is the one who convene the rating committee and sets up its structure. The bank risk department is the same regardless of the assessed entity, being established accurate and sound committees and responsibilities, referring the approval of exposures and the rating are integrated into the bank’s overall portfolio risk management.

4. Conclusions

The objective of this study was to make a comparison between the credit institutions and the rating agencies in respect of rating significance, risk classes, relevant risk indicators, used models and the structure of the process of assigning the risk grade.

Regardless of the entity producing it, rating makes reference to the credit quality. Risk classes are very similar for the rating agencies but they are very different from one bank to another, in terms of number, degree of refinement, used symbols and their significance. All the studied credit institutions have maps to amount their own scales to those of rating agencies. These maps could be the first step in assuring the comparison of bank internal ratings beyond the diversity of assessment scales. An Office of Bank Ratings, in charge with the dissemination of information on risk grades for obligors towards all banks having internal rating systems, could make available the dispersed information, locked up at present in individual banks. Of course, by dissemination the banks could lose the competitive advantage given by rating, exclusively held, by the fact that it could become common information. On the other hand, they could win because of the increase of financial stability, decrease of systemic risk and finally, improvement of personal financial statement and proceedings, by cooperating within a legal framework assuring information protection.

With reference to rating indicators and models, these elements are common for banks and agencies, but what is significantly different is the perspective of analysis. Thus, rating agencies state that they produce a rating through the cycle, while IR is point-in-time or mixt, denoting that various stress testings are taken into account. In addition, for agencies rating is the final purpose of analysis, while for banks rating is just an instrument and the final aim is setting-up the exposures level and conditions.

Rating proceedings have both common stages and contrasts which, in turn, reflect the final aim of assessing the debt instruments and rating expedience. The common stages are the research and quantitative and qualitative analyses, then different processes occur. Rating agencies go on with drafting the final rating by a committee expressly created for this purpose, then with rating dissemination on the market. Banks have risk departments subordinated to the director board, having stable structure, where risk managers decide upon all final ratings. Rating is not disseminated, being used in the credit risk management and the analyses on profit.

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AN ANALYSIS OF THE CORPORATE BOND ISSUES ON THE ROMANIAN CAPITAL MARKET

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Abstract: *Providing financing to companies is a challenge for the financial system, which needs to demonstrate its usefulness by allowing these companies to gain access to available financial resources. This paper aims to analyze the process of financing through corporate bonds issue on the Romanian capital market in terms of their content, value and investor payoff on the one hand, but also to identify the Romanian capital market's capacity to provide financial resources during the financial crisis that affected the Romanian economy since the second half of 2008.*

Key words: corporate bonds, capital market, România, financial crisis

JEL classification: G1

1. Introduction

In every market economy the companies, the state and de local authorities use the mechanisms of the capital market to obtain financial resources in order to develop their business or to support social causes or simply to sustain the state to fulfil its social and economic role in the economic system.

After 1989 historical moment for the Romanian economy started a very difficult and challenging period when the entire economic and financial system needed to be change. Setting up a new economy, a market based economy, required the creation of the capital market to connect, through a diversity of financial instruments (shares, bonds, futures, options and others hybrids and financial innovations), the investors and those which are seeking for funds. The lack of experience and financial education, the poor level of the macroeconomic indicators are some of the factors that have slowed the creation and the development of a functional capital market.

Raising funds by issuing corporate bonds on the capital market in Romania started in late 1996, and the first initiatives in this direction were not successful. This was due to the unfavourable economic climate, very high inflation rates in the 90's but also the bonds issuers' fear to access the mechanisms of a less known market segment and the small number of investors on the market.

2. Characteristics of corporate bonds issues on the capital market in Romania

The first corporate bond issue on the Romanian capital market was made in 1997 by the Siderca Calarasi steel mill (majority state-owned company). This issue, with a nominal value of ROL 16,400, offered an annual interest rate of 57% and a call premium of 3600 ROL which meant a return of 63.51%. With a maturity of three years, until 2000, in a time when inflation was just beginning to climb down from 154% in 1997 to values of 60% and 45% by the end of this period, with interest on interbank deposits (BUBID) between 26% and 101.5% and rate interest on deposits (BUBOR) reaching values of over 150%, this bond issue was considered a failure, with a subscription level of 87% (305,000 of the total of 350,000 bonds offered), thus not fully subscribed. Funds raised by this corporate bond issue were intended for large-scale investments meant to streamline the steel plant. The 50,000 RON helped complete the investment program, but the company's financial situation has deteriorated to the point that they could not make timely interest payments and upon reaching the bonds' maturity the company owed investors the value of the bonds issued and 80,000 RON in interest.

Analyzing the next time frame we conclude that the failure of the Romanian economy to stabilize at the macro economical level and the failure of the first initiatives to raise funds by issuing bonds has led to a total lack of issuers who would take advantage of this funding opportunity.

Financing projects by issuing corporate bonds resumed in 2000, when the capital market was marked by two events: firstly the resounding success of International Leasing's bond issue and secondly the failed issue by Bacchus Buzau.

Between 2nd and 15 May 2000 International Leasing made a public issue of convertible bonds (1:5). The first public issue of bonds made by a private company in Romania, it was successfully completed in November 2000, with all bonds offered subscribed.

INTERNATIONAL LEASING Company S.A. made a public offer for sale of a total of 88,000 convertible, guaranteed bonds, with a nominal value of 25,000 ROL / bond and an interest rate of 60% per annum, payable quarterly, for a period of 18 months.

Following this public convertible bond issue International Leasing Company became an open company, since at the bonds' maturity their owners could exercise their option to convert bonds into shares of the company with a conversion rate of 5 shares for each bond held.

The particularity of this offer was a fact that no person or company could not acquire bonds issued by SC International Leasing S.A. if, as a result of such acquisition, such person or entity owns more than 30% of total bonds issued and unredeemed by the issuer.

With a relatively small amount, only 220,000 RON, and a short maturity for this category of financial instruments, International Leasing bonds enjoyed the attention of investors but the request to admit these bonds for trading on the Bucharest Stock Exchange was rejected at the time.

The second public offering of corporate bonds was held in autumn 2000. The value of the bonds issued by Buzau Bachus was USD 1.55 million, much higher than the leasing company, and was completed unsuccessfully due to the low subscription level - around 60%. The bonds issue cancellation led to the return of the funds rose during the offer.

The public offering of corporate bonds by this company has brought a first in the Romanian capital market - the interest rate of these bonds was linked to the government bonds yield, to which it added 20%, a more flexible way to maintain bond yields at market levels. This coupon calculation method should have attracted investors, but the decline in the interest rate of government bonds during the offer resulted in low investor interest for these bonds.

Another possible explanation for the failure of the Bacchus bonds issue is that the economic sector in which the company carried out its activity was less attractive than the leasing market where the first corporate bond issue of that year originated from. Moreover, not issuing convertible bonds made Bachus Buzau less interesting because it didn't offer the opportunity for investors to become owners in the company.

Unfortunately, the corporate bond market has evolved very slowly in the following years. Romanian companies were reluctant to use this method – one widely popular in developed capital markets.

Only in 2002 were other corporate bonds issued: LUCSIL SA and INTERNATIONAL LEASING SA, the later successfully completing its second foray into fundraising on the capital market, this time with a larger offer of 1.5 million RON in November, of non-convertible bonds.

In 2003 three other issuers turned to the Romanian capital market to raise money, but of the three public offerings of corporate bonds only two were completed successfully: that of another leasing company - TBI Leasing and of the real estate developer IMPACT SA, which financed a residential real estate project in Constanta - Boreal.

The third bond offering, PREFAB SA Company, which intended to raise 1.65 million RON, was terminated unsuccessfully. The bonds had a maturity of 2 years and an interest rate of 6.5% which was to be linked to the USD/RON exchange rate. The manager of this company attributed the failure to the unfavourable moment when the offer was made. On the other hand, financial brokers considered that the lack of investor interest for this offer was due to insufficient information about the issuer and its financial and economic outlook and that institutional investors, the category of investors who subscribe in general most of the public offerings of bonds, preferred placements which were not indexed to a currency.

While the first successfully concluded corporate bond issues belonged mostly to leasing companies, the year 2004 brought a new category of issuers to the Romanian capital market - banks. Three of the four bonds issues in 2004 were made by banks. These issuers accomplished several firsts: the first nominal value larger than 100 RON (BRD set the nominal value of 2500 RON), the value of an offer for the first time exceeded 10 million RON and even 100 million RON, offer made by Raiffeisen Bank, and have mainstreamed variable coupons, whose value depended on the interbank interest rate and a fixed or adjustable margin.

In our opinion the experience of International Leasing company, which has demonstrated that financing by issuing bonds under conditions closely matching the market, is a viable option for a company in search of funds, but also the quantitative and qualitative leap made by the public offerings of bonds by the three banks have played an important role in driving public offerings of bonds market with positive effects on the number of offers made during 2005-2006.

Although the number of bond issues increased slightly, driving an upward trend, it should be noted that the industries the issuers came from were still not diversified, as they remained primarily banks and leasing companies.

After the successful offering made by IMPACT SA, another company of real estate area tried to raise funds for their real estate projects from the capital market - SC HERASTRAU REAL ESTATE INVESTMENTS SA. Financial intermediaries considered the offer of 250,000 bonds with a nominal value of RON 100, a three years maturity and a dependent variable interest rate on interbank interest rate (EURIBOR6M + 7.5%) as a bold initiative, taking into account that the issuer had no market history, being established in the year they issued the offer, and for that period the company reported losses.

Despite the interest rate offered several percentage points above that of other bond issues and of bank deposits in euro, the offer was closed unsuccessfully. Interinvest Capital Company manager said (Financial Week of January 31, 2006) that the failure was due primarily to the fact that the issuer, then newly established, had failed to convince the investors about the prospects of its projects and the information provided in this regard was not sufficiently detailed.

The year 2005 brought again INTERNATIONAL LEASING company on the Romanian bonds market - for the third time the issuer had convinced investors to finance its activities, the value of the bonds offering being more than 4.8 million RON.

Upward trend of the corporate bonds offerings number continued in 2006 when seven bonds were offers but two of them were concluded without success. We note that in 2006 the banks were majority among the issuers of corporate bonds with the same success as in the previous years.

The two offers closed unsuccessfully were from NAVOL SA Oltenia and the financial intermediary SSIF BROKER SA. This was the first financial investment services company that took such an initiative.

The bond issue carried out by the shipyard in Oltenia was worth 1.7 million RON, the bonds were convertible into shares in the ratio of two shares per one bond and the offer was directly addressed to the company shareholders.

The BROKER SA bonds offering was represented by 10 million bonds with a nominal value of 2,5 RON, with a total value of 25 million RON. The securities issued by financial intermediary, convertible into shares, with an interest rate of 6% per annum and a maturity of 2 years, were not successful on the market even though the issuer had announced profits for the previous financial year and was quoted at Bucharest Stock Exchange since 2004. Compared to 70% as would be necessary to declare the offer successfully closed, the investors had subscribed only 3% of it.

The most important event of bonds public offerings market in 2006 was the bonds offering of the International Bank for Reconstruction and Development with a total value of 525 million RON- the first issue of an international body in the capital market in Romania.

Unfortunately the upward trend recorded during 2002-2006 period on corporate bonds market stopped in 2007 when on the Romanian bonds market was launched a single successful bonds offer and that of an international body not of a Romanian company. The issuer was the European Investment Bank, with a total value of 300 million RON and the issue was listed on the Bucharest Stock Exchange in the international debt securities quote.

A company that in the spring of 2007 had shown its intention to issue bonds was TELEMobil holding mobile operator Zapp, who intended to obtain 125 million dollars needed for future investments.

"The bond issue was seen as a rapid and efficient method to attract new financial resources to be used for general development of the company and in particular to extend the network and launching new services. Scheduled to be launch in early July 2007, the issuing process was stopped temporary by the decision of Telemobil SA together with ABN Amro, following a global credit market collapse that occurred in the same period, said Zapp officials (Financial newspaper, 06 September 2007) in September 2007.

The year 2008 brought no bonds offer on capital market in Romania, fact motivated in part by the degradation of international financial climate that had tightened financing conditions, but we cannot note the lack of interest for the Romanian issuers for this financing instrument which has proved its worth for decades on the mature capital markets.

Triggering global financial crisis and its first effects in the Romanian economy has discouraged companies to seek financing by issuing bonds despite the experience of the developed capital markets that shown that during the financial crisis the cost of financing is lower on the capital market and the companies can have access to financial resources easier than in the banking system entered in contraction. Unfortunately the Romanian companies have not learned this lesson and the only issuer of corporate bonds on the

Romanian market was the European Bank for Reconstruction and Development who borrowed in February 2009 130 million RON.

3. Analysis of corporate bonds issues in Romania in the period of 1996-2009

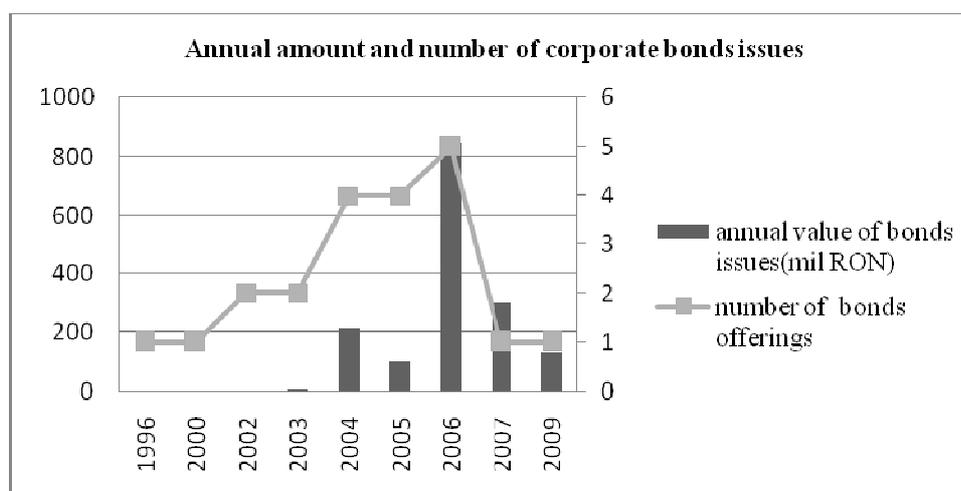
The attractiveness of raising funds from the capital market by issuing bonds was lifted on the capital market in Romania mainly due to financial and economic instability that characterized the Romanian economy, the lack of financial education and the ignorance of the potential issuers and the investors about these financial instruments and the poor development of the Romanian capital market who wasn't been able to provide liquidity and thus attractiveness of these financial instruments.

To do an analysis of financing by issuing corporate bonds on the Romanian capital market we systematized the most important details about all twenty issues (all the corporate bond issues successfully completed on the Romanian capital market so far), which allows us to drop several conclusions about the level of the development of this market segment in the Romanian economy..

A first observation to be made is that throughout the period under review the number of public bonds offerings remained very low compared to other capital markets in the region which shows the inability of the Romanian capital market to attract issuers. Also, as noted previously, not all issues of bonds brought to market have been concluded successfully.

Analyzing the evolution of the annual amount of the corporate bond issues as the figures shows in the graph number 1, we note the constant low level of funding obtained by companies that have accessed this way of financing, moreover in the past three years their value continuously lowered and being zero in the year 2008.

Figure no.1 the amount and number of issues of corporate bonds on the capital market in Romania between 1996 and 2009



The ascendant trend registered after 2002, both in issue values and number, reached its still unmatched peak in 2006, with 5 issues and a value larger than half of all corporate bond issues in the last thirteen years.

Foreign issuers make up for the largest part of the overall issues' value: BIRD, BEI and BERD total 955 million RON, more than half of the 1599,85 mil. RON rose so far by the companies which obtained financing through bond issues.

Regarding the taxonomy of the bonds issued by the private companies on the Romanian capital market we can identify:

Considering the existence of a guaranty (financial or real) the twenty corporate bonds issues can be divide in: guaranteed bonds (40%) and unguaranteed bonds (60%).

Taking into consideration the possibility to change the bonds in shares we have six of them convertible and the rest(14 issues were unconvertible).

Tabel no. 1 Value, number of issued bonds and subscribed bonds offered by private companies on the Romanian capital market

Year	Number of bonds	Subscribed bonds	Value (mil RON)
1996	315.000	223.650	0,63
2000	88.000	88.000	0,22
2002	674.242	674.242	1,7227
2003	1.029.800	1.029.800	7,43
2004	370.000	370.000	212,5
2005	3.435.500	3.183.423	100,661
2006	3.023.000	3.419.920	846,692
2007	3.000.000	3.000.000	300
2009	13.000	13.000	130
TOTAL	11.948.542	12.002.035	1599,8557

Regarding the subscription levels, we must observe that not all 20 public bond offerings considered successful were 100% subscribed – six of them were undersubscribed.

Another observation concerns the industries of the companies which have so far issued bonds on the Romanian capital market: most came from banking – 7 Romanian issuers with 391,637 millions RON and 3 foreign issuers with 955 millions RON representing 84, 17% of all funds raised. The second category of issuers who have successfully financed through bonds issue is that of leasing companies – with a much smaller value than issuers from banking: 18,285 millions RON, less than 2% of total issue value. Only one issuer has come so far from real estate development – an industry very well represented in other markets – with a smaller issue value of 5 millions RON. A second attempt at financing from this industry has failed to convince the investors, as we have shown above.

The selling price of bonds issued so far was heterogeneous, ranging from 2 and 2.5 RON to 36,000 RON without decisively influencing the offering's success on the market. Generally, the prices of bonds from banking issuers were higher, larger than 1000 RON, targeted mainly for institutional investors.

We have remarked about the interest rate that of the 20 bonds issues, ten have chosen a fixed rate, and the other ten have opted for a variable rate, linked in most cases to the inter-bank market interest rate. The timeline shows that variable rate issues were favoured after 2003. As we have discussed previously, a chronological comparison of the absolute value of the interest rate cannot be made without taking into consideration the evolution of the inflation rate over the same interval.

4. Conclusions

In our opinion, the particularities and detailed analysis of corporate bond issues show that although investors have repeatedly declared the Romanian capital market to be poor in investing opportunities, and the Bucharest Stock Exchange has made efforts to promote these financing instruments, Romanian issuers have used them only rarely and in small values, and have been absent from the primary public bond offerings sector in the last two years. We consider the Bucharest Stock Exchange's role in this trend has been unfortunately negative, as it has imposed rigid access requirements for listing to this financial instruments category, and refused access to several of the few issuers the investors deemed of interest. Thus, it has contributed to the bonds' low liquidity and a very weak secondary market, with very small transaction values. An example of this is the refusal of International Leasing's request for listing of its bonds – an issuer well liked by investors, which was only admitted for listing on the BSE at its third bond issue.

Unfortunately the positive trend observed in the 2005 and 2006 which could bust the development of the Romanian capital market was interrupted by the financial crisis that affected our economy starting with the second half of the year 2008. In the last two years just one company, a foreign one used the mechanism of the capital market to raise financial funds and the Romanian companies have not yet understood the message: in the time of crises the capital market can open the access to quick and cheap financing".

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RESUMPTION OF ECONOMIC GROWTH - CENTRAL OBJECTIVE OF THE MONETARY POLICY PURSUED BY THE NATIONAL BANK OF ROMANIA

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Abstract: *In 2008, the global financial crisis has generated a feeling of distrust from investors and significantly increased their risk aversion. The size of current account deficit, the relatively high external financing needs and the dependence of the banks on it, the high ratio between loans in foreign currency and deposits in foreign currency made of the Romanian economy, a risky destination for investors. In these conditions, since the end of 2008 and throughout 2009, the government's economic program was focused on reducing the external deficit in both public and private sector, on minimizing the effects of recession, on avoiding a crisis of the exchange rate and on cooling the inflationary pressures.*

Key words: monetary policy, exchange rate, external financing, budget deficit

JEL classification: E58

1. Introduction

Romania's financial system has evolved under events strongly marked by the pronounced global economic crisis. At the onset of the crisis, the Romanian economy crossed a period of several years with high economic growth rates, but accompanied by the accumulation of a relatively large external deficit and the increase of the short-term external debt.

The banking sector, with a dominant position in the financial system has resisted well to these pressures. Financial stability has been subject under a new challenge, namely the volatility of external financing.

The consequences of deterioration of the foreign economic climate occurred also, with a slight delay, to the Romanian economy, with negative effects on quality of loans portfolio, with profound implications on credit risk.

In these conditions, the National Bank of Romania, as supervisory authority, has responded by punctual liquidity provision, strict monitoring of the banks, improving measures of the prudential regulatory framework and signature of grant agreements with the International Monetary Fund and the European Union which have as main objective to ensure adequate funding of the current account deficit and transmission of an improved reliability to the economic and financial policies.

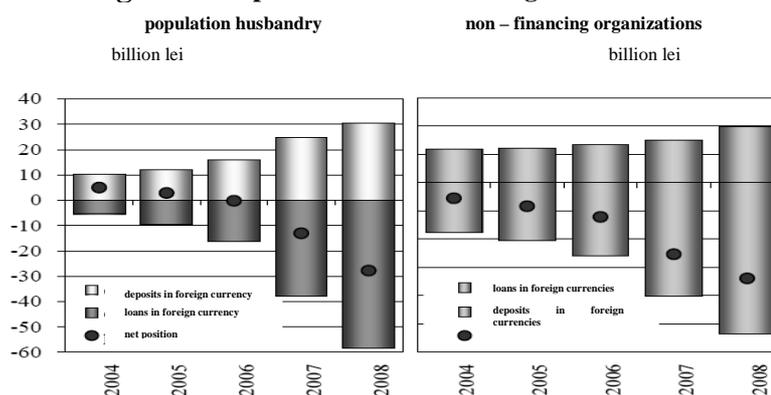
2. Main text

In 2008, the global financial crisis has generated a feeling of distrust from investors and significantly increased their risk aversion. The size of current account deficit, the relatively high external financing needs and the dependence of the banks on it, the high ratio between loans in foreign currency and deposits in foreign currency made of the Romanian economy, a risky destination for investors.

In these conditions, since the end of 2008 and throughout 2009, the government's economic program was focused on reducing the external deficit in both public and private sector, on minimizing the effects of recession, on avoiding a crisis of the exchange rate and on cooling the inflationary pressures. Those requirements are found for 2010 and more so as our country has achieved significant loans in severe conditions.

Supported by the global financial crisis, the evolution of the national currency raised major problems. As in the period 2005 - 2007, inflows of foreign currency overrated the national currency (leu) more above the level indicated by fundamental factors of exchange rate, the reduction of the external financing and the uncertainty caused later an undue depreciation of the national currency (leu). Despite large foreign currency purchases made in the previous period, the National Bank of Romania (NBR) was able only to alleviate unsustainable appreciation of the leu, although the challenges in the banking system were strong. The sustained dynamics of loans in foreign currency in 2004 - 2008, would create adverse effects on the banking system in terms of rapid and excessive depreciation of the leu (Figure 1).

Figure 1: Deposits and loans in foreign currencies



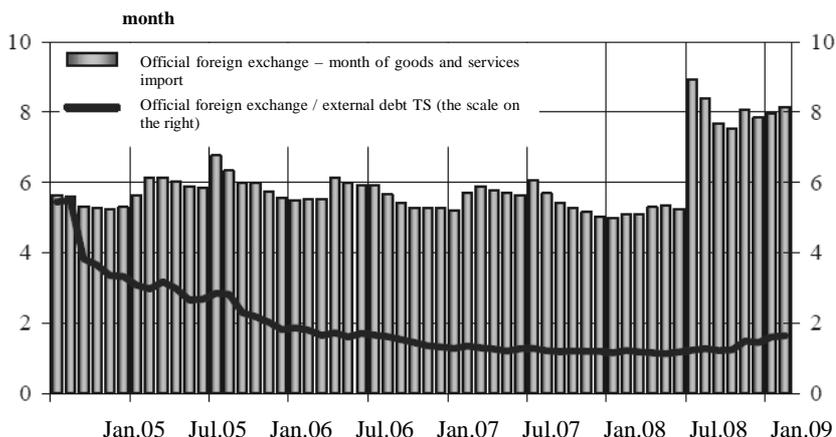
Source: National Bank of Romania

In this context, central bank policy about intervention on the foreign exchange market has been targeted by the idea that high exchange rate volatility is harmful both for the inflation target and the strength of the real sector and the financial one. The more so as the Romanian economy considered a small one and with a high degree of openness is constantly exposed to the danger of adverse capital movements in the financial markets, particularly the currency one.

Interventions of the National Bank of Romania on the foreign exchange market followed to avoid the excessive currency depreciation and the impairment was linked to the progress in the current account adjustment.

Moreover, these foreign exchange interventions were also designed based on the foreign currency reserves. Foreign exchange reserves resulting from intervention of over appreciation period (2004-2008), to which were added the amounts received from grant agreement agreed with the International Monetary Fund, European Union and other international financial institutions, have enabled the central bank to support national currency (leu). National Bank of Romania considers not only the absolute value of foreign reserves, but also the derivative indicators, meaning the foreign exchange reserve expressed in months of goods and services imports and the ratio between foreign reserves and short-term external debt (Figure 2).

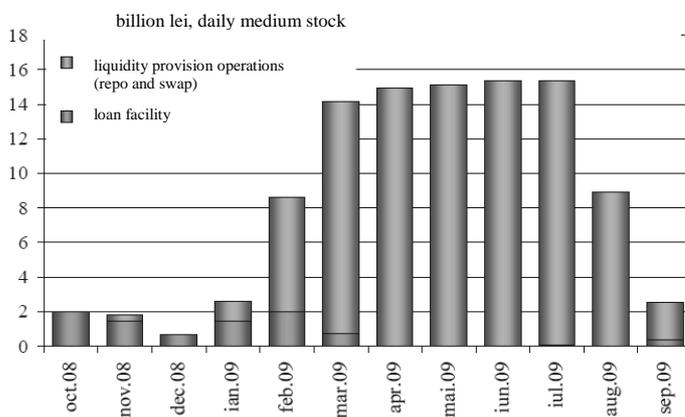
Figure 2: Foreign exchange reserves at NBR: derivative indicatives



Source: National Bank of Romania, National Institute of Statistics

The NBR strategy to reduce the effects of the crisis also followed the size and the moment of foreign exchange interventions which were linked with the control of the liquidity on money market, provided that the budget deficit financing was made in an important measure also using amounts received from the International Monetary Fund and the European Union. In 2009, the NBR has provided liquidity to the banks, after the period 2004 to 2008 amid liquidity excess generated by large capital inflows in the Romanian economy; it was in the net debtor position towards the banking system. The intervention on the currency generated by the Central Bank also aimed at trying to avoid reversing its position of creditor to the banking system, which would be likely to cause problems in the transmission mechanism of the monetary policy (Figure 3).

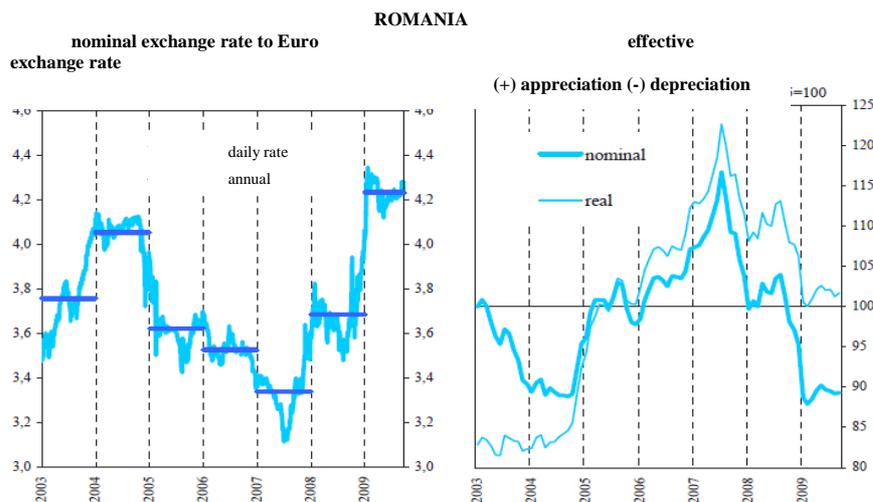
Figure 3: Liquidity provision operations



Source: National Bank of Romania

In this context, we can say that foreign currency interventions were necessary not only to maintain the exchange rate, but also for successful management of the liquidity in the money market (Figure 4).

Figure 4



Source: BCE, BRI

Decrease of the depreciation rate of the national currency, and hence of inflationary pressures arising from the exchange rate channel, while with the efforts at fiscal consolidation have allowed the Central Bank to move to prudent easing monetary policy since the beginning of 2010 through the following measures: The interest rate policy was reduced to 7% per year (at its meeting on February 3, 2010, Board of Directors of the National Bank of Romania has decided to reduce the monetary policy rate at 7% per year), maintaining current levels of minimum reserve ratios binding applicable to liabilities in lei and, respectively, in foreign currency of the credit institutions (15% and 25%), strong management of the liquidity in the banking system to strengthen the monetary policy transmission signals.

Monetary policy interest is a directed interest, giving the market tone, but each Central Bank has its own specific set of interests and other instruments that transmit monetary policy, and this set of tools depends on every market specific conditions (repo rate, interest paid on deposits and reserves, interest on short-term interbank market).

For Romania, NBR adopted a lower monetary policy interest in order to alleviate the dispute between it and the commercial banks for crediting the real economy.

According to the commercial banks, they seek to limit risks through more rigorous selection of clients, although statistics are not very encouraging in this respect. Share of nonperforming loans (graded in Loss category, for which the chances of recovery are minimal) in the loan portfolio of banks has significantly increased, to over 9% in late 2009 versus 3.5% in 2008. Loans placed in Loss and Doubtful categories represented 12.3% of loans granted by banks, comparatively to 5% in 2008 and total loans of Substandard, Doubtful and Loss categories reached 20.8% versus 10.5%.

Thus, in these conditions of timid and slow exit from the crisis, the agreements with the European Commission and the International Monetary Fund provided two essential elements for the Romanian economy: external financing gap and credibility.

Now, Romania can not get from foreign banks abroad a lower interest rate than that required by the International Monetary Fund, which is 3.5% or that of the European Commission, of 3.14% per year. The most recent Romanian state loan from the local banks, more than two billion lei, was taken with an interest rate of 8.86%, while for the loan of 1.42 billion euros in November 2009 the State agreed to pay an interest rate of 4.25% per year.

Following from the beginning of the crisis, the evolution of the loans made by the Romanian State we note: in 2009 the state borrowed from banks no more than 18 billion euros, five times more than in 2008. In 2010 the state will still have to borrow about 8.3 billion euros to cover the budget deficit of 5.9% of Gross Domestic Product, i.e. the difference between spending and revenues.

Imports of credibility of the European Commission and the International Monetary Fund has provided the funding of Romanian economy, a funding positively reflected into several directions: investment relatively higher compared to the situation where there would not have been concluded agreements; mitigate exchange rate depreciation of the leu according to euro and other currencies, signed the agreement in Vienna, where banks have pledged to renew financing lines and maintain capital adequacy rates at insurers levels.

Resumption of capital inflows in 2010 could mean increasing amounts of money in the economy, which must be sterilized by the National Bank of Romania. On the contrary, if the capital inflows will not be adequately reduced, then the National Bank of Romania could be forced to increase international reserves through purchases on the interbank market. At the same time, this process of reversal of the capital inflows also determined the formulation of some new requirements for coordination between monetary policy and fiscal policy. To alleviate the inflationary pressures, in the 2010 the budget deficit should be reduced, otherwise, the monetary policy will have to compensate the differences and adopt appropriate measures, including the size of the monetary interest rates.

Amid all of this external funding and the resumption of capital inflows, adopting some political decisions harmonized with European measures of economic recovery, represents, according to specialists, a positive signal beginning with the third quarter of 2010.

3. Conclusions

Once the economic growth will resume, the budget deficits should be reduced further to make more room to the private sector, without creating new current account deficits highly unsustainable. Lower budget deficits will not alter the infrastructure development objectives since the sustainable growth and further restructuring will allow the growing budgetary expenditure in real terms, including investment. We can not conclude without specifying that the option of the NBR to intervene in the currency market was not unique in Central and Eastern Europe, the regime of controlled floating of the national currency being also charged by the other Central Banks, currency interventions of which are amplified after onset of the global financial crisis. In these circumstances, Central Banks in countries like Czech Republic, Poland, Hungary, which have flexible currency rate decided against accepting an excessive depreciation of local currencies which could create destabilizing movements, committing themselves to intervene to combat this phenomenon.

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NEW APPROACHES OF COST CALCULATION AND IMPACT ON PERFORMANCE TO ROMANIAN INDUSTRIAL ENTERPRISES , XXI CENTURY PERSPECTIVE

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Abstract: *Management accounting system is a useful tool for enterprise management, which aims to achieve performance piloting enterprise by promoting efficiency and effectiveness.*

Purpose of the research: identifying cost-performance correlation in terms of managerial accounting by using a computer system and management costs.

Objectives: - to identify current problems and methods in theory Financial Accounting chronological stages of the process of defining performance measurement;

- characterization of modern methods of calculation of cost control and performance measurement activities;

Expected results: improvement of managerial accounting by applying standard- cost method, the standard- single cost version in romanian industrial enterprises in complex economic context, particular XXI century.

Keywords: cost, value, performance, cost system, efficiency;

JEL Classificatin: M41

Current issues in theory and managerial accounting method

Current Issue able to challenge theory and managerial accounting method relate to: a reassessment of the concept and identify key performance indicators characterizing the performance: the concept of "cost-value", target- cost and cost of activities. Analyzed in terms of domain information and a business decision, and shall cause accounts, assist and decide on the company's financial position, economic and financial performance and cash flows generated from investing / finance, employment / resource use, production / distribution of wealth created by an entity that is simultaneously legal, economic and financial.

To be efficient in the current economic environment requires the use of a computer system and management costs. Cost calculation goal is to identify causes not only the objects of cost. This approach shows the ability of calculating system to provide an analysis which links financial performance of enterprises to processes and activities.

French National Accounting Council defined the management accounting since 1996, that is designed primarily business needs, it is a part of its information system, providing an economic modeling company in order to meet the objectives of performance measurement and aid in decision making. Of its composition are:

- Performance measurement process
- Substantiation methods of decision .

The current development stage, management accounting, shows International Federation of Accountants, in preambuling its conceptual framework, answers to enterprise's needs to operate in a dynamic competition and competitive environment. Two of the concepts that dominate the modern management of organizations are value and performance. We observe (in Romania) that this is the statement (in internal or external environment of business) of such value creation for customer and shareholder or achieve global performance claims . These may be just nice words or, conversely, may be a synthesis of the general approach to company management. We can use cost as inducer of value and, depending on the characteristics of competition and how to use the product, cost is considered insufficient for assessing performance, it must be supplemented by using a tool to express the request . Recitals above are all many reasons that handle the company must adapt to new conditions that characterize the context in which the undertaking. Up to now several decades, productivity growth and cost reduction strategy was a satisfactory and easily implemented organisation. Today economic context is not the same and firm performance is subject to several competitive advantages factors. These is to be declined by the structure so as to be able to act on them and then be able to measure acquired progress. In addition, management tools are closely related to strategy, but also the structure organisation (Albu, N.,Albu,C. 2003 , p.66). Structure becomes a key

performance parameter and a variable to be managed, an action instrument for flexibility. The new management is to compel a company built to work across vertical (Serieyx,H., 1999, p.81).

Cost is still an inducer of value, but not sufficient for performance evaluation, so depending on the characteristics of competition and how to use the product, use the cost must be supplemented with a tool to express themselves more on request . To rely on the rarity value, management accounting must take into account certain factors such as quality, flexibility and time, which does not deal with traditionally management accounting, but which have become strategic stakes. Type companies use cost information in various forms in making decisions. The manager expected of a management accounting permanently assistance before, during and after the action, in order to define objectives, to understand whether the objectives are relevant and to measure performance. Cost calculation goal is to identify causes and not just their transfer to the cost objects . This approach shows the ability of the cost to provide an analysis linking financial performance of business processes and activities.

2. Chronological Stages of the Process of Performance Measurement

In the process of assessing changes in performance measurement have identified four phases:

- First phase in 1900 until 1950, "Measurement of financial performance". During industrialization, firms assess the performance of the torque cost / benefit, in particular the famous RCI: return on capital;

- Second Phase 1950-1980, "Control of responsibility centers". Diversification, change size firms need led to managers and management control through a set of financial nature;

- Third Phase 1980-1990, "Improving the quality". This period is characterized by an increasingly competitive and free trade, oriented to a strategic management what increase for customer and for product and service quality ;

- The fourth phase began in the late 1990: "Strategic performance management", was considered the financial and non financial measurements related to strategy. The using indicators are financial, on quality and indicators and customer satisfaction, employees (skills and capital intellectual) and as innovation.

This stages represent the starting point in our research, present with further aspects of calculating costs and the impact on performance specific of the fourth phase as measurement performance.

3. Costs Control and Performance Measurement Activities

Enterprise management involves measuring costs and performance and their management. For performance measurement is calculated projected costs (standard or exanthema) and compared with realized costs (real or expost). The conditions that characterize the current global economic environment, the most important objective of an accounting system costing seems to be able to estimate involved total product offering. The stakes of the full cost calculating are high: performance assessment at the centers of responsibility, highlighting the effect of "chain cuts" in the case of processes and activities, assess the financial accounting, decision making on products, customers and activities.

A modern management characterized by the fact that performance and accountability that are global, collective, and costs must be integrated within the concept of value, involves the use of computer systems and performance measurement. Standard - cost method has its genesis in SUA where appeared in 1901 under the name "Estimated cost system"(The pre-calculated cost), promoting first cost is determined before construction start. Standard cost has an pre-calculated cost to assess the performance over a certain period of time . "Trough Estimated cost system "was transformed in 1918 in ,, Standard cost accounting" (Standard cost calculation).

Performance on a charge there are two conceptual approaches: performance is a measure ability to achieve a goal set a standard by determining the relationship: the real cost - the standard cost . Given the favorable or unfavorable context, performance is measured by comparing the deviation cost % activity % deviation.

Deviation of activity = (actual-activity standard deviation) x 100/ standard activity.

ABC method considers that a firm is competitive when it's producing value for its customers, consuming minimal resources . The Cost-value tandem is an axle for restructuring the management priority, highlighting the activities that contribute to product development, namely those that affect its characteristics, the customer is ready to pay. The "non-productive" nature attribute an activity that does not relate directly to the final product is still present in the assessment activities of factory. Because this case, accounting ignores some activities (so called "support"), but which are vectors of performance.

Method of target costing, target costing aims to cut costs while taking into account market strategy, production management, human resources management and relations with the environment enterprise. Reported value engineering "Target-Costing" as a unitary concept and closed the management cost through functional analysis is oriented to the report, "value-cost-proceeds - cost".

New vision for cross ABM's specific processes leads to redefining the concept of performance and yours assessment. The new vision or performance is a multi-vision, which includes issues of cost, terms, benefits and quality of participation in value creation and measurement is considering eliminating its effects on new indicators. The new performance indicators are classified into three categories:

- indicators to measure performance;
- indicators of management performance;
- indicators tracking action plans and progress.

Measure performance indicators assess the result of activities or processes being addressed in existing information systems, integrated in a multi-vision: the unit cost of an inducer, the average waiting time, customer satisfaction rate, etc..Management performance indicators are defined by means of quality management tools aimed at detecting the causes of failure. Indicators for tracking progress brings together all the indicators that allow advance action plan, was recovered in architecture scoreboards and reporting system of enterprise.

Optimizing performance translates to optimize life cycle that becomes a gestion.The cost not obtained additive, but as a "measure of value", which is what the customer is willing to pay for product. The factory not manage to reduce the cost but optimizing the cost-value.

Cost-volume-proceedes- model is a profit that studies relations existing between several factors: the price of products, volume or activity levels, unit variable cost, total fixed costs, production structure. The enterprise can change the values of these variables in order to obtain desirable objective. The rely indicators of the model are: margin on variable costs, the margin rate on variable costs, lever operational cost structure.

Companies must not manage to reduce cost, but cost-value. The solution to optimize the cost-value is directly - costing calculation method. Efforts a specialists to find a system calculation , which to ensure: first determine the operational unit cost of production, and on the other hand can easily determine indicators essential grounding for management decisions in the short term resulted calculation directly - directly costing. The directly-costing calculation , the indicators that determines, allow management to make decisions to optimize outcome of operation and may provide follow such decisions.

4. Standard-cost method in the base model - single cost: direction of improvement of Management Accounting and Calculation Cost in industrial enterprises

Management Accounting System is a useful tool for enterprise management, which aims piloting enterprise to achieve performance by promoting efficiency and effectiveness.

Approaching the management accounting as interface between strategy and current management , it demonstrates its functions of knowledge and analysis of costs and outcomes, control costs and use of information obtained to develop programs, to reduce their stock, management guidance in decision making through provided information .

Special attention is given its qualitative structure of management accounting, such as costs and revenues, and consequently results. Knowing the cost is always a necessity when economic performance is concerned and, therefore, a real management accounting must always follow the cost-performance tandem. Evolution of concepts in the field of costs led at accreditation to the idea that the purpose of Management Accounting is less to make known the cost of products, how to act on them rational Imputation fixed costs method is constitute a technique that completely avoids the cost variations, fixing of selling prices, estimate of stocks, and at level of responsibility centers - to establish their efficiency by responsible managers. I believe that choosing the best methods calculation of costs is one of the key elements for mining process, especially for entities with industrial profile, intervening all-production-sale acquisition circuit. For this reason it can be stated as superficial or inadequate treatment of issues related to calculating costs can be an obstacle in obtaining performance or may be a factor what make under question further activity. Choosing the most appropriate method of calculation leads to the fulfillment of two major goals: to ensure the issue of quality information to users and improve operations, control them and adding a value.

