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EXPENSES ANALYSIS BASED ON INFORMATION PROVIDED BY THE PROFIT AND LOSS ACCOUNT – COMPANY PERFORMANCE DIAGNOSIS STAGE

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ABSTRACT: *Expenses represent one component of the binomial that determines a company's financial performance, the other component being the incomes. Diagnosing performance as part of the performance management has the purpose of providing managers with a feedback on previous actions and it acts as a basis for future decisions. Profit and loss account through its format, offers the possibility to analyze changes at expenses level and the evolution of their structure. This paper aims the analysis of the expenses of a dairy company based on information provided by the profit and loss account followed by the formulation of proposals and conclusions.*

KEY WORDS: *performance, expenses, incomes, financial statements, analysis.*

JEL CLASSIFICATION: *M41, L25, D22.*

1. INTRODUCTION

The complexity of the knowledge economy, the current economic crisis and the social and environmental problems determine the increase of the financial and economic information role in making decisions. For the efficient management of a business entity it is necessary to have an economic information system developed according to the managers' information needs, whose purpose is to lead the company towards performance. The relationship between the management activity and the performance of that between action and action result, which aspect highlights the fact that the performance management exceeds the importance of measuring performance. Moreover, it is a fact already recognized that performance measurement is part of a concerted set of measures that comprise performance management.

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The conceptual IASB framework defines performance through two elements, incomes and expenses which it explains as follows:

• The incomes are "increases recorded during the accounting period as inflows or increases in the assets or decreases of the debts and are substantiated in share capital increases, other than those resulting from the shareholders' contributions";

• The expenses are "decreases of the economic advantages recorded during the accounting period as outflows or decreases of the value of the assets or debt increases that are substantiated in share capital decreases of the share capital, others than those resulted from their distribution to shareholders".

By introducing the notion of time, the definitions of the two elements, also taken over in national accounting standard (O.M.P.F. 3055/2009, section 6, point 34, a, b), provides accounting with a cyclical approach and orientation predominantly towards the future, crucial in the decision making process. The future economic benefits, that the company can win or lose, represent the fundamental criterion for the recognition of these items in the financial statements. On the other hand, the definitions are based on an extensive view of accounting and its field of application. The term of economic benefits replaced by an inclusive manner that of earnings thus allowing the inclusion of the earnings of the non-profit sector. The definitions highlight the concept according to which "the balance sheet dominates the profit and loss account", an idea motivated by the concept of measuring the performance of the company that essentially aims the measurement of the profit.

2. RESEARCH METHODOLOGY

The research methodology involved the use of research data collection methods, including all the methods that we used for collecting data and information related to the expenditure accounting in a dairy company: the method of studying the normative acts and accounting documents or documents of other types, which involved examinations form certain points of view related to the purpose and objectives of the research; the method of the case study, by which the evolution of the expenses and its implication on the company performance level were studied. In the paper, we also used methods of quantifying the data of the research performed, for a subsequent processing and interpretation of the results, such as data structuring, making comparisons, etc.

3. ANALYSIS OF THE EXPENSES

Profit and loss account is a product of the financial accounting. Financial accounting has as its main objective "providing summary information about the financial position and financial performance of the company" (Ristea et al, 2009, p. 7). Based on informations provided by the profit and loss account, a diagnostic of company performance and risk can be done. (Petrescu, 2008, p 31).

The notions of cost and expense are frequently used as synonyms but they are different. In order to express the resources consumption in the economic activity we use the notion of expense in the financial accounting and that of cost in the

management accounting. The two notions "are different because they have the marks and characteristics of the type of accounting from which they come" (Albu & Albu, 2003, p. 124). Due to the fact that merely knowing the level of expenses and costs of the company is not sufficient, it is necessary to perform an analysis based on which a series of conclusions should be drawn that should guide the manager in making current and future decisions. The cost analysis is viewed in the specialized literature as "fundamental step in the foundation of an optimal price policy that would achieve the company's objectives" (Ciuhureanu, 2012, p. 107).

Taking into account the accounting methodology, cost is a value concept that, in terms of time, follows that of expense because expenses are items constitution costs. Between the expenses and the costs there are differences of nature given by the fact that expenses are related by the cash flows of the company, while costs are related to the achievements of the company.

According to the accounting regulations in force in our country, the expenses of the entity are "the values paid or to be paid for: consumptions of stocks and services provided, in the benefit of the entity, staff expenses, fulfilling legal or contractual obligations etc." (O.M.P.F. 3055/2009, point 262, paragraph (1)). Moreover, "expenses are decreases of the economic benefits recorded during the accounting period as outflows or decreases of the assets value or debt increases, that are substantiated in decreases of share capitals, others than those resulted from their distribution to shareholders" (O.M.P.F. 3055/2009, point 34, paragraph (1), b)).

Information has an important place in performance management, being "an indispensable element of the progress" (Pântea&Bodea, 2013, p. 5). Based on the information related to the expenses costs are calculated and the results of this calculation have multiple valences. This type of information is used, among others, to set prices. Sale prices of the company products can be set either based on information related to costs, or based on information related to the specific conditions of the product market. The first version "is a seemingly easy method based on costs and the expected profit" (Veres, 2011, p. 289).

The structure of the profit and loss account may be made in two ways: according to their nature and according to their functions (purpose). In the first case the profit and loss account is rendered as a table, the expenses being recorded at debt and the incomes in the. The Romanian accounting regulations compliant with the European directives (O.M.P.F. 3055/2009) prefer the form of account based on nature as list, but Explanatory note 4 "Analysis of the operating result" requires detailing this result based on its purpose too. Classifying expenses based on their nature or on their purpose respectively has advantages as well as disadvantages (Man & Gădău, 2011, p. 170).

Irrespective of the form of presenting the profit and loss account, the comparison between effects and efforts, in the performance analysis determined with the help of profitability, may be made with the help of two series of assessment Indicators. These indicators can be expressed in absolute measures and relative measures. The indicators in absolute measures are obtained in the form of margins, as differences between incomes and expenses, and the Indicators in relative measures are obtained in the form of rates, as ratios between the various results and the expenses or capitals used. The form of the profit and loss account chosen by the Romanian standard

setters has the advantage that "contribute to playing a more complete picture of enterprise's performance, show greater openness to financial analysis, in estimating the forecast, and meets the information needs of a wide range users" (Man & Gădău, 2011, p. 171).

There are opinions according to which "firm performance is a concept whose dimensions have changed with the growing competitiveness and complexity of the economic environment in which businesses operate" (Pintea & Achim, 2010). In a general sense, the performance has the meaning of a prestigious result, an outstanding achievement (Mironiuc, 2006).

Starting from the aspects presented above, we believe that the analysis of the expenses can supply valuable information to managers, which information can be used for an adequate performance management because the analysis of the expenses is necessary in the decision-making process and is a stage of the business entity performance diagnosis. Another user of the financial and economic information, including analyzes of expenses, is the contractor seen in the specialized literature as " manager and organizer of a business, but especially as the one that is taking the risk of business or enterprise" (Săvoiu, 2011, p. 21).

In our opinion, the analysis of expenses should be followed by measures to reduce them. To achieve this, managers have at their disposal a number of technical means and Business Intelligence solutions (Șerbănescu, 2011).

The analysis of the expenses facilitates the understanding of the results correlated to the dynamics, structure and effectiveness of the expenses incurred. For exemplification we used the financial statements as of 31 December 2011 and 31 December 2012 of an entity in the Argeş County, namely S.C. Lactag S.A. Costeşti, with the NACE code 1051 Operation of dairies and cheese making.

According to specialists' opinion, "the study of the economical-financial performances posted by the Romanian industrial companies is important to understand their capacity to generate positive financial results during a specific period of time" (Siminică, et al, 2009).

The information required in order to analyse the dynamics and structure were taken from the profit and loss account, being presented in table 1.

Table 1. Indicators required to analyse the dynamics and structure of the expenses

(lei)

It. no.	Indicators	Symbol	2010	2011	2012
1.	Operating expenses out of which:	Ce	17,053,430	16,169,976	21,526,155
1.1.	Raw materials and consumables expenses	Cm	10,222,199	10,101,567	11,880,440
1.2.	Expenses related to goods	Cmf	904,831	965,944	2,771,248
1.3.	Staff expenses	Cp	2,225,021	2,160,276	2,820,992
2.	Financial expenses	Cf	710,322	8,270,736	700,335
3.	Extraordinary expenses	Cex	0	0	0
4.	Total expenses	Ct	17,763,752	24,440,712	22,226,490

Source: The financial statements of S.C. Lactag S.A. Costeşti

The evolution of the costs analysed is presented in table 2 as absolute change and change in the expense index.

Table 2. Dynamics of the expenses

It. no.	Indicators	2010/2011		2012/2011	
		Δ (lei)	I (%)	Δ (lei)	I (%)
1.	Ce	-883,454	94,82	5,356,179	133.12
1.1.	Cm	-120,632	98,82	1,778,873	117.61
1.2.	Cmf	61,113	106,75	1,805,304	286.90
1.3.	Cp	-64,745	97,09	660,716	130.58
2.	Cf	7,560,414	1164,36	-7,570,401	8.47
3.	Ct	6,676,960	137,59	-2,214,222	90.94

Source: Calculations made based on the financial statements of S.C. Lactag S.A. Costeşti

From the data presented in table no. 2 we can notice an increase in the total expenses in the accounting period 2011 compared to 2010 by 37.59% mainly as a result of the significant increase of the financial expenses (more than 11 times), which is why the analysis of the financial expense items should be deepened in order to determine the opportunity of making them in the accounting period 2011. The operating expenses record a slight decrease (by 5.18%) due to the decrease of the raw material and staff expenses, offsetting the increase by 6.75% of the goods expenses.

In the accounting period 2012 compared to 2011 the total expenses are decreased by approximately 9% entirely due to the reduction of the financial expenses while the analysed expense items record increases (the good expenses have the largest increase, by more than 186%).

Determining the share of each category of expenses in the total expenses allows assessments related to the structure of the total expenses and the contribution of the activities to their change. These shares are calculated based on the formula:

$$G = \frac{Ce, Cf, Cex}{Ct} \times 100$$

(1)

where: G is the specific weight (structure) on categories of expenses.

Table 3. Structure of the total expenses on activities

(%)

Share of expenses on activities	Symbol	2010	2011	2012
Operating	Ge	96.00	66.16	96.85
Financial	Gf	4	33.84	3.15
Extraordinary	Gex	0	0	0
Total		100	100	100

Source: Calculations made based on the financial statements of S.C. Lactag S.A. Costeşti

In the accounting period 2011 we can notice a significant increase of the share of the financial expenses, which situation was also anticipated from the analysis of the dynamics of these expenses.

In the analysis of the expenses we can also determine the percentage contribution of each category of expenses to the percentage change of the total expenses. This contribution can be set as follows:

$$K = \frac{\Delta Ce; \Delta Cf; \Delta Cex}{Ct_0} \times 100$$

(2)

These contributions of the operating, financial and extraordinary expenses, to the percentage change of the total expenses in 2011 compared to 2010, and 2012 respectively compared to 2011 are presented in table 4.

Table 4. Contribution of the expenses on activities to the change of the total expenses

(%)

Expenses	Contribution to the change of the total expenses	2011/2010	2012/2011
Operating	Ke	-4.97	21,91
Financial	Kf	42.56	-30,97
Extraordinary	Kex	0.00	0,00
Total		37,59	-9.06

Source: Calculations made based on the financial statements of S.C. Lactag S.A. Costeşti

The algebraic sum of these contributions corresponds to the percentage change in the total expenses.

Due to the fact that the financial expenses recorded significant changes, first increasing in the accounting period 2011 compared to 2010, then decreasing in 2012 compared to 2011, their contribution to the percentage change of the total expenses was higher than that of the operating expenses.

The operating expenses have the main share in the total expenses (a situation deemed normal taking into account the specificity of the activity of the analysed entity), and within them we can determine the share of the main expense items, according to table 5.