Standard cost method is classified as forecast calculation methods and operational tracking of the production process allowing the establishment of production costs in advance before the start of production and making budget control actual costs against the default, on the kinds of irregularities and cases, while

deployment of the production process. In this way, it offers undeniable advantages of studying and analyzing intelligence on the line of production efficiency, can meet such an important function for modern enterprise management, that the investigation and prediction tool and is therefore a valuable tool for the decision.

According to the concept of this method, unit production costs must be calculated in advance, using for this purpose preset sizes. While carrying out the production process is organized operative tracking of expenditure that gives rise to that, by comparison with standard costs, to establish the irregularities on places of spending and on the causes, so as to make the budgetary control of costs. In the original conception of standard cost method no longer have to calculate the actual cost, because the standard cost is considered scientific cost and at the same time, real, reason for any deviation the actual Costs from Standard-Costs is regarded as a deviation to normal and as such should pass directly into financial results. Still not exclude the possibility of calculating the actual costs of production achieved. This is done adding, or, subtracting of the standard-cost a deviations taken from management accounting which will track not only on places the costs and causes, but also on products. Calculation model is as it follows:

$$Cu_e = \frac{Cts \pm A}{Q} \quad \text{that,}$$

Cu_e = is the effective unit cost ;

Ct_s = total Standard-cost;

Q = quantities produced.

The main work that involves the application of the standard cost method are:

1. standard calculations development on product;
2. calculating, tracking, analysis and reporting standard deviations for control budget;
3. Management Accounting organizes in terms of application of Standard-cost method.

For development Standard calculation of product, these works are necessary:

- standards for direct costs development, work that involves development of quantitative standards for materials and workmanship and value pricing standard setting the standard supply and standard wage rates;
- standards for indirect or overhead costs development, which involves performing the following work: creating the production budget of indirect costs or overhead of the department, on the one hand, and budgeting administration overheads or overhead of the company, the party spelled and finally:
 - calculations development of the standard unit cost on product or budget of unit cost in the structure of calculating items, specifically that the respective enterprise.

Developing standards for production costs is necessary to establish assortments and standard production volume to determine the optimal use of production capacity of industrial enterprises.

Calculating, tracking, analysis and reporting deviations the actual costs from standard costs is done in operatively (daily, decade, etc.) on expenditure places on calculate articles and on causes (if even on products or their parts), for is done control budget and make decisions from management on the Value Side of the Manufacturing Process.

For this purpose are prepared reports and statements for irregularities in the structure mentioned, and through centralization is obtained the report or deviations company.

Standard-cost method has the advantage of calculate labor rationalization, as the standard unit cost determined in advance is considered real cost and therefore not calculated the actual cost of finished products and production in progress at the end of each management period, and deviations are regarded as deviations from normal and pass directly into the company's financial results. The finished product and that in progress may settle at the cost standard. This feature but not removes the possibility calculating the actual cost of time to time, by distributing deviations to the finished product and production deviations in progress by conventional criteria, such as, for example, report that standard costs of production.

Another advantage of the standard-cost method and that cost is that although the concept is based on total costs using the classification of costs production into direct and indirect, it uses and classification of costs into variable and fixed production, allowing cost analysis compared with output and calculation of specific indicators direct-costing method, namely the equilibrium point optimal activity, the coverage factor, coefficient and interval safety, required for making based scientific decision. So, using this method is made

operational control of how the material resources consumed by tracking work life separate by tracking distinct, complete and permanent deviations during activity, and not at the end of management as in classical methods, both stock and in accounting and the overall issue since the appearance, that their identification and distribution until the.

Main features of the standard-cost method consists in the existence of an adequate operational comparisons between actual expenditure and that pre-established taken as the baseline. The application of Standard-cost method, the standard version cost-only leads to increasing the practical value of accounting information and, implicitly, to improve the organization of economic activities. All this results in a better foundation costs budgets and, consequently, establish benchmarks as well to express the normal conditions of industrial activity. Management based on predetermined size as the standard - cost method corresponds to the principle of objective-based management and accounting gives in its quality of providing useful information decisions and corrective action , a major importance.

In these conditions, accounting becomes the industrial enterprises, a useful tool for management, enterprise management, as its main mission is not to determine the cost of production, but to check if it determined in advance, was respected leaders sectors. In this way, management accounting can make tracking and control of classification in provisions of the budget and can provide expenditure information on the level of expenditure production. Standard-cost method aims, mainly, to increase the role of production costs in ensuring achievement of the objectives in directing and good function of the company. The main purpose of such calculations is to provide operational information needed to budget, evaluate, coordinate and control the activity or enterprise.

Starting from the role and place of management accounting information in the modern, application of standard cost method gives it a matter of expediency, given the leverage in the process of preparation and decision making to trigger corrective action.

The standard-cost method replaces the simply operations of collecting and recording the actual data, to compare them to the end of the management period to achieve the commands method used in industrial enterprises, by providing an analytical character, operational and information predicting that their exploitation to increase the efficiency of future activity.

More than ever, standardization of production costs should be based on quantitative and values standards and with technical and economic reasons. This is required because deviations from the standard of actual expenses caused while carrying out the production process, have a more significant deviations higher than the end of the statement period, leading in many cases to late decisions, or the data evaluated in isolation, which only shows what was done, but not as developed. They necessarily require operative determination of the causes, because they are essential to future decisions and actions to correct deviations in achieving targets in improving activity . But to increase the role of management accounting, information relating to deviations should be presented to interested bodies in a suggestive form, so they can take corrective measures operational.

A prerequisite for the practical standard-cost method, besides the existence of a scheme sufficiently comprehensive scientifically based standards, is the existence of a well-developed techniques and operations production programming. This implies requires the existence a corresponding level of the organization of production, and a high degree of knowledge and explanation of economic and technological factors of production for all products and, especially products and new technologies. Organization in good conditions of primary documentation on the expenditure and production cost calculation, and proper organization of records deviations from standards are also necessary prerequisites for adopting this management accounting and cost calculation method.

Track production costs through accounting in standard-cost method case can be performed in one of the following: Standard-partial cost, standard-single cost and standard-cost Double. Differences between these variants lies in the reflection of costs in the calculation accounts in the calculation and recording of deviations from standard costs. Considering the advantages and disadvantages of each of the three variants of standard-cost accounting organization, consider the alternative that best meet the management needs of industrial enterprises is the standard version single cost. This option enables for establishing effective costs deviations from the standard costs during the unfolding process of production, costs of calculation articles and on causes, which facilitates cost effective budgetary control and decision making at all high levels of command . This also eliminates workload caused by the operation of in progress production inventory , whereas the recording system of consumption and production obtained in accounts only standard cost calculation, it is to determine the accounting method.

In conclusion, we believe the adoption of industrial enterprises and introduction of standard-cost calculation method, the standard version single cost, meet the need for increasing the use of information on international activities and integrates modern management conception based objectives, continuous improvement in the cost of using production orientation and strengthening economic management..

Standard-cost method is one of the methods of cost calculation was used successfully in industrial enterprises in developed countries. Technical progress in industrial enterprises requires the use of more efficient equipment and new ecological technologies. Indirect costs have a much higher share in the total costs of production. In this sense overheads budgets becomes an actual and acute problem . For this, Standard-cost method provides a basis for comparison conclusive and operative to assess the evolution of actual costs.

A first condition for applying the standard cost method would be the existence of a coding nomenclature materials, and materials used, technology operations and products. All materials used in the furniture industry receive a code that is composed of information storage site, article, etc. rather than use. The fabrication technology is the same over several exercises and product nomenclature is constant Another prerequisite is the existence of a system of rules for consumption and which may become the standard after a pertinent analysis of their value. These conditions exist in all enterprises in the furniture industry where the production process is based on a technology flow to be fully respected. Standard-cost is a pre-established cost that acts as a yardstick for measuring and comparing the actual cost, and as a tool for guidance and clarification of the conditions which must operate an enterprise. In essence, the standards expresses the size or antecalculated values, and some foreseeing items related to forecast conditions are expected the unfolding this future activity an enterprise.

Standard cost theory as the ideal standard can be achieved in the best conditions of production and labor organization. The forecast cost of standard does allow any damage to machines or interruptions of work, and require a level of effort that can only be achieved by the most skilled and efficient employees, to work at a yield of 100%.Some managers believe that these standards give rise to new values, new motivations. These managers reveals that, although employees know will not fit the standard they always remember the need to increase effort and efficiency constatnte.But most managers believe that using these standards tends to discourage even the most diligent employees.

Realistic standard-cost it's a difficult cost to determine, but not impossible to obtain. These standards allow a normal period of interruption of production and recovery periods of labor and are set so that average to be achieved through reasonable efforts, but effective enough. Variations from these standards are very useful because management and administration represent deviations from normal, through repetition of inefficient. All these deviations require greater attention from managers.In addition to these standards can serve several purposes besides abnormal signal deviations in terms of costs, can be used also in cash flow antecalculul sites and inventory management.

In contrast, ideal standards can not be used in antecalculating and planning;they do not allow inefficient and therefore appear in unrealistic figures in terms of planning and antecalculating. Normally Standard - cost is correct estimated cost and easily obtained. In determining of normally standard-cost is better to take into consideration the variation of working hours and especially their efficiency. Also, an information system existing in the enterprise and program management applications can enhance the reduction of working time in developing standards and standard costs fare for materials, labor and overheads.

Today no longer presents a special problem the computer inventory management and finished products. With the launch of the production of a batch of products can cause the quantity of materials supplied and the time required to achieve this production for making decisions on production next period.

There may be fixed for each link organizational of responsibility centers, and within their a standard of spending. Production cost should be broken by sectors which through their work influence its size.

Given above the precisions was presented, can say that the standard-cost method does not require some special conditions that can not be achieved. Each enterprise must acquire modern management techniques to insure formation one adequate information system of a specific activity carried. Market economy requires this action,and transform cost information into the main tool to ensure competitiveness and profitability of the enterprise.

5. Conclusions

As a synthesis of research results consider the following:

- cost is a synthetic indicator reflecting efficiency of planning systems, record and control. It is measured by total consumption related to production of product, conditioned of technology and production organization, so it is designed to evaluate the product produced at a concrete stage of the production process;

- concern for the study of management accounting and costing is generated by the importance that we must give every trader that strategic resources. I believe that choosing the best costing methods is one of the key elements for mining process, especially the establishment of industrial profile, intervening

all-production-sale-acquisition circuit. For this reason it can be stated as superficial or inadequate treatment of issues related to calculating costs, can represent an obstacle in obtaining or performance of industrial firms may be a factor questioned business continuity;

- choosing the most appropriate costing methods in an enterprise leads to the fulfillment of two major goals: to ensure the issue of improving quality information and user operations, control them and adding a value.

- the conditions that characterize the current global economic environment, the most important objective of an accounting system for costing is to be able to total estimate appears involved to offer a product. The stakes of the full cost calculating are high: performance assessment at the centers of responsibility, highlighting the effect of "chain cuts" in the case of processes and activities, assess the financial accounting, decision making on products, customers and activities.

- modern management is characterized by the fact that performance as accountability these are global, collective, and costs must be included within the concept of value, involves the use of calculation systems and performance measurement.

- An alternative to the disadvantages and limitations posed by the classical method of calculation and also ways of improving their is represented by the standard-method cost. This method has several advantages mainly related to measuring the efficiency of the work, finding diversified solutions, management by exception, control costs, correct decisions and eliminate inefficiencies. Standard-cost method, the standard-single cost version is, in my opinion, one of the methods of calculation and controlling costs, which will have wide applicability in the future. This may be reasoned by the fact that the method creates an adequate framework for comparing actual expenses with pre-established. Basically, this method amplifies the value of accounting information and improves the organization of economic activity unit counted. The main advantage of applying the standard-cost method in the base model single costs in the industrial entities, consist in operative follow-up of deviations on each item of calculation, records using technical-operational book-keeping, so as to obtain relevant information regarding the location, causes and cost bearers when they occurred. Traditional costing methods used in industrial enterprises which are based on cost plus profit share, this way obtaining the sale prices. In current conditions, when prices are already fixed, it must use a reverse calculation, which starting selling prices, to determine the costs to which those costs to produce. These costs cannot be given overcome that the entity wants to achieve planned profits.

Carried research allows to draw conclusions regarding the improvement of managerial accounting:

- full costing method costing, which are used in industrial enterprises, has a number of drawbacks and is not oriented to meet the management accounting function: getting accurate information on the cost of manufactured products, ensuring the efficiency of the structural subdivisions of manufacturing production;

- using Standard-Single Cost Method, applied in conjunction with direct costing method in industrial enterprises in Romania is a direction of improving managerial accounting;

In conclusion, it can be said that this paper has addressed a complex topic research and interest, as improving methods of costing and managerial accounting is probably a viable solution to companies in Romania to cope with strong competition from EU Europe, in complex economic context, particular XXI century.

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TRANSNATIONAL COMPANIES' INVESTMENT STRATEGIES IN CRISIS SITUATIONS

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Abstract: *The financial and economic crisis triggered in the United States strongly affected the global economy, causing an unprecedented recession. This situation has led to a decrease of the transnational companies' profits, to downsizing and to strategic reorientation. The financial problems they faced were extremely serious, many business giants going bankrupt or through the restructuring process. In this context the question arises about the motivations and investment strategies undertaken by them during the crisis. The analysis shows that only part of the motivations and investment strategies developed by the transnational companies before the crisis are still valid today.*

Key words: investment strategy, investment incentive, international investments, financial crisis

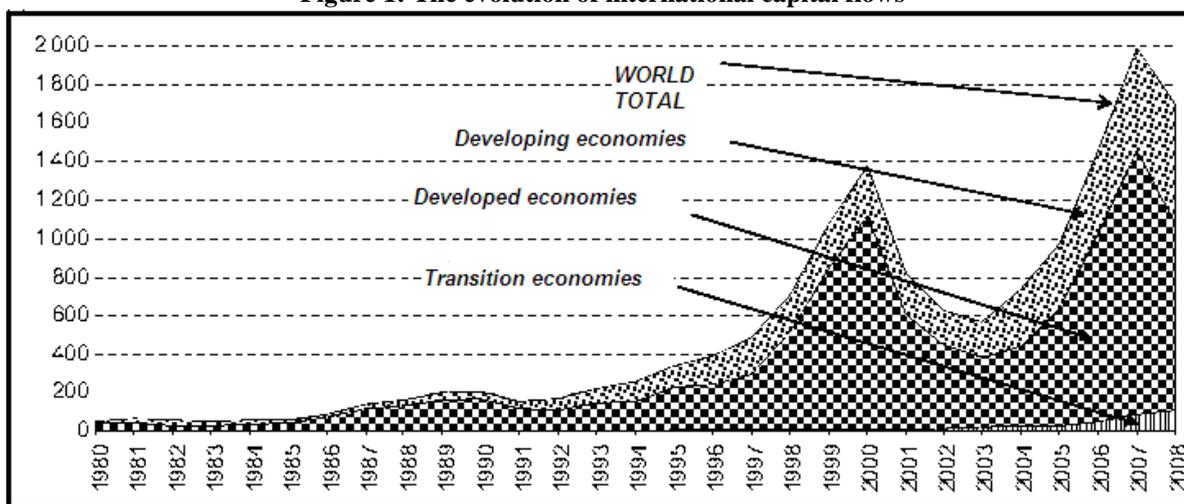
Jel classification: G3, G32

1. The current characteristics of the international business environment

The economic-financial crisis triggered in the United States in September 2008 shook the foundations of the international financial-monetary relations, the capital flows and hence the economies of all the countries forming the global economy.

After a four-year steady increase (from 2003 to 2007) the international capital flows (FDI) declined significantly in 2008 when they fell by almost 14% from 1,979 billion dollars as recorded in 2007 to 1,697 billion dollars in 2008 (WIR 2009).

Figure 1: The evolution of international capital flows



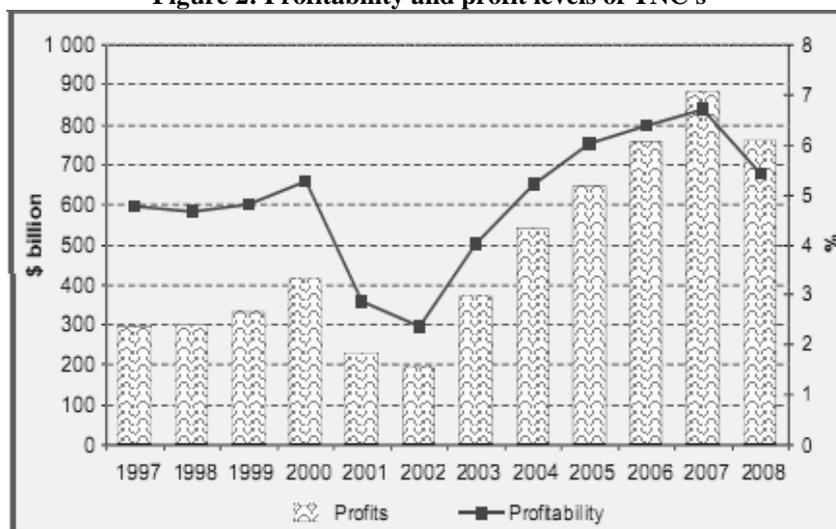
Source: processed from World Investment Report 2009

The decrease was widened in 2009, the preliminary data showing that FDI has seen the largest decrease in history, from 1,697 billion dollars in 2008 to about 1,200 billion in 2009, so a drop of 29% (unctad.org/fdistatistics 2009).

In this case the transnational companies' profits could not have been affected either. The parent companies have not recorded the same profits as in the years preceding the crisis. By the decrease of the overall profitability as a consequence of the fact that transnational companies were affected primarily in the countries of origin, namely in the developed countries (USA, UK, Germany, France, Italy, Japan, the Netherlands) and less at the level of the branches where the profitability rate was on average higher by 0.7%

- 0.9% (WIR 2009). In this case, this aspect allowed many transnational companies to offset the losses recorded in the developed countries (of origin) by a higher profitability rate recorded at the subsidiaries in countries less affected by the crisis or in countries where the production and the price have not been very affected due to the reduced manufacturing costs and to the low selling prices. A clarifying example in this respect is Renault Company which was able to offset some of the losses recorded on the markets from the developed countries with the profits made by Dacia-Renault.

Figure 2: Profitability and profit levels of TNC's

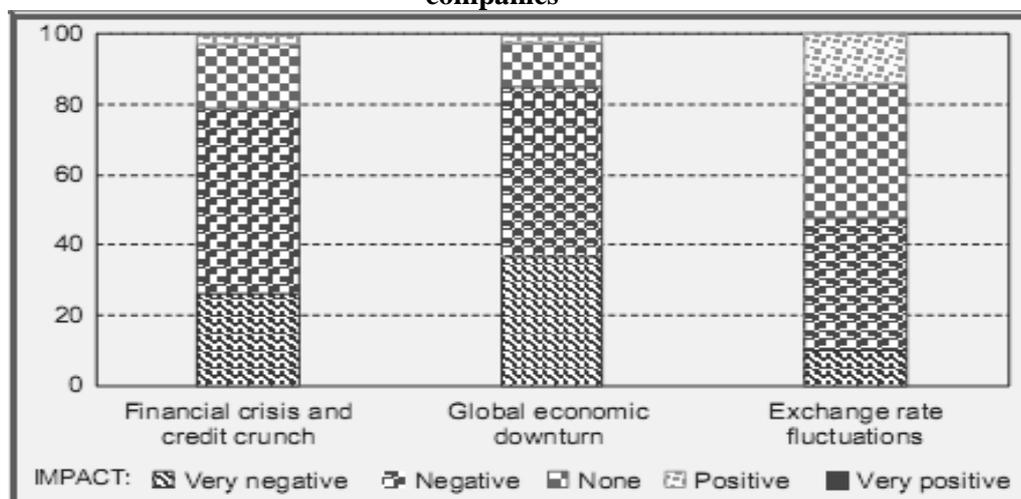


Source: adapted from Thomson One Banker

Overall, there was a decrease in profit from approximately 900 billion dollars to 770 billion dollars in the period 2007 to 2008, while the profitability rate fell from 7.1% to 6%, an important decrease for a transnational company. The year 2009 recorded even lower values, especially in the first semester, the profits decreasing by 12% and the profitability rate by 0.6% (Thompson One Banker 2009).

In this situation, the justifiable question arises as to identify the factors that led to this situation. From the point of view of transnational companies, there are three major factors that have influenced the decreases mentioned above: the financial crisis and the lack of crediting, slowing the economic growth followed by the economic collapse, the fluctuations recorded by the exchange rates. All these factors have weighed decisively when companies have developed their investment policy for the years 2010 to 2011.

Figure 3: The impact of the main factors on the investment plan developed by the transnational companies



Source: www.unctad.org.

There is an intensity of the three major factors of influence, the first being the financial crisis, followed by the economic decline.

2. The current motivations of transnational companies to invest

Analyzing objectively this situation, we ask ourselves which would be the motivations and the investment strategies developed by firms to meet the challenges generated by this global crisis.

Regarding the motivations that pushed a transnational company (STN) to invest abroad before the crisis that began in 2008, the experts' views were largely convergent, but also divergent in some approaches. The crisis which we refer to includes the checking of the validity of motivational financial theories in such situations.

According to the Romanian financiers (P. Bran, I. Costică 2003) the financial motivation of the investment comes from the financial-monetary benefits that the investor obtains. They appear as the financial benefits generated by the dividends that they may collect and repatriate entirely or partly, tax benefits generated by the reduction or exemption of taxes and customs fees; monetary benefits arising from the benefits of foreign exchange or of banking services. In the current situation, the governments of the countries affected by the crisis developed a series of plans to financially support the economy. The central banks' interest rates were very low to stimulate the resumption of crediting. For example, the reference interest rate is 0.25% in the U.S., 1% in the euro area and 0.5% in England (FED, CEB, BOE). Many private companies have benefited from allocations from the state to recover from a financial standpoint, not to mention some acquisitions made by governments.

Moreover, renowned American financiers (M. Moffet, A. Stonehill and D. Eiteman 2003) argue that the motivation of the foreign direct investment capital comes from the comparative and competitive advantage, as well as from the imperfections of the market.

As regards the comparative advantage, it may be given by the existence and cost of the production factors (labor, nature, and capital), but also by the specialization in certain types of production. However, we notice that if this comparative advantage was the first in the nineteenth century and early twentieth century, after the Second World War it tended to be blurred due to the following aspects:

- the free movement of at least two production inputs (labor and capital) has weakened the comparative advantage between states;
- the emergence of many production inputs, such as management, marketing, and scientific research and development, as well as effects they produce, determine a reduction of the disparities and differences;
- providing facilities related to the access to capital, tax, customs, foreign exchange facilities also contribute to the reduction of the comparative advantage between states;

Regarding the advantage given by the market imperfections, the authors mentioned summarize these advantages in five (M. Moffet, A. Stonehill and D. Eiteman 2003):

- 1) The advantage given by the production on foreign markets to satisfy the local demand.
- 2) Approaching the production inputs generates lower supply costs.
- 3) The increase of competitiveness due to the advantages brought by production factors (cheaper labor force).
- 4) The scientific and managerial advantage. Many companies try to locate themselves where the scientific and managerial advantage is situated above that of the host company.
- 5) Firms will seek markets where they will be sure that politically they will not have problems (i.e. nationalization).

The competitive advantage relate to:

1. The managerial and marketing experience that can be harnessed for the benefit of the international company that is placed on a foreign market.
2. The technological advantage allows firms from a scientific and engineering point of view to have advantages related to the production technologies, to investment in research, etc.
3. The financial benefit generated by minimizing the overall costs and the performance of the capital, by the access to the multinational financial resources.
4. The differential output allows meeting a multiple demand at low costs.

Analyzing every aspect in its turn, we find out that not even in this crisis situation does the comparative advantage represent an investment incentive. Indeed, the price of production inputs has

declined, in some cases the decreases were significant (i.e. the price of aluminum has dropped in some months of 2009 even by 50%), but this decrease was exclusively due to the decrease in demand. In terms of market imperfections generated by the market from the points developed in this section, only two still constitute investment incentives: the increase of competitiveness as a consequence of the production factors and the scientific and managerial advantage.

With regard to the competitive advantage, it is an investment motivation in times of crisis.

Strong firms that survive the crisis manage to exploit this advantage that translates into a higher market share, removal of the competition, the growth of the profit and of the profitability rate. That is why they take all due care to be able to remain on top, and even more, to strengthen their position.

In another approach four motivations are identified (J. Dunning 1993) of the transnational corporations in terms of foreign direct investment:

1. Companies carrying out ISD to obtain the necessary resources to perform their activities;
2. Companies carrying out ISD to be able to open their products on other markets;
3. Companies carrying out ISD to increase efficiency;
4. Companies carrying out ISD to acquire strategic assets.

Concerning the firms that invest in order to obtain resources, they pursue three broad categories of resources (C. Munteanu, A. Horobet 2003) natural resources, human resources (labor force) and technological and managerial resources.

The natural resources (ore, fuels, agricultural products, etc.) generally come from the poor countries, while ISD come from a small group of developed countries (USA, Germany, France, Japan, the Netherlands, etc.). This situation was maintained during this period of crisis, the companies from the developed countries trying by strategic investments to take possession of cheaper natural resources in this period to have a higher return-on-investment on them during the boom period. It is also the case the U.S. company Alcoa that acted this way in mid 2009, coming into possession of large amounts of ore from Brazil, but also from Central-African countries that it will try to use as a benefit in the moment the economic growth is resumed, when the natural resources will be more expensive.

Investments, which have as main target the workforce, are seeking the countries where this workforce is cheap, so as to obtain a competitive advantage through costs. The most searched countries are the countries from South-East Asia, Latin American countries, but also the countries of Central and Eastern Europe.

An example is the investment made by Siemens in Slovakia in the production of software.

The benefits obtained by this company refer to: software specialists paid one third of the salaries paid in Austria or Germany, obtaining high quality products which are not in any way inferior to those produced in developed countries. In Romania such an investment started before the crisis and completed in 2009 is one at Jucu in the Cluj County, where Nokia company has made an industrial and technology park which it produces specialized components for mobile phones. The labor force cost also represented in this case was a reason for making the investment.

The technological and managerial resources represent another incentive for companies to invest abroad. Taiwanese and Korean firms enter alliances with firms from Western Europe, U.S. and Japan just to qualify for these benefits, acquired by the established firms. The most common strategic alliances or acquisitions are signed in the auto sector. An example is the automobile company in China who tried to take over General Motors in the U.S.

Regarding the companies that make investments to be able to sell their products on other markets, we can say that the main motivation is to increase the turnover, to increase the market share and to counteract the competition. Also, on the new markets, products can be sold that on the domestic market are in a phase of decline. Transnational companies try to avoid this way lowering the turnover by identifying new outlets. In this respect, they have mainly turned to the Chinese or the United Arab Emirates market, less affected by the crisis.

The technological progress and the reputation of the brands make it easier to conquer new markets. In general, the markets from the developing countries in Asia, Latin America and South-East Europe have been targeted.

Regarding the firms that carry out investments to increase their efficiency, their goal concerns:

- a) investments that aim at streamlining the production;
- b) investments performed to achieve scale and scope economies;

c) investments performed to diversify risk.

The investments necessary to manufacture components or sub - assemblies in different parts of the world and to assemble them in the home country are included in the first category. Thus, there is a reduction in costs by the partial outsourcing of the production.

The economy of scale and scope is given by a series of neo-factors such as: competencies, skills, availability, and quality of downstream and upstream industries.

Risk diversification in general, aims to reduce risks through various means at company level. An example might be the currency risk.

Investments made to acquire strategic assets aim at buying companies from abroad to achieve the company's long-term objectives. Thus, the company's portfolio is supplemented so that it strengthens its market position and also weakens the position of its competitors. In many situations, the crisis has reduced by almost 40% the market value of certain assets, forming investment opportunities for the companies with financial potential or which can afford to attract external financing (investment loans).

3. Investment strategies developed by transnational companies in the current context

Regarding the investment strategies developed by transnational companies, in the table below a range of proactive and reactive strategies adopted by them in terms of a stable economy are shown.

Table 1: Financial proactive and reactive strategies (OLI paradigm)

The type of strategy	The investor's benefits	Location advantages	The advantages of internationalization
A. PROACTIVE FINANCIAL STRATEGIES			
1. The strategy of the overall cost and of capital availability			
- the source capital at global level	X	X	
- the checklist for strategic preparation	X		
- accounting transparency	X		
- high commercial competitiveness and good financial and banking relationships	X		
- a competitive credit rating	X	X	X
2. Negotiation of financial subsidies and/or lowering taxes to increase the free flows of capital	X	X	X
3. Reducing the costs of branches via ISD			
4. Reduced exposure to risks of banking operations and transactions as a result of ISD	X		
B. REACTIVE FINANCIAL STRATEGIES			
1. Return-on-investment of exchange rates in both directions		X	
2. Return-on-investment of stocks rate		X	
3. The capital control prevents the free movement of funds		X	X
4. Minimizing the tax system			

Source: M. Moffet, A. Stonehill, D. Eiteman – Fundamentals of Multinational Finance, Adison Wesley, 2003

The question that arises in this financial - economic context is that of the validity of these strategies. Of the four proactive financial strategies identified by the quoted American authors, one may find that at present not all constitute any longer possible strategies to implement. With regard to the global cost strategy, with its implications, we notice that at present the transnational corporations are campaigning to reduce costs

in all areas to become competitive from this point of view. The cost strategy adopted in the '80s by the Japanese auto companies expanded globally today. General Motors is an example of a company with tradition that could not adjust to the market and went bankrupt. U.S. banks have drastically reduced their administrative costs to meet the new challenges and to benefit from the government support. Renault has developed in Romania two low cost concepts (Logan and the newer Daster) that allowed the breakthrough on the Western markets and the development of new production capacities in Russia.

Regarding the financial subsidies and tax reductions to ease capital inflows one should mention that the situations were different from one company to another, from one country to another. In general the countries of origin of the transnational corporations have developed policies that enabled them to grow out of the economic – financial crisis under as good as possible financial conditions. In this respect they have received financial support and the crediting policies have helped investments due to very small reference interest rates. Not the same thing happened with the countries with emerging economies. These have increased the interest rates and tried in particular to develop strategies meant to maintain social stability. From this perspective, transnational companies that have developed businesses in countries with emerging economies could not thus develop such strategies.

Concerning the reduction of branches' costs, all transnational companies have demanded to lower the branches' costs. It was a measure meant to strengthen their competitive capacity.

Not the same thing can be said about reducing the financial risks. This strategy is being developed by all transnational corporations, but risk exposure was different depending on the activity sector, on the country, on the degree of integration. From this perspective, financial and auto companies were the most vulnerable as a result of foreign direct investments. Dutch and British banks were the most affected as a result of exposure to risks from the U.S. market.

The reactive financial strategies have not been applied to this financial crisis situation as fluctuations in exchange rates are very high, companies exposing themselves to a currency risk. One cannot speak about the course of the stocks because they have collapsed in some cases even 10 times. As regards the tax system, they were not reduced particularly in indirect taxes, the budget revenues must remain at least constant to cope with the problems created by the crisis.

4. Conclusions

The economic-financial crisis has seriously affected the global economy and hence the transnational companies. Their profits, the foreign direct investments have fallen dramatically, putting at risk the very existence of these companies. At the level of transnational companies three factors have acted decisively on their investment plan: the financial crisis and the crediting crisis, the economic decline and the fluctuations in the exchange rates. These factors have influenced the investment policy of the transnational companies producing a reallocation of the financial resources.

In this context, the investment motivations of the transnational companies have changed, many of the motivations that existed before the crisis are no longer identifiable today. The main motivation in this crisis situation is that of the competitive advantage. Firms want to maintain a position on the market or even to strengthen it so that when the crisis ends to hold a dominant position. The concept of low cost or global cost gain more ground, companies trying to produce at costs as low as possible to be able to cope with the current economic conditions.

Regarding the investment strategies developed by them one can notice that only part of the proactive strategies developed before the crisis are also valid in this period. In this sense the strategies that aim at the cost and direct negotiation policy of subsidies and preferential treatment from the state become obvious. The traditional reactive strategies do not apply in a crisis situation due to the volatile exchange rates, to the falling down of the stocks course and of some taxes and taxation systems that may prove inflexible in such situations because of the budget constraints.

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DETERMINING THE CONNECTION BETWEEN THE TOTAL VALUE OF PROJECTS SUBMITTED AND TOTAL VALUE OF APPROVED INTO THE SECTORAL OPERATIONAL PROGRAMME OF ENVIRONMENT

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Abstract: *The structural funds are post – adhesion funds paid from the European Union budget, whose main objective is to provide support for the member states so that the economic and social disparities between the European Community regions diminish. They are used to support investments in: education, health, development of IMM (small and medium sized enterprises), infrastructure and transport, environment, energy sector, agriculture, tourism, research, professional training etc. This research work verifying the existence of the link between the value of the projects submitted and the total approved projects into the Sectoral Operational Programme of Environment.*

Key words: structural funds, Operational Programmes, management authorities, regression function

JEL classification: F36

1. Introduction

After 1989, Romania encountered unprecedented economic and social changes with major effects on the country and population. The ever growing integration to the world's economic flows represents a dynamic process and Romania must be prepared to render profitable all possible advantages especially in the current economic context when most countries face negative economic situations. Romania has the opportunity, because having registered before 2007 a GDP of approximate 35% of the European average, to continue through the Structural instruments, the economic reform in order to catch up with differences between the Romanian regions and the regions of the other seven European countries.

The structural assistance allocated to the Member States from the EU27 for 2007-2013 is of 308 billion euro, which represents 35% of the EU budget of an 862 billion euro value. The amounts allocated to the new Member States for the 2007-2013 period are significantly larger, representing more than half the entire budget allocated in the first exercise. For the EU 8 plus Romania and Bulgaria, the total amount allocated is of 175 billion euro (Florescu, 2008).

Programming Documents based on which the Structural funds are implemented are the following:

1.1. National Development Plan 2007 – 2013 (N.D.P.), represents the document for strategic planning and multiannual financial programming with the purpose of stimulating the economic and social development of the country in order to achieve the objective of economic and social cohesion. It is based on a careful analysis of the social and economic situation of the country and includes the priority fields of investments for medium term as well as the financial sources for supporting the said investments.

1.2. National Strategic Reference Framework 2007 - 2013 (N.S.R.F.), it is the strategic document based on which the intervention priorities of Structural and Cohesion Funds are established according to the strategic priorities set in NPD. It represents a link between the national development priorities and European priorities. The financial support of European Union is allotted according to the strategy set up in this document.

1.3. Operational Programmes (O.P.), represent programmes through which important elements of N.D.P. are implemented and which ensure the achievement of the general objective of the Regional National Strategy, namely the reduction of the disparities between Romania's Regions. Operational programmes present major fields of intervention which are co-financed by Structural and Cohesion Funds.

According to The National Strategic Reference Framework Romania prepared seven operational programmes under the Objective „Convergence” and cooperates with neighbouring states and EU member states for another 11 operational programmes for Objective „European territorial Co-operation”.

1.3.1 Romanian Operation programmes for Objective „Convergence”:

Regional Operational Programme (ROP) is the programme which implements important elements of the National Strategy for Regional Development of NDP contributing together with the other Sectoral Operational Programmes to the achievement of the general objective of the Regional National Strategy namely the reduction of the disparities between Romania's regions and member states of European Union. The strategic objective of the regional programme shall be achieved by a fund allocation differentiated in each region according to the development of the regions and by a close coordination with the actions executed by the other operational programmes.

- *Sectoral Operational Programme of Environment (SOP Environment)* – it is based on the objectives and priorities of environmental policies and European union infrastructure development policies with the purpose of protecting and improving the quality of the life environment in Romania which should materialize in efficient public services taking in account sustainable development and „the polluter pays”.

- *Sectoral Operational Programme for Transport (SOP-T)*, with the objective of promoting in Romania a sustainable transportation system which will allow rapid, efficient and safe transportation of persons and goods and services of a high quality level according to European standards. For this programme have been allocated funds for the improvement of road, railway, air, river and sea transportation systems with priority to the projects on the network TEN-T (Trans-European Network-Transport), so that it will improve the level of connection of the national and regional infrastructure to the international infrastructure.

- *Sectoral Operational Programme Increase of Economic Competitiveness (SOP-IEC)*, having as a main objective the increase of Romanian companies' productivity in order to reduce the disparities compared to the average productivity of European union hoping to generate, as a consequence of the measures which are to be taken, an average annual growth of productivity by approximately 5,5 % and to allow Romania to reach approx. 55% of the European Union average productivity by 2015. The programme aims at the stimulation of research – development – innovation activities with applicability in the economic field and increase of the energetic efficiency and the sustainable development of energetic sector.

- *Operational Programme Development of Human Resources (SOP-DHR)* – the objective of this programme aims at developing human capital and increasing its competitiveness by connecting education and lifelong learning to labour market and providing more opportunities to be on a modern and flexible labour market comprising 1.650.000 persons. The investments in the improvement of the educational system and professional training will be sustained by correlating the educational offer with the request for workforce and the employers will be encouraged to invest in the employed workforce.

- *Operational Programme Administrative Capacity Development (OP-ACD)* aims at the creation of a more efficient and effective public administration for the socio-economic benefit of Romanian society. This implies the improvement of the public policies cycle on the one hand and the improvement of quality and efficiency of the delivery of public services on a decentralised basis, on the other hand. Investments will be made for strengthening the public management capacity of ministries and for the implementation of modern methods in the field of human resources in order to improve individual performances of public servants.

- *Operational Programme for Technical Assistance (PO-AT)* with the objective of ensuring that the implementation of the structural instruments in Romania meets the principles and rules on partnership, programming, evaluation, communication, management, including financial management, monitoring and control on the basis of responsibilities shared between the Member States and the European Commission Since.

1.3.2. *Operational Programmes in co-operation with neighbouring states under the Objective „European Territorial co-operation”* can be structured as it follows:

- *Trans-border cooperation*, includes the Operational Programmes: *Romania-Bulgaria, Romania-Serbia, Romania-Ukraine-Moldavia, Hungary-Slovakia-Romania-Serbia as well as and The Black Sea Basin Operational programme*, for co-operation between riparian states (Florescu, 2009).

The first programmes will include actions focusing on:

- the development of physical infrastructure;
- consolidation of economic relations between neighbouring regions for a sustainable development, the development of tourism and border trade, promoting the integration of local markets
- the development of social and cultural links between communities and their inhabitants by a common use of the educational, cultural and health infrastructure;
- the common finding and application and use of solution and means of defence against natural risks such as floods, land sloping, etc..

• *Trans-national co-operation*, which includes the *Operational Programme South-East European Space*, has the following objectives:

- the development of co-operation networks in the SME and innovation sectors;
- ensuring co-operation for integrated water management (protection of the coastal areas and sea resources, protection and administration of the Danube basin);
- carrying out trans-national activities for the prevention of natural and technological risks.

• *Inter-regional co-operation*, includes the following Inter-Regional operational Programmes: *INTERREG IV, URBACT II, EPSON 2013 and INTERACT II*, having the following main objectives:

- Modernization of public services;
- Perpetuation of the process of exchanging information and good practices regarding urban development;
- Carrying out studies and correlating the information obtained for the promotion of common interest.

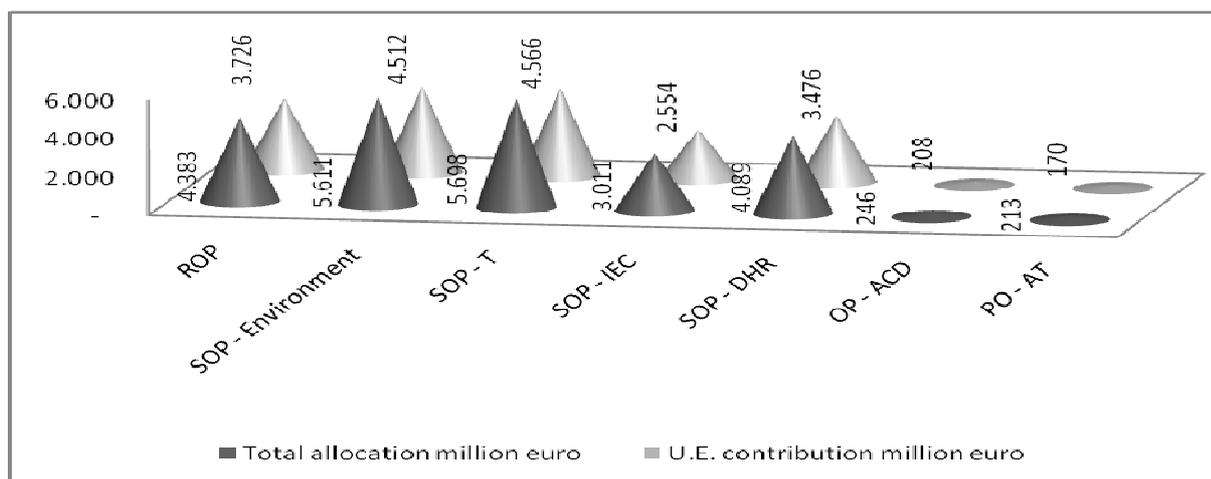
The Structural Funds represent an important complement of the national policies that, directly and by means of lever action, contribute to the harmonious development of the EU as a whole, and to the promotion of the environmental principles as well (Huba, Stefanescu 2008).

2. Sectoral Operational Programme of Environment

This represents the programming document of the Structural and Cohesion Funds which establishes the allocation strategy of the European funds with a view to developing the environment sector in Romania, during 2007 - 2013. SOP (Sectoral Operational Programme) Environment was elaborated by the Ministry of Environment and Sustainable Development (MMDD), as a Management Authority, with the coordination of the Ministry of Finance, as a coordinator, being approved and operational on 11 July 2007.

SOP Environment is one of the most important operational programmes from the point of view of financial allocation and it represents the most important financing source for the environment sector. The programme is financed by two funds - the European Regional Development Fund (ERDF) and the Cohesion Fund (CF) - with a value of approximately €4.5 billion, plus the national co-funding of approximately €1 billion.

Figure 1: Operational Programme allocation during the period 2007 – 2013



Source: author's processing

The global objective of SOP Environment is to improve the living standards of the population and the environment standards and to contribute significantly to the fulfilment of the accession commitments and to the compliance with environmental laws. In order to achieve this global objective, SOP Environment will fund investments in five environmental sectors, as shown in the table below:

Tabel .1: Investments funded through the five environmental sectors in the programming period 2007 -2013

Sector/Priority axes	Objectives pursued	What is financed	Allocation funds
Extension and modernisation of water and waste water systems	<ul style="list-style-type: none"> - extension / modernisation of water and sewage systems (only 52% of communities have access to the water and waste water infrastructure) - construction / modernisation of drinking water treatment plants and of sewage treatment plants - improvement of water and sewage public services 	<ul style="list-style-type: none"> - large infrastructure projects which cover several towns at a regional / district level 	<ul style="list-style-type: none"> - 3.23 billion Euro, of which 2.952 billion Euro of EU funds (approximately 60% of the total allocate funds)
Development of integrated waste management systems and rehabilitation of the historical contaminated sites	<ul style="list-style-type: none"> - creation of integrated waste management systems at a regional level, alongside with the closure of non-conforming landfills - raising awareness among the population about environment protection as a basis of sustainable development. - use of certain types of waste as secondary raw materials 	<ul style="list-style-type: none"> - measures to collect, sort, transport, treat and store household waste - measures to decrease the quantity of waste - rehabilitation of sites that have been affected in time by diverse pollutants and that negatively affect the environment and human health 	<ul style="list-style-type: none"> - 1,17 billion Euro, of which 0,93 billion Euro of EU funds
Heating sector	<ul style="list-style-type: none"> - reduction of emissions from the municipal heating plants - promoting the use of renewable resources 	<ul style="list-style-type: none"> - modernisation activities of the urban heating systems 	<ul style="list-style-type: none"> - 458 million Euro, of which 229 million Euro of EU funds
Nature protection sector	<ul style="list-style-type: none"> - insuring a proper management of the protected areas and stopping the degradation of biodiversity and of natural resources 	<ul style="list-style-type: none"> - preparing and applying management plans: space delimitation, evaluation and mapping of environment units, etc. 	<ul style="list-style-type: none"> - 215 million Euro, of which 172 million Euro of EU funds
Protection against floods and reduction of coastal erosion	<ul style="list-style-type: none"> - protection of population and material property against the devastating effects of floods 	<ul style="list-style-type: none"> - activities of protection and rehabilitation of the southern shore of the Black Sea - activities of protection against erosions and floods 	<ul style="list-style-type: none"> - 458 million Euro, of which 229 million Euro of EU funds

Source: author's processing

With regard to the actual stage of the European funds absorptive process, at Feb. 28th 2010, was submitted 15.926 projects with a value of 131.282.849.462 lei, 3.962 of these ones being approved for a total aggregate value of over 36.951.746.414 lei. Of the total within the Sectoral Operational Programme of Environment was submitted 204 projects with a value of 17.749.021.024 lei, 65 of these ones being approved for a total aggregate value of over 5.942.655.789 lei. For the period March 2009 - February 2010 the status is as follows:

Table 2: The value of the projects submitted and approved during the period March 2009 - February 2010

Months/Years	Total projects submitted (lei)	Total projects approved (lei)	Share amounts approved in total amount required
			(%)
March /2009	185.922.115	617.224.910	331,98
April/2009	50.203.484	184.548.805	367,60
May/2009	340.822.177	0	0,00
June/2009	40.440.054	945.587.854	2.338,25
July 2009	1.678.023	24.718.017	1.473,04
August/2009	0	6.751.094	675.109.400
September/2009	5.991.084	317.922.815	5.306,60
October/2009	6.766.602.246	40.120.968	0,59
November /2009	49.291.299	355.107	0,72
December /2009	3.091.903.284	0	0,00
January /2010	1.148.471.090	0	0,00
February /2010	83.497.700	145.641.043	174,43
TOTAL	11.764.822.556	2.282.870.613	19,40

Source: Authority for Coordination of Structural Instruments

Projects were submitted in very large numbers, but as you can see less than 20% of the amounts required was been approved. The large number of projects in the case of Romania, indicate only desire financing applicants not their ability to attract these funds. The reasons are multiple differ from one program to another, from one applicant to another and from one authority to another as we have noted in the above presented

3. Determining the connection between the total value of projects submitted and total value of approved

Given the small proportion of projects approved in the total projects submitted we proposed verification of the existence of the link between the two indicators, total value of projects submitted (x) and total value of projects approved (y). When a relation exists, it is necessary to measure its intensity by a simple or a synthetic correlation indicator (Florescu D, Gibescu O.M., 2009). It can be determinated to what extent the factorial parameter x (total value of projects submitted) contributes to the formation of the dependent parameter y (total value of projects approved) from connection nature, direction and form point of view between the two variables.

Its were applied the analytical analysis methods for the statistical connections by using the correlation indicators system:

- regression function;
- correlation coefficient.

Knowing that the regression function means the mathematical relation existing between two independent variables showing, in the presented case, how the resultative parameter y (total value of projects approved) is modified only after the modification of the values of the independent parameter x (total value of projects submitted), we appraise that the other factors that might influence the phenomenon are considered having a constant action.

The mathematical function that expresses the connection form will be following:

$$\bar{Y}_{x_i} = a + b x_i$$

Equation (1)

To determinate the average regression equation and with its help, the estimated values (theoretical) for the regression function, first of all, the values of the two parameters „a” and „b” are calculated by applying The method of the smallest squares. The method has in view to minimize the sum of squared deviations of the real values (observed) from the estimated values (theoretical) calculated based on the regression equation.

$$S = \sum (y_i - \bar{Y} x_i)^2 = \min \tag{Equation (2)}$$

In case of linear function the condition becomes:

$$\sum [y_i - (a + b x_i)]^2 = \min \tag{Equation (3)}$$

It determinates the sum in correlation with the two parameters derivates “a” and “b”:

$$\frac{\partial S}{\partial a} = 2 \sum [y_i - (a + b x_i)] (-1) \tag{Equation (4)}$$

$$\frac{\partial S}{\partial b} = 2 \sum [y_i - (a + b x_i)] (-x_i) \tag{Equation (5)}$$

By cancelling the partial derivates and by simplifying by 2 we have the following:

$$\begin{cases} na + b \sum_{i=1}^n x_i = \sum_{i=1}^n y_i \\ a \sum_{i=1}^n x_i + b \sum_{i=1}^n x_i^2 = \sum_{i=1}^n x_i y_i \end{cases} \tag{Equation (6)}$$

The estimated (theoretical) values are called adjusted values. The adjusting a distribution serie one does possible the replacement of the real terms (empirical, recorded by observation) with theoretical ones (estimated, adjusted) calculated based on a mathematical model.

Table 3: The value of approved projects as a function of the submitted projects during the period March 2009 - February 2010

million lei

Months/Years	Total projects submitted (X)	Total projects approved (Y)	x*y	x ²	y ²
March /2009	186	617	114.762	34.596	380.689
April/2009	50	184	9.200	2.500	33.856
May/2009	341	0	0	116.281	0
June/2009	40	946	37.840	1.600	894.916
July 2009	2	25	50	4	625
August/2009	0	7	0	0	49
September/2009	6	318	1.908	36	101.124
October/2009	6.766	40	270.640	45.778.756	1.600
November /2009	49	1	25	2.401	0
December /2009	3.092	0	0	9.560.464	0
January /2010	1.148	0	0	1.317.904	0
February /2010	83	146	12.118	6.889	21.316
TOTAL	11.763	2.284	446.543	56.821.431	1.434.175

Source: author's calculation

The measurement of the intensity degree of the connection between the two variables will be made after verification of the objectivity of the chosen adjustment function by using the dispersion analysis.

To determine the parameters of the regression function $Y_{x_i} = a + b \cdot x_i$ it was used the equation system (6), where „n” is the number corresponding to the nine months.

By applying the equation system (6) it was obtained the values of the parameters „a” and „b”.

$$\begin{cases} 12a + 11.763b = 2.284 \\ 11.763a + 56.821.431b = 446.543 \end{cases} \Leftrightarrow \begin{cases} a = 151,54 \\ b = -0,03957 \end{cases}$$

The average estimation function of the linear connection between the net total value of projects submitted and total value of projects approved result from $\overline{Y_{xi}} = 151,54 - 0,03957x_i$.

The intensity of the linear connection between the total value of projects submitted and the total value of projects approved can be obtained by applying the equation (7) for the correlation coefficient.

$$r_{y/x} = \frac{n \sum_{i=1}^n x_i y_i - \sum_{i=1}^n x_i \sum_{i=1}^n y_i}{\sqrt{\left[n \sum_{i=1}^n x_i^2 - \left(\sum_{i=1}^n x_i \right)^2 \right] \left[n \sum_{i=1}^n y_i^2 - \left(\sum_{i=1}^n y_i \right)^2 \right]}}$$

Equation (7)

$$r_{y/x} = \frac{12 \times 446.543 - 11.763 \times 2.284}{\sqrt{(12 \times 56.821.431 - 11.763^2)(12 \times 1.434.175 - 2.284^2)}} = -0,2663$$

The result shows an inverse and weak correlation between variables. This means that there is a correlation of 26,63 % intensity between the total value of the proposed projects and those approved. This percentage is quite low and it shows that the estimation of the future amounts of the approved projects depends on the total value of the proposed projects to a low extent.

However, the average function of the estimation of the correlation between these two indicators is $\overline{Y_{xi}} = 151,54 - 0,03957x_i$ and it shows that we can predict (with a certain deviation from reality) the value of the approved projects in case we know the formula sum of the proposed projects mentioned above. Thus, the sum of the approved projects will be determined by introducing the future sum of the proposed projects in x variable in the linear function. In other words, assuming that in April 2010 will be submitted projects worth 5.000. 000 lei, according to the average function medium of the link between the two indicators, that will be approved projects amounting to 198.002.

4. Conclusions

Without claiming to entirely present the difficulties that possible beneficiaries have to face, we have tried to emphasize the least propagated ones. The list of difficulties unfortunately remains open, at present still being performed changes in the programmatic documents and not all of them being in favour of the beneficiaries. It is easy to observe that a whole series of funds from European sources remain unaccessed due to conditions which have no relation with the European legal provisions and nor with the matters in the territory.

The non-reimbursable structural assistance is more the support replaces an important part of the financial effort that should be done by a state on its own, the more helpful and precious. The existence of a

strong institutional structure capable to ensure the formulation and application of public policies, to keep the coordination processes inside ministries going, the implementation of national programs, increasing the application capacity of partnerships between local administrations, was absolutely necessary

The usefulness of implementing European financed projects cannot be doubted. The opportunity of their promotion results from the need to support the entrepreneurs with a view to increasing their competition on the European market, as well as to decreasing the difficulties they actually face.

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RISK MANAGEMENT ROLE IN SUSTAINABLE DEVELOPMENT

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Abstract: Sustainable development is a current and continuously challenge in the world, which is why each country individually act to achieve this. Each company is exposed to a variety of risks; some of these may cause adverse results to ecosystem, representing a threat to sustainable development. To avoid unpleasant issues causing risks occurrence, companies will have to implement an effective risk management program. Insurance companies have their well-established role in national economies, representing a risk transfer solution. Throughout this paper, we will examine the entire set of methods for controlling and financing the risks that companies are exposed to, and can negatively influence sustainability. The conclusions obtained are presented both in various stages of research and at the end of the paper, are relevant and practical; they can also be given a set of recommendations.

Keywords: Sustainable development, insurance, risk control and financing

JEL Classification: G 22, G 21.

1. Introduction

Sustainable development is a current challenge in the world, which is why each country individually intends to achieve it. To optimize it Governments of different countries establish a national strategy for this problem both at the macroeconomic level, but also microeconomic. In the microeconomic field, every branch of national economies through their own actions contributes to achieving sustainable development, insurance industry prove theirs utility once more. Insurance companies have their established role in national economy and in terms of sustainable development, as follows:

- The social role, where insurance funds are used in mutuality context
- The role of financial compensation for losses, when the occurrence of damage affect sustainable development

In the initial observation of the role of insurers in sustainable development, they identify risks that may influence the state of development. Through a comprehensive risk management process, there are followed the stages of risk control and risk financing, later identified. Teh part related to insurance companies to insure the risks that can not be controlled by different entities.

2. Practical research, result of the research

Since 2007, when Romania joined the European Union, it must adopt the European strategy for sustainable development. This strategy was developed in 2006 by the European Council, the main purpose is to establish how the present generation can meet its development needs without compromising future generations' development. The main objectives to be pursued by adopting this Strategy cover seven areas:

- Climate change and clean energy
- Sustainable transport
- Sustainable production and consumption
- Conservation and natural resource management
- Public Health
- Social inclusion, demography and migration
- Global poverty

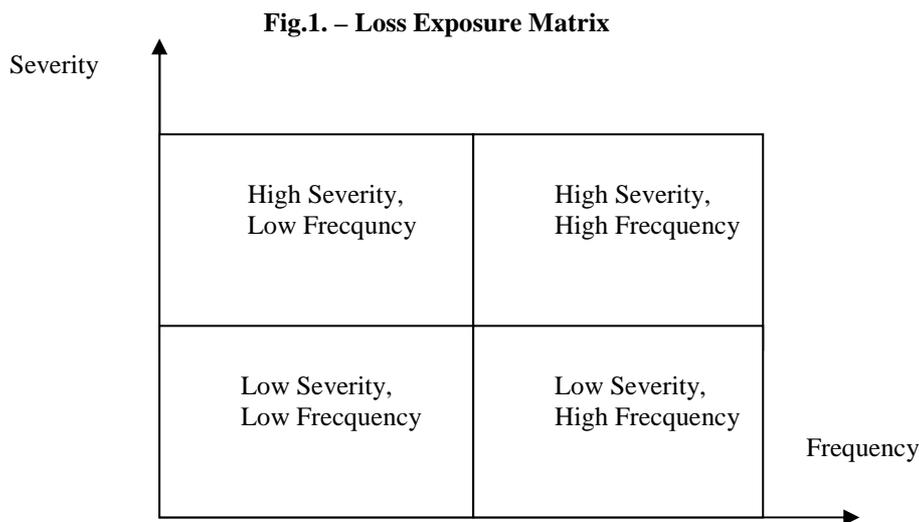
In 2007 Romania was established the National Strategy for Sustainable Development in 2007 and published in the Official Monitor of Romania, Part I, Nr.737/31.X.2007. there can be noted that both locally and globally there is a continuing concern for improving quality of life and environmental protection. Environmental protection refers to its preservation and to avoid damage. Insurance companies are actively in the process of sustainable development, in particular of pollution and natural disasters caused by climate

change. Sustainable development can be adversely affected by natural factors, factors which no one person is responsible and also by human and technical factors arising from social work, business - in this case responsibility for any adverse effects can be established.

Risk management process for sustainable development include different stages for the identification, measurement, control, risk financing, that may influence sustainable development decision, implementation and monitoring the results. This process should be managed from two levels:

- From the inside of companies
- From the insurance companies

In the initial stage – *risk identifying*, risks that may influence negatively on sustainable development are carried out by experts using specialized questionnaires, they analyze of history of damages that affected environment and the exposure to catastrophic risks. The result of hazard identification is a risk matrix that takes into account the frequency and severity of damage / possible damage:



It can be seen from analyzing the exposure to risk, that perils represents the cause that produce damages. People, the properties are exposed to damages/ potential losses because the environment is full of hazards such as floods, storms, death, accidents, diseases, fire, earthquake, theft etc.

Table.1. – Perils Classification

Perils	Natural	Perils	Human
<i>Insurable</i>	<i>Difficult to insure</i>	<i>Insurable</i>	<i>Difficult to insure</i>
Storms	Floods	Theft	War
Lightning	Earthquake	Vandalism	Terrorism
Explosion	Pandemia	Accidents	Civil manifestation
Cardiovascular accidents	Volcanoes	Negligence, Accidental Losses	Radioactive contamination
	Frozen	Fire	

Source: Asigurări și Reasigurări, Gavriletea Marius, 2002, pag. 8

As a final result of risk identification there can be seen that the hazards that can cause environmental damage and directly affecting sustainable development, perils are structured under difficult to be insured (natural disasters, terrorism, pollution, accidental damage) due to location in the graphics - high severity and low frequency. There should be done a planning against disasters.

The fact that their frequency is reduced requires addressing from two perspectives:

- Inadequacy of statistics in order to develop certain trends, projections (in fact there are difference in economic values of damage in different time periods)
- The existence of effective preventive measures

The second stage concerns the *measurement of risk* - the total exposure to damages to a commercial entity. This is made difficult because it involves specialized notions of evaluations industry. Depending on

the specific of certain activities there will be a special assessment and will have to take into account: the cost of certain equipment, the price of cleaning and regenerating the ecosystem, loss of profits of some affected entities (demonstrated by efficiency methods) and human losses. Quantifying with accuracy these values along with representatives of the insurers, they will reduce the negative effects that can occur following a natural disaster or contamination due to the nature of company.

Great commercial entities involved in the process of risk management for sustainable development must take into account the actual value of the assets/environment that may be affected by their own fault. Otherwise insurance compensations will be resulting from the principle of proportionate compensation:

$$C. = L. * (I.A. / R.V.) \quad \text{Equation (1)}$$

C. – Compensation

L – loss

I.S. – insured sum

R.V. – real value

Uninsured difference between the real value and the sum insured will generate a proportion of supportability in part responsible for the commercial entity of damage to the environment. Since the aforementioned on the severity of such damage, by less insurance exposure the guilty company will be severely affected and in turn of their financial resources.

Risk control is the third stage of the process of risk management, including techniques to reduce the frequency and severity of accidental damage. Most of the literature on risk management believes that the main risk control techniques are:

- Avoid of risks
- Prevention of damage
- Limiting / reducing the damage

In the event of natural disasters, terrorism, accidental damage and pollution (which could cause the unwanted barriers against sustainable development) risk control techniques differ substantially from other types of exposure (exposure to low severity losses with low/high frequency). Avoiding these risks is impossible because it would mean leaving the service (accidental damage and pollution). Terrorism and the whole range of natural disasters can not be avoided (a natural catastrophic risk can be avoided by making dams safety against flooding rivers as a result of extreme weather effects).

For the afore mentioned risks, prevention of damage can be achieved by using practical and effective measures to reduce the frequency of their occurrence, as follows:

- In case of accidental damages there are made periodic revisions of machinery, functional systems. Also are checked how the storage, handling, operation of materials and dangerous goods are done
- For pollution, there are checked consistently the meeting of environmental requirements
- For terrorism, prevention measures are low-level economic unit - a contract with a firm specializing protection. Due to the vast and often unknown terrorism these measures should remain within the set of measures taken into an area, region. This set of measures will be even more rigorously pursued and adopted as the importance of the commercial entity is higher.
- In case of natural disasters, prevention of damage is done according to the possible causing risk. If we refer to earthquake there must be checked the resistance of buildings structure. For extreme weather, all measures to avoid refer also to the security offered by the building.

Risk management practice shows that regardless of the level and quality measures to avoid and prevent damage, risk can still occur. So once the risks occur, have taken the entire set of measures to limit the damages.

In terms of an insurance contracts, insurance companies require the insured limit damages when an insured event occurs. If it is found that these measures have not been taken and the result is an increase in the amount of damages, the insurance company may refuse to pay additional damages.

The next stage of the process of risk management companies that may affect sustainable development relates to the *risk financing*. In this case, we have identified all the arrangements for meeting the financial losses caused by an event that took place, no matters of risk control measures taken.

Risk financing techniques are split in two main groups:

- Risk retention
- Risk transfer

Retaining these risk in the commercial entity, the level exposure to damage that may affect sustainable development, is very high. Risks - natural disasters, accidental damage, pollution and terrorism can be very difficult funded by any entity when occurring.

Therefore, their retention in the corporations is taking silent the risk of bankruptcy in the moment of occurrence. This is easy to prove because of severity of damage.

It therefore requires the transfer of specialized legal risks to third parties. They are insurance reinsurance companies and complex financial companies (in which combinations are covered insurance services, capital markets, banking).

The simplest transfer is performed by a traditional insurance company operating in the insurance market in Romania and has a portfolio of insurance products to cover these risks.

Risks of accidental damage and risk for natural disasters can be found at most insurers with financial strength and security, in Romania. The transfer of these risks is done by paying insurance premiums, and when the risks occur, insurance company will pay compensation. In this way, the company is exempted from liability, its' financial security was not affected.

Insurance companies that support the underwriting of insurance policies against such risks will take measures to protect themselves, by spreading the risks. This is done by two methods:

- Underwriting of insurance policies with deductibles
- Transferring a part of these risks to the reinsurance market

It can be concluded that the risk transfer of accidental damage and for natural disasters can be made simply on the insurance-reinsurance market.

The risk of terrorism was placed into category insurable risks before the events of September 2001 in the United States. By observing the devastating effects of such an event, the insurance companies have included the risk of terrorism on exclusion list of insurance. In addition, the risk of pollution is included to the same list.

Companies in Romania are into a very unpleasant situation from exposure to these risks. Medium companies don not have an integrated transfer of those risks to third financial institutions and the occurrence of such damage will be self-financed. It should be noted that their exposure to these risks is quite low. Exposure to these risks is high for the big national companies and international corporations. Due to their financial power, the risk transfer solutions that can be adopted are:

- Individual (for large national companies)
- Through the international group to which they belong (for international corporations)

For both the above, transfer of risks of terrorism and pollution is carried out only on alternative risk transfer market (ART market). ART market includes transfers of the risks between different specialized companies (with other object of activity than insurance), providing coverage for the risks not-insurability traditionally.

The most common alternative risk transfer products are:

- Captive insurance companies
- Derivatives (catastrophe bonds)
- Risk retention groups

Captive insurance company is an insurance company owned and controlled by parent company, which has a different activity profile in order to achieve the parent company's risk insurance.

The specialized dictionaries define captive insurance company as that company wholly controlled by another organization and its main objective is to ensure risks parent organization. This concept was best developed in Bermuda. In 2008 over 20% of captives are domiciled in this tax haven domicile, so we consider necessary to state the definition of such companies by the Insurers' Admissions Committee of Bermuda - the company Captive insurance is a subsidiary of a company, used for insurance, reinsurance risk parent company and / or his associates.

Risk retention group (RRG) is an insurance company owned by its members and only provides insurance for their responsibilities. The RRG are established in the United States Liability Insurance Act, the

law that Congress sought to provide a solution to ensure civil responsibilities extremely heavy, traditional insurance market is facing a huge shortage of similar products. When RRG holds the operating license in a particular state, may purchase insurance regardless of what state the founding members are.

Derivatives are more complex and represent the combination of insurance products, capital markets and financial markets and banking. The products are known and used as catastrophe bonds - CAT Bonds. Catastrophe bonds are financial instruments that collect sufficient financial resources to finance the undesirable effects of a disaster. Very heavy risk portfolio that a corporation is exposed to is transferred to different investors. The issuer of these bonds will be a company domiciled in a tax haven - Special Purpose Vehicle, deploying it through the entire set of operations - collecting money related bonds issue, transfer risk to the reinsurance market, the investments of the funds received, achieving compensation for occurrence of a catastrophic event. In addition, if the severity of the disaster exceeds the value of accumulated funds, investors may need to supplement the initial investment without the profit. Given these risks, the profitability for catastrophe bonds is very high when it reaches maturity. The first CAT bond's transaction was done experimentally by AIG in 1990 and first successful transaction by Hannover Re in 1994.

If the catastrophic risks, pollution, accidental damage does not occur, the product ART is used to pay damages and financial year there will be profit - redistributed to shareholders (corporate entities insured). In contrast, in return the insurance premiums paid by insured to a traditional insurer do not receive any financial compensation if the insured risk will not occur.

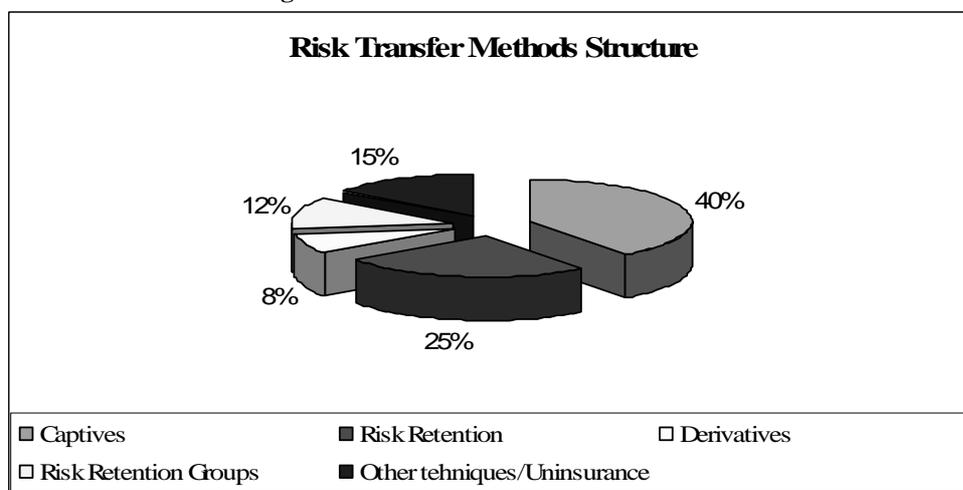
If these products are directly connected with the reinsurance market. In this way, risks taken by these companies will be transferred to the reinsurance market using the techniques of traditional reinsurance. It is noted that the reinsurance market will finance also these very heavy risks - terrorism, pollution, contamination, accidental damage, natural disasters. When entering these risks into reinsurance market, they will be spread among several reinsurance companies, so when such a catastrophic event occur, the effect of the recovery of property, to restore the ecosystem will be supported by many entities.

Euromoney magazine in 2008 conducted a study / questionnaire for the ART market, being interviewed top managers from large corporations, 4,145 a total number of responses from 404 top companies worldwide in 59 countries. According to the responses received, 32% of respondents use the alternative risk transfer products and in addition:

- 40% of the risk transferred through ART Market risks relating to property
- 2% of risk transfer relates to the risk of terrorism
- 5% of transferred risks include liability (including liability for damages caused by pollution)

Analyzing the results for the same report, we made a chart to see the alternative risk transfer.

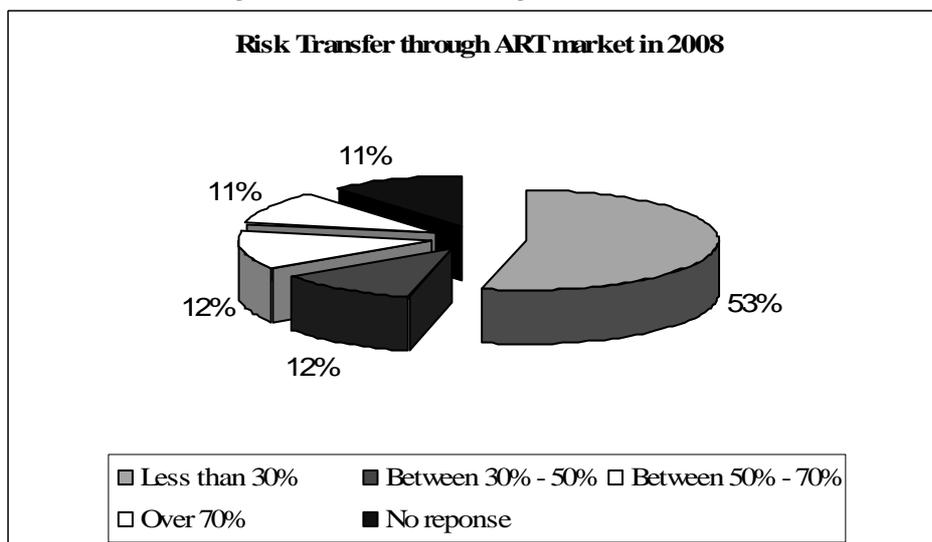
Fig.2. – Risk Transfer Methods Structure



It is noted that captive insurance companies are the most used method of risk transfer, also should be noted that among these international corporations surveyed 25% have decided to retain risks. This demonstrates financial difficulty to appeal an expensive solution from the ART market.

Financial considerations and according to risk analysis, companies are unwilling to seek ART for the transfer of all market risk exposures. Slight risk can be retained or transferred to traditional insurance market; only very heavy risks (pollution, contamination, natural disasters) will be transferred to ART market – the same study results can be summarized in the following chart:

Fig.3. – Risk Transfer using ART Market- 2008



From the above graphic there can be seen that a relatively small number of respondents, 11% choose to use ART market for more than 70% of the risk transferred.

Implementation the decision is based on the results from the previous stages. It represents the application of a solution that offers the best coverage of risks to the subject company.

Monitoring and interpretation of results are necessary, since it is observed the solution chosen meets the requirements of the company after its implementation. This stage is also a continuous measurement of performance results in cost savings analysis to see if further changes are needed in the strategy chosen.

3. Conclusions

Corporations in Romania with a similar financial power of international corporations are relatively small in number and financial strength of financial companies in this moment is quite poor.

We can appreciate that the vast majority of companies in Romania call for insurable risk transfer to insurance market. Because of information, confidence and refusal to recognize the use of financial tax havens is difficult to make an estimation of the number of Romanian companies that use the captive company.

In order to control and finance the catastrophic risks that affect sustainable development there are two major directions (beside the solutions already presented during the research):

- Companies involved in an active process of risk management, with particular emphasis on control risk, will be most effective because the probability of harm sustainable development will be extremely low.
- Insurance companies will attract the catastrophic risks and refuse pollution and terrorism risk insurance, but should be involved in the advisory of the hazard control. This will be beneficial for companies exposed to such risks because the insurer belonging to prestigious worldwide insurers and statistical basis for these events are the issues that matter greatly in effective risk management process.

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BUDGET DEFICIT AND PUBLIC DEBT IN ROMANIA – A MEMBER STATE OF THE EUROPEAN UNION

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Abstract: *In the present research study, the authors have analyzed the nature of budget deficit, they have studied the relation between the three components: budget deficit, public debt, gross domestic product, they have evaluated the evolution of the budget deficit over a certain period of time, they have also identified the causes that lead to budget imbalance, as well as the financing sources for both budget deficit and public debt. They have carefully analyzed the main indicators for measuring budget deficit and they have interpreted the results. In the same time, they have offered recommendations concerning the financing of budget deficit.*

Key-words: budget deficit, public debt, inflation rate, face interest rate

JEL Classification: H61, H62, H63

1. Introduction

The problems related to the budgetary balance are in close connection to the budgetary and fiscal policy. The role of the fiscal and budgetary policy is to accept or to reject budget imbalances.

The monetary policy combined with the fiscal and budgetary policy is supposed to monitor the coverage of budget deficits and also the decrease of public debt.

The main influence over the monetary policy is represented by the level of financing of the budget deficit and also by the level of refinancing of the public debt; the budget deficit is financed from both internal and external sources.

The strategy of budget deficit financing and public debt refinancing will be mainly focused on contracting loans on the internal market, by issuing government bonds.

In any case, resorting to loans in order to cover the budget deficit, does not take this burden off the society, it merely postpones the moment when it takes its toll on the tax-payers.

The fact is that, in most cases, state loans are used to cover unproductive expenses and only in few situations they are meant to contribute to the development of the national economy, to serve productive goals and actions.

In Romania, the credits contracted for the financing and refinancing of budget deficits have been used, for their largest part, to cover consumer expenses and only to a very little extent to satisfy the economic and social needs for development. This is a proof that, during the transition period, the Romanian society has broken one of the capital rules of any progress-oriented society, thus consuming more than it has produced.

2. Theoretical considerations on the budget deficit

„The economic role of the state” has known a series of definitions given by various economic, classical, liberal or neoclassical theories, as the economic doctrine regarding state intervention in the economy has been constantly modified.

Following the Great Depression (1929-1933), but especially after the Second World War, a new concept emerged, „the welfare state”: Dobrotă (1999) „the main function of the state is to correct the negative effects of the market”.

The doctrine concerning the welfare state represented a combination between the market economy and the socialist economy and it was widely spread in the United States and in Europe.

After the Second World War and at the beginning of the 70's, the market economies, stimulated by expansionist fiscal and monetary policies, registered a significant economic growth. After the 70's, both in the Western European countries and in the United States, there was a major increase in public expenses, especially in the social field.

In our opinion, the indifference manifested towards the constant increase of public expense has led to budget imbalances and, therefore, to significant changes of the public debt.

Among the causes that generated budget deficits, one can count: the continuous increase of expenses with maintaining the government apparatuses; the steady growth of the costs implied by the service of public debt (some of them being usually determined by the financing of prior budget deficits); the sharp increase of inflation; high unproductive expense, and so on.

In this context, the monetary policy combined with the fiscal policy must monitor the coverage of budget deficits and also the reduction of public debt.

The experience of developed countries proves the necessity of using mixed, balanced strategies: Manolescu (1997).

For example, from 1979 to 1985, the United States adopted an unbalanced combination of fiscal, budgetary and monetary strategies (first of all, a restrictive monetary policy, followed by an expansionist fiscal and budgetary strategy – tax reductions which generated a high budget deficit, thus leading to credits).

In the specialized literature, authors such as Dornbusch și Fischer (1990), highlighted that possibility that those responsible for public policies should resort to different ways to finance the budget deficit, as it follows:

- Cutting off budget expenses;
- Increasing fiscal income;
- Supplementing the monetary emission;
- Contracting internal and external loans, thus adding up to the public debt.

Still, each of the above-stated methods of financing is controversial. None is better or worse than the other, as there are for and against arguments for each of them, depending on the economic, political and social context to which they apply to.

One of the „simple” definitions of the budget deficit shows that it presents itself as a negative balance of the analyzed budget, between income and expenses of an accounting period.

According to some authors, such as Easterly(1989), the budget deficit can be covered by credits from international financial institutions, commercial banks, economic agents or even the population.

3. The Relation between the Budget Deficit, the Public Debt and the Gross Domestic Product (GDP)

In a thriving economy, it is important that the fiscal, budgetary and monetary policies maintain the long term indebtedness at a constant level, so that the volume of public debt might increase at the same pace as the nominal GDP. In this context, the budget deficit (Macklem, 1994-1995) which will ensure the stability of the public debt – GDP ration equals the product between the volume of public debt and the growth rate of the nominal GDP:

$$(1) \quad \text{Budget deficit} = z \times \text{public debt}$$

where:

z = the growth rate of the nominal GDP;

z = the growth rate of the real GDP + the inflation rate.

Still, because of short-term budgetary constraints, the calculation formula becomes the following:

$$(2) \quad \text{Budget deficit} = i \times \text{public debt} + \text{primary expenses} - \text{fiscal income}$$

where:

i = the face interest rate;

primary expenses = total government expenses – public debt interest expenses.

When combining the equations (1) și (2), we obtain

$$(3) \quad \begin{aligned} z \times \text{public debt} &= i \times \text{public debt} + \text{primary expenses} - \text{fiscal income} \\ (i - z) \times \text{public debt} &= \text{fiscal income} - \text{primary expenses} \end{aligned}$$

Based on the resulting equation, we can emphasize various aspects concerning the relation between i and z :

- When the face interest rate is higher than the growth rate of the nominal GDP ($i > z$), the fiscal income must be higher than the long-term primary expenses. In this way, part of the fiscal income can be used to service the public debt;
- On the other hand, if the face interest rate is lower than the growth rate of the nominal GDP ($i < z$), the primary expenses can become higher than the long-term income.

In this case, the state must resort to new credits, in order to maintain a steady public debt / GDP ratio.

The arithmetic expression between debt and deficit, as the equation (3) could be defined, reveals the increase of the public debt, as it follows:

- if $i > z$, the fiscal income must increase in comparison with the primary expenses;
- if $i < z$, the fiscal income must decrease in comparison with the primary expenses.

By means of our research study, we intend to emphasize the fact that the monetary policy must mainly monitor the control over inflation, as the inflation rate has a direct influence on the long-term growth rate of the nominal GDP. We believe that the specialists are supposed to aim at obtaining an inflation rate that determines a growth rate of the nominal GDP higher than the face interest rate. In exchange, this orientation of the monetary policy must be closely and permanently monitored as a high long-term inflation rate will certainly lead to an increase in the nominal GDP rate, thus influencing the growth of the face interest rate.

If we take into account the relation between the budget deficit and the inflation rate, Fischer (1995), we shall notice that an increase of the inflation rate with 1 percent can cause the decrease of the real GDP growth rate with 0,1 to 0,5 percent.

As a result, the budget deficit is influenced by the inflation rate and by the interest rate; still, in the long term, in order to ensure the financial stability of the state, we must take into account two aspects: the real costs of the loans and the growth rate of the economy.

It is well-known the fact that chronic budget deficits and a high level of public debt have a negative impact over the economic growth, Traclet (2004).

This is why the increase of budget deficit and public debt in the industrialized countries in the 1980's and 1990's corresponded to an increase in the real interest rate, which in fact determined the increase of the costs with public debt service and the reduction of productive investment, Traclet (2004).

Several authors, such as: Nunes-Correia și Stemitsiotis (1993); Fillion (1996); Laubach (2003), have demonstrated, in their studies based on empirical analyses, the effects of the interest rate on the volume of budget deficit and public debt.

Another author, Dahan (1998), has studied the impact of the monetary policy over the budget deficit. His work highlights several influence media that the monetary policy uses to change the dimension of the budget deficit.

These influence media rely on factors depending on the price level, public expenses, fiscal income, public debt, monetary emission, interest rate etc.

Besides the above-mentioned studies concentrated on the high levels of public debt, inflation rate, interest rate, some other specialists focused also on the relation between the budget deficit and the economic cycles within a country and even on the impact that the exchange rate might have on the budget deficit.

Still, in each and every country, depending on its economic situation, it is only for the public decision factors to make choices concerning what it should be done in terms of budget deficit policy.

4. The Evolution of the Budget Deficit in Romania

In the specialized works, as well as in the practice of international financial institutions such as the World bank or the International Monetary Fund, there is a large range of indicators used to measure the budget deficit or budget balance, Jacobs (2002).

The most frequently used indicator is the conventional budget balance, which represents the total resources used by the government over a fiscal year to to finance the expenses that are not covered by the income: Blejer și Cheasty (1993); Jacobs (2002).

The World Bank defines the conventional balance as the difference between expenses (for example: expenses with salaries, with goods and services, capital expenses, public debt interest expenses, transfers and

subventions) and the following types of income (taxes and fees, grants from the financial institutions, proceeds from disposal of assets, income of state-owned companies).

The authors, Diamond și Schiller(1993), mentioned that the budget balance is equal to the following fiscal balance:

$$\text{Fiscal balance} = \{(\text{income} + \text{grants}) - (\text{expenses with goods and services} + \text{transfers}) - (\text{loans} - \text{refinancing})\}$$

As a result, the conventional budget balance or the conventional deficit represents the difference between total income and total expenses, which should be financed by resorting to public loans. We must however mention that these total expenses must include the public debt interest expenses, but they will not refer to the expenses with the repayment of the principal of public debt.

As a matter of fact, measuring the public financial imbalance is made based on various types of budget balances or deficits, the conventional balance being the starting point of calculation for most of them.

In Romania, the Ministry of Public Finances and the National Bank calculate and report annually the following budget deficits:

- deficit/surplus of the general consolidated budget or conventional deficit/surplus;
- primary deficit/surplus;
- structural deficit/surplus;
- current account deficit/surplus;
- operational deficit/surplus.

The general consolidated budget deficit (conventional deficit), generally refers to the financial imbalance between the resources and the needs of the public sector. It is calculated as the difference between the income and the expenses of the general consolidated budget.

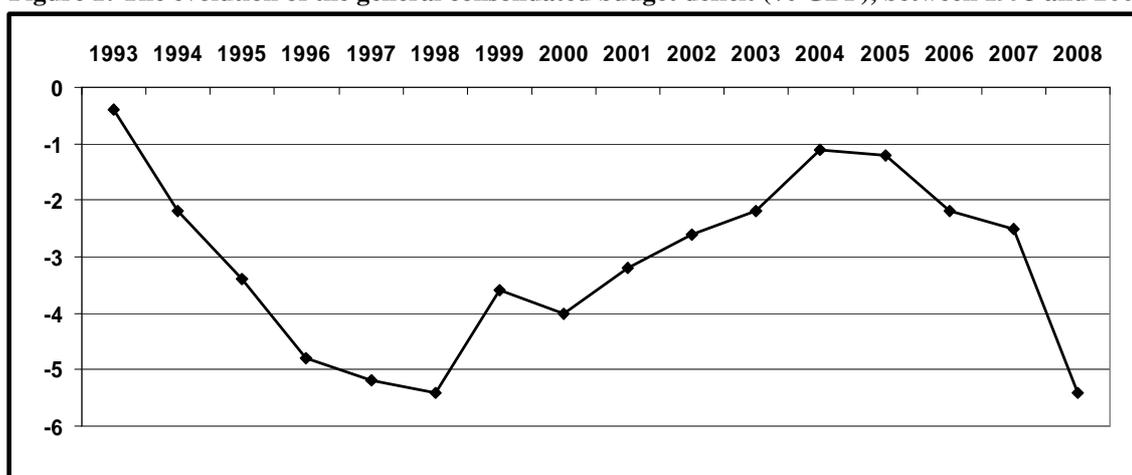
In Table 1 and Figure 1 are presented the evolution and the level of the general consolidated budget deficit between 1993 - 2008.