Table 5. Structure of the operating expenses on main items

(%)

Structure of the operating expenses	Symbol	2010	2011	2012
Expenses with raw materials and consumables	Gm	59.94	62.47	55.19
Expenses related to goods	Gmf	5.31	5.97	12.87
Staff expenses	Gp	13.05	13.36	13.10

Source: Calculations made based on the financial statements of S.C. Lactag S.A. Costeşti

The expenses with raw materials and consumables have the largest share in the operating expenses, which is a normal situation for the analysed entity whose main business is operation of dairies and cheese making. Thus, for the reduction of the expenses it is recommended to search for raw material suppliers that charge the lowest prices.

For an accurate assessment of the evolution of the expenses, this must be monitored correlated with the dynamics of the activity reflected by the Indicators that show incomes or the production and sale activity because the increase of the expenses of a business entity is justified only if at the same time a production or an income increase is recorded at a higher pace than that of the expenses or if the quality of the products, works or services is improved which determines an increase in the prices and tariffs due to which the incomes will increase more. For an economically positive situation (which should reflect an increase in the efficiency) in the case of the increase in the expenses, their dynamics should be inferior to the dynamics of the incomes: *100 < $I_{Ct} < I_{Vt}$.*

We will analyse this correlation between incomes and expenses using information from the profit and loss account and from Note 4 *Analysis of the operating result*, information presented in table 6.

Table 6. Indicators required to analyse the correlation between incomes and expenses

(lei)

Indicators	Symbol	2010	2011	2012
Total incomes	Vt	17,828,146	24,482,736	22,633,739
Operating incomes	Ve	17,688,401	16,661,978	22,615,630
Net turnover	CA	16,681,000	15,705,984	19,587,002
Total expenses	Ct	17,763,752	24,440,712	22,226,490
Operating expenses	Ce	17,053,430	16,169,976	21,526,155
Costs of the goods sold and of the services provided	Ch	16,580,317	14,413,289	20,588,888

Source: The financial statements of S.C. Lactag S.A. Costeşti

The dynamics of the incomes and expenses studied is as shown in table 7.

Table 7. Indicators of the change in the incomes and expenses

(%)

Indicators	Symbol	2011/2010	2012/2011
Total incomes	I_{Vt}	137.33	92.45
Operating incomes	I_{Ve}	94.20	135.73
Net turnover	I_{CA}	94.15	124.71
Total expenses	I_{Ct}	137.59	90.94
Operating expenses	I_{Ce}	94.82	133.12
Costs of the goods sold and of the services provided	I_{Ch}	86.93	142.85

Source: Calculations made based on the financial statements of S.C. Lactag S.A. Costeşti

Comparing the dynamics of the total incomes with that of the total expenses we can notice an economically negative situation in the accounting period 2011

compared to 2010 because $100 < I_{Vt} < I_{Ct}$, i.e. an increase in the total expenses higher that the increase in the total incomes. The situation of this correlation becomes economically positive in 2012 compared to 2011 because the total expenses decrease more than the total incomes, so that $100 > I_{Vt} > I_{Ct}$.

As in the case of the correlation between the dynamics of the operating incomes and of the operating expenses the situation is economically negative in 2011 compared to 2010 because the incomes decrease more than expenses, and in 2012 compared to 2011 it is positive because the incomes increase by 35.73%, and expenses decrease by 33.12%, therefore *100 < I_{Ct} < I_{Vt}.*

Comparing the dynamics of the net turnover with that of the expenses related to it, i.e. of the costs of the goods sold and of the services provided, we can notice a reversed situation compared to the first two cases because in 2011 compared to 2010 the situation is assessed as positive due to the fact that expenses decrease at a higher pace than that of the turnover, while in the financial period 2012 the net turnover increases less than the increase of the cost of goods sold and of the services provided in 2011.

These correlations between incomes and expenses can also be highlighted with the help of the economic efficiency index expenses at 1000 lei which is determined using the relationship:

$$Ct_{/1000} = \frac{Ct}{Vt} \times 1000 \qquad (3)$$

where: *Ct* represents total costs;
     Vt – total incomes.

Table 8. Indicators required to determine Ct/1000Vt

(lei)

Indicators	2010	2011	2012
Total expenses (Ct)	17,763,752	24,440,712	22,226,490
Total incomes (Vt)	17,828,146	24,482,736	22,633,739
$Ct_{/1000} = \frac{Ct}{Vt} \times 1000$	996.39	998.28	982.01

Source: The financial statements of S.C. Lactag S.A. Costeşti and own calculations

In the analysed period the indicator expenses at 1000 lei has values below 1000, so we can assess that the activity was efficient. In the accounting period 2012 the indicator decreases, showing an efficiency increase.

Due to the fact that "in financial diagnosis the performance of a company is associated to its capacity of obtaining profit, or generally is mostly associated to its profitability, so that profitability Indicators are widely accepted to measure performances" (Monea & Guţă, 2011), it is necessary to also determine the effect in the change of the expenses at 1000 lei on the gross profit (result) based on the formula:

$$\Delta_{Rb}^{Ct_{/1000}} = -(Ct_{1/1000} - Ct_{0/1000})\frac{Vt_1}{1000} \tag{4}$$

Thus, the change in the total expenses at 1000 lei total incomes had the following effects on the gross result in the accounting period 2011 compared to 2010, or in 2012 respectively compared to 2011:

$$\Delta_{Rb}^{Ct_{/1000}}{}_{2011/2010} = -(998,28 - 996,39)\frac{24.482.736}{1000} = -46.405,91 \tag{5}$$

$$\Delta_{Rb}^{Ct_{/1000}}{}_{2012/2011} = -(982,01 - 998,28)\frac{22.633.739}{1000} = 368.398,76 \tag{6}$$

The increase of Ct/1000Vt resulted in the decrease of the gross result in the period 2011/2010 by 46,405.91 lei, and its decrease in 2012 compared to 2011 determined the increase in the gross result by 368,398.76 lei.

4. CONCLUSIONS

For accurate assessment of expenses from one year to another, we considered necessary to correlate them with the evolution of revenues and net turnover. Also, by presenting the effects of changed expenses on other indicators such as gross profit, there seems to be a much clearer picture of the company's financial situation.

Expenses analysis can be used as a tool in the diagnosis of performance by a series of internal and especially external users. If internal users receive information and tools of management accounting and management control, by which they may assess the performance of each product, the external users are provided only with the financial statements. For managers, the synthetic manner in which expenses are presented in the profit and loss account can be an advantage, taking into account the fact that excess information can be as harmful as the lack of information. Current and potential investors can get valuable information on which to assess whether the company is attractive to (new) investments.

It is obvious that the expenses analysis based on the profit and loss account presents some limitations mainly derived from the synthetic character of the information available, but it is the starting point for assessing the company's financial performance. The expense analysis should be seen as a necessary step in the development of diagnosing the company's performance and it must be supplemented by revenue analysis, total result analysis and also by each activity.

Given the fact that in recent decades the need for knowledge of enterprise overall performance has increased one should bear in mind that in Romania profit and loss account does not provide separate information on social and environmental expenses and incomes. Therefore, another shortcoming of expense analysis based on information provided by the profit and loss account is given by the fact that the resulting information can be used only for achieving a company's financial

performance diagnosis. We consider necessary to supplement the current legislation with mandatory rules that should require the companies to report information on social and environmental performance in order to accommodate those interested in assessing the company's overall performance.

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SOUVENIRS - FACTOR INFLUENCING THE TOURISM ACTIVITY. CASE STUDY: OPINIONS OF YOUNG PEOPLE ON SOUVENIRS

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ABSTRACT: *The capacity, or more precisely the "task" of concentrating, both from a functional and aesthetic perspective, the essence of a tourism destination into a single object, represents the main explanation why the marketing specialist of the respective destination attaches an enhanced importance to souvenirs. Therefore, due to synthesizing the important, or so considered elements, souvenirs significantly influence the image the potential consumers may form, as well their reiteration by the existing consumers. In order to find out the consumers' opinions on the representativeness of the souvenirs sold in shops, deemed as the most important by the authors of this article, a quantitative, exploratory research was performed, whose purpose is identifying young peoples' position on the image conveyed by means of souvenirs. The need for this research is incontestable in order to create a connection among the desired image, the conveyed image, the perceived image and the expected image.*

KEY WORDS: *image of Romania, image post-situ, souvenirs, Romania*.

JEL CLASSIFICATION: *M31*.

1. INTRODUCTION

The process of creating an image is incontestably important for positioning the tourism destination Romania. To create an image congruous with Romania's identity, at a conceptual level, represents the "desired standard", whose attainment contributes

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to the fulfilment of the initial goal, namely that of conveying the tourism essence of the destination and of its products to the potential consumers. Starting from the idea according to which there should be no major differences between the desired, conveyed and perceived image, the specific promotion materials - i.e. the souvenirs, must respect, highlight and aesthetically transpose the image elements established within the process of creating the image, so as to represent a symbol and, at the same time, to remind the tourist of the most pleasant experience lived "in situ".

2. CONCEPTUAL FRAMEWORK

Due to global competition and to the change in tourists' motivations and needs, to convey a positive image represents a priority in the management and marketing of the destination (Konecnik, 2002; Molina, Gómez, & Martín-Consuegra, 2010, quoted in Raffaella, Servidio, 2012, p. 19). Being an abstract concept, even in the case of building a strong, positive image congruous with the reality, its "materialisation" by means of a marketing plan is a key stage in attaining the objectives of the communication strategy.

Defined in the Explanatory Dictionary of the Romanian language as "*items, gifts, signs that represent or evoke a memory*", souvenirs are the "final product" of a complex process - of creating and conveying the tourism image - within which numerous participants with multiple tasks (such as the National Tourism Authority, local authorities, tourist service suppliers etc.), should abide by a unitary guideline, coherent with the brand strategy of the destination. The differences existing between the desired and conveyed image, or between the conveyed and the expected image (deemed to be representative for a certain destination) could be caused by certain "noise" elements or by the breach of the interdependence between the image creation and image conveyance phase, this meaning that the values, the personality or the elements of the destination brand are ignored in the process of establishing the souvenirs profile.

Souvenirs have a status that transcends the state of mere products included in the tourism experience; besides the fact that they represent constitutive elements of any tourism product, they provide "solutions" compensating for two of the main features of services in general: perishability and intangibility. Since the tourism experience can be stored only in the consumers' memory, the souvenirs may represent the "physical evidence" which symbolically catalyses and synthetises the entire tourism experience. Thus, in time, souvenirs may become "deposits" of the main elements of a certain tourism destination or of a certain product in the mind of the consumer (and of the persons in his reference group), as well as objects that facilitate the remembrance of associate emotional states. This characteristic feature of souvenirs may result in a comeback to the destination through the mental reiteration of the main differentiation elements in the structure of souvenirs, or in the promotion of the destination by donation or by recommendation, from consumers to potential tourists, who have thus the opportunity to imagine the respective destination, or may wish to visit it, fact which can create "a spiral, with ever wider ellipses" of the developing of the image of the destination.

3. METHODOLOGICAL FRAMEWORK

In order to comprehensively analyse Romania's image conveyed by means of souvenirs, the study focuses on the souvenirs sold in three locations of strategic importance in Bucharest, namely the souvenir shops at the "Henri Coandă" International Airport, in the "Universitate" passageway and in the Magheru Boulevard; these shops are situated in areas with busy traffic, significantly exposed to potential tourists and/or inhabitants of Romania or of Bucharest, on the one hand, and close to numerous tourist attractions, on the other hand.

The purpose of this analysis is to identify young people's position towards the image conveyed by means of souvenirs, within each category according to the systematisation of the three shops'supply. The results obtained, premises of future detailed studies, can facilitate the comparison between the image conveyed through souvenirs and the image perceived by the market segment surveyed - young people considered, according to previous research, as the persons mostly travelling, around the country, as well as abroad; the noted differences may confirm the choices with reference to trading "official" souvenirs or reconsider them in their capacity as symbols or of representing regional or national tourism identity.