Table 1: The level of the general consolidated budget deficit (% GDP), between 1993 and 2008

Year of reference	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
General consolidated budget deficit (% GDP)	-0,4	-2,2	-3,4	-4,8	-5,2	-5,4	-3,6	-4,0	-3,2	-2,6	-2,2	-1,1	-1,2	-2,2	-2,5	-5,4

Source: IMF(May,2006) Country Report No. 6/169; Eurostat (2008) EU Economic Data pocketbook, Quarterly 1, p.76-77.

Figure 1: The evolution of the general consolidated budget deficit (% GDP), between 1993 and 2008



Source: IMF(May,2006) Country Report No. 6/169; Eurostat (2008) EU Economic Data pocketbook, Quarterly 1, p.76-77.

Out of the analysis of the general consolidated budget deficit, one can notice that the main objective of the economic policy mix was to keep it under control. Thus, until 2000, România passed through a major reforming process, from a centralized economy to a market economy; still, its level of budget deficit was not as high as compared to other European states. After 2000, the deficit decreased progressively, as a result of a

National Bank policy which aimed at reducing the inflation rate year by year and which also influenced the deficit.

As a matter of fact, the criterion of maintaining the budget deficit under the level of 3% of the GDP has been observed in our country ever since 2002. The year 2008 was an exception from this point of view, the budget deficit reaching the level of 5,4 % of the GDP, and accumulating mainly during the third and especially the fourth trimester, due to the expansionist budgetary and fiscal policies.

The primary deficit/surplus represent the difference between the general consolidated budget deficit and the public debt interest expenses. This is an indicator used in the analysis of the sustainability of the fiscal and budgetary policies.

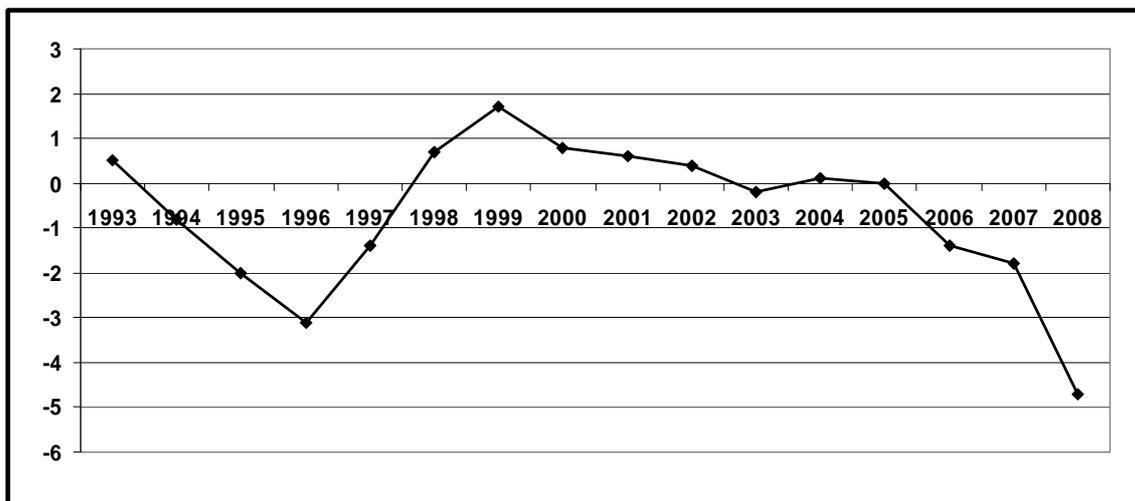
The level and the evolution of the primary deficit/surplus are presented in Table 2 and in Figure 2.

Table 2: The level of primary deficit/surplus (% GDP), between 1993 and 2008

Year of reference	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Primary deficit/surplus (% GDP)	0,5	-0,8	-2,0	-3,1	-1,4	0,7	1,7	0,8	0,6	0,4	-0,2	0,1	0	-1,4	-1,8	-4,7

Source: Calculated based on data from the International Monetary Fund (1993-2004) and Eurostat (2005-2008)

Figure 2: The evolution of the primary deficit/surplus (% GDP), between 1993 and 2008



Source: Based on data from the International Monetary Fund (1993-2004) and Eurostat (2005-2008)

One can notice that the primary balance registered a surplus in 1993, from 1998 to 2002 and in 2004, because of the high share of the public debt interest expenses in the GDP.

By comparing the evolution of the two budget deficits – conventional and primary (Figure 3), one can notice that, during the period when the primary balance registered a deficit, the conventional balance also registered a deficit. Similarly, when the primary balance registered a surplus, one could see that the conventional deficit increased.

The structural deficit/surplus excludes from the conventional deficit the proceeds from privatization, which are considered financing sources, not income sources. The volume and structure of the structural deficit are set out by the National Bank of Romania, who makes them public.

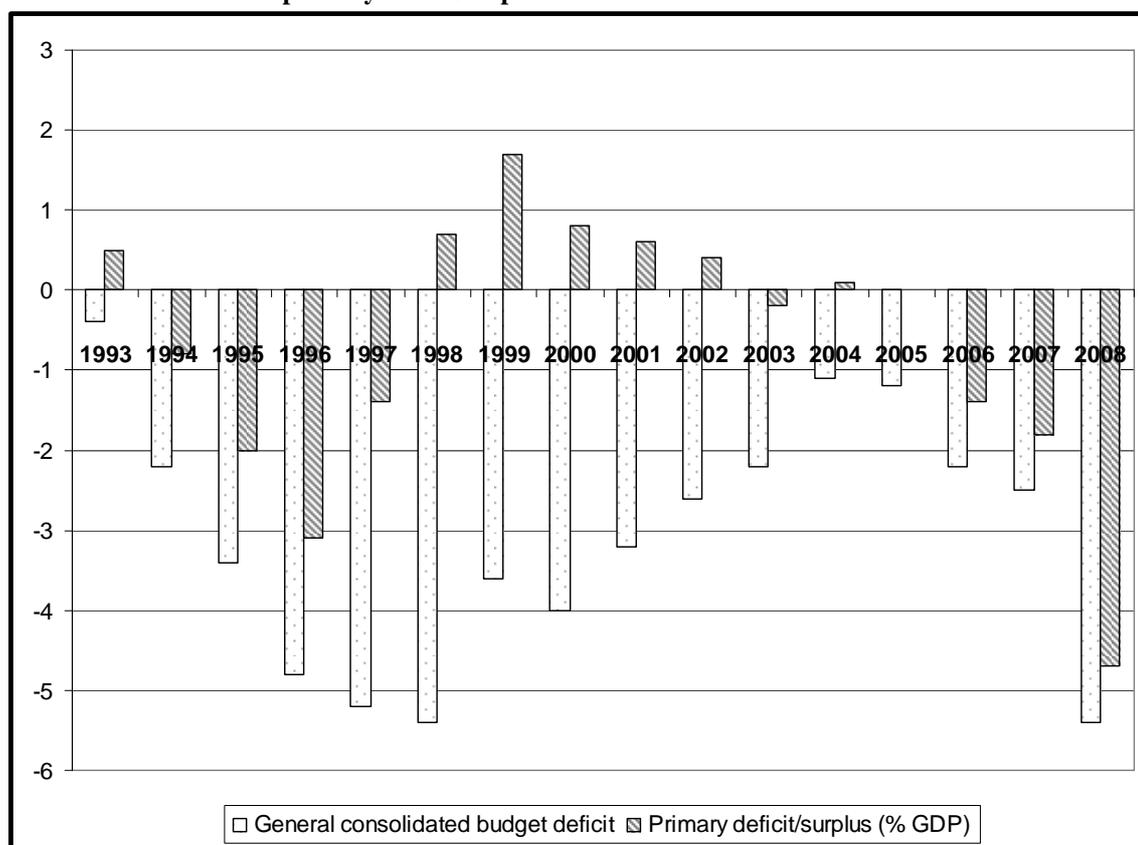
This is an indicator used in the process of fiscal adjustment and in various studies concerning the sustainability of the fiscal and budgetary policies.

The current account deficit/surplus:Jacobs (2002) is determined as the difference between the current income and the current budget expenses. It measures the level of government saving.

The operational deficit/surplus:Jacobs (2002) is calculated as the difference between the conventional balance and the inflationist component of the interest expenses (it can also be defined as the primary deficit plus the disbursed real interest on the internal public debt). It stands for an indicator which reflects the impact of the fiscal policy during high inflation periods.

According to the IMF data (2006), in order to finance these deficits, the government have resorted to internal resources more frequently than to external ones.

Figure 3: The comparative evolution of the Romanian general consolidated budget deficit and of the primary deficit/surplus between 1993 and 2008



Source: Based on data from the International Monetary Fund and the EUROSTAT databases (1993-2008)

This is why the decision factors have to choose, in order to finance the ever-growing budget deficits, between boosting the fiscal income (by increasing the existent taxes or by introducing new taxes) and contracting credits. In most cases, they opt for the second solution, out of the following reasons:

- Increasing taxes is a highly unpopular measure, as it has an immediate effect on the living standards of the population, thus generating immediate political consequences;
- State loans offer a faster way of obtaining financial resources than indirect taxes;
- If the loan is requested from the Central Bank, the term within which the financial resources are obtained is much shorter compared to issuing securities for individuals or economic agents.

Nevertheless, the reality shows us clearly that loans are a means of obtaining the financial resources necessary for the state which is far more expensive than taxes, interest rates and other facilities provided to the state creditors, as they inevitably lead to the amplification of public expenses.

5. Conclusions

In our opinion, the monetary policy combined with the budgetary and fiscal policy must monitor the coverage of budget deficits, as well as the reduction of public debt.

In a thriving economy, it is important that the fiscal, budgetary and monetary policies maintain the long term indebtedness at a constant level, so that the volume of public debt might increase at the same pace as the nominal GDP.

By means of our research study, we intend to emphasize the fact that the monetary policy must mainly monitor the control over inflation, as the inflation rate has a direct influence on the long-term growth rate of the nominal GDP.

We believe that the specialists are supposed to aim at obtaining an inflation rate that determines a growth rate of the nominal GDP higher than the face interest rate.

In exchange, this orientation of the monetary policy must be closely and permanently monitored as a high long-term inflation rate will certainly lead to an increase in the nominal GDP rate, thus influencing the growth of the face interest rate.

As a result, the budget deficit is influenced by the inflation rate and by the interest rate; still, in the long run, in order to ensure the financial stability of the state, we must take into account two aspects: the real costs of the loans and the growth rate of the economy.

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ROMANIAN BANKING PERFORMANCE: AN OUTLOOK PROVIDED BY DATA ENVELOPMENT ANALYSIS

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Abstract: *In this paper we analyze Romanian banking performance for the period 2007-2008 by implying data envelopment analysis. Also we use traditional measures like ROE, ROA and overdue and doubtful loans to total loan portfolio to provide a more comprehensive and complete picture of commercial banks performance. By adopting the intermediation approach in defining categories of inputs and outputs, our conclusion focus on how ownership structure and size influence technical, allocative and cost efficiency. Moreover, this study aims at identifying the relatively best performing banks by pointing out the benchmark of the system. Following this, the issue of improvement performance of inefficient banks is discussed.*

Key words: *Bank Performance, DEA, Romanian Banking System, Financial Ratios.*

JEL classification: *G21*

1. Introduction

Extensive economic literature seeks to explain bank performance by appealing to the notions of competition, concentration, efficiency and productivity (Bikker, Bos, 2008). A great deal of attention is paid to the performance of banks due to the fact that banks are seen as special given their major role in providing credit to enterprises. The role of banking institutions in the process of reallocation of financial resources is even more important if other elements of the financial sector are underdeveloped. Thus, in this situation banks contribute in a larger scale to the optimal allocation of financial resources in the real sector.

The basic model of bank performance addresses the problem of profit maximization; hence explaining the changes in the profitability of banks is the implicit or explicit subject of much of the banking literature. In this sense the use of economic profit is suitable for measuring the performance of banks. Following this understanding, measuring performance indicates the rate of return entitled to shareholders by the two measures ROA – reflecting the capacity of the bank management to transform assets into net earnings, and ROE – accounting profits as a percentage of the bank's equity. While ROA and ROE reflects past performance, for measuring current and future profitability a useful indicator is the bank's net interest margin, which is the difference between a depository institution's interest income and interest expenses as a percentage of total assets.

The traditional measurement of performance by using financial ratios fails to provide a general efficiency score when multiple inputs or outputs are used (Siriopoulos, Tziogkidis, 2010). Another approach is to explain banking performance through inefficiency. One bank can operate at lower costs and produce higher profits if it makes better use of its inputs and transforms them into outputs in the cheapest possible way. In order to survive, every bank has to produce efficiency in the long run. The issue of measuring inefficiency by using a frontier analysis approach that is based on the production possibilities curve was first addressed by Farrell in 1957, and in the year 1978 Chares et al. introduced the method of data envelopment analysis (DEA) to assess the efficiency of non-governmental and non-profit organizations. Ever since then there has been rapid and continuous growth in the field. As a result, a considerable amount of published research has appeared, with a significant interest focused on DEA applications of efficiency and productivity (Emrouznejad et al. 2008).

Recent literature review regarding European banking institutions use data envelopment analysis by addressing a large variety of issues like: the efficiency of European banking institutions for the period 1989-1997 with the results that managerial inefficiency can be reduced by all banks, but when the size of the bank is considered large banks can benefit from technical progress (Altunbas et. Al. 2001); cost inefficiencies of six South Eastern European countries are studied with the conclusion that medium sized banks with foreign equity contributions are operating more efficient while banks with low loan-to-assets, high equity-to-assets and large market share are most cost efficient (Staikouras et al. 2007); the impact of structural reforms in the

banking sector for EU members being at an economic transition stage highlighting increasing profit efficiency of banking institutions (Koutsomanoli-Filippaki et al. 2008).

The purpose of this study is to explore technical, input allocative and cost efficiency by emphasizing on the differences in performance between foreign and domestic banks (home field advantage hypothesis, global advantage hypothesis, agency theory hypothesis) and also to assess the influence of size (niche markets hypothesis) regarding the forms of efficiencies discussed by using DEA. Toward this end we use statistical data – from the balance sheets and the profit and loss accounts – for the period 2007-2008. Our sample is made of 13 banks that represent almost 80% of the net assets of Romanian banking institutions.

2. Perspectives on Bank Behaviour

The complexity and versatility of recent banking activity makes the simple interrogation about what banks produce more and more challenging. The starting point in this discussion represents the fact that banks are one among several types of financial intermediary. According to Friexas and Rochet (2008, p 8) we can use a simple operational definition that is the criterion for regulator to include a financial intermediary under the prevalence of prudential regulation intended for banks: a bank is an institution whose current operations consist in granting loans and receiving deposits from the public. The bank acts as a middleman in channelling funds from savers to different businesses and households. Customers of banks opt to engage in indirect finance by lending funds to banks and other financial intermediaries in exchange to the promise of future flows of returns on those funds. The commitment to indirect finance is explained by informational asymmetries that generate market imperfections. Forms of such market imperfections can manifest themselves in different stages of direct finance like for example: *ex ante* (adverse selection), *interim* (moral hazard), or *ex post* (costly state). These dysfunctions take the specific forms of transaction costs for the actors involved, hence the need of financial intermediaries.

A single definition about bank behavior is hard to be presented since issues concerning what banks produce diverge in the views of researchers. Van Hoose (2010) presents an outlook about the major perspectives regarding this divergence, the most prominent conceptions being the production and the intermediation approach.

The production approach views banks as financial institutions that convert an asset portfolio into a set of financial instruments – deposits and other bank debts that surplus householders and firms desire to hold in their own asset portfolio. Banks primarily specialize in producing services for holders of loan and deposit accounts, hence the bank output should be considered the number of various financial-services transaction performed per unit of time. Yet, detailed transaction flow data are propriety of banks and not generally available.

In contrast, the intermediation approach focuses on the fact that banks are engaged in the process of intermediating funds between savers and borrowers. Stock values of bank assets and/or liabilities are appropriate bank output measures. The earnings assets are considered outputs whereas labor and capital are physical inputs and deposits are financial inputs.

Moreover, concerning the inputs that the bank uses, the production approach insists on the fact that only physical factors such as capital, labor and their cost should be included since only physical factors are needed to perform transactions and process final documentation. The intermediation approach considers that input funds and their cost associated with them should be accounted for since these funds represent the “raw material” of intermediation.

According to Humphrey and Berger (1997) neither of this two approaches is perfect since both fail in fully capturing the dual role of financial institutions of being providers of transaction/document processing services and financial intermediaries that transfer funds from savers to investors. But the intermediation and production approach can be reconciled on empirical grounds following the assumption that transaction flows are proportionally to the stock value of bank asset and liability accounts.

From an empirical standpoint Van Hoose (2010) presents three methods of identifying inputs and outputs:

- the asset method that assumes that bank assets are outputs, deposits, purchased funds and other liabilities are financial inputs, and real resources such as labor and capital are real inputs;
- the value added method associates outputs with banking functions that presuppose substantial labor or capital expenditure to produce flows of banking services; commercial and industrial loans, installment loans, real estate loans are output and transaction deposits, retail savings, time deposits are outputs as well. The typical inputs are labor, capital and purchased funds;

- the user cost method understood as the cost of holding an asset during the current period minus the assets discounted net revenue in the following period. Bank balance sheets can be classified in items with negative user costs: all categories of loans and transaction deposits – outputs and positive user costs: savings, time deposits and purchased funds – inputs along with labor, raw materials and physical capital.

As noticed, all three methods recognize that loans are without any question economic outputs of banks. Regarding the nature of the deposits there is some debate, on the one hand, deposits have input characteristics because they are paid in part by interest payments and the funds raised are provide the institution with the raw material of investible funds, on the other hand deposits have output characteristics because they are associated with a substantial amount of liquidity, safekeeping and payment services to depositors.

Beyond the general availability of data if assuming the interediation approach, in this paper we consider some other advantages over the production approach that refers the first method as the most practical. First, by using the intermediation approach we avoid the problem on how to weight each bank service in the computation of output. Second the production approach ignores interest costs which will be of importance in realistic situations like for example the increase in the number of branches that would be accompanied by falling deposits rates. However, both approaches fail to address some issues these being the major limitation of this study: no account is taken considering the risk of each loan, the maturity structure of loans and deposits is ignored, the changes in the market structure that can distort output measures are eluded.

2.1 Data Envelopment Analysis

The field of studying and measuring bank efficiency and productivity was dominated by econometric modelling in its earlier days, but for the last 15 years the emergence of the non-parametric method DEA brought linear programming into the light of interest. Briefly formulated, DEA is a linear programming technique that reports the relative efficiency score of each decision making unit (DMU) by computing a comparative ratio of multiple outputs to multiple inputs (Avkiran, 2005).

The estimation of efficiency can be categorized according to the assumptions and techniques used to construct the efficient frontier: parametric methods – the most salient approach being the stochastic frontier analysis (SFA) – estimates the frontier with econometrical models, non-parametric methods rely on linear programming to calculate piecewise linear segments of the efficient frontier. While parametric methods impose an explicit functional form for both the frontier and the deviations, non-parametric methods, in contrast, do neither impose any assumptions about the functional form of the frontier nor any distributional assumptions. The latter deterministic construction of the frontier attributes the entire difference between an inefficient observed DMU and an efficient reference DMU on the frontier exclusively. As a consequence in this approach random error is observed in the input-output combinations, or the output of a firm is a function of inputs subject to a production technology and inefficiency arising in the employment of that technology and nothing else. Estimation of the frontier, in turn, allows for random noise to be accounted of.

The main advantage of DEA is that by constructing the best practice production function solely on the basis of observed data the possibility of misspecification of the production technology is zero. On the other hand, the main disadvantage of DEA is that the frontier is sensitive to extreme observations and measurement errors (the basic assumption is that random errors do not exist and that all deviations from the frontier indicate inefficiency)

The most frequent DEA models used are CCR (after Charnes, Cooper, Rhodes, 1978) and BCC (after Banker, Charnes and Cooper, 1984). The main difference between these two models is the treatment of returns to scale: while the latter allows for variable returns to scale, the former assumes that each DMU operates with constant returns to scale.

Consider a set of n observations on the DMU's. Each observation, DMU j ($j = 1, \dots, n$), uses m inputs x_{ij} ($i = 1, 2, \dots, m$) to produce s outputs y_{rj} ($r = 1, 2, \dots, s$). The efficient frontier or best-practice DMU's is determined by these n observations. The efficiency for each DMU is obtained as a maximum of a ratio of weighted outputs to weighted inputs. The weights for the ratio are determined by the restriction that the similar ratios for every DMU have to be less than or equal to unity, thus reducing multiple inputs and outputs to a single "virtual" input and single "virtual" output without requiring preassigned weights. The efficiency measure is then a function of the weights of the "virtual" input- output combination. Formally, the efficiency measure for DMU0 can be calculated by solving the following mathematical programming problem:

$$\max_{u,v} h_0(u,v) = \frac{\sum_{r=1}^s u_r y_{r0}}{\sum_{i=1}^m v_i x_{i0}} \quad \text{Subjected to}$$

Equation (1)

$$\frac{\sum_{r=1}^s u_r y_{rj}}{\sum_{i=1}^m v_i x_{ij}} \leq 1, j = 1, 2, \dots, j_0, \dots, n$$

$$u_r \geq 0, r = 1, 2, \dots, s$$

$$v_i \geq 0, i = 1, 2, \dots, m$$

$$\text{Min } z_0 = \theta_0,$$

There are two scenarios for each model: input-orientated ad output-orientated. While for the first scenario the inputs are minimized and the outputs are kept at their current level for the latter the model attempts to maximize outputs without requiring more of any of the observed input values.

Using the duality in linear programming, we can derive an envelopment form of the Equation (1) problem representing the CCR and BCC DEA input-oriented model:

Table 1. Envelopment form of the linear programming function

CCR model input-orientated	BCC model input orientated
<p>Equation (2) $\min_{\lambda} z_0 = \theta_0$ subjected to</p> $\sum_{j=1}^n \lambda_j y_{rj} \geq y_{r0}, r = 1, 2, \dots, s$ $\theta_0 x_{i0} - \sum_{j=1}^n \lambda_j x_{ij} \geq 0, i = 1, 2, \dots, m$ $\lambda_j \geq 0, j = 1, 2, \dots, s$	<p>Equation (3) $\min_{\lambda} z_0 = \theta_0$ subjected to</p> $\sum_{j=1}^n \lambda_j y_{rj} \geq y_{r0}, r = 1, 2, \dots, s$ $\theta_0 x_{i0} - \sum_{j=1}^n \lambda_j x_{ij} \geq 0, i = 1, 2, \dots, m$ $\sum_{j=1}^n \lambda_j = 1$ $\lambda_j \geq 0, j = 1, 2, \dots, s$

Source: Zhu (2009)

DMU₀ represents one of the n DMU's under evaluation, and x_{io} and y_{ro} are the ith input and rth output for DMU₀. Since $\theta = 1$ is a feasible solution to (1.5), the optimal value to (1.5) will be $\hat{\theta} \leq 1$. If $\hat{\theta} = 1$, then the current input levels cannot be reduced (proportionally), indicating that DMU₀ is on the efficiency frontier. Otherwise, if $\hat{\theta} < 1$, then DMU₀ is dominated by the frontier. The maximization problem must be solved for n times once for each DMU in the sample, a value of θ is obtained for each DMU.

The analogous "output-oriented CCR-model" can be obtained by output (instead of input) normalization used in the Charnes-Cooper linearization. The maximization programming problem is oriented toward the choice of "virtual multipliers" (weights) u and v which produces the greatest rate of "virtual output" per unit of "virtual input".

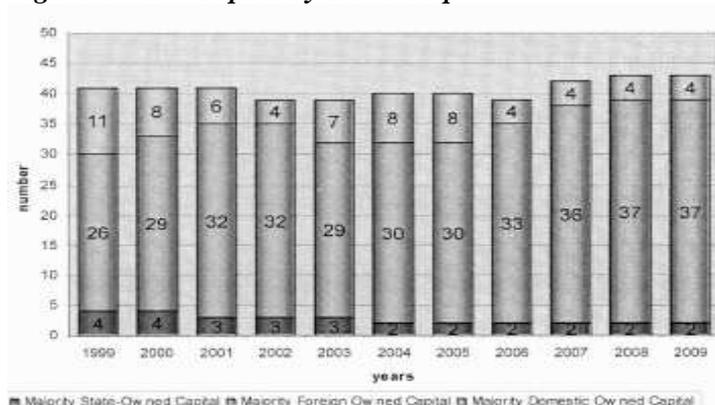
According to Coelli et. al. (2005) modern efficiency measures begin with Farrell who in 1957 defines a simple measure of firm efficiency which would account for multiple inputs. Farrell proposed that the efficiency of a firm consist of by two components: technical efficiency that reflects the firm's capacity to obtain maximal output from a given set of inputs and allocative efficiency that highlights the firm's ability to use de inputs in optimal proportions given the prices of the inputs. Total cost efficiency is the combination of these two measures and is the ratio of the minimum production cost observed in the sample to the actual production cost of the DMU investigated. Since the two alternatives for rational behavior are represented by cost minimization and revenue maximization, we can also address the problem of the allocative inefficiency of output mix selection.

2.2 Romanian Banking Institutions – Some Descriptive Aspects

In the last years, Romanian banking system has become more consolidated, banking institutions representing the most important component of the financial system. Evidence to this fact is revealed by the total assets of financial intermediaries that represents 73% out of GDP at the end of 2008. From this figure, only the total assets of banking institutions represent 62,4% out of GDP.

The continuous development of the banking sector was fostered by the modernization process that took place in the period 1996-2004 consisting of recapitalization of banks with problems, elimination of the non-viable banks from the system, the privatization of state-owned banks. Evidence to the changes in the banking structure is presented in Figure 1.

Figure 1: Bank Capital by Ownership

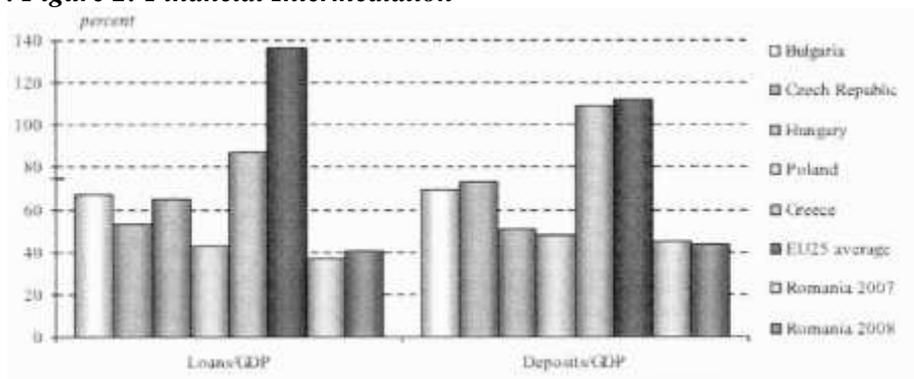


Source: National Bank of Romania

According to the statistics of the Central European Bank by the end of the year 2007 the configuration of the banking system encompasses 42 credit institutions, 6.340 local units and 66.039 employees. The expansion of this market is to be observed also in 2008 when 43 credit institutions operate on Romanian territory with 7.375 local units employing 71.622 persons.

As stated, the intermediation approach views banks as mediators in raising funds in form of deposits and lending them in the form of loans and other assets (e.g. insurance investments) to generate earnings. In spite of the significant growth rates, financial intermediation in Romania continues to rank much below the EU average (Figure 2). For the years of interest in this study the values recorded of 35,9% out of GDP in 2007 and 39,3% out of GDP reflect moderate intermediation capacity and interest in comparison to other EU countries

Figure 2: Financial Intermediation

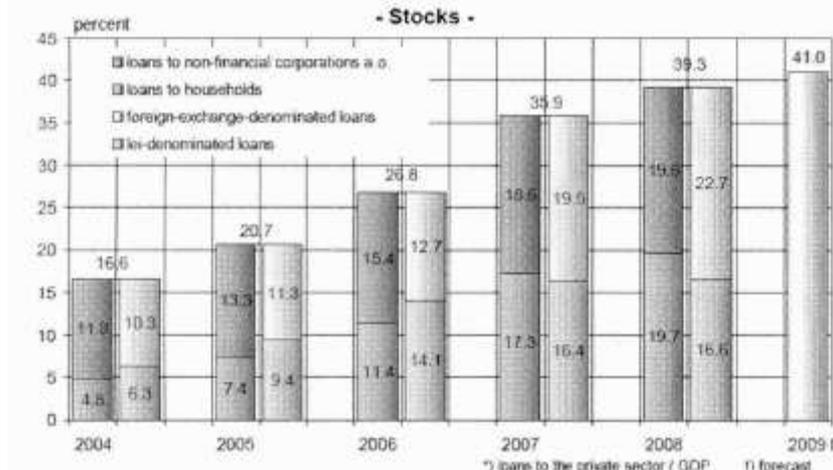


Source: National Bank of Romania

At a more detailed outlook it is observable that loans to households represents 17,3% out of GDP in 2007 and 19,7% out of GDP in 2008. Moreover, in 2008 loans to households exceeded by 0.1%/GDP the allocation of resources to non-financial corporations, reflecting the mistrust of banking institutions for local enterprises. As a consequence, the long praised economic growth of Romanian economy is based on a domestic demand-driven economic boom. Considering the current financial crisis and the effects it has over employment rates, combined with the reality of increasing values of foreign-exchange-denominated loans as a result of RON currency devaluation, sufficient stress is put into the management of the actual bank

portfolio that will affect future banking performance. Figure 3 presents the structure of loans by beneficiary of funds (non-financial corporations vs. households) and the currency of denomination (RON vs. foreign exchange currency)

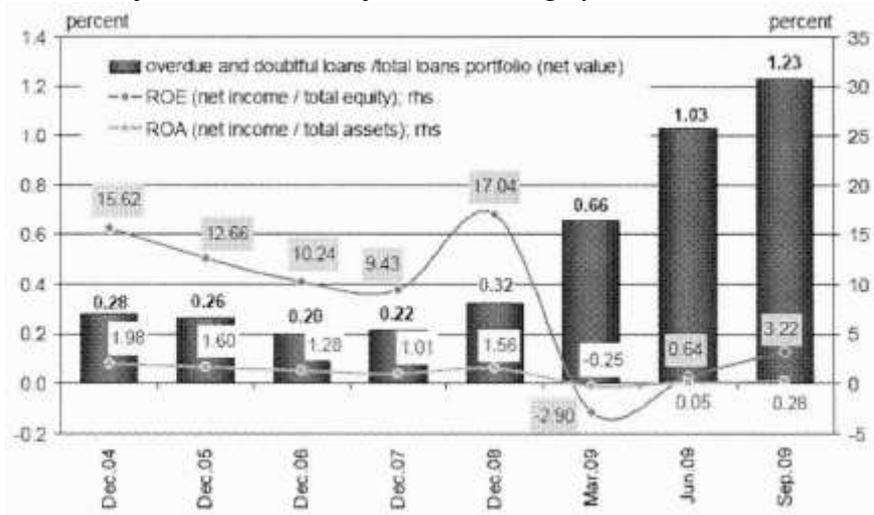
Figure 3: Financial Intermediation by types of loans and currency



Source: National Bank of Romania

Traditionally, the measure of performance is related to the financial ratios ROA and ROE, also impaired loans must be discussed in order to account for the losses generated by the credit activity. ROA is a measure of efficiency which conveys information about how well the institutions resources are being used in order to generate income. ROE is a more direct measure of returns to the shareholders which is strongly influenced by the capital structure of the bank. More informally, ROE accounts on how much use the banking institution makes by financing equity.

Figure 4: Evolution of Financial Ratios for the Banking System



Source: National Bank of Romania

Regarding the return on equity (Figure 4), until the year 2007 the trend shows decreasing values. Starting with the year 2007, the returns measured are increasing reaching a peak in the year 2008. Also, the return on assets manifests a similar evolution, but in this case the growth isn't so dramatic like in the case of ROE. One can conclude that the years 2007 and 2008 were the most efficient ones considering the maximization of the shareholders benefits. The quality of the loans portfolio is expressed by the value of overdue and doubtful loans on total loans portfolio. The effects of recent unfavorable macroeconomic context are reflected by this ratio. As observed from the chart, the evolution of values is rapidly ascending for the years 2009 compared to 2008, but for the period taken into analysis this value rises for just 0.10 points. Even though the values of impaired loans remained at relatively lower levels, the fast depreciation of

this value must be a matter of concern. Moreover, according to the NBR Financial Stability Report (2009) loans recognized in the balance sheets of large banks saw the sharpest deterioration (from 0.23% to 0.7%) followed by loans granted by small banks (from 0.58% to 0.81%), whereas the quality of credit granted by medium-sized banks appears to have improved (from 0.62% to 0.52%) indicating a better selection implied by medium-sized banks.

2.3 Assessing the Efficiency of Romanian Banking Institutions for the period 2007-2008

The descriptive data are indicating that the years 2007-2008 comprise the most efficient landmark by implying traditional financial ratio approach; starting with the year 2009 a general deterioration of the banking performance indicators is to be observed. Considering the fact that financial publications aren't yet available for the year 2009, we address the issue of efficiency only for the years 2007 and 2008. Our purpose is to measure technical efficiency that reflects how well the bank assumes the role of intermediary by converting the inputs to outputs. Also we investigate the selection of the effective production plan by measuring allocative efficiency understood as the effective choice of inputs considering the level of prices with the objective of cost minimization. Cost efficiency represents the minimum production cost observed in the sample to the actual production cost of the banking institution under investigation. Using an input-orientated BCC DEA approach, the results are as following:

Table 2: Efficiency of Romanian Banking Institutions

2007	TE	AE	CE	SE	2008	TE	AE	CE	SE
Alpha Bank	1	0.6095	0.6095	crs*	Alpha Bank	1	0.632	0.632	irs
Raiffeisen	1	0.5945	0.5945	drs**	Raiffeisen	1	0.5555	0.5555	drs
BRD	1	1	1	drs	BRD	1	0.987	0.987	drs
BCR	1	1	1	drs	BCR	1	1	1	drs
EximBank	1	1	1	drs	EximBank	1	1	1	crs
BancPost	0.9315	0.992	0.9245	drs	Credit Europe Bank	0.9825	0.993	0.9755	crs
Credit Europe Bank	0.905	0.991	0.8975	crs	Piraeus Bank	0.9475	0.6245	0.5945	irs
Banca Transilvania	0.801	0.530	0.440	drs	Unicredit Tiriatic	0.8725	0.9555	0.838	crs
Unicredit Tiriatic	0.841	0.977	0.8195	crs	Banca Romaneasca	0.8635	0.6635	0.5765	drs
Banca Romaneasca	0.832	0.742	0.6155	drs	BancPost	0.833	0.954	0.8025	crs
Banca Carpatica	0.7825	0.5515	0.431	irs***	Banca Transilvania	0.746	0.569	0.424	crs
Piraeus Bank	0.734	0.5865	0.432	drs	Cec Bank	0.659	0.368	0.2405	crs
Cec Bank	0.692	0.3905	0.2715	drs	Banca Carpatica	0.626	0.3195	0.2025	crs
Average	0.8861	0.7665	0.6950		Average	0.8869	0.7401	0.6790	

Technology may manifest: *constant returns to scale**decreasing return to scale ***increasing return to scale, hence the motivation for choosing the input-oriented BCC DEA model

Source: Own Calculation using DEAP 2.1

Table 2 displays the average and dispersion of efficiencies suggesting the ranking of the banking institutions for the years 2007-2008. Compared with the year 2007, in 2008 the average efficiency concerning technical, allocative and cost problems drops slightly, the most important difference is noted for cost efficiency. The interpretation of the mean values follows for the year 2007. On average, the inputs employed by the banking institutions are used in 88.11% efficient For an improvement in performance, in average, banks should decrease the use of overall inputs by 11.99%, this being a viable solution considering the actual (2007) fixed level of outputs. Allocative efficiency reflects the performance of the banking institution regarding the input mix used – labor and financial capital – for producing the given amount of output at the minimum price. For the year 2007 the best performing institutions are BRD – Groupe Societe Generale, Banca Comerciala Romana and EximBank. Compared to this benchmarks, in average, the banking institutions develop an sub-optimal input-mix that has an efficiency towards cost minimization of 76.65%. Cost efficiency is a measure developed by the interaction of allocative and technical efficiencies. Cost efficiencies reflect the ratio between the best (observable) production plan and the production plan of the banking institution considered. In average the banking institutions emulate the production plan of the benchmark (are BRD-Groupe Societe Generale, Banca Comerciala Romana and EximBank) by 69.50%.

Starting from this data, issues like corporate control ownership and size impact can be discussed. Foreign vs. domestic ownership can be associated with differences in frontier efficiency. Also state owned banks represent one point of interest. Generally, foreign owned banks can be relatively more inefficient in the context of trading current profits for rapid expansion of the market share. Moreover, Berger (2000) formulates two hypothesis: on the one hand home field advantage can be assessed, favoring domestic owned institutions, due to organizational diseconomies (e.g. turf battles between staff in different nations, high costs and turnover in persuading managers to work abroad, or differences in language, culture, currency, regulatory and supervisory structures) in operating or monitoring an institution from a distance; on the other hand global advantage hypothesis represents the case in which superior managerial skills or best-practice policies and procedures of foreign banking institutions can lower the costs, also raising revenues through superior investment or better diversification of risks allows foreign banks to undertake higher expected returns on investments.

In the case of Romanian banking system, the global advantage hypothesis describes best the performance results obtained by enveloping inputs and outputs under the efficient frontier. Both for the years 2007 and 2008, the efficient benchmarks are represented by banks with majority foreign owned capital. Moreover, from the banks that were included in the sample, majority domestic owned capital organizations rank for the year 2008 in the last positions (Banca Transilvania, CEC Bank, Banca Carpatica). Technical efficiency score suggest that for the year 2008 Romanian owned banks waste almost 40% of the inputs considered; regarding the capacity of emulation to the best market practice these institutions approximate the minimum production cost in average by 69.70%.

For the years 2007-2008 two credit institutions are owned by the state: CEC Bank- that has entirely state owned capital and EximBank that has majority state owned capital. However, major differences are to be stated about these banks. While CEC Bank is a large universal bank having more than 6.600 employees and 1.418 units, EximBank is a small specialized bank that wishes to support the Romanian business environment, focused on services and products that address the problem of financing, guaranteeing and assuring corporate clients (especially exporters, SME's, enterprises that develop projects of special interest to Romanian economic environment development). For both years EximBank ranks as an efficient benchmark institution while CEC Bank struggles to improve efficiency from the last position. After the announced privatization in 2006, and the failed outcome to this end, in the year 2008 CEC Bank started a re-branding process aiming to become the principal player in the rural area and small towns (with population under 50.000 inhabitants) by the year 2011. It is important to notice that, at least in official communications, the re-branding process implies beyond the renewal of more than half of the units, a profound change in the organizational culture that could positively impact over performance results.

Another factor that impacts over the performance of banking organization is considered to be the size. We can make a classification of small, medium and large sized banks by using the quartile measures applied on the total number of employees. As a result the banks considered to be large are BRD, BCR, Raiffeisen, CEC Bank; medium sized banks are Banca Carpatica, Credit Europe Bank, Bank Post, Unicredit Tiriatic and the small sized banks identified are Piraeus Bank, Banca Romaneasca and EximBank.

Table 3: BCC DEA- Average efficiencies by bank size

CLASIFICATION	2007	2008
Large sized banks	0,7953	0,7794
Medium sized banks	0,7797	0,7421
Small Sized banks	0,7356	0,8078
Deviation	0,0231	0,0229

Source: Own calculations

For the year 2007 the best operating banking institutions are in average the large sized banks, having high technical efficiency ranks (Table 3). In contrast, none of the medium sized banks manages to be a benchmark regarding technical efficiency, but in general they produce better scores for allocative efficiency. Small sized banks rank the last position for 2007, but the situation changes in 2008, when due to high allocative efficiency small sized banks win the first position. The mean is representative for all the three classifications considered, the standard deviation having small values of 2.31% in 2007 and 2.29% in 2008. The values obtained point to the fact that, on average, improvement possibilities are to be made, the inefficiency of input usage regarding the benchmark of the sample having the maximal value of 27% in 2007 and 26% in 2008.

3. Conclusions

This study focused on some quantitative aspects that characterize Romanian banking performance. We used data envelopment analysis (DEA) methodology in the performance measurement of Romanian banking system along with some traditional measures namely ROE, ROA, overdue and doubtful loans to total loan portfolio. The study aims at identifying the relatively best-performing banks and relatively- worst-performing banks. It also seeks to identify banks' efficiency scores and ranks. We adopt the intermediary approach regarding the definition of bank activity and chose an input-orientated DEA-BCC model because we consider that management of banking organization has more control over input than over output quantities and also, variable returns to scale are possible.

As discussed, there are some limitations as the inputs and outputs don't encompass specific banking problems like the risk of each loan, the maturity structure of loans and deposits. However, a detailed outlook is provided concerning general efficiency of the banking institutions, showing that while Romanian banking organizations obtain good values for technical efficiencies, if we add the vector of prices that accounts for cost minimization, the range of efficiency variation expands.

On average, foreign owned capital banks score better efficiencies than domestic owned banks; regarding the state owned banks, the niche hypothesis applies: EximBank is a small specialized bank that ranks as a benchmark for the years under study, while the large universal Cec Bank is in a continuous attempt to improve efficiency. Also, in average large sized banks and small sized banks obtain the best efficiency score for the year 2007, respectively 2008. As private banks are more efficient than state-owned banks, and foreign-owned banks are more efficient than domestic ones the new owners introduce new production methods and optimize the use of inputs supporting the global advantage hypothesis.