The survey is based on a quantitative, exploratory research performed in May-June 2013, on a sample of 248 students aged between 18 and 24[†]. The purpose of the survey was to identify the most as well as the least representatives souvenirs in the three shops, analysed within the selected categories, following the structuring of the supply, which include dolls, T-shirts, mugs, books, CDs, painted eggs, pottery, plates, folklore elements, figurines, badges, wooden items, illustrative items of legends, gastronomy-related items, cosmetics, postcards, bags, tourist guides etc.

4. RESULTS

The first shop surveyed (actually the one with the most varied supply) was that at the "Henri Coandă" International Airport. The most numerous souvenirs in this shop, presented to the students, were miniature dolls (numbered and graphically presented in Annex 1).

Table 1. Young people's opinion on the most representative "doll" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**217**	
Doll no. 19	29	13.4
Doll no. 20	22	10.1
Doll no. 13	21	9.7
The souvenirs presented in the annex were conventionally numbered from 1 to 20		
The difference to 100% = other variants		

Source: statistical survey made by the authors

[†] The questionnaires were filled in by the students of the Marketing Faculty - senior year, class 2012/2013, of the Academy of Economic Studies, to whom we extend our thanks.

The dolls they deemed as the most representative were: Doll no. 19 (13.4%), a set of dolls in national folk costumes, illustrating the authenticity and diversity of the regions' folklore, Doll no. 20 and Doll no. 13 (10.1%, respectively 9.7%), both having specific symbols such as the costume and the flax tow, symbol of Romanian rural authenticity (Table 1).

The dolls deemed as the least representative by the respondents (Table 2), were Doll no. 8 and Doll no. 2 (66.4%, respectively 13.0%) both wearing specific Russian folk costumes. The opinion of consumers (100% residents of Romania), as far as this category is concerned, focuses on elements of Romanian folklore. Although, probably, the dolls unrepresentative for Romania's image could end up not being bought, for other segments of consumers (ex. foreign consumers), they could be the elements of forming and of promoting elements that are not representative for Romania's tourist identity.

Table 2. Young people's opinion on the least representative "doll" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**223**	
Doll no. 8	148	66.4
Doll no. 2	29	13.0
The souvenirs presented in the annex were conventionally numbered from 1 to 20 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

With the "T-shirt" category, the respondents deemed as the most representative those with Romania's map contour, T-shirt no. 2 with Vlad Țepeș (Vlad the Impaler) (59.5%), and T-shirt no. 3 presenting the major tourist attractions within Romania's borders (Table 3).

Table 3. Young people's opinion on the most representative "T-shirt" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**220**	
T-shirt no. 2	131	59.5
T-shirt no. 3	84	38.2
The souvenirs presented in the annex were conventionally numbered from 1 to 3 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

T-shirt no. 1 was considered the least representative since it presents a graphic image which suggests the idea of vampire, accompanied by the slogan "You simply love it"; unlike the other two T-shirts, it does not present any of Romania's identity elements (Table 4).

Of the existing mugs, Mug no. 3 was considered the most representative with Romania's coat of arms accompanied by the name of the country (38.7%). 10.2% of the respondents considered Mug no. 2 as the most representative as it refers to the

"Dracula" myth, a graphic representation to be found also with the other categories of souvenirs.

Table 4. Young people's opinion on the least representative "T-shirt" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**228**	
T-shirt no. 1	194	85.1
T-shirt no. 3	20	8.8
T-shirt no. 2	13	5.7
The souvenirs presented in the annex were conventionally numbers from 1 to 3 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

Table 5. Young people's opinion on the most representative "mug" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**225**	
Mug no. 3	87	38.7
Mug no. 2	23	10.2
The souvenirs presented in the annex were conventionally numbered from 1 to 5 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

Nonetheless, a more significant part of respondents (59.7%), considered that mug (Mug no. 2), with a wide-spread graphic concept, whose idea is represented by "the rejuvenation of the Dracula myth" by creating the word "Dracoola", to be the least representative for Romania's image (Table 6).

Table 6. Young people's opinion on the most representative "mug" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**231**	
Mug no. 2	138	59.7
Mug no. 1	34	14.7
Mug no. 4	25	10.8
The souvenirs presented in the annex were conventionally numbered from 1 to 5 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

Of the books to be found in the shop at the "Henri Coandă" International Airport and presented to the respondents, (Table 7), Book no. 1, titled "Legendele sau basmele Românilor" (Romanians' Legends or Fairy Tales), with an old and authentic look, was deemed the mot representative (32.7%), followed by Book no. 5 - an album of the "Dimitrie Gusti" National Village Museum (27.0). Although the other books represent or inspire Romanian values (ex. "Basmele lui Petre Ispirescu'' (Fairy Tales by Petre Ispirescu) - Book no. 2), representative were considered those whose title

specifically express the connection between the content of the book and the sense of belonging to the Romanian people.

Table 7. Young people's opinion on the most representative "book" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**226**	
Book no. 1	74	32.7
Book no. 5	67	27.0
Book no. 2	44	19.5
The souvenirs presented in the annex were conventionally numbered from 1 to 5 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

The least representative books (Table 8) are: no. 4 (42.5%) and no. 3 (32.7%), both dedicated to children with no reference (in their title) to the specificity of Romanian fairy tales or legends.

Table 8. Young people's opinion on the least representative "book" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**226**	
Book no. 4	96	42.5
Book no. 3	74	32.7
Book no. 1	25	11.1
The souvenirs presented in the annex were conventionally numbered from 1 to 5 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

The most representative CD, as deemed by respondents, contains the music of Maria Tănase (23.0%), unique personality and, at the same time, symbol of the Romanian music, which suggests, in the respondents' opinion, the way of living specific to the Romanians (Table 9). Likewise, the CD called "Greetings from Romania" (17.5%) or the CD called "Cu Iisus în celulă" (With Jesus in the cell) - Tudor Gheorghe (15,2%), are considered as being representative.

Table 9. Young people's opinion on the most representative "CD" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**217**	
CD no. 1	50	23.0
CD no. 8	38	17.5
CD no. 5	33	15.2
The souvenirs presented in the annex were conventionally numbered from 1 to 13 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

While CDs representing renowned musicians like Maria Tănase and Tudor Gheorghe, respectively, were considered the most representative, on a national and international plane, well-known personalities of the modern music (ex. CD no. 10 - Alexandra Stan), although famed, were not considered representative by the respondents (25.9%) - Table 10.

Table 10. Young people's opinion on the least representative "CD" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**216**	
CD no. 10	56	25.9
CD no. 6	24	11.1
CD no. 12	19	8.8
The souvenirs presented in the annex were conventionally numbered from 1 to 13 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

The supply of painted eggs, present in most shops, is more uniform than that of other products; nevertheless, Painted Egg no. 4, in pastel colours and discreet, classic graphic symbols, was considered the most representative (Table 11).

Table 11. Young people's opinion on the most representative "painted egg" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**215**	
Painted egg no. 4	85	39.5
Painted egg no. 2	60	27.9
Painted egg no. 1	35	16.3
The souvenirs presented in the annex were conventionally numbers from 1 to 4 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

Although part of the same collection, Painted Egg no. 1 (Table 12), with modern graphic patterns, intense colours and an abstract model, was chosen as the least representative product of the collection (30.2%).

Table 12. Young people's opinion on the least representative "painted egg" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**196**	
Painted egg no. 1	59	30.2
Painted egg no. 3	56	28.6
Painted egg no. 4	43	21.9
The souvenirs presented in the annex were conventionally numbered from 1 to 4 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

As for the "Pottery" category, the product that best represents Romania is Pottery no. 5 (50.0%) - Table 13, representing a pack with various ceramic items (plates, specifically Romanian cups), together with a towel with Romanian patterns, the answers of the respondents confirming once more the synthetic capacity of souvenirs to express the essence of a significant part of the Romanian culture in one product.

Table 13. Young people's opinion on the most representative "pottery" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**224**	
Pottery no. 5	112	50.0
Pottery no. 3	28	12.5
Pottery no. 6	28	12.5
The souvenirs presented in the annex were conventionally numbered from 1 to 6 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

The only item in the set presented that substitutes folk motifs or Romanian crafts (Table 14), with the transfigured profile of Vlad Țepeș (Vlad the Impaler), so as to inspire fear - no. 4, is deemed the least representative ceramic item (31.9%).

Table 14. Young people's opinion on the least representative "pottery" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**229**	
Pottery no. 4	73	31.9
Pottery no. 3	53	23.1
Pottery no. 1	27	11.8
The souvenirs presented in the annex were conventionally numbered from 1 to 6 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

Although there are only two products in the "Plate" category (Table 15), the fact that, symbolically, they are utterly opposed determined their separation into a new category: "plates", Plate no. 2 (88.9%,) probably representing the architecture of the Bran Castle, topped the other option - Plate no. 1 (7.4%).

Table 15. Young people's opinion on the most representative "plate" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**217**	
Plate no. 2	193	88.9
Plate no. 1	16	7.4
The souvenirs presented in the annex were conventionally numbered from 1 to 2		

Source: statistical survey made by the authors

The last of them (Plate no. 1), which graphically illustrates the "Dracoola" concept, was considered as unrepresentative for Romania's image (83.7%) - Table 16.

Table 16. Young people's opinion on the least representative "plate" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**221**	
Plate no. 1	185	83.7
Plate no. 2	30	13.6
The souvenirs presented in the annex were conventionally numbered from 1 to 2		

Source: statistical survey made by the authors

Of the folk elements and symbols, the Romanian flags (Folklore no. 3 - 34.9%) were considered the most representative, special attention being attached, from the respondents' perspective, to the Romanian hats and towels (27.5% - Folklore no. 4, respectively 25.2%, Folklore no. 1).

Table 17. Young people's opinion on the most representative "folklore elements" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**218**	
Folklore no. 3	76	34.9
Folklore no. 4	60	27.5
Folklore no. 1	55	25.2
The souvenirs presented in the annex were conventionally numbered from 1 to 4		
The difference to 100% = other variants		

Source: statistical survey made by the authors

The towel represented in the second segment of the category was considered the least representative (38.8%) - Table 18.

Table 18. Young people's opinion on the least representative "folklore elements" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**209**	
Folklore no. 2	81	38.8
Folklore no. 1	65	31.1
Folklore no. 3	34	16.3
The souvenirs presented in the annex were conventionally numbered from 1 to 4		
The difference to 100% = other variants		

Source: statistical survey made by the authors

The two figurines on display are representations of Vlad Țepeș (Vlad the Impaler) (Table no. 19), however of totally different approaches. Representative for

Romania's image was considered Figurine no. 1 (53.6%), representing Vlad Ţepeş with Romania's colours and wearing Romania's coat of arms.

Table 19. Young people's opinion on the most representative "figurine"-type souvenirs

% of column total

No.	Total sample	Percentage
Base	**151**	
Figurine no. 1	81	53.6
Figurine no. 2	63	41.7
The souvenirs presented in the annex were conventionally numbered from 1 to 2		

Source: statistical survey made by the authors

Although the scores of the two figurines are tight (Table 20), Figurine no. 1 was also considered as the least representative (52.8), being followed by a representation of Vlad Ţepeş (Vlad the Impaler) (Figurine n. 2), distorted, which inspires fear as well as horror (44.4%).

Table 20. Young people's opinion on the least representative "figurine"-type souvenirs

% of column total

No.	Total sample	Percentage
Base	**180**	
Figurine no. 1	95	52.8
Figurine no. 2	80	44.4
The souvenirs presented in the annex were conventionally numbers from 1 to 2		

Source: statistical survey made by the authors

Badge no. 10, representing the major tourist attractions on Romania's map, was considered as the most representative (38.9%), followed by a badge with the Palace of Parliament (13.4%) - Table 21.