Improvement of management performance by identifying „best practices” and „worst practices” associated with high and low efficiency is at the heart of DEA thus frontier analysis can be of particular value also for assessing and informing government policies regarding financial institutions.

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THE IMPACT OF THE FINANCIAL CRISIS ON FINANCIAL STABILITY AND MONETARY CONVERGENCE: THREATS AND OPPORTUNITIES FOR ROMANIAN ECONOMY

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Abstract: *The present paper aims at analyzing the particularities that characterize Romanian current economic situation, by highlighting the challenges and opportunities that are embedded in the current economic environment. For this aim we review some of the useful literature addressing the causes of the actual financial crisis. Emphasize is put on the specific details that characterize Romanian economy in general and the banking system in particular. Our focus is on the financial stability objective that is an intrinsic goal for the NBR. Furthermore, we discuss the timetable concerning the adoption of EURO and bring into discussion the threats embedded in the actual context with particular reference to monetary convergence*

Key Words: Financial crisis, Monetary Convergence, Monetary Policy, Romanian Banking System, EURO timetable;

JEL Classification: E52; E58; G01

1. Introduction

A recent study conducted by the European Commission (2009) concerning the status of the financial crisis in the European economy concluded that although some signs of improvement are to be noticed, the recovery from the crisis remains uncertain and fragile. The European Economic Recovery Plan (EERP) launched in December 2008 endorsed by the reform of banking sector aimed at restoring confidence and upholding demand through a coordinated injection of purchasing power, strategic investments and measures to support business and labor market. Advocating for maintaining the EU's growth potential in the long run the report advises for swift transition from short-term demand management to supply-side structural measures.

Regarding growth models, Romania experienced a domestic demand-driven economic boom that was financed with the cost of rising imbalances (Pauwels, 2009). The current account deficit recorded values that were between the highest among EU 10 Member States. Causes for the widening current account deficit are the expansion of financial intermediation followed by increasing income expectation. These two premises fuelled the domestic demand boom leading to increasing imports that resulted in growth of the external deficit via the private sector. Public sector net lending that rose from 2.5% in 2007 to 7.4% at the end of 2009 contributed to the actual degree of the current account.

Considering the vulnerabilities that rise from financing of external deficit and also the weakening of the household and corporate balance sheet, the current financial crisis generates spillover effects to the real Romanian economy through currency, trade, financial and confidence channels. The constellation of unfavourable events seems to be blue-printed by: constrained access to domestic and external capital sources resulting in a sharp drop of domestic credit worth; weakening consumer and investor confidence; higher exchange rate volatility that may significantly impact balance sheet risks to households and (unhedged) companies; decreasing exports sustained by the weakening demand of the Euro Area. All these realities can be regarded as challenges put by the current economic context upon compliance with nominal and real convergence criteria that could affect the timetable of Romania's entrance to the eurozone, and hence future performance of the national economy.

The aim of the present paper is to provide a brief but relevant insight about some particularities that characterize Romanian current economic situation and also to highlight the challenges that derive from addressing monetary policy in the more general objective of creating financial stability. We point out the threats and opportunities concerning a delaying or an advancing of the timetable of Euro currency adoption given the context of the financial crisis that affects Romania. To this end we review relevant studies provided by national and international research departments of institutions such as National Bank of Romania,

Romanian Academy Society, European Commission, European Central Bank, Bank of International Settlements, World Bank. Also, statistical data is provided by NBR, INSSE, EUROSTAT.

2. The framework of analysis

Regarding the causes of the current financial crisis, conventional wisdom attributes most of the guilt to the collapse of housing prices and the sub-prime mortgage market in the United States. As interest in this study field grew, the conclusions converge to the idea that these were themselves the consequence of another problem. The underlying cause can be found as a combination of very low interest rates and accumulation of unprecedented levels of liquidity (Altman, 2008). A useful classification can be made by differentiating between macro and microeconomic causes.

One argument for the existence of macroeconomic causes is reflected by the fact that credit boom and property price bubbles emerged in countries with regulatory systems as different as Spain and the US, hence the importance of some of the macroeconomic factors that such economies shared. We can highlight three such factors: the cost of borrowing, the peculiar direction of international capital flows and paradoxically the prolonged period of stability (Whyte, 2010).

Evidence regarding the cost of borrowing lays in the fact that, in most of the developed countries for a long period of time (2001-2007), interest rates were exceptionally low in nominal terms and at times in real terms too. The resulting credit boom did not generate subsequent raised interest rates since both output and inflation remained well between bounds. The explanation is given by the fact that in the case of the US – where the crisis originated - aggregate demand consistently exceeded domestic output. This large domestic demand of the US was met by the rest of the world, especially China and other East Asian economies, which provided goods and services at relatively low costs leading to growing surpluses in these countries. The availability of relatively cheaper goods and services from China and other emerging market economies (EME's) helped to maintain price stability in the US and elsewhere, which might have not been possible otherwise. Thus measured inflation in the advanced economies remained low, contributing to the persistence of accommodative monetary policy.

Global effects of the crisis were encouraged by the peculiar direction of international capital flows starting in the late '90s onwards. Before the starting of the crisis, some 70 per cent of global capital flows were going to one of the world's wealthiest economies, the US favouring expansionary monetarist conditions and also global macroeconomic imbalances.

The third factor considered is the paradox of the Great Moderation: since the early 1990s relatively steady growth and low inflation described what seemed to be a stable macroeconomic environment, misleading both borrowers and investors. Assuming that stability has become a permanent state future risks were underestimated, leaving players exposed to "tail risk" – low frequency and high impact event – which their behavior was promoting.

The microeconomic causes can be encompassed by financial innovation and by the opaque shadow of the banking systems. Financial innovation, viewed as a stabilizing force that would enhance resilience to shocks, worked differently in practice than it did in theory. Reason for that is the use of innovation for eluding regulatory rules on capital adequacy and for scattering risk from balance sheets (e.g. the use of off-balance sheet vehicles and guarantees such as credit default swaps). These activities resulted in excess leverage and concentration of risks that let banks with too little capital to cover the risks to which they were effectively exposed.

Some features that characterize the financial engineering that contributed to the crisis are worth underlining. First, the overall level of risk across the system was ramped up with the assistance of financial innovation by the means of increasing leverage – and thus allowing banks to arrange more loans than in other conditions – and by the steady decline in lending standards – by selling the risks emerging from credit default to investors through the practice of securitization, banks became little concerned whether borrowers would ever be able to repay their debts. Moreover, securitization was not as effective as supposed because: a) banks were "warehousing" assets as they had to be repackaged and sold; b) investors in asset-backed-securities were actually banks, assets sold reappeared on their proprietary trading books; c) special investments vehicles turned out to be more connected to formal banks as estimated. Thirdly, we need point out to the growing complexity of financial instruments and the interdependences created between banks and other financial institutions that created opacity in the system with the end result of massive information failure.

Putting the macro and the microeconomics together we can summarize some of the initial conditions that triggered the actual financial crisis (Blanchard, 2008):

1. Assets created, sold, and bought appeared much less risky than they truly were.
2. Securitization led to complex and hard to value assets on the balance sheets of financial institutions.
3. Securitization and globalization led to increasing connectedness between financial institutions, both within and across countries.
4. Increased leverage: financial institutions financed their portfolios with less and less capital.

1.1. Romanian economy in the context of financial crisis

The effects of the financial crisis are to be experienced also by the Romanian economy with the subsequent particularities that characterized the banking system. The direct impact of the crisis is minimal since Romanian banking system's supply of products and services are of a more traditional orientation. Moreover, the exposure to toxic assets was reduced to insignificant level and also the prudential and administrative measures of the National Bank of Romania played an important part in preserving economic stability.

Indirect impact is to be considered in the light of the recession of developed countries that affects Romanian economy through several transmission channels. Theoretically, we have to consider the exchange channel – reduction of exports, the finances channel – limitation of access to foreign loans, exchange rate channel – the depreciation of national currency, trust – the withdrawal of investments from East-European countries, wealth effects – the deterioration of the net assets of the companies and population due to large debts in foreign currency.

Taking in consideration the low direct impact, some distinctive features characterizing Romanian economy worked as advantages considering the international context. Some arguments are to be found in data concerning:

- the weight of total exports in GDP that reaches a peak in 2008 by 30.9% out of GDP;
- moderate financial intermediation that has a maximum value of 41% out of GDP in 2009 well beyond the EU average;
- exchange rate flexibility that permits for exogenous shocks to be accommodated by nominal variables rather than real ones;
- equilibrated energetic balance that didn't generate distress because of deterioration in oil prices.

Looking back to the forecasts of some relevant research institutions, for the years 2008 and 2009 uncertainty and volatility are the main features of Romanian macroeconomic environment. After what was considered to be a relatively optimistic growth trend, the beginning of the year 2008 announces itself as the right time for rising structural economical imbalances: the year 2007 ended for a long period with an inflation ratio above the NBR proposed target, the current account deficit continued rising in 2008, labour costs raised above productivity, social expenditure advanced under the pressure of the forthcoming parliamentary elections in 2008. The end of 2009 came as a surprise as none of the predicting institutions managed to estimate the amplitude of the fall or the surprising positive evolutions: the economic growth of 7,2%, RON/Euro exchange rate at the end of 2009 was 4,23, while most of the pessimistic estimations suggested a devaluation close to 5, constant unemployment growth for 14 months in a row that reached 7,8% at the end of 2009. Some of the positive aspects concern the drastic reduction of the current account deficit by almost 5% and the rising of the BET index with almost 60%. Regarding the banking system which represents the most developed component of the financial system, some of the key indicators are presented on the table below.

As data present (Table 1), Romanian banking indicators show a deterioration of the general situation. Positive aspects that can be highlighted are represented by the values of solvency ratios that have, in average, an increasing trend, none of the banks having a solvency ratio below 10%. Also, compare to the values that were recorded at the ending of 2007, by September 2009 we can see an improvement of the leverage ratio, situation due to the decision of NBR to include intermediary profits in the calculation of Tire 1 in order to boost loaning activities.

In spite of the attempt of NBR to foster the expanding of credit activity within the year 2009, the gross value of loans to gross value of assets ratio reaches the peak by the end of September 2008. After that date, until the end of June 2009 the values are still decreasing suggesting the diminishing and slowing down of intermediation.

In 2008, the quality of the portfolio of loans to non-bank clients deteriorated, this trend gaining speed in the first three months of 2009. According to the NBR Financial Stability report (2009) the growth rates of loans classified under "substandard", "doubtful" and "loss" was much faster (67 percent, 92 percent

and 130 percent respectively) than the 33 percent annual growth rate of credit portfolio of non-bank clients at end-2008.

Moreover, the effects of the unfavourable macroeconomic context are reflected by the share of past-due and doubtful claims (net value) in total bank assets. This ratio shows an increasing trend suggesting the deterioration of Romanian banking institutions portfolios. Yet, what can be considered a positive aspect despite the extremely fast deterioration of loan portfolio quality the volume of past-due claims remains at a relatively low level. Thus, the quality of the loan portfolio of Romanian credit institutions is better than that of banks in several EU Member States owing also to the fact that domestic credit institutions did not hold *toxic assets* in their portfolios.

Table 1: Banking Indicators

Indicators	Dec. 07	Mar. 08	Jun. 08	Sep. 08	Dec. 08	Mar. 09	Jun. 09	Sep. 09	Dec. 09
Capital adequacy									
1 Solvency Ratio (<8%)	13,78	12,99	12,78	11,85	13,76	13,16	13,51	13,73	14,03
2 Leverage ratio (Tire 1 capital/Total assets, average)	7,32	7,20	7,30	7,10	8,13	6,81	6,92	7,04	7,11
Asset quality									
3 Loans (gross value)/Total assets (gross value)	59,9	62,2	63,47	65,5	62,5	60	59,11	60,34	NA
4 Inter-bank placements and loans (gross value)/Total assets (gross value)	29,98	27,54	26,09	24,79	26,01	24,98	23,91	21,91	NA
5 Past-due and doubtful loans/total loan portfolio (net value)	0,22	0,21	0,30	0,24	0,32	0,66	1,03	1,23	1,46
6 Past-due and doubtful claims/Total assets (net value)	0,17	0,19	0,25	0,22	0,29	0,52	0,75	0,92	1,01
7 Provisioning for risk-weighted exposure of banks to non-banks and inter-bank placements and related interest classified under "substandard", "doubtful" and "loss"	85,4	90,5	91	89,7	86,2	88,5	89,6	87,7	NA
Profitability									
8 ROA (Net profit/Total assets, average)	1,01	1,51	1,44	1,77	1,56	-0,25	0,05	0,28	0,24
9 ROE (Net profit/Own capital, average)	9,46	16,45	15,82	19,41	17,04	-2,90	0,64	3,22	2,73
Liquidity									
10 Cash	38,7	34,98	33,23	31,74	34,43	33,05	33,62	34,08	NA
11 Liquidity ratio	2,13	2,29	2,03	2,45	2,47	2,31	2,39	1,63	NA
12 Loans to clients/Deposits to clients	108,72	116,10	119,64	124,71	122,03	124,69	119,23	117,55	112,80

Source: National Bank of Romania

Coverage with provisions of risk-weighted exposure of bank and non-bank loans, inter-bank placements and associated interest classified under "substandard", "doubtful" and "loss" stayed on the upward course that had actually started in 2006. This development emerged as the volume of provisions increased markedly, as a result of changes in the structure of loan portfolios - i.e. the higher share of claims classified under "loss" (from 3.6 percent in December 2007 to 14.8 percent in March 2009).

Regarding asset financing, the ratio loans to clients/deposit to clients shows an increasing trend until March 2009, but the dynamics reverse for the last quarters of 2009. The expansion of foreign currency-denominated loans made a significant contribution to the rise in the Romanian banking system's reliance on

external financing. Parent banks provided Romanian credit institutions with 84.4 percent of total deposits, loans and subordinated liabilities at end-2008, as against roughly 69 percent in the same year-ago period.

Regarding the evolution of profitability, on average, starting the year 2009 a pronounced deterioration is observed due to obstruction of credit activities and the rise in values of provisions.

1.2. National Bank of Romania Strategies for Financial Stability

The need for future strengthening of banking system is considered by the NBR taking as a starting point the opportunities and the challenges that were revealed by the financial crisis. The first positive aspect relates to the fact that banking institutions operating on Romanian territory are sound and capitalized. Also, the commitment of the parents of the main banks operating in Romania, to maintain their global exposures and to recapitalize subsidiaries represents positive aspects (the Vienna Initiative). Nevertheless, difficulties arise from the macroeconomic environment, including the perspective of economic downturn. Moreover, the negative financial outlook which maintains the investitures uncertainties and risk aversion represent future challenges that Romanian economy has to deal with.

From the lending perspective it is relevant to consider how the global financial crisis affected Romanian economy with impact on some of the transmission channels. The risk aversion of foreign investors relative to emerging economies which resulted in a decline in foreign investment altered the confidence channel. As a consequence to lower currency inflows, a downward pressure on the RON impacted over the exchange rate channel. Diminished access to external financing that affected the lending volume especially in the case of foreign currency loans, bounced the financial channel. Deterioration of households and companies net assets due to the foreign currency loans debt service increase and reduction in asset prices accommodated effects over the wealth and balance sheet channel.

Romanian experience shows that financial stability constitutes a major influence upon accomplishing the main target of price stabilization and low inflation. In accordance with its statute, the National Bank of Romania exercises several tasks regarding financial stability, via prudential supervision over banks, monitoring payment systems, ensuring immediate liquidity and acting as a lender of last resort, in exceptional circumstances, for credit institutions (Financial Stability Report, 2006).

Financial stability is a broad concept, encompassing the different aspects of finance (and the financial system) infrastructure, institutions, and markets (Schinasi, 2004). Thus, financial stability not only implies that finance adequately fulfils its role in allocating resources and risks, mobilizing savings, and facilitating wealth accumulation, development, and growth; it should also imply that the systems of payment throughout the economy function smoothly (across official and private, retail and wholesale, and formal and informal payments mechanisms). Moreover, financial stability relates not only to the absence of actual financial crises but also to the ability of the financial system to limit, contain, and deal with the emergence of imbalances before they constitute a threat to itself or economic processes.

A central bank can influence the dynamics of aggregate demand and inflation by using various [instruments](#) which will work their effects on the economy through many different channels. The transmission mechanism of monetary policy is a process in which the central bank sets goals and uses tools to transmit its monetary policy to enterprises and households through financial institutions and financial markets with an aim to influence their production, investment and consumption. From a central bank perspective, monetary policy transmission mechanism summarizes all these relevant channels.

Regarding crisis control and mitigation, the European Commission (2009) recommends both conventional and unconventional elements for monetary policy expansion. Proactive measures undertaken by the National Bank of Romania for mitigating the effects of the financial crisis that subscribe to this policy view are to be identified in (Georgescu, 2009):

- Liquidity management and money market functioning measures: NBR realized reductions for minimum reserve requirement: for RON-denominated liabilities from 20% to 18%, and starting with 24 July 2009 15%. Also, starting with November 2009 followed the reduction to 25% of minimum reserve requirements for FX-denominated liabilities.
- Interest rate decisions (monetary policy rate): the interest rate manifested a down road trend from the maximum value of 10.25% in August 2008, reaching a minimum of 6.5% in April 2010, the lowest level since the adoption of inflation targeting monetary policy.
- Supervisory actions: regarding *liquidity stock*, the action undertaken by the NBR are orientated toward bank liquidity monitoring, advisement for diversification of financing resources, alternative financing arrangements etc; strengthening of *solvency* monitoring by requesting for capital increases and maintaining solvency ratios above minimum level of 10%; finally, regarding the *lending* activity

the general recommendation was made for reduction of sectorial concentration, also emphasize was put on creating a risk-based management framework.

- Regulatory actions: the implementation of regulations that aim at reinforcing the lending activity and also the improvement of banking institutions performance; e.g. NBR Regulation 2/2009 that simplifies mortgage lending rules, NBR Regulation 3/2009 that accounts for more flexible provisioning rules for overdue loans, NBR/NSC 6/3/2009 allows for interim profit to be included Tire 1.

Beyond these actions, future developments are to be the focus on the policies agenda of different stakeholders. As a solution for approaching policy measures, considering the turbulences and uncertainties that characterize the current economical environment, the timetable for adopting the Euro, with the subsequent entering of ERM II in 2012, could be the lighthouse that guides the reforms to be made until 2012 (Isărescu, 2008).

3. The Convergence Plan: new challenges embedded in the current context

Romanian authorities became more concerned with the acceleration of the convergence process considering the timetable regarding monetary integration that assumes the entering of ERM II in January 2012 and the adoption of Euro in 2014. The Maastricht Treaty refers to nominal and real convergence as necessary and sufficient condition for Euro currency adoption. Part of the nominal criteria, monetary integration is encompassed by the fulfilment of three variables regarding inflation rates, long term interest rates and exchange rate. Romanian compliance with monetary variable is presented in Table 2.

Table 2: Compliance with monetary criterion

Monetary convergence indicators	Maastricht Criteria	Year/ Benchmark	Romania	Czech Republic	Hungary	Poland
Inflation Rate (percent, annual average)	< 1,5 pp above the best performing Member States	2007/3%	4,48	2,8	8	2,5
		2008/4,1%	7,85	6,3	6,1	4,2
		2009/1,6%	5,59	0,6	4	4
Long term interest rates (percent per annum)	< 2pp above the best performing members states in terms of price stability	2007/6,4%	7,27	4,28	6,74	5,48
		2008/6,24%	7,7	4,6	8,2	6,1
		2009/5,3%	9,69	4,84	9,12	6,12
Exchange rate vs. Euro (maximum percentage change vs. 2 year average)	+/- 15 percent	2007/dec.2006	+10,2/-6,9	+7,9/-3,4	+5,2/-9	+7,4/-6,6
		2008/ dec.2007	+9,7/-14,6	+20,9/-3,5	+11,3/-10,6	+18,9/8,5
		2009/dec. 2007	+1,6/-18,2	+11,9/-12,53	+24,7/-9,55	+27,8/-11,6

Source: BNR

Romania fails at accomplishing the criterion of nominal convergence in all three years under study under all indicators. For the years 2007, 2008 and 2009 Romanian performance regarding the criterion of inflation rate is unsatisfying. Moreover, in 2008 and 2008 Romania presents the worst values compared to other East European countries that undergo structural changes. This particular situation is explained by the late liberalization of prices process (1997) and the strategy of NBR to gradually reduce inflation.

Accounting for the long term interest rate increasing trend stands the failed inflation target. Also the underdevelopment of long term financial instruments completes this picture. The first emission of government bonds took place in Romania by the year 2005 in comparison to other states that used this facility from 2002. Moreover, insufficient liquidity of the long term government bonds market, low frequencies of bond emission and poor capacity in price formation due to the modest number of transactions make this criterion hard to accomplish. However, the consolidation of the deflationist process will generate improvements for convergence of this criterion.

The exchange rate criterion is not to be, yet, accounted since Romania did not enter the ERM II system, and still benefits from a managed exchange float. Starting with September 2006 NBR does not

intervene in the exchange market, conferring a greater degree of flexibility to the exchange rate. Thus additional pressure is put on monetary policy in order to assure prices stability. Presented data are orientative and suggest that the largest depreciation of RON was between the years 2008-2009 compared to the average of the exchange ratio of December 2007 (-18,2%). Romanian currency was the most appreciated in the period 2006- 2007 compared to the average recorded in December 2006 (+10.2%).

Sustained effort should be made for reaching compliance for these criteria by the year 2012. This timetable is important considering several requirements like (Popa, 2009):

- Providing some monetary and exchange rate flexibility (for a limited time period) in order to further necessary and substantial structural adjustment
- maintaining motivation to carry out reforms in a timely manner and consolidate macro discipline (need for significant fiscal consolidation in 2010 –2012)
- providing the possibility of setting the central parity based on amore accurate estimate of the equilibrium exchange rate after overcoming both the peak in capital inflows (which remained high even subsequent to EU accession), as well as the substantial and abrupt reduction in flows to EM after the onset of the global financial crisis
- meet ex ante most of the convergence criteria and establish sustainability

Considering an alternative timetable or the failure in reaching the nominal convergence criteria, some advantages and disadvantages regarding postponing or anticipation of Euro adoption are presented below (Table 3):

Table 3: Timetable for Euro Adoption Pros and Cons

'Early' Euro Adoption PROS	'Early' Euro Adoption CONS
<ul style="list-style-type: none"> • More rapid expected reduction in transaction costs, exchange rate risk • Improved time consistency of macroeconomic policy mix (esp. avoidance of fiscal, wage policy relaxation) • Better incentives for timely implementation of structural reforms 	<ul style="list-style-type: none"> • Low business cycle synchronization leaves economy prone to asymmetric shocks • Loss of monetary/exchange rate flexibility leads to possibly significant macro adjustment being borne by output/employment • Significant disparities in real convergence indicators make catching-up process difficult to manage sustainably (ex. magnitude of B-S effects raising equilibrium inflation rates, uncertainties over potential GDP levels and their changes over time) • Difficulty of ex ante pinpointing (unmodified) central parity while equilibrium exchange rate may undergo substantial shifts
'Late' Euro Adoption: PROS	'Late' Euro Adoption? CONS
<ul style="list-style-type: none"> • More progress in achieving nominal and real convergence • Longer time span available for tackling necessary structural adjustments • Further business cycle synchronization • Preserving monetary policy autonomy for longer 	<ul style="list-style-type: none"> • Persistence of higher transaction costs limits further financial, trade integration • Higher incentives for fiscal relaxation, delayed implementation of structural reforms • Delayed euro adoption sends unclear message to investors (domestic structural weaknesses or deliberate decision?) • As corollary of above, limits on exchange rate variations against background of full capital mobility may lead to periods of pronounced volatility in financial flows

Source: Nagy, 2009

Both advantages and disadvantages are to be analyzed and weighted, but until at least the nominal convergence criteria are to be fulfilled, this remains an imaginary exercise.

As formulated in the introduction of the Convergence Program 2009-2011, we end this section with the idea that the commitment for adopting Euro currency by the beginning of 2015 represents an anchor that will promote fiscal and structural reform that will reinforce the flexibility and stability of Romanian economy.

4. Conclusions

Romanian current economic situation was analyzed with the aim of pointing out particularities that are to be found as a result of the current financial crisis. Challenges and opportunities embedded in the actual economic environment were presented, highlighting some advantages that Romania has considering the international economic situation. Some characteristics that at the first glance appear to be anachronistic like for example the more traditional orientated banking, reduced amount of exports in GDP, weak financial intermediation and exchange rate flexibility were actually the strengths of Romanian economy, making it less vulnerable to the direct effects of the crisis in comparison to other EU countries. Furthermore, the recent evolution of banking indicators was discussed. Positive aspects are to be found in the capital adequacy indicators that follow an increasing trend over time, but negative aspects are incumbent in asset quality and profitability evolution.

Regarding the NBR activity, our focus was upon financial stability because it represents a prerequisite for accomplishing the target of price stabilization and low inflation. Conventional and unconventional measures of the NBR monetary policy expansion were presented in the context of crisis control and mitigation.

As before the financial crisis, the nominal convergence of monetary criteria generates difficulties for Romania in the context of Euro adoption in 2015. None of the three indicators (inflation rate, long term interest rate, exchange rate) have values close to the benchmark. However, if there is a lesson to be thought considering the advantages of Euro adoption weighted upon postponing or anticipation of Euro adoption, is that reaching the convergence criteria should be the anchor that will promote fiscal and structural reform that will reinforce the flexibility and stability of Romanian economy. Thus, approaching policy measures should focus consolidation of low inflation, consolidation of long term capital markets, and the convergence of exchange rates, the stabilization of exchange rate and structural reforms.

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REGIONAL EMPLOYMENT EFFECTS OF THE CURRENT ECONOMIC CRISIS IN ROMANIA

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Abstract: Starting from the main manifestations of the current economic crisis in Romania, both at the national and regional level, the paper focuses on its territorial effects on the labour market. The impact of economic crisis varies among regions, with significant differences between the component counties, depending on their economic profile. In order to come to a more detailed picture of national, sectoral and local effects of the crisis on the number of employees, a swift-share analysis over January 2009- January 2010 period is further carried out.

Key words: economic crisis, employment, region, Romania.

JEL classification: J21, J64

1. National effects of the economic crisis in Romania

The global financial turmoil has reached Romania during the last quarter of 2008 and very soon it became obvious that the crisis would have serious effects on the real economy. The international economic crisis has impacted the Romanian economy through various channels, as follows (Isarescu, 2009):

- The trade channel: the exports slow down and even decrease.
- The financial channel: the access to external financing is limited, which determines a contraction of the crediting volume and generates difficulties with the private foreign debt.
- The exchange rate channel: the reduction of external financing has been reflected by the national currency depreciation.
- The trust channel: withdraw of foreign investors from East-European countries.

Romania had experienced robust economic growth for eight consecutive years, but as the financial crisis started spreading across the economy, things took a sharp turn for the worse. A drop in external and domestic demand led to a slowdown in *real GDP growth* - from an average of 8.9% on an annualised quarter-on-quarter basis during the first three quarters of 2008 to an almost 13% decline in the fourth quarter, one of the sharpest turnarounds among emerging markets. The worst affected economic activities were, in a first stage, manufacturing and financial activities, real estate, lending and services for enterprises. Other activities decreased as well, but managed to maintain positive growth rates. Manufacturing turned from a 4.9% increase in the first three quarters to - 7,7% in the fourth one, while financial activities moved from +5.3% to - 1.5% in the same period.

The negative impact of the crisis in Euro-area has continued in 2009, the Romanian real GDP recording -7,1 annual percentage change. The fall in demand on the main Romanian export markets, combined with the decrease of FDI, severely hit domestic manufacturing triggering an overall decline due to the reduction or even temporary stop of the activity in many of the production units. In the industry sector the sharpest decline in production capacities has occurred in some key sub-sectors: goods made of non-metal ores, metallurgy, computers and electronics. In spite of that, a revival of the economy is still expected to start in 2010, considering the low point of the economic decline had already been reached.

Although *unemployment rate* usually increases in the fourth quarter, its escalation in Q4 2008 (0.4% increase against the common 0.1-0.2% in the previous years) has to be considered a clear manifestation of the current crisis. After many years of low unemployment, mainly due to over two million Romanians working abroad, annual unemployment rate raised from 4.1% in 2007 and 4.4% in 2008 to 7.8 % in 2009.

Net investments recorded a severe decline, dropping from their long recorded tendency of 15-30% growth on a year to year basis to just + 2.3% in the fourth quarter of 2008 and -0.3% in the first quarter of

2009. *Foreign direct investments* declined as well. The value of FDI, which had been 7 million euro in 2007 and 9.3 in 2008, dropped to only 4.8 billion euro last year, which is though considered a moderate decline compared to the average international investments trend in the current economic environment. While some important foreign companies (e.g. Unilever, Kraft Foods and Coca Cola) relocated their Romanian subsidiaries in cheaper workforce countries as Moldavia and Bulgaria, new companies decided to invest in Romania. For instance, PepsiAmericas, one of the world's most important fizzy drinks production companies, opened in September 2009 its largest European production unit, located in Ilfov county. The company also finalised in May 2009 a ten million dollars investment to modernise and enlarge the production line capacity for mineral water in Covasna. On the other hand, an encouraging tendency is the orientation of foreign investors to Greenfield projects in South-East of Romania, in counties like Prahova, Buzau, Gorj, Calarasi, Giurgiu and Dobrogea zone. Till now preference was given to Bucharest and the West of Romania.

Return migration and remittances. The global economic recession significantly reduced in 2009 the amounts of money sent by the Romanians working abroad, which had been quite large before, reaching a peak of 5.1 billion euro, or 4% of the economy in 2008. According to the World Bank data, Romania is among the top ten states by size of remittances. Statistical data show that by May 2009, remittances sent in Romania amounted to only 1.8 billion euro, down by a third from the same period of 2008. Remittance flows are expected to further decrease due to job losses, lower earnings, slower migration, and even return of immigrants (especially from Italy and Spain) in Romania.

2. Regional distribution of the recession in Romania

The current economic and financial crisis displays an uneven distribution of its effects at regional scale, depending on the specific economic and social structures, regional specialisation degree, export orientation of economic activities, etc. Usually the crisis induces a **higher vulnerability** of the most developed counties, which are much closer to the world economy's evolution and, thus, more exposed to the crisis shocks. Within this category the profile of the most crisis-vulnerable counties can be described as follows: a mono-product based industrial development, predominantly export-oriented, industrial firms re-located from Western Europe (e.g. Lohn-type production), big investment projects of multi-national firms, large industrial parks, etc. On the other hand, in our opinion, given the economic potential of the most developed counties, it is likely that they will recover easier after the highest crisis intensity will have been left behind. In particular, the counties displaying a higher production diversification will be in a better position. Among zones of a higher vulnerability are also those characterised by a high indebtedness degree of agricultural producers, food industry producers and SMEs in general.

A study performed at mid 2009 (Amariei and Hritcu, 2009), estimated that 25 counties out of the total of 42 were in danger to be seriously hit by recession. In these counties the industrial production already decreased by 30% to 70% in the first quarter of 2009 compared to the same period of 2008, while the unemployment doubled in many cases in just five months (end of February 2009 compared to end of September 2008). New foreign investors have not been attracted whereas some of the old ones are about to leave. The worst situation is recorded by the cities of a high specialisation degree, where the economy is mostly depending upon only one big employer as, for instance, Galati city in Galati county -dominated by Acelor Mital (steel industry) and Pitesti city in Arges county – highly dependent on Dacia Renault (car industry). The study identified the top 3 most vulnerable counties to be: 1. Galati (South-East region): its economy is excessively dependent on the Acelor-Mital steel works, whose production recorded a serious drop in the Autumn 2008 and continues to be confronted with recession caused problems; 2. Arges (South region): the whole economy is dependent on Dacia-Renault car company: a serious problem of this company might bankrupt the whole area; 3. Arad (West region): the big employers are car components producers, largely dependent on the foreign demand.

At the opposite pole are situated the predominantly agricultural counties, of a traditional economy, located in South and East of Romania. The experts estimate that these counties, with a high share of rural population will suffer less than the developed ones as a result of their subsistence agriculture, where the crisis influence is very low. In fact, in such counties the current overall economic situation is overlapping on a previously low development level. In the counties resistant to crisis the stability is also based on the low vulnerability of their most important industrial branches, mainly represented by milk processing, mineral water bottling, wood processing, etc., less sensitive to crisis compared to car industry or constructions, for example. In the top 3 most resistant to crisis counties are: 1. Suceava (North-East region): its big advantage consists in high tourism potential; other well developed sectors are milk processing, mineral water bottling

and wood processing industry; 2.Dambovita (South region): a diversified economic structure; the highest share is recorded in agriculture; 3.Giurgiu (South region): food, textile and chemical industries have the highest share, but agriculture is also very well represented in county's economy.

Our own calculations regarding the specialisation degree at county level support most of the findings mentioned above. Thus, Appendix 1 shows the values recorded by the Herfindahl specialisation index, which confirms the well-documented positive linkage between the development level and the degree of the diversification of the economic activity with the best developed counties having the most diversified economic structure, while the least developed ones usually display a high degree of specialisation. Although it is largely accepted that the bigger the specialisation level the higher the economic risks in case of economic shocks, from the perspective of the current economic crisis, territorial specialisation may entail vulnerability only for the regions dominated by economic activities open to the current crisis such as banking and finance sector, constructions, real estate, automobile industry, etc.

On the opposite side there are highly specialised counties, based to a great extent on a subsistence agriculture, that are less sensitive to the economic crisis. These are counties with a low development level and a low diversification of economic activities, agriculture having an important share in their economy and making their economies more stable and less vulnerable to economic downturn. In this respect can be mentioned counties like Botosani, Vaslui, Calarasi, Giurgiu, Ialomita, Teleorman – all of them concentrated in the two least developed Romanian regions, namely North-East and South-Muntenia.

The values recorded by the Herfindahl specialisation index (Appendix 1) indicate an important diversification of activities in the best developed counties like Cluj, Constanta, Brasov or Bucharest Municipality, mainly based on activities connected to the international economy. Such a situation makes these counties more receptive to the economic crisis effects. Besides the counties already mentioned, in this category can be included Iasi, Arges, Prahova, Valcea, Arad, Timis, Bihor, Mures, Sibiu, Ilfov. In these counties the location quotients²⁰ are above unit for activities such as manufacturing industry, construction, hotels and restaurants, real estate transactions, finance and banking, etc., more open to economic crisis effects (Goschin and Constantin, 2009).

An overall view points out that the most developed regions also present the highest diversification of the economic activity. For example, in the case of Bucharest-Ilfov region the development index of 0.7208 and the Herfindahl specialisation index of 0.1174, for West region the values of these indices are 0.3793 and 0.1560 respectively, for Centre region – 0.3471 and 0.1598 respectively (see Appendix 1).

3. Territorial labour market adjustments

Until the financial crisis broke in the last quarter of 2008, the Romanian labour market had performed relatively well. Annual unemployment rate had declined to 4.1% in 2007 and 4.4% in 2008, supported by high rates of GDP growth over 2000-2008 and a decrease in the labour force owing to substantial out-migration for work. The scaling down of production capacities amid the economic crisis led to severe labour market adjustments. It translated into mass layoffs and a significant increase of unemployment reaching a rate of 7.8 % in 2009. The strongest staff cuts were recorded in industry and construction.

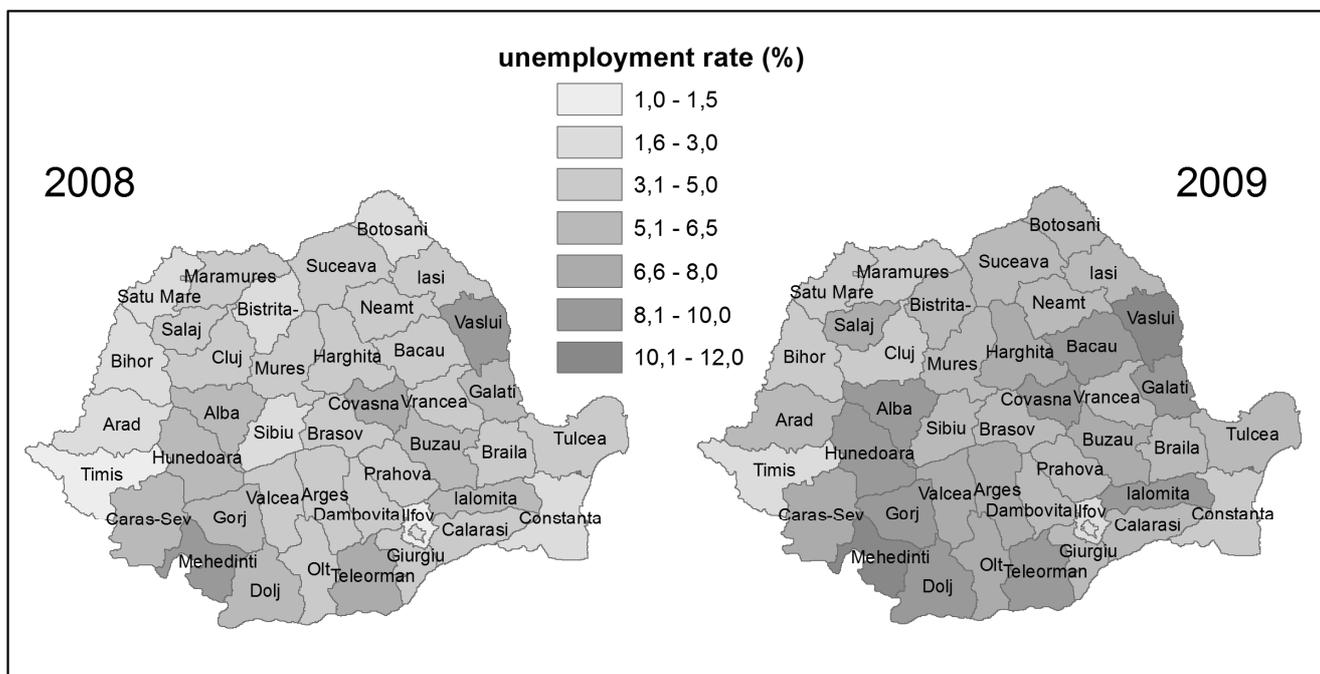
Despite this fast growth in 2009, the unemployment rate may be still considered as moderate in Romania, as well as in Europe. In Europe it is currently not as high as several or a dozen years ago (e.g. in Spain in the mid-1990s it reached almost 20 per cent, and was slightly lower in Ireland and Finland) and is far from the extremely high rates of the Great Depression (30-40%). The evolution of the unemployment rate in Romania, depicted in Figure 1, indicates high territorial variation, ranging from 1.3% (Timis) to 8.2% (Mehedinti) in 2008 and from 1.8% (Bucharest Municipality) to 12% (Vaslui) in 2009. Except for Bucharest (a very small growth of unemployment), in the 2008-2009 period there was an increase in unemployment rate in all counties, the highest relative growth being +162% in Bistrita-Nasaud, followed by Timis (139%), Sibiu and Arad. All these counties previously had very low levels of unemployment (below 2.5% in 2008). On the contrary, the countries less affected by the increase in unemployment were the ones which had higher inactivity levels earlier. To understand the underlying reason for this we have to take into account the economic environment of backward regions. The historically higher inactivity levels in these areas have shown a lower than expected increase because they were undertaking economic activities less exposed to the crisis shocks. Nevertheless, the situation for a huge number of working age inactive population in backward

²⁰ Values of the location quotients that surpass one unit indicate that the level of regional/county concentration in a certain industry is bigger than the average, while values under one are specific to regions/counties less concentrated compared to the national average.

regions is worse than before the crisis in the sense that their already small chance of getting formal employment has further decreased.

Unemployment is a major symptom of any crisis as it is one of its most visible and socially significant effects. The growing unemployment will most likely have an impact on the rapid growth of the shadow economy and on the deepening of social inequalities. One of the consequences of unemployment could be remigration, mainly from big cities to villages or small towns – places of the migrants' origin and also the return migration from abroad.

Figure 1. The territorial variation of the unemployment rate



Source: authors' processing based on data issued by the Romanian National Institute of Statistics

Summing up, the turnaround in labour market developments since the fourth quarter of 2008 has been very sharp. Despite nominal wage reductions in return for employment stability in some firms and industries (that may have prevented, or delayed, more labour shedding) the unemployment rate has soared by 3.4 percentage points at national level (December 2008 against December 2009), and a more sharp increase was recorded in many counties, such as Valcea (+9.3 percentage points) and Ialomita (+6.8 pp).

The employment adjustment to the decline in economic activity is as yet far from complete, and more pronounced labour-shedding is likely to occur in 2010 as there are not clear signs of economic recovery so far. There is a concern that unemployment may not easily revert to pre-crisis levels once the recovery sets in. A major challenge stems from the risk that, if not adequately addressed by policy measures, skills erosion of the unemployed may contribute to unemployment persistency with long-lasting negative effects on the economy. Where the fall in GDP is large, but the rise in the unemployment rate is still small, the fall in hours worked is substantial. Some firms react to short-term decrease in turnover by reducing their activity, while allowing employees to keep their contractual relationship. This suggests that there might well be a trade-off between less unemployment today and more redundancies at a later stage.

4. National, sectoral and regional impacts on employment decrease: a swift-share analysis

Understanding the performance of the local economy against the overall economy implies measuring how well the region's current industries are performing by systematically examining the national, local, and industrial components of employment change. The shift-share analysis is a statistical tool used to decompose changes within a regional economy over a specific period of time into factors of influence. The change is usually measured based on regional employment data and it is viewed as the combination of three effects: national, sectoral and regional (local). A shift-share analysis provides a dynamic account of total regional employment growth that is attributable to the overall growth of the national economy, a specific mix of faster or slower than average growing industries, and the influence of the competitiveness of the local industries.

The share component (national growth share) describes the change that would be expected based on the fact that the regions are parts of a changing national economy. It reflects the national influence on a certain region r , by supposing that regional changes (eg. employment growth or decrease N_r) occur in the the same pace as the average national change:

$$N_r = E_{r0} \frac{E_t}{E_0} - E_{r0} = E_{r0} I_n - E_{r0}, \quad (1)$$

where E refers to the national employment, E_r is the regional employment, θ and t refer to beginning and ending time periods and I_n is the national employment index over 0-t period. N_r estimates the potential regional employment in r provided that it is growing at the same rate as the nation.

The shift component reflects the regional differential from the national tendency:

$$S_r + R_r = E_{rt} - \frac{E_t}{E_0} E_{r0} = E_{rt} - E_{r0} I_n. \quad (2)$$

The shift component can be split into two parts: sectoral and regional. **The sectoral component S_r** reflects the region's specialisation determined by its specific **industrial mix**. It measures the change in each regional industry i that would be attributable to the growth or decline of that industry nationally (based on the fact that at national level some industries have grown faster or slower than others):

$$S_{ir} = E_{ir0} \frac{E_{it}}{E_{i0}} - E_{ir0} \frac{E_t}{E_0} = E_{ir0} (I_{in} - I_n) \quad (3)$$

where E_i and I_{in} are the employment, and employment index respectively, in the industry i , at national level, and E_{ir} is the employment in industry i , in region r . The total share of regional employment change that can be attributed to the region's mix of industries is determined by summing up the influences of all industries i in a certain region r : $S_r = \sum_i S_{ir}$. If the region r is mainly specialised in slow growing industries then $S_r < 0$; the opposite ($S_r > 0$) applies if the region is mainly specialised in fast growing industries.

The regional component (local shift) R_r measures the extent to which specific local factors have caused growth or decline in regional employment of an industry. It can be attributed to some regional comparative advantage such as natural resources or favorable local labor situations. The regional component allows for identifying a local area's economic strengths. It is computed based on the differential growth rate, regional minus national, for each industry i :

$$R_{ir} = E_{ir0} \frac{E_{irt}}{E_{ir0}} - E_{ir0} \frac{E_{it}}{E_{i0}} = E_{ir0} (I_{ir} - I_{in}) \quad (4)$$

$$R_r = \sum_i R_{ir}$$

Positive values of the local share component point to industries that enjoy local comparative advantage and therefore contribute to additional regional job growth.

Summing up these three components (nation, industrial mix and local) leads to the total employment change in the region r :

$$\Delta E_r = N_r + S_r + R_r, \quad (5)$$

where ΔE_r may be independently computed as the employment growth or decrease in the region r over the time period 0-t:

$$\Delta E_r = E_{rt} - E_{r0}. \quad (6)$$

It should be noted that shift-share analysis does not account for factors such as business cycles, identification of actual comparative advantages, and differences caused by levels of industrial detail therefore results should be interpreted with caution and in conjunction with other changes in income, earnings, or value-added, which are alternative measures of an industry's size and strength. The results are also sensitive to the period of time chosen.

The results of the shift-share analysis performed for the number of employees in Romania, broken down by county and economic sector, over January 2009 - January 2010 period, are displayed in Appendix 2. The results show negative changes in the number of employees for all counties, with the biggest absolute loss of -92266 in the number of employees recorded by Bucharest Municipality. This situation is explained by Bucharest's very high employment scale, comparative to the counties; on the opposite, the relative change, in the same period, was very small. Developed counties such as Cluj, Brasov, Timis and Constanta display similar results.

Most of the counties displayed a positive local share with a negative industrial mix during the time period under consideration. This is an indication that these local areas are performing relatively well, despite poor national industry performance. Nationally, the biggest job losses were in industry and constructions, with agriculture employment relatively unchanged.

6. Final remarks

The decline in economic activity induced by the current economic crisis brought about negative labour market developments since the fourth quarter of 2008 and the employment adjustment to this decline is as yet far from complete. Even if the recovery sets in soon, there is a concern that unemployment may not easily revert to pre-crisis levels. Moreover, given the depth of and nature of the crisis, it is very likely that considerable restructuring will be necessary as the economy recovers from recession.

Romania has its own economic weaknesses which add to the challenges of the current crisis and in order to counteract the negative employment impacts of the crisis, a series of measures would have to be undertaken. The IMF has been stressing the need to cut public expenditure, demanding a severe control of the finances of the government and local administrations and careful monitoring of state-owned companies, especially the ones registering losses.

Although it is obviously too early to provide any definite prediction about the impacts of the current crisis, the ongoing recession is likely to leave deep and long-lasting traces on economic performance and social hardship and the rise in unemployment is likely to persist. Even with help from the IMF and the World Bank, the economy is very much dependent on the external economic evolution and despite many signs of recovery in the advanced economies first hit by the downturn, it is premature to estimate when the recession will come to an end and if Romania can make a quick recovery.

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Appendix 1. Development and specialisation level of Romanian regions and counties in 2007

Regions Counties	Development level**	Specialisation index (Herfindahl)*
1. North - East	0.2593	0.2097
Bacău	0.3141	0.1616
Botoşani	0.2002	0.2784
Iaşi	0.3697	0.1634
Neamţ	0.2649	0.2391
Suceava	0.2882	0.2409
Vaslui	0.1187	0.2728
2. South - East	0.3059	0.1675
Brăila	0.3027	0.1733
Buzău	0.2601	0.2286
Constanţa	0.4222	0.1238
Galaţi	0.3006	0.1602
Tulcea	0.2658	0.1823
Vrancea	0.2841	0.2461
3. South - Muntenia	0.2762	0.1961
Argeş	0.3977	0.1744
Călăraşi	0.1432	0.2733
Dâmboviţa	0.3147	0.1971
Giurgiu	0.2446	0.3064
Ialomiţa	0.2347	0.2461
Prahova	0.3928	0.1523
Teleorman	0.2059	0.3312
4. South - West Oltenia	0.3129	0.1972
Dolj	0.3455	0.2112
Gorj	0.3528	0.1382
Mehedinţi	0.2523	0.2327
Olt	0.2418	0.2532
Vâlcea	0.3722	0.1747
5. West	0.3793	0.1560
Arad	0.3855	0.1786
Caraş-Severin	0.2552	0.1843
Hunedoara	0.3418	0.1359
Timiş	0.5349	0.1545
6. North - West	0.3558	0.1793
Bihor	0.3596	0.1840
Bistriţa-Năsăud	0.3178	0.2006
Cluj	0.5558	0.1390
Maramureş	0.3060	0.2108
Satu Mare	0.2880	0.2221
Sălaj	0.3080	0.2024
7. Center	0.3471	0.1598
Alba	0.3446	0.1837
Braşov	0.3752	0.1393
Covasna	0.2845	0.1859
Harghita	0.2807	0.1922
Mureş	0.3839	0.1724
Sibiu	0.4135	0.1541
8. Bucharest - Ilfov	0.7208	0.1174
Ilfov	0.5113	0.1642
Bucharest Municipality	0.9303	0.1199

*The Herfindahl Specialisation Index is an absolute measure of territorial specialisation: $H_i^S = \sum_{j=1}^m (g_{ij}^S)^2$,

where g_{ij}^S stands for the share of branch j in the total value of region i. The Herfindahl index is increasing with the degree of specialization, reaching its upper limit of 1 when one region is specialized in only one branch.

** The Composite Development Index is computed as an weighted average of 16 indicators grouped in the following blocks: economy, health, education, infrastructure and standard of living (Mitrut et al., 2010)

Source: authors' processing based on data provided by the Statistical Yearbook of Romania

Appendix 2. Swift-share analysis

persons

County	Absolute change in the number of employees over I. 2009-I. 2010	Decomposition of employees change:		
		National share	Industrial mix	Local share
Alba	-8672	-9051	-880	1259
Arad	-12472	-12877	-1347	1752
Argeş	-14230	-14899	-2004	2673
Bacău	-11685	-12304	-404	1023
Bihor	-15956	-16872	-789	1704
Bistriţa-Năsăud	-6023	-6336	-518	831
Botoşani	-5487	-5703	57	159
Braşov	-16564	-17373	-514	1323
Brăila	-7632	-7958	-318	644
Buzău	-8516	-8906	-478	868
Caraş-Severin	-6057	-6339	-275	557
Călăraşi	-4563	-4800	37	200
Cluj	-20323	-21542	431	788
Constanţa	-18873	-19993	810	310
Covasna	-4974	-5215	-491	732
Dâmboviţa	-8153	-8547	-399	793
Dolj	-13201	-13903	426	276
Galaţi	-12513	-13108	-539	1135
Giurgiu	-3268	-3482	283	-69
Gorj	-7757	-8130	-817	1190
Harghita	-6529	-7081	-473	1024
Hunedoara	-12256	-12758	-1201	1702
Ialomiţa	-4484	-4751	302	-35
Iaşi	-15711	-16469	624	135
Ilfov	-10255	-11011	259	497
Maramureş	-9601	-10032	-673	1104
Mehedinţi	-4690	-4906	-288	504
Bucharest Municipality	-92266	-97166	13503	-8603
Mureş	-12838	-13486	-644	1292
Neamţ	-8431	-8821	-59	448
Olt	-6945	-7320	-793	1168
Prahova	-18052	-18938	-1705	2591
Satu Mare	-7675	-8025	-684	1034
Sălaj	-4647	-4889	-205	447
Sibiu	-12242	-12560	-1071	1389
Suceava	-10017	-10624	531	76
Teleorman	-5294	-5599	60	246
Timiş	-21655	-22585	-1259	2188
Tulcea	-4500	-4739	-127	366
Vâlcea	-8147	-8585	-368	806
Vaslui	-5688	-6016	-82	411
Vrancea	-5694	-6083	-104	492

Source: authors' processing based on data provided by the Monthly Statistical Bulletins of counties

STATISTICAL STUDY REGARDING THE ORGANIZATION OF MANAGERIAL ACCOUNTING AND IMPLEMENTATION OF THE RESPONSIBILITY CENTERS WITHIN ECONOMIC ENTITIES IN ROMANIA

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Abstract: *The opening of the national market requires in the context of economic entities a thorough knowledge of the internal regime but also of the external factors which, either directly or indirectly, influence their activity and efficiency. For the economic entities the action of obtaining economic information becomes fundamental. We have tried to elaborate a statistical study in order to quantize the manner in which the Romanian economic entities, especially those from the North-West development region, perceive the organization of managerial accounting, the implementation of responsibility centers, the budget allocation process, and other aspects concerning the Romanian accounting system of the last decades.*

Key words: managerial accounting, profit centers, cost centers, complete cost

JEL classification: M41

1. Introduction

In general, one can observe the maturation of the economic entities' approach regarding the aspects which concern costs and managerial accounting, as well as regarding the possibilities of improving the economic efficiency by means of dividing activities into responsibility centers. Nevertheless, in some cases, the lack of awareness concerning the importance of the managerial accounting for the economic entities is obvious.

2. Sections

2.1. Objectives of the study

The main objectives of the study are the following ones: the manner in which the economic entities perceive the organization and the management of accounting and the implementation of responsibility centers within economic entities as a means of increasing economic efficiency.

2.2. Research methodology

2.2.1. The research of the survey-base

The study relies on the economic entities where the organization of managerial accounting for highlighting the costs and profitability of products and services is a real necessity. In what concerns the survey methods, their typology is based on sampling methods (Ardilly, (1994)):

- Random sampling;
- Non-random sampling (rational or empirical);
- Mixed sampling (complex).

In our study, taking into account the human and economic resources available, we chose the non-random sampling technique. The main feature of this sampling method is the *rational choice* of the units submitted to statistical observation. According to the specialists, the major disadvantages of choosing such a technique are the following (Andrei, (2001)):

- As the units are included in the sampling frame in an arbitrary manner, in this case, the units' probabilities to accede to the sampling frame cannot be calculated;
- Because of the manner of units' assay from the sampling frame, there is no guarantee that all simple units of the population have the chance to accede the sampling frame.

However, the non-random and the random methods have similar results if the statistical population is homogeneous, and the intervention of the operator in sampling formation is insignificant.

In our case, both conditions are fulfilled: the statistical population is homogenous because only productive economic entities have been included in the study, and we didn't intervene in sampling formation as the questioned entities were chosen by other people. Each person went to the entity that fulfilled the preliminary criterion, and the data were collected from 293 persons.

Even if, statistically speaking, the conditions to recognize the sampling as being random (probabilistic) are not fulfilled, we evaluate the obtained results as being representative for the statistical population (the productive economic entities) firstly because the population is homogenous and we didn't intervene in sampling formation, and secondly because its dimension is rather large, most of the analyzed entities being situated in Cluj, one of the most representative counties of our country.

2.2.2. Sampling formation

The sampling of statistical units that have been questioned consists of economic entities according to the CAEN code of the principal activity. From the 293 entities that filled in the questionnaires, we have eliminated a number of 67 questionnaires because of some filling errors we couldn't identify or because they weren't complete. Therefore, only 226 questionnaires were considered valid, from which 129 were filled in by entities from the manufacturing industry (Section C – Manufacturing industry, according to NACE code, Rev. 2, approved by the Order of the President of the National Institute of Statistics, no. 337/2007). Each questionnaire is signed and sealed by a responsible person from the interviewed entity in order for the received answers to have the necessary formal authority of a scientific research.

According to the appointed objectives, we have established various variables in order to help us analyze the statistical population (the organizing manner of managerial accounting, the method used for cost calculation, if the activity of the entity is divided into responsibility centers, the center types existent in the entity, etc.), and we elaborated the questionnaire needed for the statistical research.

2.3. Evaluation of research results

2.3.1. Typology of the entities in the study

As mentioned above, the analyzed information has been collected from 226 economic entities, most of them pertaining to the manufacturing industry and situated in the county of Cluj, Romania. The structure of the analyzed entities according to the average number of employees, as it can be observed in the following table, indicate that 67% of the analyzed entities are small entities, about 23% are middle entities, and nearly 10% are large entities.

Table 1: Average number of employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-49	150	66.4	67.0	67.0
	50-250	51	22.6	22.8	89.8
	>250	23	10.2	10.2	100.0
	Total	224	99.1	100.0	
Missing	System	2	0.9		
Total		226	100.0		

The following table indicates that about half of the analyzed entities have registered a turnover worth over 500.000 euro.

Table 2 : Average number of employees vs. Turnover

			Turnover – 2008					Total
			<35.000 EUR	35.000- 100.000 EUR	100.000- 500.000 EUR	500.000- 7.300.000 EUR	>7.300.000 EUR	
Average number of employees - 2008	0-49	Count	22	29	58	38	3	150
		% within	14.7%	19.3%	38.7%	25.3%	2.0%	100.0%
	50-250	Count	0	0	6	32	13	51
		% within	0.0%	0.0%	11.8%	62.7%	25.5%	100.0%
	>250	Count	0	0	0	9	14	23
		% within	0.0%	0.0%	0.0%	39.1%	60.9%	100.0%
	Total	Count	22	29	64	79	30	224

Table 2 : Average number of employees vs. Turnover

		Turnover – 2008						
			<35.000 EUR	35.000- 100.000 EUR	100.000- 500.000 EUR	500.000- 7.300.000 EUR	>7.300.000 EUR	Total
Average number of employees - 2008	0-49	Count	22	29	58	38	3	150
		% within	14.7%	19.3%	38.7%	25.3%	2.0%	100.0%
	50-250	Count	0	0	6	32	13	51
		% within	0.0%	0.0%	11.8%	62.7%	25.5%	100.0%
	>250	Count	0	0	0	9	14	23
		% within	0.0%	0.0%	0.0%	39.1%	60.9%	100.0%
	Total	Count	22	29	64	79	30	224
		% within	9.8%	12.9%	28.6%	35.3%	13.4%	100.0%

The repartition of the analyzed entities by counties, according to their headquarters is the following one:

Table 3: The headquarters of economic entities participant at the study

		Frequency	Percent
Valid	Alba	17	7.5
	Arad	1	0.4
	Bihor	1	0.4
	Bistrița Năsăud	16	7.1
	Brăila	1	0.4
	Brașov	3	1.3
	București	5	2.2
	Cluj	122	54.0
	Dâmbovița	2	0.9
	Harghita	5	2.2
	Hunedoara	6	2.7
	Iași	4	1.8
	Ilfov	1	0.4
	Maramureș	14	6.2
	Mureș	4	1.8
	Neamț	3	1.3
	Prahova	1	0.4
	Sălaj	8	3.5
	Satu Mare	3	1.3
	Sibiu	4	1.8
	Suceava	1	0.4
	Vâlcea	4	1.8
	Total		226

2.3.2. The analysis of the organization of managerial accounting and other connected information

According to OMFP no. 1826/2003 for the approval of the Specifications regarding some measures concerning the organization and administration of managerial accounting, managerial accounting is organized by the administrator of the legal entity by using specific accounts, by developing the accounts from financial accountancy, or through its own technical – operative record.

As we chose the organization of managerial accounting by using specific accounts, we manifested our desire to analyze the preferences of the economic entities. The answers regarding the problem under analysis are presented in the table below:

Table 4: The organization of managerial accounting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	By using the system of accounts from the 9 th class	91	40.3	40.3	40.3
	Through the development of accounts from financial accounting	72	31.8	31.8	72.1
	With the help of own operative technique	63	27.9	27.9	100.0
	Total	226	100.0	100.0	

We can notice that 40.3% of the analyzed entities, namely 91 entities, use the accounts from the 9th class “Managerial accounts”, in order to organize the managerial accounting, and 31.8% of the entities develop the accounts of the financial accountancy in order to obtain specific information referring to managerial accounting. There is a respectable number of entities – 27.9% – that resort to other methods for obtaining the information necessary for substantiating economic decisions (Groșanu, Răchișan, (2009)).

As for the organization of managerial accounting through operational techniques specific to the economic entity, they can be relevant only if an Enterprise Resource Planning system (ERP system) that allows economic entities to respond in the more flexible, adaptable and efficient way to the market requirements, is implemented.

In order to identify if the economic entities consider managerial accounting and cost calculation as being useful, beyond the responsibility of organizing it according to the normative document previously presented, we have raised the following question: **Do you consider managerial accounting and cost calculation useful for substantiating economic decisions?**, and the answers are presented in the table below:

Table 5: The usefulness of managerial accounting and cost calculation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	16	7.1	7.1	7.1
	Yes	206	91.2	91.2	98.3
	I don't know	4	1.7	1.7	100.0
	Total	226	100.0	100.0	

It is noticeable that the overwhelming majority of the respondents – 91.2% – consider that managerial accounting and cost calculation are useful for substantiating economic decisions, and only a negligible number of respondents have answered „No” or „I don't know”.

From the first two questions of the survey we concluded that managerial accounting is organized in the economic entities, and, moreover, it is also considered useful. We did not aim at obtaining information concerning the qualitative side, meaning the way in which managerial accounting is organized and conducted and the way in which it responds to the informational requirements of the entity. In what follows, we decided to analyze the cost calculation methods within the questioned entities, and the results are:

Table 6: The cost calculation method used within the economic entities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Standard cost method	168	74.3	75.3	75.3
	ABC method	14	6.2	6.3	81.6
	Other method	41	18.1	18.4	100.0
	Total	223	98.6	100.0	
Missing	System	3	1.4		
Total		226	100.0		

Most of the answers – 75.3% of the valid answers, namely in 168 of the 223 entities for which this question was valid apply the standard cost method, and the ABC method is applied only by 6.3% of them. In an efficient management system, if the entity is organized into responsibility centers that insist upon profit centers, we estimate that the standard cost method is fundamental for controlling resource consumption and also for making the activity efficient. For the future, we also estimate that there can be considered the implementation of the ABC method alongside to the standard cost method, which can be possible only in an integrated informational system (ERP type). Therefore, the advantages of the two methods cumulate, resulting high quality economic information. As for the third possible answer, there were 41 entities to specify using other method than the two previously presented or they did not understand the notion of “method” and they mentioned *methods* that have nothing to do with cost calculation. Anyway, the number of those who did not understand the question was insignificant.

As national and international accounting norms specify that that general administration expenses and sales expenses are not included in the production cost we wanted to identify which is more important for the respondents, the production cost or the complete cost? The answers to the question **Do you consider the complete cost of products more important than the production cost?** are the following:

Table 7: Complete cost versus production cost

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	74	32.7	32.7	32.7
	Yes	137	60.6	60.6	93.3
	I don't know	15	6.7	6.7	100.0
	Total	226	100.0	100.0	

Table 8: The relationship between the complete cost, the cost calculation method and the manner of organizing the management of accounting

Do you consider the complete cost of products more important than the production cost?		The manner of organizing the management of accounting is:					
				Through the system of accounts from the 9th class	Through development of accounts from the financial accounting	the of operational technique	Total
No	Cost calculation method	Standard cost method	Count	21	15	22	58
			% within	36.2%	25.9%	37.9%	100.0%
		ABC method	Count	0	2	1	3
			% within	0.0%	66.7%	33.3%	100.0%
		Other method	Count	7	2	3	12
			% within	58.3%	16.7%	25.0%	100.0%
Total	Count	28	19	26	73		
	% within	38.4%	26.0%	35.6%	100.0%		
Yes	Cost calculation method	Standard cost method	Count	50	35	17	102
			% within	49.0%	34.3%	16.7%	100.0%
		ABC method	Count	2	4	2	8
			% within	25.0%	50.0%	25.0%	100.0%
		Other method	Count	4	10	11	25
			% within	16.0%	40.0%	44.0%	100.0%
Total	Count	56	49	30	135		
	% within	41.5%	36.3%	22.2%	100.0%		
I don't know	Cost calculation method	Standard cost method	Count	1	3	4	8
			% within	12.5%	37.5%	50.0%	100.0%
		ABC method	Count	3	0	0	3
			% within	100.0%	0.0%	0.0%	100.0%
		Other method	Count	3	0	1	4
			% within	75.0%	0.0%	25.0%	100.0%
Total	Count	7	3	5	15		
	% within	46.7%	20.0%	33.3%	100.0%		

We can conclude that 60.6% of the respondents believe that the complete cost of the products is more important than the production cost and only 32.7% are of the contrary opinion. We share the same opinion as the majority of the respondents because in order to measure profitability, additional calculation is needed if we calculate the cost only to the production cost level.

In general, it can be observed that the entities that consider complete cost more important than the production cost use the accounts from the 9th class in order to organize the managerial accounting and they apply the standard cost method (50 entities), and other 35 entities have the managerial accounting organized through the development of accounts from the financial accounting.

Referring to the entities that have their managerial accounting organized by using the specific accounts (9th class Managerial accounts) we have used the following questions (**Are the accounts of the managerial accounting you are using sufficient for your informational needs?; Do you use more accounts of the managerial accounting than those explicitly presented by the regulation authority?**) which raise the following problems:

- If the accounts of the managerial accounting are sufficient for the informational needs of the entities:

Table 9: The usefulness of the accounts of the managerial accounting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	8	8.8	9.0	9.0
	Yes	75	82.4	84.3	93.3
	I don't know	6	6.6	6.7	100.0
	Total	89	97.8	100.0	
Missing	System	2	2.2		
Total		91	100.0		

- If the economic entities use other accounts than those explicitly presented by the regulation authority:

Table 10: The utilization range of the accounts of managerial accounting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	81	89.0	90.0	90.0
	Yes	9	9.9	10.0	100.0
	Total	90	98.9	100.0	
Missing	System	1	1.1		
Total		91	100.0		

- Which are the accounts of the managerial accounting embedded by the entities?

From the 9 entities that declared to have embedded new accounts than those explicitly presented by the regulation authority, we discovered that they were analytical accounts of the accounts already existent.

We have surprisingly observed that more than 80% of the entities that use the accounts from the 9th class "Managerial accounts", meaning 75 entities from 91, consider that the accounts explicitly presented by the regulation authority are sufficient for their informational needs. This brings us to the conclusion that, for them, managerial accounting has much more limited objectives than those theoretically presented in textbooks. It would be interesting to repeat the survey after a period of time, in order to analyze the degree of maturation of the economic operators' mentality in the managerial accounting domain and its objectives.

Synthesizing, there where the managerial accounting is organized by using the 9th class accounts, the entities are generally pleased with the informational needs provided by the managerial accounting through the limited (we say) system of accounts that they employ.

2.3.3. The analysis of the existence and implementation of responsibility centers

Responsibility centers have the role of increasing the economic efficiency in an economic entity, to make a better use of the existent limited resources. Because organizing entities by dividing them into responsibility centers is relatively new to our country, we researched the way in which this is regarded

among the examined entities. Thus, the question in the survey was: *Do you believe that dividing the activity of the entity into responsibility centers ensures an increase of the overall economic efficiency?* The answers to this question are synthesized in the table below:

Table 11: The role of responsibility centers in increasing economic efficiency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	32	14.2	14.2	14.2
	Yes	170	75.2	75.2	89.4
	I don't know	24	10.6	10.6	100.0
	Total	226	100.0	100.0	

The representatives of 170 economic entities, meaning over 75% of the total analyzed entities, consider that dividing the activity into responsibility centers is a factor of increasing the economic efficiency, fact that implies awarding a larger importance, also from a theoretical point of view, to organizing managerial accounting in responsibility centers.

However, the system of responsibility centers is implemented only in 39% of the analyzed entities, as it can be observed below.

Table 12: The implementation of responsibility centers in economic entities

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	138	61.1	61.1	61.1
Yes	88	38.9	38.9	100.0
Total	226	100.0	100.0	

Nevertheless, the following correlation exists: if the system of responsibility centers is implemented in that entity, then it is generally considered that these responsibility centers represent a factor for increasing economic efficiency. More exactly, 85% of the entities in which the system of responsibility centers is implemented in one form or another, believe that they are contributing to increasing the overall economic efficiency, and 50% of the representatives of the entities in which responsibility centers are not implemented believe that these would be a factor of increasing economic efficiency.

Table 13: The implementation of responsibility centers in economic entities and the efficiency of economic entities

			Is the system of responsibility centers implemented in your entity?		
			No	Yes	Total
Do you believe that dividing the entity's activity into responsibility centers ensures an increase of the overall economic efficiency?	No	Count	29	3	32
		% within	90.6%	9.4%	100.0%
	Yes	Count	85	85	170
		% within	50.0%	50.0%	100.0%
	I don't know	Count	24	0	24
		% within	100.0%	0.0%	100.0%
	Total	Count	138	88	226
		% within	61.1%	38.9%	100.0%

According to the received answers it can be proved that responsibility centers are considered useful by the assignees of the analyzed entities. It is worth mentioning that this question is a closed question with multiple answers, and the obtained results are synthesized in the table below. Therefore, most of the entities

consider that profit centers are the most important (40.1% of the respondents), followed by cost centers (32% of the answers). It is interesting to mention that, usually, the respondents who consider the profit centers as being useful (71.8%) didn't mark the cost centers at all, and among those who consider the cost centers useful (73.7%) didn't mark the profit centers at all. We consider that the existence of profit centers does not exclude that of cost centers and the other way around. On the contrary, in an economic entity all responsibility centers can coexist, each one of them having a well defined utility.

Table 14: Responsibility centers considered useful in economic entities

	Name	Count	Responses
Profit centers	V10.1	119	40.1%
Cost centers	V10.2	95	32.0%
Expense centers	V10.3	50	16.8%
Investment centers	V10.4	33	11.1%
Total responses	-	297	100.0%

Table 15: The relationship profit – cost centers

			Cost centers		
			No	Yes	Total
Which one of the following responsibility centers do you consider to be more useful in your entity? Profit centers	No	Count	37	70	107
		% within	28.2%	73.7%	47.3%
	Yes	Count	94	25	119
		% within	71.8%	26.3%	52.7%
	Total	Count	131	95	226
		% within	100.0%	100.0%	100.0%

In what concerns the availability of implementing the system of responsibility centers in entities that do not have their activity organized in this manner, we observed that the majority of entities would agree at least to experiment the system. This is because over 75% of the entities believe that dividing the activity into responsibility centers is useful. Out of the 138 entities that have not implemented the system of responsibility centers, 92 would be ready to do it, which represents a percentage of 69.2% of the valid responses (5 entities have not answered this question).

Table 16: The potential implementation degree of the responsibility centers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	41	29.7	30.8	30.8
	Yes	92	66.7	69.2	100.0
	Total	133	96.4	100.0	
Missing	System	5	3.6		
Total		138	100.0		

3. Conclusions

After the statistical processing of the received answers from 226 economic entities, the following general conclusions can be enumerated:

- The respondents considered managerial accounting and cost calculation useful for substantiating decisions (over 90%);
- The organization of managerial accounting by using specific accounts is being preferred by over 40% of the respondents;
- The standard cost method is the cost calculation method used in more than ¾ of the analyzed situations;
- More than 60% of the respondents consider complete cost more important than production cost;

- More than 90% of the entities that organize their managerial accounting by using specific accounts do not use other accounts than those explicitly presented by the regulation authority;
- Over 75% of the questioned persons consider that diving the activities of economic entities into responsibility centers is a factor of increasing the overall economic efficiency, but this system is implemented only in 39% of the entities;
- 40% of the respondents consider profit centers the most useful responsibility centers, while 32% of them consider that cost centers are the most useful responsibility centers;
- About 70% of the entities that do not have a system of responsibility centers would be ready to implement it, even if experimentally.

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CHALLENGES OF MANAGEMENT ACCOUNTING OF SMALL AND MEDIUM ENTERPRISES (SMES)

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Abstract: *In the last decade, management accounting is not seen only as activity that record and process accounting transactions, but it is a complex process with multiple objectives. This study will show how accounting software systems assist the implementation of different management accounting tasks and financial reporting for SMEs. On the basis of the this study, there is need to consider the potential of migration of accounting software to integrated information systems, such as ERP or SEM systems.*

The limitation of this research is due to a limited number of cases studied and lack of studies on management accounting in SME.

Key words: ERP, EWS, SMEs, Management Accounting, Accounting and Financial Reporting.

JEL classification: M40, M41

1. Introduction

The uncertainty of current market had put pressure on businesses to find the way to drive properly and successfully across their organization networks. In the same time, the new technology had changed the traditional approach in which organization perform accounting and financial reporting.

In that context, management accounting as part of accounting information system (AIS) is expect to apply new methods of cost calculation in a transparent and complex way. "The challenge now is to keep the calculations transparent enough to understand, yet complex enough to accurately reflect reality. The juxtaposition of these attributes should yield actionable information that improves insight and ultimately, bottom-line results."(Desroches et al., 2010).

Several researchers claim that a prerequisite for changing the management accounting practices and for getting most new management accounting techniques to work in companies seems to be coupling them with information technology (Hitt and Newing, 1995; Classe, 1998; O'Donnell and David, 2000)

Practically any businesses today use accounting software. In a form or another, all companies from SMEs to Large Enterprise use simple or sophisticated accounting software. In order to produce reports used for accounting decision makers, accounting software is used beginning with the capture, store and manipulate data and ending with integrated information systems, such as ERP and SEM systems.

The objective of this study is the answers of two questions. As part of AIS, does the management accounting have the ability to solve different management tasks and financial reporting for SMEs? Which are the key factors for implementing management accounting for SME's?

The investigation on this topic was conducted through the use of surveys.

2. Literature review

2.1 Issues of implementation of management accounting for SME's

Studies on management accounting have shown different ways of implementing of the management accounting in SME's (Flacke et al., 2005).

The main limiting factor of the use of the management accounting in SME's represent the scarcity of the in-house resources to distinguish and disclose the very detailed information required (SME ACCOUNTING STANDARDS, 2005). In general, small business managers should be able to manage their accounts themselves (The Final Report of the Expert Group Accounting systems for small enterprises, 2008). Other studies show that "assistance to SMEs needs to be aimed more at meeting the owner manager's requirements, than business requirements. How a business develops depends on how an owner-manager copes, and research indicates that needs are dominated by the learning styles, lifestyles and self-actualization needs of the owner-manager (Road Turner, 1997). POHL and REHKUGLER come to the conclusion that the use of management accounting instruments is more distinct in companies without owner-leadership, whereas companies with owner-leaders use significantly less of such instruments (Pohl et al., 1986). Some researchers indicate that SMEs operate in a dynamic environment where both internal and external

requirements change. This uncertainly environment influence their decision to adopt management accounting system (Branzei et al., 2006).

2.2 Characteristics of management accounting software application for SME's

Many researchers found that management accounting development is tied by revolution in information technology. "In the last two decades, management accounting techniques have been developed alongside developments in information technology. This was partly initiated by Kaplan (1984) and Johnson and Kaplan (1987) who state that " management accounting techniques have become obsolete, as they have not developed in conjunction with business requirements and technology"(Rom et al., 2006).

Some researchers show that growing awareness of the need to drive value from investments made in information technologies is significant for SMEs due to their limited financial ability to justify the cost and benefit of implementing these technologies (Seethamraju, 2008).

On one hand, Seethamraju conclude that "While investment in information technologies/systems is important for both large and small enterprises, poor IT investments decisions can have a critical impact on the profitability and sustainability of the small enterprise"(Seethamraju, 2008). On the other hand, the implementation of Integrate Information System (IIS) and ERP has some limitation for SME.

Fewer studies have focused on SMEs implementation of Integrate Information System (IIS) and ERP as they perform a significant role in major economies (Snider et al, 2005).

In spite of the possibilities of change in management accounting practices that evolved with the development of integrated information systems (IIS), researches show that ERP systems, as a more evaluate information technologies, have only a limited impact on management accounting practices (Fahy and Lynch, 1999; Granlund and Malmi, 2002; Scapens and Jazayeri, 2003).

Studies show that there was no significant tendency towards a higher adoption of modern management accounting practices among ERP adopters than among non-adopters. The study finds that companies that have integrated their cost accounting into the ERP system had simply transferred the costing principles from the existing system to the new system. The rest of the companies used spreadsheets or standalone software without formal integration with the ERP system, mainly because they lacked the capacity to invest the amount of time and effort necessary to implement even a plain vanilla solution of the ERP system. In eight out of ten of the cases, activity-based costing (ABC) was applied in parts of the organizations, but this was – with one exception – accomplished outside the ERP system. The main argument for not integrating ABC with the ERP system was that the existing version of the ERP system was considered too complex for that purpose (Rom et al., 2006).

The modernization of management accounting due to implementation of new IIS has changed the roles and expertise of management accounting and implicit of accountants in the organization's system towards to hybridization (Caglio, 2003).

2.3 Designers and users of management accounting information

The importance of user needs in designing accounting management system for SMEs is showing by many researchers (Lucas, 1975, Newman et al., M., Robey, D., 1992).

Where the managers of the large companies expect from new technologies "new way to collect, accumulate, assign and report both cost and/or profit for an organization's numerous cost objects" (Denise et al., 2010), the owners and managers of SMEs are concern with new technologies to get action over process control rather than complex long run planning systems (Hopper, 2009).

Some of the researchers show that designers and users of information systems have fundamentally different motivation and attitudes that may lead to very different perceptions (Olson and Ives, 1981).

Other researchers show that the perceptions of management accounting information are different by activities. Mia and Chenhall (1994) argue that a higher usage of broad scope information was associated with enhanced performance for marketing activities but not for production. In other words paradoxes or no management accounting information are more likely to be used in marketing activities than in production activities.

Pierce and O'Dea (2003) concluded that there are three essential keys in order to achieve usefulness of management accounting information. Firstly, technical knowledge is essential in order to be able to adapt information to the needs of a given situation and achieve an optimum balance between technical and organizational validity. Secondly, a sound knowledge of other business functions, such as IT, production and marketing is necessary. Finally, a well developed set of social and inter-personal skills is required.

In a study about management accounting in less developed countries, Hopper (2009) show that “Research concentrates on large organizations, often foreign owned, and neglects indigenous small and micro-organizations where cultures may be more collectivist and inclined to informal trust”.

The same authors conclude that greater consideration might be given to simple MASs for control rather than complex long run planning systems, meaning that for such organizations are needed a simplified management accounting.

Based on these previous findings, our research will try to assess how management accounting can be implemented in SMEs and can help and improve the management decision. This research focused on the user needs perspective, specifically on what the management of SME’s expects from management accounting information system.

3. Research methodology and results

The collection of data was achieved by using questionnaires with close - end questions in 48 SME. The type of the response scale used in this study was nominal – polytomous, where the respondents had more than two ordered options. This survey was conducted in order to find out what are the key factors that determine the management of the SME to use MAS.

The respondents in this survey were the managers, owners, accountants and other people involved in the implementation process of the management accounting information system.

Table no.1

Behavior and user perception for management accounting information		Knowledge level of accounting system in place					Total
No.	Characteristics	User are involved in recording accounting information	Users have the capacity to understand accounting information produced by a qualified accountant on computer	Users have the capacity to understand accounting information produced by a qualified accountant and IT on computer	Users have the capacity to understand accounting information produced by a qualified accountant outside of organization	Users have no knowledge about accounting information	
1	New way to accumulate, allocate and report cost and profit	0	12	4	4	0	20
2	Control inventory, reduce cost and increase profit	0	0	4			4
3	Improve marketing and sales	0	0	0	0	0	0
4	Users does not have financial resources to implement management accounting	0	4	0	6		10
5	Users does not need management accounting	4	4			6	14
	Total	4	20	8	10	6	48

In this analysis, the correlation of 3 pairs of variables was investigated. The first pair of variables analyzed was the behavior and user perception for management accounting information and the level of knowledge of the user about the accounting system. The second pair of variable considered was the level of

knowledge of the user and how the management accounting system is organized. The third pair of variables consisted of the organization of the MAS and the business concerns.

The relationship between the behavior of the user and his/her level of knowledge of accounting system in place is presented in Table 1.

Based on the values obtained, an econometric calculus was conducted, particularly χ^2 test to verify that there are correlations between these two qualitative variables.

$$\hat{\chi}^2 = \sum_{i=1}^I \sum_{j=1}^J \frac{(n_{ij} - n'_{ij})^2}{n'_{ij}} \tag{1}$$

Where $n'_{ij} = \frac{n_i \cdot n_j}{n}$ is the theoretic fervency of variables independence n_{ij} , n_i , n_j and I, J are the class numbers of variables.

Based on formula (1), the particulars value of χ^2 is 60.1, value that is pretty different by tabular value for an estimated value of 1% [0 – 32]. The knowledge level about accounting system in place is influential factor that determine implementation of management accounting information.

Through the analysis of the second pair of variables the integration of management accounting on business function was investigated. The goal was to assess how management accounting is viewed like a distinct business function by users.

There is no special economics of SMEs as they are just the bottom end of a size classification of the more general class of units organized to carry out business activity (Atkinson, 1999). Based on this premise, the analysis of the factors that can determine decision makers to organize management accounting as a distinct activity could be beneficial.

The limited resource to implement a laborious management accounting system in SMEs could be a limiting factor. Also, the computer knowledge could be an influential factor in the process of implementing management accounting system. The correlation of two variables: knowledge level about accounting system in place and how the MAS is organized were analyzed in Table 2.

Table 2 Integration of management accounting on accounting function

Knowledge level about accounting system in place		How the MAS is organized					TOTAL
No.	Characteristics	There is a system to truck cost and income for each product or activity on computer	There is a system to truck cost and income for each business department on computer	There is other system to truck cost and income for each product or activity	The cost and income is calculated for reporting financial information outside of organization	There is no MAS organized	
1	User are involved in recording accounting information on computer		4				4
2	Users have the capacity to understand accounting information produced by a qualified accountant on computer	8	0	4	4	4	20
3	Users have the capacity to understand accounting information produced by a qualified accountant and IT on computer	4	4				8
4	Users have the capacity to understand accounting information produced by a qualified accountant outside of organization	0	0	0	10		10
5	Users have no knowledge about accounting information				4	2	6
	TOTAL	12	16	4	12	4	48

The particular value of χ^2 is 66, value that is different than the tabular value for an estimated value of 1% [0 – 32]. The results showed the usage of the accounting software is limiting factor that determine implementation of management accounting information.

The use of the management accounting system in the decision process was investigated on the basis of the relationship between the organization of the MAS and the business strategy. The results are in Table 3.

Table 3 Management accounting and business concern

How the MAS is organized		Business concerns					Total
No.	Characteristics	Lack of government support	Competition of big company and from import products/services	Aggressive control and corruption	Lack of knowledge about how to do business	Old and inefficient management system	
1	There is a system to truck cost and income for each product or activity on computer	0	0	2	10	0	12
2	There is a system to truck cost and income for each business department on computer	4	4	4	4	0	16
3	There is other system to truck cost and income for each product or activity	0	0	0	4	0	4
4	The cost and income is calculated for reporting financial information outside of organization	0	0	0	10	2	12
5	There is no MAS organized	0	0	0	4	0	4
	TOTAL	4	4	6	32	2	48

The correlation between these two variables doesn't pass the χ^2 test so business concerns don't represent influential factors in decision to adopt management accounting system. Still, many respondents have concern about their lack of knowledge in running the business.

4. Conclusions

Based on the data collection and statistic calculus, this study showed that for SME it is a big challenge to implement management accounting information system. Lack in financial support and knowledge in running the business are important factors which slow down the implementation process. On the other hand increasing knowledge about accounting system in place and integration of management accounting in business function are the key factors in implementation process. The good news is that all the businesses are interested in information technology and the majority of users have knowledge to use computers. SMEs will be able to adopt management accounting system through the accounting software implementation.