Table 21. Young people's opinion on the most representative "badge"-type souvenirs

% of column total

No.	Total sample	Percentage
Base	**216**	
Badge no. 10	84	38.9
Badge no. 6	29	13.4
Badge no. 3	23	10.6
The souvenirs presented in the annex were conventionally numbered from 1 to 17		
The difference to 100% = other variants		

Source: statistical survey made by the authors

The least representative badges belong to the sub-category of those that do not actually present, in a graphic manner, Romania's attractions, or its best known rulers, Badge no. 8 (representing a yellow and violet coloured mushroom) and Badge no. 16, with "Dracoola" layout, considered in all its forms as unrepresentative, were chosen by most of respondents as not fit for Romania's image.

Table 22. Young people's opinion on the least representative "badge"-type souvenirs

% of column total

No.	Total sample	Percentage
Base	**208**	
Badge no. 8	112	53.8
Badge no. 16	40	19.2
The souvenirs presented in the annex were conventionally numbered from 1 to 17 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

The wooden items considered the most representative by 61.1% of respondents (Table 23), are the only ones which, besides its recognised symbolism for the crafts and specifically Romanian way of life, also have a functional as well as an aesthetic value - wooden spoons (Wooden Item no. 3).

Table 23. Young people's opinion on the most representative "wooden item" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**226**	
Wooden item no. 3	138	61.1
Wooden item no. 1	72	31.9
The souvenirs presented in the annex were conventionally numbered from 1 to 3 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

The other two items in the same category (Table 24), are décor plates illustrating women from Romanian rural areas and considered less representative (53.8%, respectively 19.2%) than the wooden spoons.

Table 24. Young people's opinion on the least representative "wooden item" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**199**	
Wooden item no. 2	113	53.8
Wooden item no. 1	49	19.2
Wooden item no. 3	33	16.6
The souvenirs presented in the annex were conventionally numbered from 1 to 3 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

The most representative legends (Table 25) are three-dimensional representations of chivalrous scenes: Legend no. 1 - (63.9%) and Legend no. 2 (24.3%). Also presenting scenes with knights (Table 26), Legend no. 3, assessed as the least representative in this category (47.0%), has only aesthetic value, being in fact a collection of drawings, unlike the other two scene - more complex, actually

representing figures that can be used for a wider range of activities (ex. exhibitions, games etc.).

Table 25. Young people's opinion on the most representative "legend"- type souvenirs

% of column total

No.	Total sample	Percentage
Base	**202**	
Legend no. 1	129	63.9
Legend no. 2	49	24.3
The souvenirs presented in the annex were conventionally numbered from 1 to 3 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

Table 26. Young people's opinion on the least representative "legend"-type souvenirs

% of column total

No.	Total sample	Percentage
Base	**202**	
Legend no. 3	95	47.0
Legend no. 2	74	36.6
Legend no. 1	29	14.4
The souvenirs presented in the annex were conventionally numbered from 1 to 3 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

As for the "gastronomy related items" (Tables 27 and 28), the respondents were presented both beverages and dishes specific to Romania. The most representative were specifically Romanian beverages, associated with the figure of Vlad Țepeș (Vlad the Impaler) - Gastronomy no. 3 (58.2%), and Gastronomy no. 4 (plum brandy from Zetea - a village in Transylvania - 20.2%).

Table 27. Young people's opinion on the most representative "gastronomy" - type souvenirs

% of column total

No.	Total sample	Percentage
Base	**213**	
Gastronomy no. 3	124	58.2
Gastronomy no. 4	43	20.2
Gastronomy n. 1	34	16.0
The souvenirs presented in the annex were conventionally numbered from 1 to 4 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

The least representative gastronomy related element was "Cornulețe cu prune" (Plum dumplings) (Boromir brand, inspired, positioned and developed through and by traditional methods/tastes). The set of Gerovital hair care cosmetics (Table 29) was deemed the most representative (53.3%), due to this brand's strong association with Romania and to its extraordinary health effects, proved along the time.

Table 28. Young people's opinion on the least representative "gastronomy"-type souvenirs

% of column total

No.	Total sample	Percentage
Base	**221**	
Gastronomy no. 2	94	42.5
Gastronomy no. 1	83	37.6
Gastronomy no. 4	25	11.3
The souvenirs presented in the annex were conventionally numbered from 1 to 4 *The difference to 100% = other variants*		

Source: statistical survey made by the authors

Table 29. Young people's opinion on the most representative "cosmetics"-type souvenirs

% of column total

No.	Total sample	Percentage
Base	**182**	
Cosmetics no. 1	97	53.3
Cosmetics no. 2	85	46.7
The souvenirs presented in the annex were conventionally numbers from 1 to 2		

Source: statistical survey made by the authors

The face cream (also under the Gerovital brand), the packaging of which shows only the name of the brand, was considered less representative than the hair care products (Table 30).

Table 30. Young people's opinion on the least representative "cosmetics"-type souvenirs

% of column total

No.	Total sample	Percentage
Base	**221**	
Cosmetics no. 2	73	54.9
Cosmetics no. 1	56	42.1
The souvenirs presented in the annex were conventionally numbers from 1 to 2		

Source: statistical survey made by the authors

The survey related to souvenirs conducted at the Information Center at Universitate, had the following results: in the "Painted Items" category, Painted Item no. 2, illustrated in Annex no. 1 (52.7%), represents a painted egg, marked as an authentic object less representative than the painted plate with traditional patterns (no. 1 - 54.3%). As for posters, the one representing a poem by Mihai Eminescu (famous Romanian poet), accompanied by his portrait, was voted more representative (83.2%) than a plate with the name of Romania written in several languages (assessed as unrepresentative - 84.0%). Of the two albums presented in the "Books" category, both generically called 'Romania' the one in pastel colours specific to nature (blue and green) was deemed the most representative - Book no. 2 (81.7%), while the book with a dark cover illustrating Romanian crafts was considered as the least representative (78.7%).

Considering the "Desk Items" category, the most representative were the picture frames with images of tourist attractions in Bucharest (Romanian Athenaeum

and the Arch of Triumph) - Item no. 2 - 31.2% and Item no. 3 - 22.9%, the least representative item being an ink pot (Item no. 1 - 37.0%). The most representative wooden items (Item no. 1 - 32.7% and Item no. 4 - 23.8%) are the representations with the highest practical value namely a cart and a convenience box, while Item no. 3, the statue of a stag, is considered the least representative (31.2%) and acknowledged as unimportant for Romania's image.

As for the survey on the souvenirs sold in the shop in Bulevardul Magheru, the results are: with the "Bags" category, Bag no. 2, with the name of Romania written on it, was considered the most representative (83.9%), unlike Bag no. 1, with a collection of flags belonging to several states, which was considered the least representative (67.2%). The most representative mug was the one with the name of Romania on it against a yellow background (Mug no. 5 - 45.8%), unlike the same model but against a black background (Mug no. 6 - 52.5%). As for "Postcards", the most representative was that illustrating the Romanian Athenaeum, the best know attraction among those on postcards (56.6%), while the one with the Stavropoleos Church was deemed the least representative (74.4%). In the "Figurines" category, most representative were considered those of bears, in various graphic forms, making reference to the Bears' Cave (Figurine no. 34 - 37.7%), the respondents assessing them as a tourist attraction worth being presented as a major element of Romania's image. On the other hand, the ashtrays were the least representative decorative items (38.3%).

5. LIMITATIONS

The survey regarding the consumers' opinion on souvenirs representativeness as related to Romania's image, at a certain moment, is deemed necessary in order to picture the current status of the relationship between the elements of the desired and the conveyed image, but the results over this short lapse of time are not sufficient for giving solutions or making recommendations on a medium/long term, since the motives for buying souvenirs are diverse, and perceptions may be "distorted" accordingly. Nevertheless, the study should be resumed periodically, taking into consideration the fact that the supply of souvenirs diversifies or changes relatively quickly, as do several segments of consumers (ex. foreign tourists) as well as the communication and marketing objectives of the destination.

6. CONCLUSIONS

Given the major importance of souvenirs for the development or revitalisation of the image of a certain tourist destination, their role is conveyed by the integration of representative elements, from the perspective of both differentiation and unique elements and that of the relation between them and potential tourists, in order to identify these elements practically conveyed in an abstractly conceptualised image. With regard to this study, most of the souvenirs deemed representative for our country were those differentiated within their categories by elements of reference (ex. flag, coat of arms, Romania's name) which hold a central place within the graphic design of the souvenirs. Likewise, the souvenirs which contain very famous urban tourist attractions

generally valid for Romania's representation were chosen (ex. The Romanian Athenaeum, the People's House) or items illustrating traditional patterns, folk costumes or trades, crafts specific to the Romanian people. The main colours chosen were those of the Romanian flag, or combinations of pastel colours, specific to nature. It is important that the results of this research be further used to obtain a detailed image of the souvenirs referring to Romania and to compare (the traded souvenirs and those considered to be representative by the respondents) with the goals of Romania's promotion programme.

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Annex no. 1. SOUVENIR SHOP AT "HENRI COANDĂ" AIRPORT

DOLLS

T-SHIRTS

MUGS
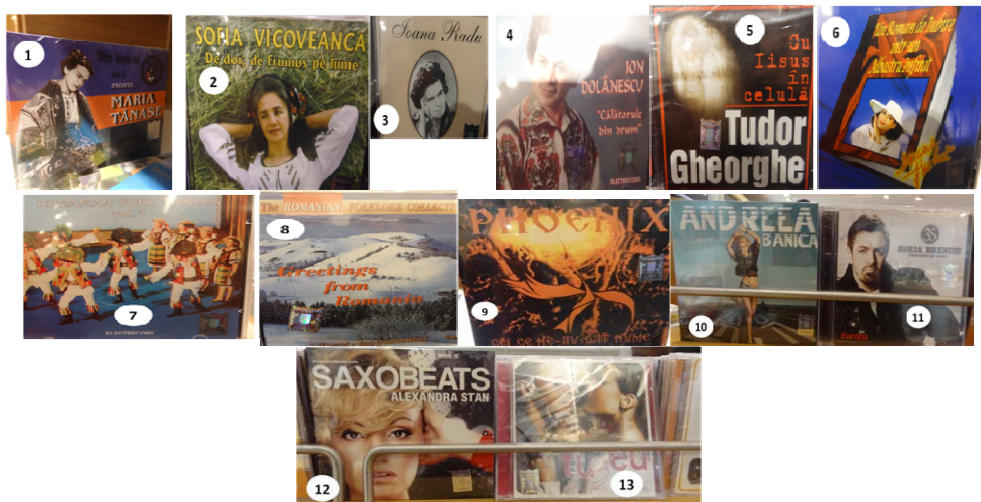
BOOKS

CDs

PAINTED EGGS

POTTERY

PLATES

FOLKLORE ELEMENTS

FIGURINES

BADGES

WOODEN ITEMS

ILLUSTRATIVE ITEMS OF LEGENDS

GASTRONOMY-RELATED ITEMS

COSMETICS

TOURISM INFORMATION CENTER AT "UNIVERSITATE"

PAINTED ITEMS

POSTERS
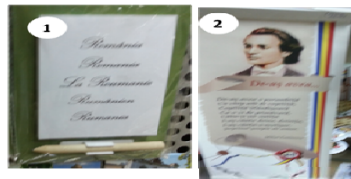
BOOKS

DESK ITEMS

WOOD ITEMS
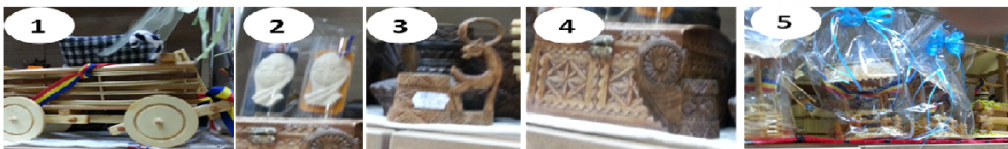
SOUVENIR SHOP AT MAGHERU BOULEVARD

BAGS

MUGS

POSTCARDS

FIGURINES

34 – Peştera Urşilor
35 - Opinci
36 - Scrumiere
37 – Peştera Urşilor
38
39
40 - Dracula
41 - Peşti
42
43 – Peştera Urşilor
44 - Opinci

MULTINATIONAL'S INFLUENCE IN DECISION TO ADOPT IAS/IFRS

VALENTIN BURCA, TEODOR-FLORIN CILAN [*]

ABSTRACT: *Discussions on the determinants of current developments in financial reporting matters drew a tendency to heterogenize the structure of financial accounting information demand, especially from external users. The success of the current accounting convergence process depends on the degree of participation, transparency and model of decision adopted in the international accounting standardization process. The legitimacy of these efforts is deeply affected by the position of accounting normalisers towards the main actors affected by changes in legislation regarding financial reporting which are the multinational companies. Financial strength and position of the main suppliers of financial information justifies the need to directly involve them in the process of accounting normalization.*

KEY WORDS: *IAS/IFRS, accounting convergence, foreign direct investment, multinational corporations, globalization*.

1. PERSPECTIVES OF ACCOUNTING CONVERGENCE PROCESS

For reasons of cost and information relevance, financial statements of synthesis are the main source of information regarding the state of health of a company, because there is a legal regulatory framework which requires a set of financial-accounting information. However, both the quality of accounting normalization process, the contents of issued accounting standards and the ways of interpreting them differ from one jurisdiction to another.

In the context of an international approach to financial reporting, the comparability of accounting information is deeply affected, causing deterioration of efficient capital allocation decision (Sun, 2006), and also emphasizes the uncertainty degree of accounting information users. Consequently, normalisers, practitioners,

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academics and representatives of state have decided to start and support a process of accounting convergence, aiming at formal uniformity of accounting treatments and correct transposition in accounting practice. This gets to take the form of a long process of international accounting harmonization, for us to be able to speak of an international accounting convergence process.

The existing international accounting differences between various accounting systems were at the beginning of the process of globalization a real impediment in achieving the basic objective of financial liberalization of capital movements worldwide. Efforts made have resulted at first in a series of comparative studies of national accounting systems (AISG, 1968) and a set of proposals on financial reporting from the perspective of international experience (UNCTAD, 1988).

With the establishment of the International Accounting Standards Committee (IASC) in 1973, interest in reducing international accounting disparities increased significantly. Barbu & Baker (2007) highlight the evolution of *accounting harmonization* process, a process clearly delimited from that of *accounting standards* based on the opinion of Van Hulle (1992) who argued that *harmonization does not aim to develop uniform accounting rules*. "At the same time FASB formulated the Accounting Conceptual Framework (1978), shortly followed by the IASB (1989) which is largely based on the American accounting concept.

Zeff (2012) attest to the central role of IASC, now the IASB (2001), which fights to acquire global legitimacy in terms of accounting normalization by attracting commissions of mobilization values, of national professional and state organizations in the international accounting harmonization project.

The most important influence on the work of the IASC was that of International Organization of Securities Commissions (IOSCO), which gave a helping hand to IASC in order to gain IAS credibility on the international capital markets, provided a fundamental revision of currently issued accounting standards. Thus, through *A resolution on IASC Standards* " report (2000), IOSCO recommended that its members use IAS for drawing financial statements of multinational and listed companies, provided that capital markets regulators have the possibility to request a *reconciliation statement* of financial statements prepared under local GAAP and according to IAS.

Under pressure from representatives of the U.S. Securities and Exchange Commission (SEC) within IOSCO, IASC going through a process of deep reshaping, following the pattern of Financial Accounting Standards Board (FASB). With "*Recommendations on Shaping IASC for the Future* "report (1999) the foundations of IASCF Foundation are settled and IASB body arises which is part of the IASCF responsible for normalization accounting.

By signing "*Norwalk Agreement* "(2002), the starting point of international accounting convergence process is marked, through which a full compatibility of financial reporting standards is aimed at.

Support for the proposed international accounting convergence is reiterated by publishing Memorandum of Understanding (MoU) (2006, 2008), which reports the current status of normalising projects of different accounting treatments that are divergent between U.S. GAAP and IAS / IFRS.

Through these collaborative arrangements FASB and IASB aimed at compatibilizing several divergent accounting treatments by prioritizing and categorizing them into short-term projects or long-term projects. The list of projects changes from time to time, either by adding new accounting treatments aimed at, or by reprioritisation of the existing ones. Among the concerns of the two bodies we remind borrowing cost, revenue recognition, accounts consolidation standards review, fair value, derecognition, employee benefits, segment reporting, financial instruments etc.

To all these revisions of accounting conceptual framework is added, structured in 8 sequentially distinct stages. IASB position in this project reflects the opinion of the International Integrated Reporting Council (IIRC) which developed an outline of an integrated conceptual framework for financial reporting, with the main objective of sustainable financial reporting, focusing on the concept of added value (IASB, 2013).

Of all these, revenue recognition and financial instruments are not yet finalized, while the review project of conceptual accounting framework accounting has marked only its first step regarding the objectives and qualitative characteristics.

In 2007, the SEC expresses its position regarding the use of IAS / IFRS, which, beginning with January 2008, eliminates the obligation to elaborate form 20-F representing reconciliation situation of the financial statements of foreign companies listed on U.S. GAAP.

Under the G20 pressure, the two accounting bodies intensify their efforts (MoU 2009, 2010, 2012) for a real accounting convergence between the two accounting regulations, ending with a SEC report (2012)through which there are treated the following aspects: the essential differences between U.S. GAAP and IAS / IFRS, auditing financial statements prepared in accordance with IAS / IFRS, the quality of accounting normalization process undertaken by the IASB (due process) and the degree of independence, methods of implementation and enforcement of IAS / IFRS in the U.S. listed companies, impact analysis related to a transition from U.S. GAAP to IAS / IFRS, etc..

On European Union level, the European Commission forwarded to the Council and the European Parliament, a communication, "*EU Financial Reporting Strategy: The Way Forward* "(2000), which according to IAS expresses the intentions of introducing mandatory reporting consolidated annual accounts and the option regarding individual financial statements reporting, according to IAS, due to respecting the true image set by European directives. European Union approves the 1606/2002 Regulation, by which the original intentions of the European Commission for the adoption of IAS / IFRS in the European community, take a legal form. Thus, beginning with 2005, all listed companies were required to report annual consolidated accounts according to IAS / IFRS, in the format accepted by the European Commission. Regulation 1752/2003 specifies concrete list of IAS / IFRS standards allowed to be used in the EU. This Decision applies all IAS / IFRS standards available until September 2003 except IAS 39 and IAS32 and their related interpretation.

The modernization process of European accounting directives sequentially runs through a series of steps to harmonize European directives with IAS / IFRS. So in 2001 Directive 2001/65/EC is issued, which is limited to the treatment of financial instruments evaluation. Later it is proceed to amend both the 4th Directive, and the 7th

Directive by issuing Directive 2003/51/EC, which performs a series of multiple changes, including among the most prominent the introducing the prevalence of economic aspect over legal aspect principle, the optional classification of assets in current assets / noncurrent, expansion of the use of fair value and assets other than financial instruments or framing policies for the recognition of provisions etc.

Larson & Street (2006) shows the accounting convergence process supported by the European Commission as a pioneer in perspective of establishing a practical approach of accounting standards convergence with U.S. GAAP and IAS / IFRS.
Among financial statements reporters, there can be observed a more visible option to use IASB standards. A study reveals that in 2008, companies representing 33% of global equity market capitalization was already using IAS / IFRS accounting standards, while 22% of them expressed the option to make the transition to IAS / IFRS, and only 10% were still using local accounting standards (Forbre et. al, 2009).

Gradually IASB manages to convince more and more countries worldwide to adopt IAS / IFRS. The proof is the number of over 100 countries using International Financial Reporting Standards, considered in the last decade by more and more countries as a reference in developing national accounting standards. There are many countries that have opted to incorporate referential IASB accounting in national accounting law, on the whole (Argentina, Bosnia Herzegovina, Kazakhstan, Malaysia, Thailand, Turkey, UAE, Vietnam, Mozambique etc.); or have chosen the harmonization of national accounting legislation (Germany, China, India, Egypt, the Philippines, Hong Kong Serbia, Spain etc.) (PWC, 2013).

Key to success regarding accounting convergence process, is believed to be the decision of countries like Brazil, China, India, Japan, and not least the U.S., in terms of adoption of IAS / IFRS, at least in the consolidated statements. China did not adopt IAS / IFRS standards, but it has turned into its own set of 38 accounting standards (ASBE-Accounting Standards for Business Enterprises) in 2006, the date of effective implementation being 2007. In 2007, the IASB draws a cooperation protocol with the Accounting Standards Board of Japan (ASBJ), in the perspective of accounting convergence of local accounting standards with IAS / IFRS. In 2010, the IASB draws a similar cooperation protocol with professional bodies (CFC and CPC) from Brazil.

Although US expected 2016 to be the year of adoption of IS / IFRS for U.S. listed companies currently can not accurately determine which will be the date of implementation. Both special literature (Luiz, et. al, 2010) and recent studies (AICPA, 2011) expressed reluctance in adopting IAS / IFRS in some American listed companies. American companies prefer to have the option to report according to IAS / IFRS, but reject a compulsory transition scenario required by IAS / IFRS imposed by the SEC.

IASB also brought on its side local professional accountancy bodies by IFAC voice counting no less than 165 members in 114 countries. Through*, Challenges and Successes in Implementing International Standards: Achieving Convergence to IFRSs and ISAs* "(2004) report, IASB supports international accounting efforts of convergence and respective convergence in audit. Furthermore, the World Bank comes to help states that want to implement IAS/IFRS accounting standards and ISA auditing

standards, developing individual diagnostic reports and proposals, entitled "*Report on the Observance of Standards and Codes" (ROSC).*

2. MULTINATIONAL COMPANIES AND ACCOUNTING CONVERGENCE

Saudaragan (2004) listed multinational companies among the sources of pressure that advocate for accounting accelerated harmonization / convergence. In addition, the IASB conceptual framework provides investors as the main beneficiaries of synthesis financial reports, because they are exposed to the highest risk in anticipation of bankruptcy (CCC, art. 10). While we can not subscribe to this view, since heterogeneity of accounting information demand is significant, yet we are aware of the power that multinational corporations have in the accounting normalization process.

Determinants of the decision to adopt IAS / IFRS are numerous (Roberts et. Al., 2005; Nobes & Parker, 2008; Choi & Meek, 2011). Thus the decision to adopt IAS / IFRS is directly influenced by:

- *the economic system*, the share of private property, the structure of GDP, inflation and so on;
- *the legal system*, which causes a reluctance of written law countries compared to common law countries, regarding the decision to adopt a principle-based accounting system;
- *the* fiscal *framework*, which causes a number of opportunities for creative accounting in order to obtain tax savings due to differences between the tax and accounting regulations (Lamb et. Al., 1998);
- *the cultural factor* through the four cultural dimensions outlined by Gray (1988), namely: professionalism opposing legal control, uniformity opposing flexibility, conservatism opposing optimism, opacity opposing transparency ;
- *the funding system*, which determines through capital markets configuration and leverage degree of firms, the form and content of financial statements (Ball et. Al., 2008);
- *the accounting profession*, with auditors, as long as it has a notable influence in the accounting normalization process and is represented by a class of competent professionals, experienced and objective;
- *the company-specific factors* (size enterprises, the concentration of ownership, the mechanisms of corporate governance, capital source, listing on the stock exchange, and the list can continue).

Moreover, Kim & Yang (2012) validate a notable influence, considerably superior to other factors taken into consideration (legal system, market capitalization, fiscal burden, colonialism, inflation, education, culture), *the economic factor.*

Multinational companies represent a variable of the economic environment of each country through foreign direct investment balance component. The link between the economic development level and the evolution of multinational companies is obvious, given including Forbes 2000 top (April, 2012), which emphasizes the economic impact on national economies of some states. Bargaining power of these

companies grows from day to day. The dependence relationship of states of contributions made by multinational corporations, especially in emerging economies becomes more worrisome.