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RISK MANAGEMENT – POLE OF INTEREST IN RELATION TO CORPORATE GOVERNANCE. THE COMPANY'S REACTION TO RISK

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Abstract: *There is risk in everything we do. A risk-free situation is one where we know exactly what will happen and there is no variation doubt, which is otherwise impossible. But not all risks have only a negative connotation, some of them can even create opportunities. A good risk management means to keep an unwanted risk in certain permissible limits and exploit its „opportune” side.*

Corporate governance represents an innovative method of supervision on firms' activity. Executive boards now exert more and more influence, the investors become more and more pretentious, and the managers have become more aware of the key problems their business have to confront (every day). All these are tendencies that result from the higher importance laid on corporate governance in the business world.

Given the reasons, this theme awoke in us a great attention, considering the present tendencies of organizing the management of companies. They consist in finding those ways that would prevent investors and the taxation from being manipulated.

Key words: risk appetite, risk management, SOX model, corporate governance, the Cadbury Report.

JEL classification: G34, M42, M14

1. Introduction

Capital markets and general public have always depended on the reliability of the information communicated by the companies. As a final effect these notifications influenced considerably the investment behavior of private and institutional investor. Many collapses of some companies and balance sheet scandals in the last years, as for instance Enron or WorldCom, weakened this necessary trust of investors in the capital market and all legal existing regulations on Corporate Governance.

The adoption of Sarbanes-Oxley Act during the US-Congress in 2002 was interpreted as a reaction of the American legislature about this lost of trust. SOA developed at the same time not only a national, but also a large international radiance effect.

There is considerable debate about what actually constitutes corporate governance but its key elements concern the enhancement of corporate performance via the supervision, or monitoring, of management performance and ensuring the accountability of management to shareholders and other stakeholders. These aspects of governance and accountability are closely interrelated and introduce both efficiency and stewardship dimensions to corporate governance. Good corporate governance is as much concerned with correctly motivating managerial behavior towards improving the business, as directly controlling the behavior of managers.

2. Risk appetite the importance of risk management

The UK Government defines the risk as the uncertainty of a result in a wide range of exposures that come from a combination of impact and the likelihood of some potential events.

The risks that should worry us are the future ones. If an certain event took place and it's risks didn't materialize, either we were lucky, or the risk has been managed effectively. New trend towards future risks is the greatest challenge of the risk management, but it can also bring real benefits to the organization. It is better to predict, to anticipate and to try to reduce the likelihood that a risk can be produced and to reduce the impact that it will have on the organization, rather than to react to an already materialized risk or learn how to live with its consequences.

The risk management of an organization is a dynamic process, which aims at finding all the reasonable measures to find and treat all the risks that have an impact on a company's objectives. The

company's reaction to risks is very important, as the decisions made depending on the options available, established in accordance with the available resources. So, the resources and the organizational processes are aligned to face the risks every time they are identified.

The risk management is recognized as a part of the good management practices. For maximum effectiveness, the risk management must be integrated in the corporate culture, in the practice and in its action plans, rather than being seen as a single episode. And when they succeed in its implementation, the risk management becomes the job of every person in the company.

The risk strategy of an organization is a strategy coordinated by the Board or by a body with similar powers, thru which it is established the level of the risk appetite of the organization, the risk-taking preferences and the resolve options.

The risk appetite. This is an assessment of the level of exposure to risk, that the organization is prepared to accept or to tolerate. The general attitude of risks acceptance, the risk appetite, should be established starting with the highest levels of the organization. The organization will not want a "lost" executive to be exposed to unacceptable risks, as neither will want an executive to be a declared risk opponent and to wish to eliminate them, because this way he will only waste the resources, producing a ruthless bureaucracy, which will gradually smother the activity.

Therefore, we can say that the risk management remedy is to achieve a satisfactory position in which the current risk is equal to the risk we are prepared to tolerate (the risk appetite).

Among the risk management advantages we can mention: planning the work on a closer to reality basis, a greater safety that the objectives and goals of the activity are achieved, a better control of losses, a better control of operational costs, less expensive surprises; a greater flexibility by using a wide range of options.

Without a clear assignment of the responsibility on a risk, the risk management is likely not to be effective. It is important to mention that the risks responsibility must be transparent and clear, and accepted by the appointed person. Most of the organizations appoint a "champion" (a fighter) against the risks, to take the lead in managing the risks that emerge in the company.

3. A framework of corporate governance

Different stakeholders have different objectives. Of particular importance is the conflict between directors and shareholders. But, who are the shareholders of the company? The governance of a company will depend in part on the answer to this question. The most important distinction to be made here is between private companies, which cannot offer their shares to the public, and the public companies, which include all companies quoted on the Stock Exchange.

A private company is likely to be owner-managed, in which case it will be run by a small group of shareholders or directors. Minority shareholders in private companies are usually in a weak position if they are not on the board, since the small group controlling more than 50% of the voting shares will be able to control the make-up of the board directors.

Under London Stock Exchange rules, at least 25% of the shares of quoted companies must be held by members of the public. Although a small group might still control the majority of voting shares, the minority shareholders of quoted company has the advantage that there is a secondary market for the shares. If the shareholder does not like the way the company is run, it is possible simple to sell the shares, an alternative which is often not available to the private company minority shareholder.

Although ordinary shareholders are the owners of the company to whom the board of directors are accountable, the actual powers of shareholders tend to be restricted, except in companies where the shareholders are also the directors. They have no right to inspect the books of account, and their forecast of future prospects are gleaned from the annual report and accounts, stockbrokers, journals and daily newspaper.

The day-to-day running of a company is the responsibility of the directors and other management staff to whom they delegate, not the shareholders. For these reasons, there is the potential for conflicts of interest between management and shareholders.

The relationship between management and shareholders is sometimes referred to as an agency relationship, in which managers' act as agents for shareholders, using delegated powers to run the affairs of the company in the shareholders' best interests.

Agency theory propose that, although individual members of the business team act in their own self-interest, the well-being of each individual depends on the well-being of the other team members and the performance of the team in competition with other teams.

Agency theory was advanced by two American economists, Jensen and Meckling, in 1976 as a theory to explain relationship within corporations. It has been used to explain management control practices as well as relationship between management and investors. They proposed that corporations be viewed as a set of contracts between management, shareholders and creditors, with management as agent and providers of finance as principals. Financial reports and external audit are two mechanisms by which the agents demonstrate compliance with their obligations to the principals.

The agency relationship arising from the separation of ownership from management is sometimes characterized as the agency problem. The agency problem arises when agents do not act in the best interest of their principals. For example, if managers hold none or very little of the equity shares of the company they work for, what is to stop them from working inefficiently, not bothering too look for profitable new investment opportunities, or giving themselves high salaries?

One reason why managers might do their best to improve the financial performance of their company is that managers' pay is often related to the size or profitability of the company. Managers in very big companies, or in very profitable companies, will normally expect to earn higher salaries than managers in smaller or less successful companies.

Agency theory sees employees of businesses, including managers, as individuals, each with his own objectives. Within a department of a business, there are departmental objectives. If achieving these various leads also to the achievement of the objectives the organization as a whole, there is said to be goal congruence.

Goal congruence is accordance between the objectives of agents acting within an organization and the objectives of the organization as a whole. Goal congruence may be better achieved and the agency problem better dealt with by giving managers some profit-related pay, or by providing incentives which are related to profits or share price. Examples of such remuneration incentives are:

- profit-related pay, that means pay or bonus related to the size of profits.
- rewarding managers with shares. This might be done when a private company goes public and managers are invited to subscribe for share in the company at an attractive offer price. In this way, managers become owner-managers.
- executive share options plans. In a share option scheme, selected employees are given a number of share options, each of which gives the holder the right after a certain date to subscribe for share in the company at a fixed price. The value of an option will increase if the company is successful and its share price goes up.

Such measures might merely encourage management to adopt creative accounting methods which will distort the reported performance of the company in the service of the managers' own ends.

There is also evidence that in many company the primary driver of decision-making has been to increase share price and hence managerial rewards in the short-term. The longer-term consequences of failure to invest in research and development were ignored in the drive to cut costs.

4. The cadbury report

The system of *corporate governance*, which is the director's responsibility, should seek to ensure *goal congruence* between the objectives of the organization and those of its teams or departments and individual team members.

The Cadbury Committee was set up because of the lack of confidence which was perceived in financial reporting and in the ability of auditors to provide the assurances required by the users of financial statements. The main difficulties were considered to be in the relationship between auditors and boards of directors. The *Cadbury Report* defines corporate governance as "the system by which companies are directed and controlled".

The roles of those concerned with the financial statements are described in the Cadbury Report. The directors are responsible for the corporate governance of the company. The shareholders are linked to the directors via the financial reporting system. The auditors provide the shareholders with an external objective check on the directors' financial statements. Other concern users, particularly employees are indirectly addressed by the financial statements.

The Cadbury Report has clarified many of the contentious issues of corporate governance and sets standards of best practice in relation to financial reporting and accountability.

The *Code of Best practice* included in the Cadbury Report was aimed at the directors of all UK public companies, but the directors of all companies are encouraged to use the Code. Directors should state in the annual report and accounts whether they comply with the Code and give reasons for any non-compliance.

The *board of directors* must meet on a regular basis, retain full control over the company and monitor the executive management. A clearly accepted division of responsibilities is necessary at the head of the company, so no one person has complete power.

The following points are made about *non-executive directors*, who are those directors not running the day to day operations of the company:

- they should bring independent judgment to bear important issues, including key appointments and standards of conduct;
- they should be no business, financial or other connection between the non-executive directors and the company, apart from fees and shareholdings;
- fees should reflect the time they spend on the business of the company, so extra duties could earn extra pay;
- they should not take part in share option schemes and their service should not be pensionable, to maintain their independent status;
- appointments should be for a specified term and reappointment should not be automatic; the board as a whole should decide on their nomination and selection;
- procedures should exist whereby non-executive directors may take independent advice, at the company's expense if necessary.

In relation to the *executive directors*, who run companies on a day to day basis, the main points in the Code relate to service contracts (contracts of employment) and pay. The length of such contracts should be three years at most, unless the shareholders approve a longer contract.

A major recommendation in the Code is that all listed companies must establish effective *audit committees*, consisting entirely of non-executive directors, if they have not already done so. The committee must have the authority, resources and means of access to investigate anything within its terms of reference.

5. Differing approaches to corporate governance

The establishment of a voluntary code of practice on corporate governance in the Cadbury Report characterizes a different approach to that adopted in many other countries.

In the *USA*, the system of corporate governance is rather more oriented to legal rules and stock exchange regulation, through the Securities and Exchange Commission, which imposes stringent quarterly reporting requirements on listed US companies and requires all such companies to maintain independent audit committees.

Strengthened statutory rules are being introduced in America as a result of the 2002 Sarbanes-Oxley Act, passed in the wake of corporate scandals, most notably Enron. Under the Act companies will not be able to obtain a listing unless they have an audit committee, and are prohibited from offering a variety of non-audit services to audit clients. The Act also requires investigations to be undertaken in a number of areas including compulsory rotation of auditors and the areas of reporting that are most susceptible to fraud.

The Sarbanes-Oxley Act of 2002 ("the Act") is the most sweeping securities legislation enacted in the United States in the past 70 years. The Act applies not only to publicly owned U.S. companies but also to all companies (whether organized in the U.S. or elsewhere) that have registered equity or debt securities with the Securities and Exchange Commission ("SEC") under the Securities Exchange Act of 1934. The Act defines "issuer" as any company whose securities are registered, whether the issuer is domiciled in the United States or elsewhere.

The Act provides that any foreign public accounting firm that prepares or furnishes an audit report with respect to any issuer shall be subject to the Act and the rules of the Public Accounting Oversight Board and the SEC issued under the Act, in the same manner and to the same extent as a public accounting firm that is organized and operates under the laws of the United States. However, the Act also explicitly provides that registration of a foreign public accounting firm shall not by itself provide a basis for subjecting such firm to the jurisdiction of U.S. courts, other than with respect to controversies between such firms and the Public Accounting Oversight Board.

The Audit Committees must be directly responsible for the appointment, compensation, and oversight of the work of auditors, and requires auditors to report directly to the Audit Committee. Audit Committee members must be members of the board of directors of the company, and must be independent. To be considered independent the Audit Committee member may not accept any consulting, advisory or other compensatory fee from the issuer or be affiliated to the issuer or the issuer's subsidiaries other than in the member's capacity as a member of the board of directors or any board committee. If an issuer does not have or create an independent Audit Committee, then the entire board of directors is defined to be the Audit

Committee and each director would have to meet the "fully independent" requirement and the other criteria for audit committee members, discussed herein.

The Act requires Audit Committees

- to have in place procedures to receive and address complaints regarding accounting, internal control, or auditing issues;
- to establish procedures for "confidential anonymous submission" by employees of concerns regarding accounting or auditing matters;
- to have authority to engage independent counsel and other advisers as they determine necessary in order to carry out its duties; and
- to have appropriate funding, as determined by the Audit Committee, in its capacity as a committee of the board of directors, for payment of compensation to the auditor and any advisers employed by the Audit Committee.

The Act requires the SEC to adopt rules requiring issuers to disclose whether their Audit Committees include among their members at least one "financial expert" - a person who understands GAAP and financial statements, has experience preparing or auditing financial statements and applying accounting principles in connection with the accounting of generally comparable issuers, has experience with internal accounting controls, and understands Audit Committee functions.

An auditor for a public company must timely report to that company's Audit Committee the critical accounting policies and practices to be used and all alternative treatments of financial information within GAAP that have been discussed with management and the treatment preferred by the auditor, any accounting disagreements between the auditor and management and other material written communications between the auditor and management. The SEC must establish minimum standards of professional conduct for attorneys appearing and practicing before the SEC in any way in the representation of issuers.

These rules must:

- require an attorney to report evidence of a material violation of securities law or breach of fiduciary duty or similar violation by the company or any agent, to the chief legal counsel or the CEO of the company (or the equivalent thereof); and
- if the counsel or officer does not appropriately respond to the evidence (adopting as necessary, appropriate remedial measures or sanctions with respect to the violation), requiring the attorney to report the evidence to the Audit Committee of the issuer, to another committee of the board of directors comprised solely of directors not employed directly or indirectly by the issuer, or to the board of directors.

The Act imposes a number of new disclosure requirements requiring more extensive financial disclosures by issuers. Each financial report that contains financial statements and that is required to be prepared in accordance with (or reconciled to) GAAP and filed with the SEC, must reflect all material correcting adjustments that have been identified by the auditor in accordance with GAAP and applicable securities rules. Additionally, the SEC must develop rules requiring that annual and quarterly financial reports required to be filed with the SEC must disclose all material off-balance sheet transactions, arrangements, obligations, (including contingent obligations), and other relationships of the issuer with unconsolidated entities or persons that have a material current or future effect on the issuer's financial condition, results or operations, liquidity, capital expenditures or resources, or significant components of revenues or expenses.

The SEC is also required to issue rules providing that pro forma financial information included in any periodic report filed with the SEC, in any public disclosure, press release or other release must be presented in a way that does not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the pro forma financial information, in light of the circumstances under which it is presented, misleading; and that reconciles it with the financial condition and results of operations of the issuer under GAAP.

The Act amends the list of filings in Section 16(a) of the 1934 Securities Act that must be made by officers, directors and owners of more than 10% of any class of equity security. Changes in equity ownership and ownership in security based swap agreements by directors, officers and 10% stockholders must be reported within two business days after the day of the transaction. Within one year of enactment the Act, such "Section 16 filings" will have to be filed electronically and posted on the company's website.

The Act requires the SEC to issue rules requiring annual reports filed by issuers to include an internal control report. Such report must state the responsibility of management for establishing and maintaining an adequate internal control structure and procedures for financial reporting, and must contain an assessment as of the end of the most recent fiscal year of the effectiveness of the internal control structure

procedures of the issuer for financial reporting. The issuer's auditing firm is required to attest to and report on such assessment in accordance with rules to be promulgated by the Public Accounting Oversight Board.

The Act requires the SEC to review the disclosures including financial statements by public companies with securities listed on an exchange or traded on NASDAQ on a regular and systematic basis, which is defined as at least once every three years. In scheduling reviews, the SEC will consider whether the issuer has issued various material restatements of its financial results or experienced significant volatility in the stock price as compared to other issuers; issuers with the largest market capitalization; emerging companies with disparities in price-to-earning ratios; and issuers whose operations significantly affect any material sector of the economy.

The Act directs the SEC directly or through a national securities association or national securities exchange, to adopt rules governing securities analysts' conflicts of interest that can arise when securities analysts recommend equity securities.

The stated objectives of the rules are to foster greater public confidence in securities research and to protect the objectivity and independence of securities analysts by:

- restricting the prepublication clearance or approval of research reports by persons employed by the broker or dealer who are engaged in investment banking activities, or persons not directly responsible for investment research, other than legal or compliance staff;
- limiting the supervision and compensatory evaluation of securities analysts to officials employed by the broker or dealer who are not engaged in investment banking activities; and
- requiring that a broker or dealer and persons employed by a broker or dealer who are involved with investment banking activities may not, directly or indirectly, retaliate against or threaten to retaliate against any securities analyst employed by that broker or dealer or its affiliates as a result of an adverse, negative, or otherwise unfavorable research report.

The rules must also (1) define periods during which brokers or dealers who have participated, or are to participate, in a public offering of securities as underwriters or dealers should not publish or otherwise distribute research reports relating to such securities or to the issuer of such securities; (2) establish structural and institutional safeguards within registered brokers or dealers to assure that securities analysts are separated by appropriate informational partitions within the firm from the review, pressure, or oversight of those whose involvement in investment banking activities might potentially bias their judgment or supervision; and (3) address such other issues as the SEC determines appropriate.

The Act directs the SEC directly or through a national securities association or national securities exchange, to adopt rules reasonably designed to require each securities analyst to disclose in public appearances and in research reports conflicts of interest that are known or should have been known by the securities analyst or the broker or dealer, to exist at the time of the appearance or the date of distribution of the report, including:

- the extent to which the securities analyst has debt or equity investments in the issuer that is the subject of the appearance or research report;
- whether any compensation has been received by the registered broker or dealer, or any affiliate thereof, including the securities analyst, from the issuer that is the subject of the appearance or research report;
- whether an issuer, the securities of which are recommended in the appearance or research report, currently is, or during the 1-year period preceding the date of the appearance or date of distribution of the report has been, a client of the registered broker or dealer, and if so, stating the types of services provided to the issuer;
- whether the securities analyst received compensation with respect to a research report, based upon (among any other factors) the investment banking revenues (either generally or specifically earned from the issuer being analyzed) of the registered broker or dealer; and
- such other disclosures of conflicts of interest that are material to investors, research analysts, or the broker or dealer as the SEC determines appropriate.

In continental Europe, reporting requirements tend to be more statutorily based in tax law, although all EU members are subject to EU company law directives. In *Germany*, The common two-tier board system, with a separate management board and supervisory board, may be claimed to encourage management to take shareholders' interests more closely into account than the typical one-tier UK system.

Japanese companies are characterized by what is sometimes called a flexible approach to corporate governance, with a law level of regulation. All stakeholders are supposed to collaborate in the company's best interests, unlike the UK and US traditions of directors working primarily in the interests of shareholders.

6. Conclusion

Corporate governance is one of the key issues of the 1990s due to a number of well-publicized corporate problems in the late 1980s. This paper presents the most recent evidence on key topics within corporate governance including: internal control and the management audit, the remuneration of the corporate board, audit committees, the performance of firms in relation to institutional ownership.

Given the accelerated nature of change, innovation and progress in the U.S. and global markets, and in light of notable exceptions to a system that has generally worked well, we believe it is appropriate to restate the guiding principles of corporate governance. These principles, we believe, should help to guide the continual advancement of corporate governance practices, and so advance the ability of U.S. public corporations to compete, create jobs and generate economic growth.

First, the paramount duty of the board of directors of a public corporation is to select a Chief Executive Officer and to oversee the CEO and other senior management in the competent and ethical operation of the corporation on a day-to-day basis.

Second, it is the responsibility of management to operate the corporation in an effective and ethical manner in order to produce value for stockholders. Senior management is expected to know how the corporation earns its income and what risks the corporation is undertaking in the course of carrying out its business. Management should never put personal interests ahead of or in conflict with the interests of the corporation.

Third, it is the responsibility of management, under the oversight of the board and its audit committee, to produce financial statements that fairly present the financial condition and results of operations of the corporation, and to make the timely disclosures investors need to permit them to assess the financial and business soundness and risks of the corporation.

Fourth, it is the responsibility of the board and its audit committee to engage an independent accounting firm to audit the financial statements prepared by management and to issue an opinion on those statements based on Generally Accepted Accounting Principles. The board, its audit committee and management must be vigilant to ensure that no actions are taken by the corporation or its employees that compromise the independence of the outside auditor.

Fifth, it is the responsibility of the independent accounting firm to ensure that it is in fact independent, is without conflicts of interest, employs highly competent staff, and carries out its work in accordance with Generally Accepted Auditing Standards. It is also the responsibility of the independent accounting firm to inform the board, through the audit committee, of any concerns the auditor may have about the appropriateness or quality of significant accounting treatments, business transactions that affect the fair presentation of the corporation's financial condition and results of operations, and weaknesses in internal control systems. The auditor should do so in a forthright manner and on a timely basis, whether or not management has also communicated to the board or the audit committee on these matters.

Sixth, the corporation has a responsibility to deal with its employees in a fair and equitable manner.

These responsibilities, and others, are critical to the functioning of the modern public corporation and the integrity of the public markets. No law or regulation alone can be a substitute for the voluntary adherence to these principles by corporate directors and management and by the accounting firms retained to serve American corporations.

We continue to believe that the most effective way to enhance corporate governance is through conscientious and forward-looking action by a business community that focuses on generating long-term stockholder value with the highest degree of integrity.

The principles discussed here are intended to assist corporate management and boards of directors in their individual efforts to implement best practices of corporate governance, and also to serve as guideposts for the public dialogue on evolving governance standards.

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TRANSPARENCY FOR BETTER GOVERNANCE

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Abstract: *As the title suggests, the approach of the article is focused on the relation between transparency used in budgeting process and governance, observing the impact on efficiency in public spending, judicious allocation of state resources and enhanced comprehensiveness over the government's expenditure. Therefore, a review of the budget legislation of the Member States has been undertaken in order to identify how transparency principle is reflected therein and then determine if any dependence exists between the variables presented above. This work was supported by CNCISIS-UEFISCSU, project number PNII-IDEI 1780/2008*

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1. Introductory words

We want to mention from the beginning the important contributions of the International Budget Partnership (IBP) institution through the Reports entitled "Open Budget Survey" that served as useful tools for the current analysis. Also, the Best Practices for Budget Transparency released by OECD and the IMF Code of Good Practices must be added to the list of recommended and trusted sources.

2. How is transparency envisaged by national budget legislations?

In the recent years, many programmes of reform in the budget domain have been implemented by governments so to improve the quality of public services, the management of resources and expenses, trying to attain the proposed policy goals. In these countries where reforms were endorsed, it could be noted a process of transformation from control of state budget inputs to outputs and orientation to results. The most visible effect was an enhanced efficiency in public spending, citizens being more informed about the way in which public resources are invested.

Provisions referring to transparency could be found in different forms. The E.U. countries in which the principle was studied are: Bulgaria, Czech Republic, Denmark, Estonia, Latvia, France, Finland, Germany, Netherland, Poland, Sweden, Spain, Hungary and UK. The elements observed within the national legislations of the Member States concern aspects of publicity in all budgetary stages. Another criterion taken into analysis refers to the independence of the institution in charge with audit and control.

For example, the Romanian Law on Public Finances no. 500 from 2002 provides at Article 9 for an open and transparent budgetary system, this being fulfilled by meeting the following conditions:

- "a). public debate of the budgeting projects in order to be adopted,
- b). public debate of the yearly general accounts at the end of the budget execution
- c). publishing the legal acts of adoption the budget and the yearly general accounts and
- d). communication of the budget content on a large scale, using mass media to disseminate information."

Although Article 9 mentioned above makes references to publicity and transparency, in general terms, invoking the process of public consultation on the projects of budgets and yearly accounts, other elements must be studied further in the phase of formulation, approval, execution and evaluation of the budget. Statistical data are supplied by Ministry of Finance within the execution process, but no official in-year or mid-year reports are made public in this respect.

A similar situation can be found in Bulgaria. Here, the publicity principle is mentioned by the organic budget law. Article 14 of the Bulgarian budget law provides for the preliminary assessment of the expected parameters of the state budget for the next three years. Likewise, in years reports are not published. In these circumstances, it might be not an easy task to track spending, revenue collection and borrowing during the year. Consequently, the publication of such reports would enhance the degree of transparency and it would meet the recommendations formulated by IBP in their survey dated from 2008.

In this framework, the Czech budget law states at Section 20 for the following:

”After the lapse of each calendar half-year, the government shall submit to the House of Representatives a report which evaluates the progress of the economy and the performance of the state budget; the report shall also include an evaluation of the performance of the budgets of territorial self-governing units and developments in state financial assets, the status of state guarantees and developments in the state debt, their detailed analysis, perspective of the performance by the end of the year and in case of a deviation from the approved state budget the information on the steps providing for the budget management stability. Further to this, the ministry shall evaluate on an ongoing basis the performance of the state budget and shall submit a report to this effect to the government, always after the lapse of the first and third quarter in such a manner that the government may forward it to the House of Representatives Budget Committee till the end of the month following the lapse of the calendar quarter.“

It can be noticed from the legal text provided above that the budget reports drafted by the Czech Minister of Finance comprise substantial information and assess the performance of the budgetary indicators at the central and local level.

In Denmark, two times a year, i.e. in May and September, all ministers have to report a balance sheet and the expected economic development to the Ministry of Finance. Afterwards the Ministry of Finance presents the information from the ministers to the Parliament in the publication *Budget Outlook*.

According to the Estonian budget law, the documents that are to be included in the state budget draft with three months, before the beginning of the next year, are presented below:

1. overview of the state economic situation and the Estonian Government’s goals in the economic policy;

2. state budget draft’ explanatory letter according to classification of revenues and expenditures established in the Article 7 of the law, including revenues and expenditures of the State Pension Fund and Medical Insurance Fund. In addition the overview of state loans taken and liabilities arising from state guarantees have to be included.

3. public Investments Program, where investment plans for at least three following years are shown by ministries and investment projects or by their groups, as well the cost of projects and their co-financing from the extra-budgetary sources.

At the time when proposing to State Assembly, the Estonian Government also publishes the state budget draft together with the explanatory letter.

In Finland, the provisions concerning the stages of and procedures to be followed in the preparation of the budget proposal are to be issued by Government decree, being open to public access. Furthermore, provisions necessary for the implementation of the budget and for the organization of financial and accounting administration are issued also by Government decree. When a proposal concerning additions and amendments to the State budget is submitted to Parliament, funds shall be allocated in the same proposal to cover the proposed increase in expenditure and reduction in revenue. This proposal shall also include a public forecast of essential changes in the revenue amounts included in the State budget. The supplementary proposal may also include cuts in the appropriations granted in the State budget.

The IBP Report (2008) classifies France on the second position in UE, after UK, in terms of budgetary transparency. The principle is very clear reflected in the French legislation. The budget proposal provides extensive information to the public, giving citizens a comprehensive picture of the government’s plans for taxing and spending for the upcoming year. However, the IBP Report considers difficult to track spending, revenue collection and

borrowing during the year. Although France publishes exhaustive in-year reports, the government does not publish a mid-year review. Publishing this document would strengthen public accountability, since it would provide a more comprehensive update on how the budget is being implemented during the year. Moreover, it is fairly easy to assess budget performance in France once the budget year is over. A detailed year-end report is produced, allowing comparisons between what was budgeted and what was actually spent and collected. Also, France makes its audit report public and provides information on whether the audit report’s recommendations are successfully implemented. France has codified the right to access government information into law, and citizens are generally able to enjoy this right in practice.

In Germany, the process of monitoring and controlling public spending, revenue collection and borrowing during the year is very transparent. Germany publishes detailed in-year reports and a mid-year review. Presently, there are increasing calls for a fundamental modernisation of the budgeting and accounting systems and thus also of budget legislation. The main concerns are how to achieve a stronger

orientation of the budget on results and effectiveness and whether it is feasible and appropriate to introduce a system of double-entry budgeting and accounting.

In terms of transparency, the Federal Court of Audit functions as an independent body. The expertise of the Federal Court of Audit is made use of in the budget preparation process. The Federal Court of Audit also receives the bids of the highest federal authorities so that it may comment on them in good time (Section 27(2) of the Federal Budget Code). Representatives of the Federal Court of Audit attend budget negotiations in an advisory capacity at divisional level. They do not, however, take part in negotiations at higher levels, at which decisions are increasingly motivated by policy considerations.

Germany's constitution, the Basic Law, contains numerous provisions on the budget and on budget procedures. The budget is established by virtue of the Budget Statute. After its passage through the Bundestag and the Bundesrat, the budget becomes law when it has been countersigned by the Finance Minister and the Federal Chancellor, signed by the Federal President and, generally in late December, promulgated in the Federal Law Gazette. Once the budget is established and the Budget Statute has taken effect, the administration is authorised to effect the expenditure and to enter into the commitments specified in the budget.

Article 14 of the Latvia budget law provides for accessibility of the budget information. Therefore, the followings are stipulated:

“(1) Information on state budget shall be published regularly in a full, comprehensive form easily perceivable by the public. All major reports on the state budget shall be accessible to the public.

(2) The state budget and its implementation indicators shall be published in an official periodical not less than once in three months. The local government budget shall be accessible to the public in each respective local government.”

Furthermore, the Government Account Act of Netherlands contains specific provisions with regard to the powers attributed to the Court of Audit. Each year, the Court of Audit shall examine:

1. the central records of the National Treasury;
2. the central government annual financial report;
3. the central government trial balance.

The findings will be recorded in the Court's reports.

The Polish budgetary transparency rules are thoroughly described within the Public Finance Law. A whole chapter is dedicated in this pursuit. Extracts from Chapter 2 of the law are presented below:

“Public finances shall be open. The openness of public finances shall be effected especially through the following, except as provided under para. 3:

- 1) openness of the Sejm budgetary debate and budgetary debates of local government units,
- 2) openness of the Sejm debate on the report on the execution of the state budget and debates on the execution of budgetary reports of local government units,
- 3) announcing publicly:
 - a) the sums of subsidies granted from the state budget and budgets of local government units,
 - b) aggregate data concerning public finances by the Minister of Finance,
- 4) making available annual reports concerning finances and the activity of units belonging to the public finance sector.

Openness of public finances shall be excluded in the case of public funds the origin or appropriation of which is considered to be state secrecy on the basis of separate regulations or if this follows from international agreements.

Units of the public finance sector shall apply uniform rules of accounting. (.....)

Units of the public finance sector shall draw up reports on the execution of the budgetary processes referred to in art. 6, hereinafter referred to as "budgetary statements."

The Minister of Finance shall define by a regulation, after consulting the Chairman of the Central Statistical Office:

- 1) the types, forms, time limits and rules of drawing up budgetary statements on the execution of the budgets of local government units and on the execution of financial plans of:
 - a) budgetary units,
 - b) budgetary establishments, ancillary enterprises of budgetary units, special resources of budgetary units,

- c) earmarked funds,
- d) other units of the public finance sector,
- 2) the types and rules of drawing up statements concerning the state public debt and guarantees of the public finance sector,
- 3) the rules of drawing up aggregate, consolidated budgetary statements of local government units,
- 4) the rules of drawing up aggregate, consolidated budgetary statements of controllers of budgetary parts and of the state budget,
- 5) the units obliged to draw up the individual types of financial statements, including budgetary statements, that special accounting rules may apply to, the time limits for drawing up these statements and the recipients of the statements.

An aggregate annual statement on the execution of budgets of local government units shall be drawn up by the Chairman of the Central Statistical Office. (.....)

The Minister of Finance shall announce publicly aggregate data concerning the whole of financial transactions of the public finance sector, including in particular the income and expenditure, receivables and liabilities, guarantees.

The Minister of Finance shall announce publicly information on the following, within the time limits referred to in art. 12 par. 2:

- 1) the amount of the state budgetary deficit or surplus,
- 2) the amount of debt of the State Treasury,
- 3) a list of guarantees granted by the State Treasury, with specification of the entities that these guarantees concern,
- 4) a list of the legal and natural persons for whom significant amounts of tax arrears have been annulled, with indication of the annulled amount and the reasons for annulment.

The Council of Ministers shall define by a regulation the amounts of and the manner of announcing publicly the list referred to in par. 2 subpar. 4.”

In Spain, transparency is one of the guiding principles, aiming to support the budgetary stability. It guarantees verification and oversight of compliance of budgetary stability.

As regards Sweden, the legal provisions on financial power and state budget contained in the Constitution and the Parliament Act are a natural starting point for drafting a new Budget Act. The Budget Act comprises regulations that supplement and clarify the provisions contained in the Constitution and the Parliament Act. This would provide a basis for government action and create a bridge between the provisions contained in the Constitution and the Parliament Act on one hand, and the multitude of detailed regulations which the Government is required to issue on the other hand. Reports are drawn up in each budgetary phase and they keep the public informed.

Further on, in Hungary, in order to facilitate a desirable financial balance in the public finance and to create the guarantees of the effective and controllable management of public funds, the principle of transparency must be also considered.

The United Kingdom's score on the Open Budget Index made by IBP shows that the government provides the public with extensive information on the central government's budget and financial activities during the course of the budget year. UK is considered to be in the top of the Member States in this respect. The extensive information provided through the state budget gives citizens tools to hold government accountable for its management of the public's money. The Open Budget Index 2008 evaluates the quantity and type of information that governments make available to their public in the seven key budget documents that should be issued during the budget year. One of the most important documents is the executive's budget proposal. It contains the executive's plans for the upcoming year along with the cost of the proposed activities. The proposal is available to the public and to the legislature prior to being finalized, at least three months before the start of the budget year to allow for sufficient review and public debate. In the United Kingdom, the proposal provides extensive information to the public, meaning citizens have a comprehensive picture of the government's plans for taxing and spending for the upcoming year.

Moreover, it is fairly easy to track spending, revenue collection and borrowing during the year. The United Kingdom publishes detailed in-year reports and a mid-year review. Publishing these documents facilitates public accountability, since they provide updates on how the budget is being implemented during the year. It is also fairly easy to assess budget performance in the United Kingdom once the budget year is over. A year-end report is produced, allowing comparisons between what was budgeted and what was

actually spent and collected. Access to the highly detailed budget information needed to understand the government's progress in undertaking a specific project or activity is fairly forthcoming. The United Kingdom has codified the right to access government information into law, and citizens are generally able to enjoy this right in practice. Notably, the United Kingdom's National Audit Office enjoys complete independence in determining its audit program. The audit office also maintains a connection line that allows the public to submit complaints and suggestions.

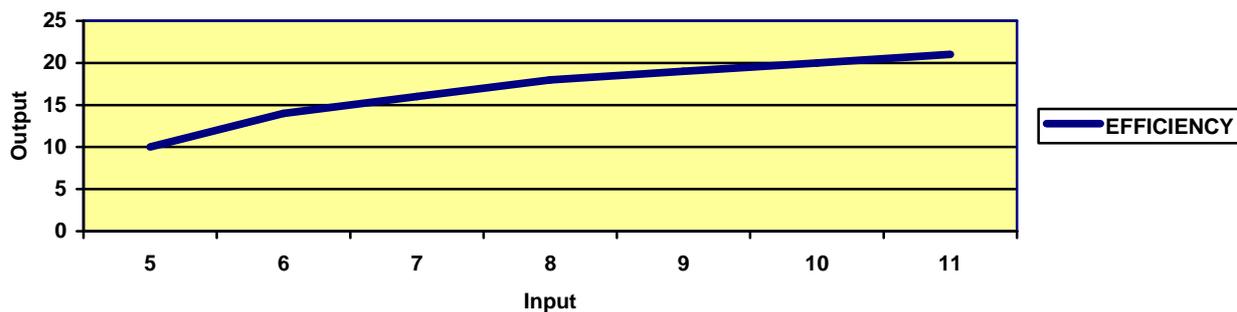
3. Link of causality between transparency and efficiency

The budgetary system of Member States will be easier understood by means of the proposed objectives if we define the budget priorities and consider the whole system as a function of inputs, outputs, efficiency (in public spending or resource allocation) and economic environment. The list of criteria can be extended to other issues of interest but, however, the target is to get a clear picture and have a simplified model. That is the reason for we have proposed to limit the analysis to several of these relevant factors.

Further on, the question raised would be "what is the role played by transparency in this function?" As we presented in the first part of the paper, transparency means, in this context, public awareness over the public budget. Therefore, the objectives proposed by governments for the following year can be surveyed and observed in which measure the aims have been fulfilled. In other words, we are estimating the outputs and then we determine the efficiency ratio. Were the government measures efficient? Can they be improved? What will be the tools for increasing efficiency? These are only few examples of questions someone may ask. Public debates can lead to improvement of results. And when we say "public" we refer not only to business environment but also to citizens.

The measure performance indicators represent a report between outputs and inputs. The graphic below illustrates the efficiency curve. Every point on the curve will meet the efficiency criteria.

Figure 1: Efficiency Function



The economic environment is given by the existent fluctuations in prices, interest rates, labour rates, consumer demand, inflation, investments, goods/services supply/demand, exchange rates, etc. All these variables characterize the evolution of economy and determine if the state is passing through recession or economic boom.

Over the last years, public finances have been confronted with new challenges that varied from increases in public debts/deficits (see the Greek case with a record of public debt) to increases in ageing population.

Taking a global view of budgeting, we have to take account on the government objectives. Therefore, the overall priorities should be defined: economic growth, stabilisation, sustainability, better rules on taxation, "safe" privatisations, increase in the quality of public services rendered and special considerations for the social policy, health, education and research. Targets must be identified for each industry. After that, indicators of performance can be measured and a record of them is to be kept in order to reflect the evolution in time. The essence of efficient budgeting, as seen by the well known economist Richard Musgrave, is to weigh the benefits and costs of alternative uses of public funds. This is, after all, the key to a cost-benefit analysis.

The scheme drafted below outlines the causality links between the relevant factors: transparency, by raising awareness over inputs and outputs (i.e. public resources and public spending) and efficiency (i.e. the report between outputs and inputs). Many authors of economic papers analyze also the effectiveness which, in their opinion, represents the measure of achieving objectives.



However, it is rather difficult to assess the public budgetary efficiency in terms of indicators. The European Commission, for example, evaluates the sovereign risk in its Reports on sustainability drafted every year. A relevant indicator of efficiency might be represented by the labour productivity per employee. Therefore, the GDP in purchasing power standards is divided by the number of employees working in a given country. In this respect, the data available on Eurostat for all the Member States showed huge discrepancies among countries, ranging from a ratio over 110 in UK, France, Belgium, Sweden, Ireland, Netherland, Austria, Finland to a ratio less than 40 in Bulgaria. Luxembourg has been eliminated from the survey because of the discrepancy made with regard to its reduced number of employees.

4. Final considerations

Overall, France, UK and Sweden are considered by IBP to provide the most extensive information on public budget, while the efficiency indicators mentioned in the section above range the same countries in the top of the classification.

However, the assessment of the efficiency gained through transparency should be undertaken separately, for each specific domain of activity. In this framework, indicators can be better identified and evaluated accordingly. Governments have to increase communication and consequently, to inform the public on its priorities, disseminating the budgetary reports in all the phases of the process, from formulation, approval and execution to evaluation and audit.

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FINANCIAL DECISIONS FOR INSOLVENT COMPANIES

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Abstract: *The paper addresses the complexity of the decisions made by companies going insolvent. Two methods that establish insolvency are presented, namely: the Altman Z-score and the Cematt model, with improvements made by the author on a case study. The paper also presents the main financial decisions from the moment bankruptcy is declared and until the capitalization of the asset.*

Key words: Altman Z-score model, Cematt model, insolvency, bankruptcy, indicators

JEL classification: G33

The global financial crisis has affected Romania also. Therefore, in 2009, 13.000 companies went bankrupt (www.ziare.com/articole/firme+lichiditate).

According to the documents available at the General Direction of Public Finance, in Alba County, on June 30, 2006, out of 14.142 economic agents, 433 were inactive, 2.908 suspended their operations, 33 were bankrupt and 10.768 submitted their balance sheets.

The phenomenon of companies with financial difficulties and facing bankruptcy grew in size in 2009 and also extended to the first trimester of 2010.

After conducting researches at liquidators, we noticed the main causes of the economic agents' insolvency. These causes include:

- For agriculture:
 - The former state agricultural enterprises have been confronted with requests of property restitution from the former owners;
 - Opening loans for the current activity with interests exceeding 100% in order to finance the production cycle, each cycle lasting for approximately 8 to 10 months.
- For industry:
 - Industrial companies were big consumers of energy, and after 1990, the prices for natural gases and electric energy grew rapidly;
 - Products of higher quality and less expensive than Romanian products were launched on the market;
 - The financial deadlock and mutual settlements with negative effects over the liquidities of the economic agents;
 - Failure to adapt to the market conditions, reducing the number of beneficiaries;
 - Mismanagement;
 - Persistence of strikes;
 - Selling many enterprises through instalment payments, and becoming new owners just by paying an advance;
 - The introduction of minimum tax in 2009.

To determine the bankruptcy of an economic agent²¹, we'll present the structure of the balance sheet and of the profit and loss account on "N". Thus, the structure of the processed balance sheet is:

-lei-

Debits		Credits	
1.	Frozen assets,	1. Equity capitals,	1030585,5
238.526,5		of which:	
	of which:	a) social capital	595.000,0
	- tangible	b) uncovered loss	939.968,3
	238.428,5	c) loss of the year	685.617,2
	- financial	2. Long-term loans	181.565,7
	98,0	3. Suppliers and similar costs	28.047,7
	- intangible	4. Creditor clients	1.155,0
	0,0		
2. Current assets,	33.929,7		
	of which:		

²¹ The data are real

- costumers and similar	accounts	5. Other short term debts	1.092.273,3
33.741,7		6. Total debts	1.303.041,7
- investments papers	100,0		
- bank accounts	13,0		
- cash accounts in lei	74,1	TOTAL credits	272.456,2
- other values	0,9		
TOTAL debits	272.456,2		

The profit and loss account on „N” has the following structure:

TOTAL operating revenue	125.015,5 lei
- revenue from sale of goods	782,9 lei
- sold production	53.479,6 lei
- turnover	54.262,5 lei
- stored production income	37.503,0 lei
- revenue from the tangible assets production	33.250,0 lei
TOTAL operating expenses	531.739,8 lei
- goods for resale	7.470,9 lei
- total material expenses	66.415,9 lei
- third party services expenses	22.600,7 lei
- taxes, duties and similar expenses	340.564,8 lei
- total personnel expenses	88.763,2 lei
- adjustment expenses for fixed assets (depreciation)	12.669,0 lei
Operating loss	406.724,3 lei
TOTAL financial revenues	77.264,4 lei
- interest income	46,8 lei
- other financial revenues	77.217,6 lei
Financial expenses	71.740,5 lei
- interest expenses	48.335,5 lei
- other financial expenses	23.405,0 lei
Financial profit	5.523,9 lei
Extraordinary revenues	12.951,5 lei
Extraordinary expenses	297.368,3 lei
Extraordinary loss	284.416,8 lei
TOTAL revenue	215.231,4 lei
TOTAL expenses	900.848,6 lei
TOTAL loss	685.617,2 lei

In order to establish if the economic agent is in bankruptcy, we'll use the methods existent within literature, namely the Altman model and the Cematt model.

The Altman model is written as follows (Achim, 2009, p. 410-412):

$$z = 1.2x_1 + 1.4x_2 + 3.3x_3 + 0.6x_4 + 0.999x_5 \quad (1)$$

Based on the data in the Balance sheet and on the profit and loss account, we will calculate the values of z , x_1 , x_2 , x_3 , x_4 , x_5 .

Therefore: Business flexibility (x_1)

$$x_1 = \frac{\text{Working capital}}{\text{Total assets}} = \frac{-1.087.546,3}{272.456,2} = -3,9916 \quad (2)$$

Where:

$$\text{NWC} = \text{Permanent capital} - \text{Frozen assets} = -1030585,5 + 181565,7 - 238526,5 = -1087546,3 \quad (3)$$

$$\text{NWC} = \text{Current assets} - \text{Short-term debts} = 33929,7 - 1121476,0 = -1087546,3 \quad (4)$$

Total assets self-financing rate (x_2):

$$x_2 = \frac{\text{Reinvested profit}}{\text{Total asset}} = \frac{0}{272456,2} = 0 \quad (5)$$

Economic rate of return (x_3):

$$x_3 = \frac{\text{E BIT}}{\text{Total asset}} = \frac{-889724,3+489333,3}{272456,2} = \frac{-400391,0}{272456,2} = -1,47 \quad (6)$$

E BIT = profit before paying interest and taxes and is equal with the gross result of the exercise and the interest expenses.

The borrowing capacity of the company (x_4):

$$x_4 = \frac{1102041,7}{549000,0} = 2,19 \quad (7)$$

and is determined as a ratio between total debts and the equity capital.

Return on assets (x_5):

$$x_5 = \frac{54262,5}{272456,2} = 0,1977 \quad (8)$$

and is determined as a ratio between turnover and total asset.

The value of $Z = 1,2 (-3,9916) + 1,4(0) + 3,3(-2,4) + 0,6 \times 2,19 + 0,999 \times 0,1977 = -4,79 + 0 - 5,64 + 1,314 + 0,1975 = -8,9185 \ll 1,8$ and so, the bankruptcy of the company is imminent.

Regarding the Cematt model (Merența, 1994, p.76-86), we used 11 indicators in order to establish the financial diagnosis:

1. Economic profitability:

$$\text{Ec. prof.} = \frac{\text{Operating profit}}{\text{Total assets}} \times 100 = \frac{-400391,0}{272456,2} \times 100 = -147,28 \quad (9)$$

2. Financial profitability

$$\text{Fin. prof.} = \frac{\text{Net profit}}{\text{Equity capital}} \times 100 = \frac{-685617,2}{-1030585,5} \times 100 = 66,52 \quad (10)$$

3. Productivity of capital

$$\text{Produc. cap.} = \frac{\text{Turnover}}{\text{Net frozen assets}} = \frac{54262,5}{238826,5} = 0,227 \quad (11)$$

4. The evolution of net borrowing

$$\text{Ev. fixed. as.} = \frac{\text{Total short-term debts}}{\text{Values achievable on short term (Assets+Expenses in advance-Stocks)}} = \frac{1121476}{33929,7} = 33,05 \quad (12)$$

5. Remuneration of the working factor

$$\text{Rem. work. fact} = \frac{\text{Total expenditure on wages}}{\text{Turnover}} \times 100 = \frac{88763,2}{54262,5} = 1,64 \quad (13)$$

6. Rates of financial autonomy

$$\text{Rates fin. auton.} = \frac{\text{Equity capital}}{\text{Equity capital+Long term bank loans}} = \frac{-1030585,5}{-1030585,5+181565,7} = \frac{-1030585,5}{-8490198} = +0,12 \quad (14)$$

7. Liquid assets

$$\text{Liq. assets} = \frac{\text{Current assets+Expenditure in advance}}{\text{Short term debts+Revenue in advance}} = \frac{33929,7}{1121476} = 0,03 \quad (15)$$

8. Rotational speed of current assets (number of turns)

$$\text{Rot. speed cur. asset.} = \frac{\text{Turnover}}{\text{Current assets}} = \frac{54262,5}{33929,7} = 1,6 \quad (16)$$

9. Low liquidity

$$\text{Liq. red.} = \frac{\text{Current assets+Expenditure in advance-Stocks}}{\text{Current liabilities}} = \frac{33929,7}{1121476} = 0,03 \quad (17)$$

10. Asset solvency

$$\text{Asset solv.} = \frac{\text{Equity capital}}{\text{Total credit}} \times 100 = \frac{-1030585,5}{272456,2} = -3,78 \quad (18)$$

11. Immediate liquidity

$$\text{Lichid. im.} = \frac{\text{Treasury}}{\text{Short term debts+Revenues in advance}} \times 100 = \frac{188}{1121476} = 0,00017 \quad (19)$$

According to the scoring table we have:

Table 1: Scores

CRITERION DESIGNATION	SCORING				
	20	40	60	80	100
1. ROA (to drop below 0.10)	≤4	(4.10]	(10.15]	(15.20]	>20
2. ROE (not to drop below 0.5)	≤2	(2.5]	(5.10]	(10.15]	>15
3. Invested capital productivity (not to drop below 2)	≤2	(2.3]	(3.4]	(4.5]	>5
4. Net debt evolution (not to exceed 0.80)	>0.80	(0.60;0.80]	(0.40;0.60]	(0.20;.040]	≤0.20
5. Work factor remuneration (not to exceed 0.35)	>0.35	(0.30;0.35]	(0.25;0.30]	(0.20;0.25]	≤0.20
6. Financial autonomy rate (not to drop below 0.50)	<0.50	(0.50;0.60]	(0.60;0.70]	(0.70;0.80]	>0.80
7. Patrimonial liquidity (not to drop under 1.30)	≤1.30	(1.30;1.40]	(1.40;1.50]	(1.50;1.60]	>1.60
8. Stocks of finite products + factors speed of rotation (not to be, in days, bigger than the evolution of the global net working capital)	>120	(90.120]	(60.90]	(30.60]	≤30
9. Reduced liquidity (not to exceed 1)	<1	(1.00;1.20]	(1.20;1.40]	(1.40;1.60]	>1.60
10. Solvency	≤25	(25.50]	(50.75]	(75.100]	>100
11. Immediate liquidity	≤0.25	(0.25;0.50]	(0.50;0.75]	(0.75;1]	>1

Source: 5th International Vilnius Conference, Knowledge-Based Technologies and OR Methodologies for Strategic Decisions for Sustainable Development, Edited by M. Grassebauer, L. Sakalauskas, E.K. Zavadskas, 2009, p. 248

Table 2: Scoring table (Hada, 2009, p. 299)

No. criterion	1	2	3	4	5	6	7	8	9	10	11
Importance coefficient	2	5	1	5	2	1	1	1	5	1	5
Calculated value	-149,28	Loss 66,52	0,227	33,05	1,64	Negative	0,03	$\frac{560}{225} = 2,48$	0,03	-3,78	0,00017
Score	20	20	20	20	20	20	20	20	20	20	20

Source: calculated data

The combined note will be:

$$\frac{2 \times 20 + 5 \times 20 + 1 \times 20 + 5 \times 20 + 2 \times 20 + 1 \times 20 + 1 \times 20 + 1 \times 20 + 5 \times 20 + 1 \times 20 + 5 \times 20}{2 + 5 + 1 + 5 + 2 + 1 + 1 + 1 + 5 + 1 + 5} = \frac{560}{29} = 20 \text{ points (20)}, \text{ which on a}$$

scale of values from 20 to 100 represents the company's bankruptcy, the financial recovery being highly unlikely without restructuring or capital injection.

Table 3 Classifying Synthesis

Scoring	Rating	Recommended industrial restructuring strategy
[0 - 20]	Massed bankruptcy	Finding some profit centres and starting a separating procedure between the trading companies
[21 - 40]	Critical situation	Radical restructuring. Measures for overcoming the state of alarm. Important activity restrictions. Important changes of profile/markets/capital infusion/know how
[41 - 60]	Difficult balance	Important restructuring. New short/average-term objectives Commercial marketing actions Management perfecting and a strict savings system Capital inflow
[61 - 80]	Satisfying adaptation	Choosing some new strategic objectives "Freezing unprofitable deals" Capital inflow
[81 - 100]	Viability in competitive environments	Adapting a new offensive firm strategy Major restructuring is not necessary

Source: 5th International Vilnius Conference, Knowledge-Based Technologies and OR Methodologies for Strategic Decisions for Sustainable Development, Edited by M. Grassebauer, L. Sakalauskas, E.K. Zavadskas, 2009, p. 252

The two used methods show that the economic agent is in bankruptcy. Bankruptcy is declared in accordance with the Law of insolvency no. 85/2006.

The financial decisions are taken by the liquidator and they concern the following:

- Notifying the debtor to submit the documents stipulated in article 28 and 35 of Law no. 85/2006;
- Notifying the creditor to submit the claim statements to establish liabilities and to draw up the

Table of creditors;

- The judicial administrator or liquidator writes the Report (article 59 of Law no. 85/2006), which establishes the causes that lead to bankruptcy and the persons responsible of this situation;

- Convening the first General Meeting of creditors;
- Making the decision to declare bankruptcy or judicial restructuring;
- Drawing up the Consolidated table of claims;
- Doing the inventory of the assets and their evaluation by an specialized assessor;
- Convening the General Meeting of creditor in order to:
 - o Approve the evaluation report;
 - o Approve the sale rules;
 - o Approve specification conditions;

- The actual sale of assets and collecting the claims of the balance;

- Allotting the sums according to articles 121 and 123 of Law no. 85/2006;

- Closing procedure according to article 131 or 132 of Law no. 85/2006.

Considering the presented information, the managers must make the financial decisions from the moment there are signs that the company is facing financial difficulties (negative working capital, losses, debts that can be reimbursed, etc.) and when the phenomenon of insolvency has occurred, the financial decisions must be made by specialized liquidators.

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PROPOSAL FOR AN ACCOUNTING RELATED TO THE EVALUATION AND APPRAISAL OF THE RISKS WITHIN THE AGRICULTURE SECTOR

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Abstract: *Globalization of world Economy and technical and scientific progress offer opportunities to increase the efficiency within the different industrial sectors of the agriculture. This objective can be accomplished by priority guiding to manufacturing and exporting the high competitive food-processing products. The increase of the economic efficiency has social and economic consequences both for producers and for consumers. General information and especially economic one, are the main resources used in the management process, which allow a reasonable examination and an exact evaluation of using the material, human and natural resources in order to take the right decision*

Key-words: *accounting policies, European directives, IAS/IFRS, biological assets*

JEL Classification: G30

1. Risk and incertitude Accounting within the Agriculture

Choosing the appropriate accounting policies is a professional reasoning issue, starting with the argument of allocating the cost of assets on the expenses of that accounting period within this costs are contributing to income achieving. Though, these policies rely on estimations and the accounting period or periods that benefit by those costs can't be delimited in a doubtless and exactly way. These methods are also subjective, due to the difficulty in arguing why to choose one or another method. This is why there is important that both the accountant and the user of the financial report comprehend the possible consequences of the different accounting policies over the financial statements. For example, if two agricultural companies providing same services appraise differently the biological assets, one company by their acquisition cost and the other by its fair value, the financial results and the net assets reports are different.

There can be allege that the company that appraised the assets by their acquisition cost is more prudent, but on the other hand, this company can be far away from the exact picture, which is better mirrored by the fair value. Though, it is difficult to appreciate which company has appraised more prudent or which one reproduced more adequate the specific risks. One of the companies uses the provisions system to depreciate the assets and the risks, appraising the assets at the lowest level between the cost and the net realizable value, and reflects the costs for depreciation into the financial result account, the other, appraising the biological assets by their fair value, reflects on the balance sheet both the loss and the profit arisen from altering the fair value.

The presence of these choices may cause interpretation issues of the financial reports if there wouldn't exist the information notes and the annotations and if the principle of the permanence or consistency of methods wouldn't be taken into consideration. A good informing implies that the management has to explain the most significant used accounting policies for issuing the financial reports within the annotations of the financial statements. The permanence of methods means that year by year there should be used the same accounting policies, and in case that this policies are changed there is required a re-calculation of those information influenced by this modifications.

The Romanian accounting regulations, compliant with the European Directives and inspired from IFRS, provide requirements and criteria regarding the recognition and derecognition of the elements within the financial statements. Regarding the recognition of the assets, generally speaking, the recognition conditions are compliant with those present in the General Frame of IAS.

In a traditional way the Romanian accounting keeps the biological assets according to the acquisition cost. The animals or the plantations which were distinctive nominated within the tangible assets were not considered during the revaluations that were regularly disposed and processed for the rest of the tangible assets. As well, according to the current accounting regulations, the shape of the financial statements is unitary, whereas their basic format is imposed by the national Accounting Regulations. Also, providing additional information issued in a personal manner is possible only within the notes to the financial statements. Therefore, even if IAS 1 allows, for example for the balance sheet to represent and detail some elements either within the balance sheet or in the notes to the statements, the national accounting Regulations stipulate expressly the rows of the balance sheets and other items of the financial statements.

The two types of accounting regulations represent distinctive accounts for the biological assets and classify them into fixed and current assets. In the general chart of accounts there are only two specific accounts for agricultural activities: 2134 “Animals and plantations” and 361 “Animals and poultry”.

The biological assets which are recognized as fixed assets are treated from an accounting point of view the same way like the other tangible assets. The initial recognition is accomplished by acquisition or manufacturing cost and the recognition within the balance sheet by cost minus accumulated amortization and provisions for depreciation. Although the ministry Order no. 3055/2009 for approving the accounting regulations in accordance with the European Directives, provides alternative appraisal regulations for tangible fixed assets, in a traditional way, animals, plantations and other biological assets were not represented in the balance sheet by their fair value.

The biological assets recognized as current assets are included according to the current accounting regulations within the inventory category. In compliance with the Romanian accounting regulations, these assets listed as elements in the form of inventory, thus at point 4.38 from this regulations there is stated: “*Within the inventory there is included: animals and poultry, respective born and young animals of any kind (veal, lambs, farrows, foals etc.), raised and used for reproduction, young animals fatten for harness, bees as well as animals for production – wool, milk and fell.*”

Regarding the cereals, these are treated within the production cycle, from seeding to harvest, as work in progress and the harvest as finished goods. During all the production cycle and biological transformation, these are recorded by production cost.

Within the balance sheet, according to the current accounting regulations and to the appropriate accounting practice, the biological assets are recognized as follows:

- a) **Animals and plantations within the category of fixed assets, by the cost minus amortization minus constituted depreciation provisions (account 2134 – 2813 – 291)**
- b) **Animals, production in progress and harvest, by their cost minus constituted depreciation provisions (account 331, 345, 361 – 393,394,396, +/- -348,368)**

In Romania there aren't nowadays any agribusiness companies which recognize the biological assets by their fair value, although during 2001—2005 there were some bigger entities which applied the approved accounting Regulations no. 94/2000 adjusted with the European Directives and with the International Accounting Standards, it is not the case to ascertain that they processed the recognition of the biological assets according to IAS 41, „Agriculture”. The companies are reticent because there are no specific experiences and practices within the Romanian Accounting regarding the recognition of biological assets and their appraisal by fair value.

Supposing that there are Romanian companies which for own needs or for the consolidated financial statements try to apply the accounting treatment of the biological assets required by IAS 41, they might be confronted with some difficulties like:

1. The general chart of accounts doesn't contain enough specific accounts to permit the separate book-keeping and presentation of the biological assets and their fair value alteration. For example there are no accounts for recording the profits and losses from appraising the biological assets by their fair value.
2. There is no fiscal treatment regulated regarding the profit and loss resulted from appraising the biological assets by their fair value. Such a company is exposed to the risk of paying taxes on earnings for very long periods, like tens of years.
3. The requirements for the financial statement are still regulated by the national standards, and the companies can't take the option for own classification like mature and immature biological assets, etc.
4. The appraisal of the biological assets by their fair value supposes additional costs which the companies are not willing to pay.

2. Opening the cost accountant post in order to measure and recognize the risks

The cost accountant is the one who has to deliver appropriate and exact information regarding budgets, cost rules, deviation analyses, which build the main information for the daily economic decisions and expenses related to capital.

Within an accounting specific for agricultural activities along with this information, the cost accountant has to manage and report information connected with the possible risks and the effects of the risks over the biological assets and also over the financial results. The management accounting is built out of accounting techniques and procedures which are collecting and reporting the non-financial information, and of those regarding the production and those connected distribution, in order to answer to the information need of the management.

The Institute of Management Accountants - IMA defines the Management accounting as:

Activities for identification, quantification, collecting, analysis, processing, interpretation and transmitting the financial (or non-financial) information, used by the management for developing planning, appraisal and control functions within the company and for insuring appropriate use and recording of the company's resources.

Management accounting is permanently developing, in order to answer the continuous changing needs of the management. The powerful international competition has generated new action policies and these concepts have led to new directions for the management accounting. If the small and medium sized companies are still applying a lot of the practices and procedures already known of the management accounting, the big, global companies are fast heading to a new activity environment, which imposes new techniques and analysis regarding the management accounting.

Regarding the management accounting within the agricultural field, this has to face more and more issues related to the identification of those solutions for appraising and reducing the specific risks specific to the agricultural process.

If for the financial accounting in order to represent an exact picture for the external users, the appraisal of the biological assets according to the IAS 41 "Agriculture" is accomplished by fair value, though the information regarding the unitary production costs are still required by the internal users in order to ascertain current unitary costs for the product (biological asset) and justifying the prices, establishing the profit margin on the product, and issuing the internal budgets. There is still required an analysis of the general index cost/profit of the general agricultural activity as well as for specific biological assets, taking into consideration the fluctuation of this elements caused by the influence of the environmental factors.

In order to monitor and manage the risks within agriculture as well as accomplishing their management, there is required to follow and issue some internal reports to classify the financial information according to the responsibility areas of a company by representing the activities of the managers including only the income and expenses category that a particular manager is controlling. Known also as the accounting of efficiency, the management accounting system generates internal financial reports with personal character. Such a system emphasizes the responsibilities centers.

A responsibility centre represents an organizational unit within a functional accounting system where the internal reports are drawn. For example the costs, income, or profit and investment centers represent responsibility centers.

A functional accounting system is built by certain responsibility centers. For each managing responsibility area or level there is located a responsibility centre whereas for each one is going to be drawn a report.

3. The budgetary process

The presence of an efficient budgetary process represents a condition for the development of a cost-effective business. An efficient budgetary system can offer information regarding the demand of monthly financial resources, raw materials, high season for personnel need and duly capital expenses programming. By the end of a financial year, the budgets contribute to setting up the straightness and weakness of the company by comparing the actual result of the operating activity with the foreseen budgets. These comparisons help the managers to identify the reasons for accomplishing or non-accomplishing the estimates regarding the profit.

The operations and the appropriate resources and their costs planning and control are the best instruments for an efficient management.

The objectives of the budgetary control are constituted of:

- The contribution in deciding the proceedings to define the planned incomes and expenses of a company.
- The contribution to the coordination and communication of these different plans to the different managing levels
- To define a rule for the efficient control of the incomes and expenses.

Along with all the risks specific to agribusiness there is essential to calculate the short and long time forecasts, as well as providing their efficient controlling. A company that doesn't benefit of a budgetary control is running its business in a random way.

Therefore, the most part of the planning decisions are to be taken into conditions of risks, incertitude and probability. The risk situations can be initially foreseen if there is enough information and statistical by calculation of event's probability. For example the statistic appraisal of the death rate for meat chicken is performed by taking into consideration the previous experiences within similar circumstances. Drawing the plans, request probabilistic calculations regarding the future events and before making a decision, the managers have to estimate the implications of the market prices incertitude, present into the projected studies.

Decisions made within risk and incertitude circumstances are based either on choosing the possibility that insure the highest profit, either choosing from a number of possibilities the most optimistic possibility which might lead to the most favorable result. The manager has to apply a professional reasoning than when he chooses an option or another taking a decision under risks and incertitude circumstances. No matter how good the forecasts regarding the harvest and incomes are, it is possible that accidental situations that couldn't be forecasted nor be controlled (hail, insects' invasion, different diseases of the plants and animals) may occur, that's why the insurance is compatible with the attitude of gaining some minimum income

Building some conducts of dynamic forecast, allow the agribusiness producers to take anticipate decisions which may prevent the effects of risks and incertitude caused by climate influence and by adjusting the offer to the changes of the demand. For example, the structure of the vegetables plantations may be adapted to the conditions of every agricultural year, and if the weather requests re-seeding some fields, the proper decisions may prevent the loss..

Measuring the economic performance is important in the diagnosis analysis of the plantation and is the support of the strategy regarding the business plan developing. The business performance can be approached only from a certain level of production and agribusiness costs. There is a difference between the approaching the efficiency of a family agribusiness and those of a company that concludes a balance sheet and has an exclusive commercial activity. Very important in the efficiency recognition is the level of the land rate and of the lease.

4. Information about the risks within the financial statements

The IAS 41 "Agriculture" provides information for an agricultural enterprise regarding the financial statements. Thus, according to IAS 41 "Agriculture", an enterprise has to *present within the financial statements the profit or loss cumulated from the current period at the initial recognition of the biological assets and of the agricultural products as well as of the fair value change minus estimated costs at the selling location of the biological assets.*

This way of representing the profit and loss account by all the earnings and losses from appraising the assets by their fair value allows any time to signal a loss resulted from the diminution of the biological assets value. Thus, the management is informed about the losses resulted and aware of this, it may identify any risks that could influence the financial results.

An enterprise is encouraged to offer a quantified description of each group of biological assets, distinguishing between reproduction and consumable biological assets or between mature and immature biological assets, accordingly. For example, an entity may represent the accounting values of the reproduction and consumable biological assets sharing them on groups. An entity may also share those accounting values between mature and immature assets. These differences offer information that may be useful by ascertain the moment of the future cash income. An entity presents the reason of such differences.

The fair value minus estimated costs at the selling location of a biological asset may be changed due to physical and market price changes. The separate presentation of the physical and price changes are useful

for ascertaining the current and future period performance, especially then when the production cycle is longer than a year. In such cases, the entity is encouraged to represent either shared on groups or other wise, the value of changes minus the estimated costs caused by physical and price changes. This information is generally not very useful when the production cycle is less than a year (for example, by raising fowl or cereals).

The biological transformation has as consequences a series of physical changes – growing, genetic transformation, production and reproduction, each of them being visible and measurable. Each of this physical change is directly proportional with the future economic benefits. A change of the fair value of a biological asset caused by the harvest is also a physical change.

The agricultural activity is often exposed to climatic risks, to diseases and other natural risks. In case of an event that generates a significant element of income or expense, the nature and the value of that element is presented according to IAS 1 *Presenting the financial statements*. Examples of such events include the pestilence, floods, log droughts or frosts and insects invasion.

5. Financial analysis regarding the risks in agriculture

The performance of the plantation depends also on the quality of the economic financial management. The financial management of a company has to ensure the patrimony protection through a better administration and self control by using own resources and collecting new one.

The requested information to measure the previous, present and future economic efficiency is gained from the analytical accountancy, financial statements and from the study of the income and expenses account, marketing studies, accomplishing the technological processes and investments forecasts, development programs etc. The technical and economical information, marketing, the evolution of the creditworthiness allows the company to avoid the risks and thus taking the appropriate decisions. Based on these analyses the company may develop the principles of the business plan.

The potential of certain enterprises may be easier to forecast than other enterprises due to a minor risk. An investment or credit risk depends on how easy they may be forecasted or on profitability or liquidity.

Using the financial reports analysis, the management has to estimate if the identified links and relations are favorable or unfavorable.

The three most often used comparison criteria are:

- a. Informative indicators,
- b. Previous results of the enterprise,
- c. Economic indicators (norms, standards).

Informative indicators

Within the financial analysis there are also some ideal or informative approaches of the basic financial indicators

For example there is considered that it is acceptable a general liquidity of 2:1. It's been considered that an enterprise with a higher liquidity than 2:1 has a wrong credit policy, or over dimensioned or expired reserves, or a defective management of the cash availability.

Previous results of the enterprise

Comparing the financial indicators of the same enterprise on a certain period of time provides to the analyst the source for determining if a particular indicator has a favorable or unfavorable evolution. This comparison may influence the identification of a possible future trend.

Although all this, having considered that certain economic branches have evolutions against the previous estimations due to random factors, whereas such projections may be carefully concluded and appraised. In some cases the past isn't always the best comparison criteria. For example in Romania during 2001-2003 the adverse climate have produced great losses to the agriculture, though 2004 was a generous year with a favorable climate and very good harvests.

Branch indicators

A possibility to overcome the limits of previous results as a comparison criteria and analysis is the use of sector's indicators. This criterion allows the comparison of the appraised company with other enterprises in same activity sector. For example let's suppose that in Romania the agribusiness companies have an average rate of investment income of 7%. In this case 3% or 4% may be considered inappropriate or

insufficient. The sector indicators may be used also for appraising other evolutions. For example, if during a year the rate of profit of an agribusiness company has decreased from 8% to 6% and if there is recorded that other companies from the same sector has recorded a diminution of the profit rate from 8% to 3% there may be concluded that the performance of the company are quite good. There are three limits of using the sector analysis criteria. First there is possible that two companies that activate in the same field not to be strictly comparable. Let's take two enterprises activating in the animal husbandry. There is possible that one company's activity is the production and distribution of the dairy products (milk, yoghurt, cream) and the other is distributing raw milk to the milk processing companies. The activities of the two enterprises are not comparable because they are not identical.

In present the bigger companies activating in the agribusiness are present in more than one sector. For example a company with integrated production, is accomplishing agricultural activities with cereals and animal husbandry and also industrial activity by processing the own products obtained from own agribusiness. Appraising the financial reports of such companies using the sector factors is actually impossible. A partial solution to this issue is IAS „Segment reporting, requires the companies to submit income, financial results and identifiable assets information broken down to market segments. The third limit of the sector indicator is that certain companies in the same sector may use different accounting procedures. For example, the agriculture companies that are applying IAS, are using the IAS 41 “The Agriculture” and are treating the biological assets by their fair value, the other companies are applying national regulations based on acquisition price.

Financial analysis instruments and techniques

All the information represented in the financial statements or in the different reports of the enterprise is important through their relations with other information or with their changes from a period to another period. The instruments of the financial analysis were created to reflect this relationships and changes. The most applied financial analysis techniques are: horizontal analysis, trend analysis, vertical analysis and indicators analysis.

Horizontal analysis

The financial statements contain along with the current year information, also compared information from at least the previous year. This way of representing offers the possibility to accomplish a horizontal analysis, that incorporates estimation and interpretation of the absolute and relative changes occurred from year to year. The relative change is essential to emphasize the relation between the absolute change and the analyzed amounts.

The relative change is in the next way estimated:

$$\text{Percentage change (relative)} = \frac{\text{absolute change}}{\text{Previous year amount}}$$

Trend analysis

An alternative to the horizontal analysis is represented by the trend analysis where the percentage changes are estimated for more consecutive years. By analyzing some longer periods of time, there can be emphasized basic changes occurred within the activity.

The trend analysis uses indices to reflect the changes of specific elements during a particular period of time.

$$\text{Index} = 100 \frac{\text{the amount of the index year}}{\text{Amount of the basic year}}$$

Vertical analysis

Within the vertical analysis, the percentages are used to represent the relations between the different components and the total within a single report. There is reported one single element from the financial statements into one of the major structures of the financial statements (this amount will represent either the total of the assets, the total debts and own capital from a balance sheet, either the amount of incomes or sells from the result account).

The vertical analysis is useful in comparing the importance of certain components within the activity of the company. This analysis is used to reflect the important changes of the components from a year to another within the compared structural financial reports.

Analysis by indicators

This analysis represents an important way to identify the representative relations between two components of the financial reports. To be as useful as possible, an indicator (or a rate) has to contain also a study of the data that are the source of its determination. The indicators represent instruments or techniques used to appraise the financial situation and company's operations and the comparison of this indicators with the results recorded in the previous years or with those of other companies. The main aim of the indicators is to emphasize the fields that need a deeper analysis. They should be used in connection with understanding the whole economic situation of the company and the environment where the company is activating.

6. Conclusions

The optimal exploitation of information is possible only within the informational systems whose basic function is to manipulate a rational information quantity and the results are then used to take economic decisions well underlain to all hierarchical levels. The most important data resource for the economic information system is still the accountancy.

Choosing the accountancy methods could influence the quality and the level of the financial result. Specific accounting methods are by nature more conservative and more prudent than others, generating the representation of a smaller result during the current year. Other methods offer within the net result all the incomes and expenses generated by appraising the assets at their fair value. There is also a liberty to choose the estimated life-cycle and according to this calculating the appraised depreciation and disposal value.

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MODERN BANKING PRODUCTS IN THE GLOBAL ECONOMY

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Abstract: *The banks, as financial entities, activate in a global environment. The great changes that have occurred in the economic world impose changes in the nature, structure and functioning of banking products as well as in financial services provided by the banks to their clients. These changes refer mainly to the rapid connection that can be established by business partners with the help of bank transactions, personalization of customer relations, and increase of the IT role in the communication between the bank and its customers. Our research aims to identify the evolution of online and global banking products, specific to digital economy.*

Key words: banking products, global economy, cards, bank transactions.

JEL classification: G21.

9. Introduction

At the beginning of this millennium humankind is confronted with a new challenge — globalization.

Starting with the premises that European integration can be considered as a subcomponent of globalization, it is interesting to observe the way in which the phenomenon of globalization includes the world of finances, namely the banks. Globalization is more accentuated and faster in the financial domain being realized not only geographically (at the regional, continental or planetary level), but structurally also. Structurally, the globalization of international finances is realized by the large international financial groups which include banks, insurance companies, investment and pension funds, activities on the capital market, as well as a series of integrated financial banking services and products.

In the context of world economy globalization, the banks, as financial entities, have implemented diversity of banking products and services in the new online economic world. The banks have implemented both online banking products (operational procedures with possibility of distant payment) as well as global banking products, namely cards.

Globalization brings about this new online economic world, the so called cyber economy, world in which even the management of the customer relationship will acquire new dimensions and valences (Lindgreen, 2005).

10. Online Banking Products

Online banking products include products as internet banking, home banking or mobile banking. With the help of these products the clients (mostly corporate clients) can:

- make payments and transfers;
- receive exchange rates from the banks;
- know the account situation as well as transactions from these accounts;
- receive account statements, etc.

In order to implement, develop and manage online banking products, banks must have up to date IT systems. Usually such an online system works with a help of a regular Internet browser and uses technology that ensures guaranteed level of data security, by creating protected (encrypted) connections between the customer and the bank through the open space of the internet.

Presently the web technologies constitute a method of presentation and exchange of information widely accepted and used by the banks (Zineldin, 2002). The banks are interested in solving the problem of security of web technologies, specifically encryption, authentication and encrypted certificates.

In Romania the banks are also fighting to develop some online banking services and products through the internet. More and more clients of the banks are interested in this range of special banking services and products destined exclusively for internet transactions.

However, there are banks that function exclusively online. The concept of online banking is already widely used in developed countries in America and Europe, and will soon appear in Romania as well (Coman, 2007).

Online banks have a series of advantages that include:

- cost reduction of human resources and logistics;
- saving time and space;
- reducing the number of bank counsellors that should be at the customer's disposal at the help desk.

Online banks offer electronic banking services, internet banking or phone banking at lower prices than classical banks, the discount being sometimes at half of the price of a regular banking transaction.

Online banks offer the whole range of regular banking services and products, starting with deposits, cards and credits with much lower costs than classical banks as the latter have additional expenses regarding maintenance of territorial units (branches, agencies) and their personnel. In France, for example, the banks that function only on the internet are the cheapest; their services and products being four times cheaper than those of traditional banks.

Table 1: Romanian banks which have implemented online banking products

No.	Bank	Internet Banking	Home Banking	Mobile Banking
1	ABN AMRO Bank Romania	ABN AMRO NETBanking Acces Online-Romania	Office Net Romania	
2	Alpha Bank Romania	Alpha Click	AlphaLine	
3	Anglo-Romanian Bank Limited	i-ARBL		
4	Carpatica Commercial Bank	BCC e-SMART		
5	Romanian Commercial Bank	MultiCash BCR	Multi Cash BCR	
6	C.R. Firenze Romania Bank	CR Firenze Online		
7	Italo-Romena SpA Italia Treviso Bank	Bank@You-Internet Banking		
8	Banc Post Bank	Internet eBank	Internet eBank	
9	Romanian Bank	e-bancamea		
10	Romanian Bank for Development	BRD-NET, BRD@ffice	MultiX	Mobilis
11	Transilvania Bank S.A.	BT24	BT-Ultra	
12	Bank Leumi Romania (Ex EUROMBANK)	Leumi Online		
13	Citibank Romania	CitiDirect Online Banking		
14	Egnatia Bank Romania		MultiCash	
15	EMPORIKI BANK (Romania) S.A.	UBISQL Internet Banking		
16	EXIMBANK S.A.	Internet eBank	Internet eBank	
17	FINANSBANK (Romania)	FINANSnet		
18	GarantiBank International NV Romanian Branch	Garanti Online		
19	HVB-Tiriac Bank	OnLine B@nking	Multicash	
20	ING Bank N.V. Amsterdam	ING Online, Home/Bank	Multicash	
21	Libra Bank S.A.	LIBRA WEB BANKING		
22	OTP Bank Romania	OTPdirekt	HBS	
23	Raiffeisen Bank	Raiffeissen Online	MultiCash	myBanking
24	ROMEXTERRA Bank S.A.	TerraBanking		TerraM- mobile banking
25	S.C. SANPAOLO IMI BANK ROMANIA S.A.	SANPAOLO B@NK		
26	UniCredit Romania	UniCredit Internet Banking		
27	Volksbank Romania	MultiCash@SmartOffice	MultiCash Clasic	

Source: MCTI and commercial banks (updated February 2008)

Some Romanian classical banks are willing to offer online banking services free of charge being aware that they will gain more from the transactions of their rich customers, especially corporate ones that prefer to use the computer for banking services as well.

In Romania, 27 out of 37 commercial banks have implemented e-banking systems. They have implemented operation procedures with possibility of distant payment with applications like internet banking, home banking or mobile banking.

The banks that use online banking products are shown in table 1.

As shown in the table the mostly used e-banking system is the internet banking (26 banks, 28 services), followed by home banking (13 banks), and mobile banking (only 3 banks).

These online banking products imply an efficient management of distant payment procedures by the bank and a new approach to customer relationships, both retail and corporate.

11. Card, a global banking product

The card is a modern banking product which owes its rapid and spectacular development to the evolution and success of the IT banking systems.

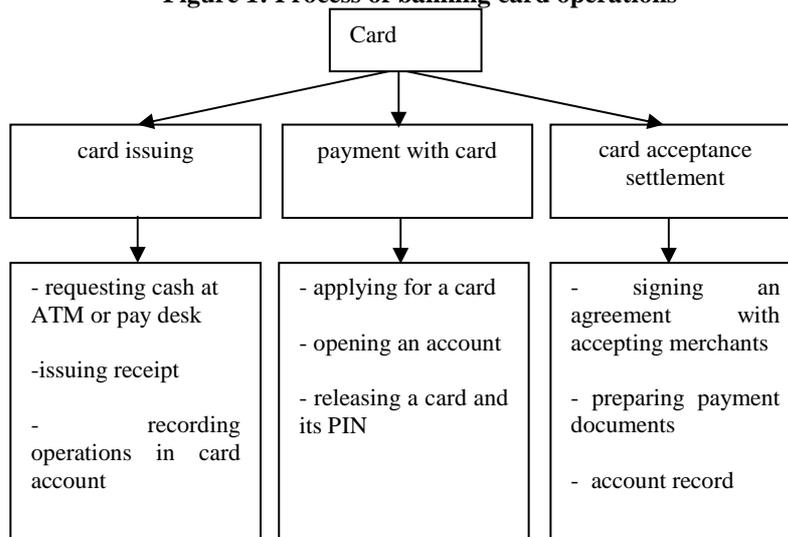
As a revolutionary innovation, the card has joined the group of banking payment tools due to the particular progress in the domains of IT and electronics which have facilitated the exchange of funds with the help of electronic instruments between transaction partners. The card has special electronic components incorporated into it to decode different operations it has been designed for. The banking card is the key for access into a banking account. It is a global banking product which allows making the transaction without restrictions of time and space. Cardholder can make transaction in his bank account from anywhere on this planet. No matter where his bank is and at which is his account.

Banking operations in which the card is used may be structured mainly in three great specific groups of operations (Harangus, 2008):

- card issuing;
- card acceptance settlement;
- payment with card.

These banking operations with card include a diversity of activities and actions initiated by the bank or customers who are possessors or acceptors of cards. They can be illustrated as follows:

Figure 1: Process of banking card operations



The banks consider the card to be a global banking product because business partners have access to their bank accounts and transactions without space or time restrictions. Online banking card operations have no border restriction in the global economic environment.

The card is the most adapted payment instrument to the globalization phenomenon, which allows the connection of operations in electronic environment from various places on the planet.

Cards are modern instruments of electronic payment. Growing payments with cards, due to promptness, precision and safety in utilizing as well as the comfort it offers, have taken vast proportion in west as well as in the other countries of the world. Payment system with cards is considered to be a modern tool of banking payment.

In our research we analyses the evolution of these modern global banking products, cards and also the terminals (ATMs, POS and EFTPOS), transactions and payments made with them (NBR, 2010).

In Romania, the evolution of payments with cards in 2008 and 2009 is presented in the table below:

As shown in the table, the number of the issued cards grew with 2,420.9 (thousands) cards in 2008-2009 period, but cards in circulation with credit function are less in 2009 compare with 2008. It is also interesting that the cards in circulation with a debit function are less in the end of 2009. This means that

customers are affected by global financial crisis. They haven't the vocation for credit and use fewer credit cards, and also they have less money for debit cards.

Table 2: Cards and Terminals, Transactions with Payment Instructions

	2008	2009	2009 Q1	2009 Q2	2009 Q3	2009 Q4
<i>Number of units (thousands) - end of period</i>						
Issued cards	22,851.8	25,272.7	23,549.0	24,076.8	24,668.3	25,272.7
Cards in circulation	13,584.1	12,886.3	13,336.8	12,740.1	12,854.5	12,886.3
Active cards	11,075.8	11,536.1	10,955.7	11,369.3	11,458.5	11,536.1
Cards in circulation with a debit function	13,256.7	12,824.1	13,030.0	12,626.0	12,777.5	12,824.1
Cards in circulation with a debit function	10,802.4	10,642.5	10,532.3	10,496.1	10,628.5	10,642.5
Cards in circulation with a delayed debit function	13.9	11.3	10.8	11.1	11.3	11.3
Cards in circulation with credit function	2,719.0	2,248.9	2,752.0	2,282.2	2,268.2	2,248.9
Cards in circulation with an e-money function	0.0	0.0	0.0	0.0	0.0	0.0
ATMs	9.2	9.7	9.4	9.6	9.7	9.7
POS terminals	90.7	98.5	94.7	98.9	96.4	98.5
EFTPOS terminals	84.1	92.1	88.3	92.3	89.9	92.1

Source: National Bank of Romania, Statistics Section, available to <http://www.bnr.ro>

The number of banking terminals (ATMs, POS and EFTPOS) increased at the end of analysed period 2008-2009. This means the commercial banks are interested to increase the transactions and payments with these modern products- banking cards.

4. Conclusions

Cards and online banking products allow business partners to have a rapid access to their banking transactions. This fact requires that banks offer a new approach to customer relations management, personalization of their relationship with customers and to increase the role of IT in communication between the banks and their customers.

The banks realize the sales of products and services for their customers directly or with the help of the web or call centres. In this context the management of customer relationships may also be established within the Internet space, which configures the new economy — with new rules and laws — the Internet economy.

The promptness of transactions and their cost reduction is highly appreciated in nowadays business environment.

The portfolio of products and banking services enhanced with online products has helped commercial banks in gaining a new segment of clients and obtaining substantial profits.

The bank, as any other virtual shop is interested in being active and profitable in the digital world, in the new online world economy.

In the space of global economy, commercial banks need modern and performance banking products and services.

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