Multinational companies prefer it to get involvement in projects for improving processes, controlling methods and tools, putting visible pressure on the accounting regulators through the voice of these accounting practices. Let's not forget that big accounting cabins (Deloitte, Ernst & Young, PriceWaterCoopers, KPMG) have a clientele that largely represents these multinational corporations. These are true exponents of international accounting convergence, owing both to significantly cut of training personnel costs, and drafting financial statements costs.

Table 1. List of 10 multinational corporations in the world1 (billions of dollars)

Rank	Company	Country	GDP	Sales	% GDP	Assets	% GDP
1	Exxon Mobil	USA	$14,991.30	$433.50	2.89%	$331.10	2.21%
2	JPMorgan Chase	USA	$14,991.30	$110.80	0.74%	$2,265.80	15.11%
3	General Electric	USA	$14,991.30	$147.30	0.98%	$717.20	4.78%
4	Royal Dutch Shell	The Netherlands	$836.07	$470.20	56.24%	$340.50	40.73%
5	ICBC	China	$7,318.50	$82.60	1.13%	$2,039.10	27.86%
6	HSBC Holdings	UK	$2,445.41	$102.00	4.17%	$2,550.00	104.28%
7	PetroChina	China	$7,318.50	$310.10	4.24%	$304.70	4.16%
8	Berkshire Hathaway	USA	$14,991.30	$143.70	0.96%	$392.60	2.62%
9	Wells Fargo	USA	$14,991.30	$87.60	0.58%	$1,313.90	8.76%
10	Petrobras-Petróleo Brasil	Brazil	$2,467.65	$145.90	5.91%	$319.40	12.94%

Source: Forbes 2000, April 2012 corresponding to 2011 fiscal year and statistics of World Bank 2011

International accounting standards quality is confirmed in the literature many times, based on a normalization process open to the public interest (Soderstrom & Sun, 2007; Guggiola, 2010 Hail et. Al, 2010). Accounting convergence process itself is oriented toward compatibility of local GAAP standards with IASB standards, which again attests the quality of IAS / IFRS.

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[1] The rather small share of U.S. transnational companies in U.S. GDP can be explained by a high degree of atomization, played by a large number of such multionationals carrying out economic activities in the U.S.
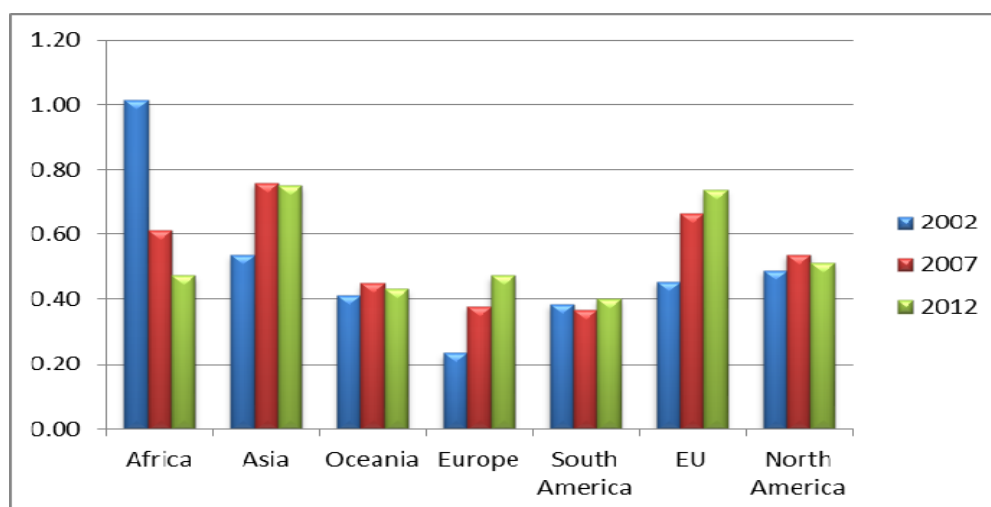
Source: UNCTAD, World Bank, own projection

Figure 1. Average share of FDI in GDP

Despite the disadvantages regarding IFRS adoption by investors (Ball, 2006), studies show that the option of adopting IAS / IFRS rather than U.S. GAAP, currently considered quality accounting standards, no significant differences are registered (Barth et. Al. 2008). However, the effects of adopting IAS / IFRS are more pronounced when the local IFRS standards differ significantly (Daske, et. al., 2008).

Table 2. Correlation matrix between GDP and FDI

	GDP			*FDI stock*		
	2002	2007	2012	2002	2007	2012
gdp	1	1	1			
FDI stock	0.909	0.871	0.832	1	1	1
FDI flow	0.715	0.746	0.800	0.783	0.875	0.842
Export	0.847	0.824	0.873	0.837	0.764	0.776

Source: UNCTAD, World Bank, own calculus

On a consolidated financial statements level there is a high rate of IFRS implementation globally, both for foreign listed companies, and in the case of local listed companies. Share of countries who have not yet decided to adopt IFRS is approximately only 15%, most of them representing African countries (Angola, Cameroon, Chad, Algeria, Ivory Coast, Gabon, Guinea, Congo, Senegal, Tunisia). Most of these countries have decided to adopt the conceptual framework of regional professional body Organization for the Harmonization of Business Law in Africa (OHADA).

However, most of the countries that prohibit the application of IAS / IFRS issued by the IASB either expressed their option for future adoption (Cameroon,

Congo, Senegal, in 2014, Bolivia, Colombia-2015, US-2016, Saudi Arabia-2017); were able harmonize local regulations with the international-acquis (China-2006-2010 Algeria, India, Indonesia, 2012); or have taken full international accounting standards in the local accounting legislation (Trinidad and Tobago-1988-1995 Bosnia Herzegovina; Vietnam-2002 Bahamas 2007). So, the EU through 2012/194/EU Commission Decision accepts reporting consolidated financial statements of foreign companies prepared in accordance with Chinese GAAP, Canadian GAAP, Japanese GAAP, South Korean GAAP, while accepting Indian GAAP is being negotiated. Also, Canada, Mexico, Russia, and Switzerland accept using U.S. GAAP. But U.S. seeks reconciliation of financial statements drawn according to local GAAP, except for companies from EU states.
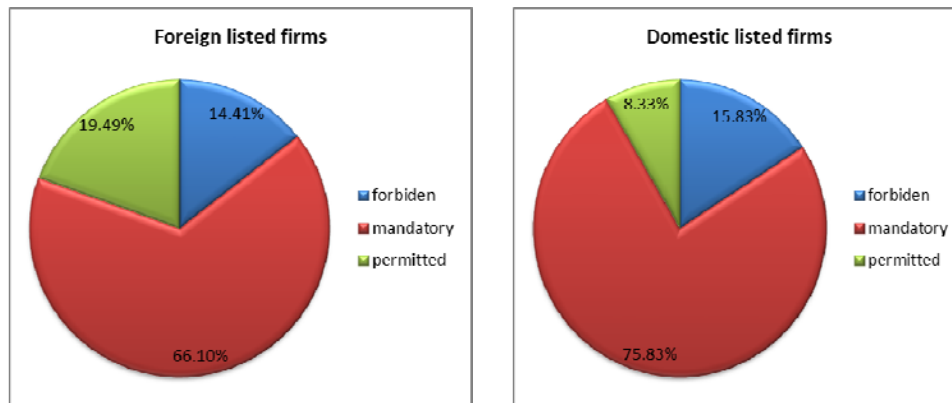
Source: own research starting from PWC 2013 study, "IFRS adoption by country"

Figure 2. Percentages of IFRS adopting, on consolidated statements level

3. METHODOLOGICAL RESEARCH

This research starts from the study performed by PWC (2013) on a number of more than 120 countries worldwide. This study aims at outlining a picture of the current status of IFRS adoption worldwide, where listed companies, both in the consolidated financial statements and in terms of the statutory financial statements. In this study each country is treated separately. The sample consists of 129 countries surveyed jurisdictions (27% Asia, 22% Africa, 22% European Union, 11% North America, 8% South America, 8% non EU countries, 2% Oceania).

The present research centralized and summarized information on legislative regulations imposed on foreign and domestic listed companies, in terms of both the adoption of IFRS on consolidated financial statements level, and in terms of the statutory financial statements.

In the present research we confined to discussions on consolidated financial statements.

We differentiate three admitted options, namely:
- IFRS standards are mandatory;

- IFRS standards are permitted;
- IFRS standards are prohibited.

In order to measure the influence of multinational corporations on the decision to adopt IAS/IFRS we will use a variable score that will reflect the adoption level of IAS / IFRS of a country, by assigning each item a partial score (0 - forbidden, 1 - permitted, 2 - mandatory).

Also, the variable that reflects the impact of corporate multinationals (TNI) on the decision to adopt IAS/IFRS will be represented by the weight of the balance stock of FDI in GDP.

In the first stage we will use *the Logit model* to determine to what extent this multinationals' presence in a country influences the probability for that country to adopt IAS / IFRS. Gurajati (2004) defines the logit model through the equation

$$P_i = E\left(y = \frac{1}{x_i}\right) = \frac{1}{1 + e^{-(\beta_0 + \Sigma \beta_j x_i)}},$$

which may be given as a rate expressing the chance in favor of adopting IAS / IFRS by country, by the following relationship $\dfrac{P_i}{1-P_i} = \dfrac{\frac{e^{z_i}}{1+e^{z_i}}}{\frac{1}{1+e^{z_i}}} = e^{z_i}$, where we noted

$z_i = \beta_1 + \Sigma \beta_j \cdot x_i$ and j is the number of factors included in the model.

Mutifactorial						Unifactorial			
Model	Coefficients[a]					**Model**	Coefficients[a]		
		(Constant)	TNI	Capitali-zation	Regulation			(Constant)	TNI
2002	1	B	0.215	*-5.393*	0.013	-1.149	4	B	-1.400	*-1.158*
		S.E.	1.80	4.93	0.01	1.00		S.E.	0.39	0.96
		Wald	0.01	1.20	2.01	1.31		Wald	13.13	1.46
		df	1	1	1	1		df	1	1
	Classifi-cation	Sig.	0.905	**0.274**	0.156	0.252	Classifi-cation	Sig.	0.000	**0.228**
	93.30%	Exp(B)	1.240	0.005	1.013	0.317	86.10%	Exp(B)	0.247	0.314
2007	2	B	2.295	*1.170*	0.000	-0.376	5	B	0.119	*-0.007*
		S.E.	1.53	1.84	0.01	0.63		S.E.	0.21	0.15
		Wald	2.24	0.41	0.00	0.36		Wald	0.33	0.00
		df	1	1	1	1		df	1	1
	Classifi-cation	Sig.	0.135	**0.524**	0.997	0.551	Classifi-cation	Sig.	0.564	**0.962**
	88.90%	Exp(B)	9.920	3.221	1.000	0.686	52.80%	Exp(B)	1.126	0.993
2012	3	B	2.217	*1.190*	-0.002	-0.294	6	B	1.051	*0.584*
		S.E.	1.56	1.66	0.01	0.64		S.E.	0.34	0.53
		Wald	2.03	0.51	0.04	0.21		Wald	9.77	1.22
		df	1	1	1	1		df	1	1
	Classifi-cation	Sig.	0.155	**0.474**	0.833	0.647	Classifi-cation	Sig.	0.002	**0.270**
	79.50%	Exp(B)	9.178	3.288	0.998	0.746	79.50%	Exp(B)	2.861	1.792

Correlation Matrix								
		Constant	TNI	Capitalization	Regulation		Constant	TNI
2002	Constant	1	-0.621	0.301	-0.744	Constant	1	-0.731
	TNI	-0.621	1	**-0.281**	0.115	TNI	-0.731	1
	Capitalization	0.301	-0.281	1	-0.518			
	Regulation	-0.744	**0.115**	-0.518	1			
2007	Constant	1	-0.485	-0.192	-0.75	Constant	1	-0.476
	TNI	-0.485	1	**-0.08**	0.094	TNI	-0.476	1
	Capitalization	-0.192	-0.08	1	-0.24			
	Regulation	-0.75	**0.094**	-0.24	1			
2012	Constant	1	-0.495	-0.151	-0.787	Constant	1	-0.742
	TNI	-0.495	1	**-0.155**	0.177	TNI	-0.742	1
	Capitalization	-0.151	-0.155	1	-0.237			
	Regulation	-0.787	**0.177**	-0.237	1			

Source: own projection of calculations performed in SPSS 19.0

Through linearization of this model we obtain the equation:

$$L_i = ln\left(\frac{P_i}{1-P_i}\right) = z_i = \beta_1 + \sum \beta_j \cdot x_i + u_i$$

where: u_i is the residual variable of the model

In order to determine the probability generated by a specific value of the independent variable z_i, we use the relationship $P_i = \frac{e^{z_i}}{1+e^{z_i}}$.

We proceed to determine the binary logistic regression for data sets for 2002, 2007 and 2012. These series reflects the ante and post adoption state relative to EU Regulation 1606/2002, respectively to signing Norwalk Agreement between IASB and FASB, regarding IAS / IFRS and U.S. GAAP standards compatibilization.

In the case of one-factor model we analyze the link between variable TNI and *score* variable calculated for each country. *Score* variable takes a unitary value if IAS/IFRS are mandatory or premitted in the consolidated statements, taking the zero value otherwise. Logit model is given by the expression

$$L_i = ln\left(\frac{P_i}{1-P_i}\right) = z_i = \beta_1 + \beta_2 \cdot TNI_i + u_i.$$

Validation of link relationship between TNI variable and score variable is also valid by estimating a binary logistic multifactorial model, to which capitalization and regulation are added as additional explanatory variables and variables, reflecting *accounting regulatory form*. While *capitalization* variable expresses market capitalization at the country level (World Federation of Exchanges), *regulatory* variable is attributed values (1 - public, 2 - Private 3 - mixed), reflecting the institution responsible for the accounting normalization. Logit model is given by the expression

$$L_i = ln\left(\frac{P_i}{1-P_i}\right) = z_i = \beta_1 + \beta_2 \cdot TNI_i + \beta_3 \cdot Capitalizare_i + \beta_4 \cdot Reglomentare_i + u_i$$

4. RESULTS AND INTERPRETATIONS

The influence of multinational corporations upon the likelihood of adoption of IAS / IFRS is validated by all 6 binary logistic regression models obtained using SPSS 19.0, based on the scores given to each country in terms of uptake degree, on consolidated financial statements level. Thus, regarding possible *chances* for adoption of IAS / IFRS, in the context of a notable presence of multinational companies in a national economy, it can be said that there is a close relationship with the TNI variable.

Yet only one-factor model for the year 2012 shows a strong relationship linking (chances of adopting IAS / IFRS increase $e^{0.584} \approx 1.792$ times with an error threshold of 27%), or in the case of multifactorial model for the year 2012 (the chances of adoption IAS / IFRS increase $e^{1.19} \approx 3.288$ times with an error threshold of 47.4%).

What is to be noted, from the perspective of evolution in time of TNI variable upon logistics function of values, the fact that the influence of multinationals' presence in the national economy in 2002 was negative

$$(\beta^{2002tni}_{unifactorial} = -1.158; \beta^{2002tni}_{multifactorial} = -5.393)$$

while the series for the years 2007 and 2012 shows a positive influence on the chances of IAS / IFRS adoption.

$$(\beta^{2007tni}_{unifactorial} = -0.007; \beta^{2007tni}_{multifactorial} = 1.170)$$

$$(\beta^{2012tni}_{unifactorial} = -0.584; \beta^{2012tni}_{multifactorial} = 1.190)$$

This can be justified on account of capitalization of international capital markets more intense in the last 10 years. It is also certified the importance of the period in which multinationals have appeared in the analyzed national economy, because their influence materializes only over a fairly long period of time.
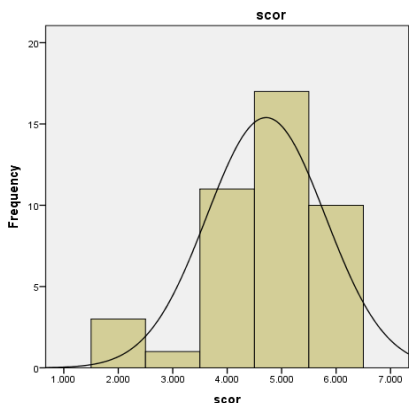
scor normality

Test Statistics	
	scor
Chi-Square	63.311[a]
df	5
Asymp. Sig.	0
a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 17.2.	

Source: own projection of calculations performed in SPSS 19.0

We emphasize the importance of economic factors on the decision to adopt IAS / IFRS by this multinational component in a national economy, but we draw attention that an isolated analysis of this factor sensitively affects statistical model results. This is clearly illustrated by the recorded differences in the coefficient account corresponding to TNI variable, moving from single factor in the multifactorial model, whereas the participants in the accounting regulation and market capitalization cause a notable influence on the chance of adopting IAS / IFRS.

All these assumptions should be analyzed and interpreted subject to a rather high risk of rejecting the null hypothesis. But this situation is due to the displaced distribution of score variable, specific to analyzing dummy-type variables. Classification coefficients reveal the expected situation. Equally, the disparities in the analyzed countries in terms of *TNI* and *capitalization* variables distribution do contribute to some deterioration of robustness of logistic models that have been built.

5. CONCLUSIONS

The area of research in financial reporting is invaded by controversy and aroused arguments among practitioners and academics precisely because of the structural complexity of financial accounting information demand. The relationship between regulated and voluntary reporting by its defining elements (format, content, frequency, means of communication), represents the main current concern, both for accounting information users seeking to reduce the existing information asymmetries with respect to enterprise management and for annual accounts setters that want a cosmetised presentation of the financial statements and as poor in details as possible, which they consider strategic for the enterprise.

In the context of financial information requirements' multitude throughout this study we reckon, that multinationals' opinion have to be carefully considered and debated by accounting standard setters, just because they are most affected by changes in accounting regulation on financial reporting. Although the presence of multinationals in the discussions on accounting normalization projects turns out to be insignificant, their voice is found in the great accounting and auditing practices. The only remark to be taken into account in this perspective of analysis is to achieve a clear separation between the role of audit firms in accounting normalization and the role of the same certification entities in synthesis annual accounts certification.

Although developed economies are based on an negotiation institutional system that engages all sides involved in financial communication process and its transparency turns to follow a positive course, problems arise in the case of economies in transition and those less developed, in which disparities are decision-making power are consistent and financial power of multinational corporations is considerable. Therefore, in order to reduce the risk of monopolization of the act of accounting normalization, in the case of these economies, a solid accounting convergence with IAS / IFRS is recommended.

Equally, an accounting normalisers strategy meant to avoid the situation of differentiated financial reporting system coexistence, namely, the one dictated by international accounting standards and that of local accounting regulations; should be

avoided. We support this approach even more as defining categories of firms (large, small and medium enterprises) proves to be a relative approach, based mainly on the fiscal interests of the state in terms of tax reporting.

Taking small steps, accounting convergence project proves to be a viable solution in terms of ensuring a high quality accounting information from the perspective of its main qualitative characteristics. Only political will, a consolidated institutional framework and an optimal financial incentives policy can ensure the project's success, the weight of this mission largely belonging to the state's apparatus that has to join as a partner, SIS international standardization bodies and ensure a correct and constant implementation of international accounting standards.

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ROMANIAN ADMINISTRATIVE-TERRITORIAL UNITS IN FINANCIAL CRISIS

MELINDA CENUŞE [*]

ABSTRACT: *The nowadays economic and financial crisis seems to be unprecedented. We consider that financial crisis of administrative-territorial units is related to global economic crisis and reflects a deregulation of market mechanisms, having, in the same time, some particularities. So, we can see that financial crisis can be felt not only in private sector, but also in public sector, especially in the administrative-territorial units. The financial crisis of administrative-territorial units represents that situation, when its patrimony is characterized by the existence of financial difficulties and the severe shortage of cash, which leads to non-payment of amount liabilities, during a certain time period. In this article we try to present a few legislative aspects regarding the financial crisis of Romanian administrative-territorial units.*

KEY WORDS: *financial crisis, administrative-territorial units, patrimony, fiscal legislation, financial difficulties.*

JEL CLASIFICATION: *M10.*

1. INTRODUCTORY CONSIDERATIONS

Law no. 273/2006 on local public finances is the first regulatory act which introduces at legislative level the notion of financial crisis, dedicating a section of Chapter VI particularly to this law. Although the final provisions of this law stipulate that within six months of its entry into force, the special bill regarding the procedure for the application of the financial crisis and insolvency of administrative- territorial units should be brought in and adopted, one can notice it was adopted in more than six years away, in the year 2013, through the Government Emergency Ordinance No. 46 from 2013.

We believe that it is worth mentioning that the two above-mentioned normative acts have occurred in the context of the imminence of a new stand-by

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arrangement with the IMF. In order to close this agreement, Romania had to reduce the arrears of the territorial administrative units to suppliers of goods, services and works.

2. DEFINING THE CONCEPT OF FINANCIAL CRISIS ACCORDING TO THE LEGISLATION IN FORCE

In accordance with the legal provisions in force, administrative- territorial units enter the financial crisis when the patrimony of the administrative-territorial unit is characterized by financial difficulties, a severe shortage of liquidities, which leads to outstanding payments due in a certain period of time (Szasz, 2008, pp. 245-250).

The financial crisis is presumed to occur in the following situations:
(a) outstanding payments that are 90 days past due, and exceeding 15% of the general budget of administrative-territorial units, except for those which are in commercial litigation;
(b) failure to pay salaries forecasted within the local budget of revenues and expenditures or within the budgets of institutions or public local or County services, where applicable, for a period greater than 90 days after the due date.

3. THE ROLE AND TASKS OF THE DESIGNATED AUTHORITIES IN THE CASE OF FINANCIAL CRISIS

The state of financial crisis can be declared by the Chief Authorizing Officer of the administrative territorial unit, by the head of the finance and accounting department within the specialized apparatus of the local public administration authorities, by the Secondary Authorizing Officers and other authorizing officers from public services subject to the local Council, by heads of companies or autonomous entities within the local Council, by various creditors, by the Director of the General Directorate of the County's Public Finance, of Bucharest respectively and by territorial structures of the Court of Auditors

It must be specified that the only person laid under the obligation to declare the financial crisis is the Chief Authorizing Officer who, in case of idleness will be sanctioned for this contravention according to article 114 paragraph (1) of the Government Emergency Ordinance No. 46/2013. It appears that the Chief Authorizing Officer must make the declaration, unlike other authorized persons who have the obligation to acknowledge the state of financial crisis.

The notification is made to the General Directorate of the County's Public Finance or of the District of Bucharest and to the Chief Authorizing Officer of the administrative territorial unit which is in a state of financial crisis.

Within 30 days of the request of any interested party, the Chief Authorizing Officer of the administrative-territorial unit shall provide economic and financial reports and the conclusion whether to attribute or not the state of financial crisis, provided by the law.

Within five working days of acknowledging the financial crisis, the Chief Authorizing Officer shall summon the deliberative authority and shall notify the

General Directorate of the County's Public Finance or of the district of Bucharest, respectively.

The Deliberative Authority takes note of the state of financial crisis, by adopting a decision, authorizes the chief credit officer to elaborate a financial recovery plan, and analyzes preliminary strategic proposals that are to be included in the financial recovery plan presented by the Chief Authorizing Officer.

The Chief Authorizing Officer requests that the decision of the deliberative authority declaring the financial crisis should be registered within 5 working days of its adoption, in the local register of financial crisis situations of administrative-territorial units, which is managed by the General Directorate of the County's Public Finance or of Bucharest, respectively. They inform the Ministry of Public Finance, on a monthly basis, about the starting and the ending of registered financial crises.

Within 5 working days of the adoption of the decision by which the state of financial crisis was declared, it is established the Committee for Financial Crisis Situations, by order of the prefect. It shall be convened by the prefect. The Committee includes the following persons: the Mayor or the President of the County Council, of the administrative-territorial unit or of its subdivision which is in financial crisis, the head of the finance and accounting department of the administrative-territorial unit or of its subdivision which is in financial crisis, the head of the local public service that generated the financial crisis, a representative of the deliberative authority of the administrative-territorial unit or its subdivision which is in financial crisis, a representative of the General Directorate of the County's Public Finance or of the district of Bucharest, a representative of the associative structure of local public administration authorities which has operational responsibility over the administrative-territorial unit in question.

The Committee for financial crisis situations is legally formed in the presence of all members, and decisions shall be taken by a simple majority vote.

Within 30 calendar days of the adoption of the decision by which the state of financial crisis was declared, the Chief Authorizing Officer together with other members of the Committee for financial crisis situations must prepare a financial recovery plan of the administrative-territorial unit, with the approval of the Territorial Board of Auditors.

We can see in this context that, although originally the law establishes that the deliberative authority delegates the Chief Authorizing Officer to draw up the draft of the financial recovery plan, as it has been mentioned earlier, the legal text stipulates that the plan shall be drawn up by the Chief Authorizing Officer in collaboration with the members of the Committee for crisis situations. Under these circumstances, one can conclude that the Chief Authorizing Officer draws up a draft of the plan, then, the final elaboration is based on that certain draft. Here arises the problem of the period of time necessary to elaborate this plan, since the legal provisions do not contain any indication in this regard.

The financial recovery plan includes economic - financial and budgetary planning during the financial recovery procedure, which involves:

1. an overview of the economic and financial situation of the administrative-territorial unit;

2. measures to ensure the supply of main public services by the local public administration authorities for the duration of the implementation of the financial recovery plan;

3. measures to improve the financial management and the inspection mechanisms necessary to streamline the supply of main public services;

4. measures to increase revenue collection, as well as generate additional income;

5. measures to reduce costs;

6. economic – financial and budgetary planning during the financial recovery procedure, which implies:

a) analysis of all budgetary revenue and expenditure, recommendations for increasing revenue and reducing expenditure, as well as setting up local budget rectifications;

b) projection of revenue and expenditure for the current year and for the next two years;

c) restructuring of management, of the organization and the management of the specialized body within the Mayor's office, of the County Council respectively, of services and local public institutions or cross county institutions, where appropriate;

7. establishing targets for carrying out the provisions of the financial recovery plan structured according to goals, people in charge and deadlines.

The financial recovery plan is submitted for approval to the deliberative authority within 3 working days of its elaboration and it will be adopted not later than 5 working days of its submission. In case the financial recovery plan is not adopted, the deliberative authority shall meet within 3 working days from the date of the debate in the last session for reconsideration. If the financial recovery plan is not adopted, it is considered to be approved in the form proposed by the initiator.

When elaborating the financial recovery plan, the tasks of the Committee for financial crises are to verify the estimate revenue of administrative-territorial units, to analyze the degree of collecting their income, estimating the revenue based on income tax and amounts set aside to balance local budgets and to investigate the causes of the shortage of funds and to provide solutions regarding the method of financing activities in order to the carry out the tasks of the local public authorities.

The financial recovery plan can be modified, at the request of the chief authorizing officer, whenever necessary, in case there new data, information or unknown facts come to light at the time of its approval, and if they are liable to impede the process of financial recovery. The new plan is drawn up by the chief authorizing officer together with the members of the Committee for financial crises and it is subject to the approval of the deliberative authority.

Implementing the financial recovery plan is compulsory for the local public administration authority involved and for the institutions and for local or regional public services, regardless of the form of financing, which falls into the hands of the chief authorizing officer.

The chief authorizing officer shall be required to ensure the efficient and effective functioning of essential public services during the procedure for recovery from a financial crisis (Szasz, 2009, pp. 263-266).

Moreover, the chief authorizing officer shall, at least once a month, send a detailed report on the implementation of measures and activities contained in the financial recovery plan to the deliberative authority and to the members of the Committee for financial crises.

During the implementation of the financial recovery plan, the chief authorizing officer may not, without the approval of the deliberative authority and without the advisory consent of the Committee for financial crises, take any decision that would lead to increased financial obligations, may not initiate the establishment of new public services or institutions, may not hire additional staff, may not order the payment of any contracted financial obligations that are not included in the financial recovery plan for resolving the situation of financial crisis, may not borrow funds, except for refinancing loans, may not participate in setting up or financing inter-community development associations or any other forms of association, may not invest capital in companies or in increasing the registered capital of the existing ones.

The task to control the execution and completion of the measures contained within the financial recovery plan falls under the responsibility of the Committee for financial crisis situations.

4. ENDING THE FINANCIAL CRISIS

The deliberative authority declares, at the request of the chief authorizing officer and with the approval of the Committee for the financial crises, that the financial situation has ceased, taking the form of a decision, if:

a) the criteria listed previously have not been met/found for 180 calendar days;

b) the criteria for the declaration of insolvency are met, as provided by law, in which case the administrative-territorial unit is subject to insolvency proceedings.

The financial crisis situation, namely its termination, shall be registered within 5 days of its declaration by the chief authorizing officer or of the approval of its termination, in the local registry of financial crises of the administrative-territorial units, which are managed by the General Directorates of the Regional Public Finance, or of Bucharest, respectively. They will communicate monthly the starting points and the closing of financial crises registered with the Ministry of Public Finance, in order to be recorded in the national register for financial crises within administrative-territorial units, as well.

5. CONCLUSIONS

It can be noted that the financial crisis is not a judicial procedure, but a purely administrative one which is triggered by the deliberative authority who, as a result of this decision, delegates the authorizing officer to draw up a financial recovery plan.

The main effect of entering a financial crisis is that the administrative-territorial unit will be managed during the period of the financial crisis on the basis of the recovery plan in order to improve the financial situation.

The concept of financial crisis covers one essential aspect of the relationship between local public authorities and various parties, with which they are in

collaboration, aiming to unfreeze the activity of providers of goods, services and works which have to collect debts from local public administrations.

We consider that the local public administration played its role in the European integration process through the reforms that were implemented. However, beyond the progress registered after 1990 and because of the need to set up new and modern foundations and in terms of obeying the principle of legality, it is necessary to continue the reform. We believe that one of the main objectives should be to take further measures to strengthen the financial capacity of administrative-territorial units.

We may take this stand because a real decentralization and autonomy cannot be achieved in the absence of financial resources, meaning that as long as local funds are still dependent on transfers from the State budget, the local autonomy of administrative-territorial units is limited and is likely to remain just a propagandistic concept, whereas small and poor territorial collectivities will never be truly autonomous, but will remain indefinitely dependent on aid given by the State to be able to survive, or, as we could remark that through the adoption of legislative measures which have introduced new concepts in the year 2013, territorial-administrative units may be susceptible to financial crises or even insolvency.

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GENERAL CONSIDERATIONS CONCERNING THE OPENING OF INSOLVENCY PROCEEDINGS OF THE ADMINISTRATIVE-TERRITORIAL UNITS OF ROMANIA

CENUSE MELINDA[*]

ABSTRACT: *The main objective of this paper is to talk about the concept of insolvency of Romanian administrative-territorial units, because during this year the Government elaborated a special Emergency Ordinance referring to the financial crisis and insolvency of Romanian administrative-territorial units. In this paper, we proposed to present in detail the method of starting and ending the procedure for opening insolvency proceedings of administrative-territorial units, since the whole process is a very extensive one and cannot be the subject of a single paper-work.*

KEY WORDS: *Romanian administrative-territorial units, insolvency, Local Insolvency Register, the list of creditors.*

JEL CLASIFICATION: *M10.*

1. THE LEGAL FRAMEWORK FOR INSOLVENCY OF TERRITORIAL ADMINISTRATIVE UNITS

Due to the elaboration, during the year 2013, of the legislation which governs specifically the issue of the financial crisis and insolvency of administrative-territorial units in Romania, this paper is aimed to talk about the concept of insolvency of administrative-territorial units, in which case, we must admit that, lately, many administrative-territorial units were faced with financial difficulties, some reaching debts that exceed 50% of their budget.

It was one of the reasons for which there was approved the Emergency Ordinance of Government No. 46/2013 regarding the financial crisis and insolvency of administrative-territorial units and the Implementing Regulations for applying the

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procedures on reporting the financial crisis situations and the insolvency of the administrative-territorial units, respectively.

We want to mention in this context that referring to the insolvency of companies already exists law 85/2006, which gives the following definition for the term "insolvency": the insolvency is that level of the debtor's patrimony which is characterized by the shortage of money funds available for the payment of the demandable debts: the insolvency is presumed as being obvious, when the debtor, after 30 days from the date of payment, hasn't paid his debt to one or more creditors, the insolvency is imminent when it is proved that the debtor won't be able to pay in time the demandable debts, with the funds available at the date of payment (Dumitrescu & Răvaş, 2006, pp. 65-69). But, in this paper, as we already mentioned, we will present only the insolvency procedure of administrative-territorial units, without referring to the companies' insolvency, which represents a different subject.

2. OPENING THE INSOLVENCY PROCEEDINGS OF AN ADMINISTRATIVE TERRITORIAL UNIT

As for the opening of insolvency proceedings, any creditor or group of creditors that has one or several certain, liquid amounts receivable from an ATU (administrative and territorial units), amounting to a value that exceeds 50% of its budget over a period of 120 consecutive days, may submit a request to the Court in order to institute insolvency proceedings against the ATU.

Within 30 days of the request of any interested party, the Chief authorizing officer of the ATU has the obligation to provide economic and financial reports and the conclusion whether it qualifies or not as insolvency.

The Chief authorizing officer of the ATU is obliged, within 15 days following the acknowledgement of the state of insolvency which has occurred, to request the opening of insolvency procedures, thus filing a request with the Court within the district where the ATU is located.

Within 5 days of the declaration of insolvency, the Chief authorizing officer shall require its registration in the Local Insolvency Register for ATU within the General Directorate of the County's Public Finance.

In the Local Insolvency Register of administrative-territorial units shall be entered all ATU facing either the opening or the termination of the insolvency proceedings.

In order to request the registration of the court order that opens insolvency proceedings, the Chief authorizing officer shall submit to the General Directorate of the County's Public Finance the following documents:

a) a written demand to register the court order that opens insolvency proceedings;

b) the court order that opens insolvency proceedings;

c) the analysis of the situation regarding the opening of insolvency proceedings;

d) the list of creditors to whom it has outstanding payments that exceed 120 days.

The Director of the General Directorate of the County's Public Finance and that of Bucharest designates the organizational structure of the Directorate which draws up and manages the Insolvency register of administrative-territorial units.

The General Directorate of the County's Public Finance and that of Bucharest records the cases of opening of insolvency proceedings in the order of their submission by the Chief Authorizing Officer.

When verifying the documents referred to above, the General Directorate of the County's Public Finance and that of Bucharest shall take into account the following:

a) a written demand to register the court order that opens insolvency proceedings shall be signed by the Chief Authorizing Officer and shall bear the stamp of the administrative territorial unit. In case the capacity of the main credit release authority is attributed to another person than the Mayor or the President of the County Council, the document delegating the duties of the authorizing officer must also be attached;

b) total expenditure of the centralized general budget of the administrative - territorial unit should correspond with the total expenditure forecasted in the centralized general budget of the administrative - territorial unit, submitted to the General Directorate of the County's Public Finance and that of Bucharest;

c) the amount of payment obligations, liquid and payable, older than 120 days, except for those in commercial dispute should correspond with the amount of outstanding payments older than 120 days as declared in the "Outstanding payments situation" drawn up in accordance with the Order of the Minister of Public Finances no 629/2009;

d) the amount of outstanding salaries should correspond to the value of outstanding payments for employees older than 120 days as declared in the "Outstanding payments situation";

The documentation must be submitted within 5 days of the notification of the court order that opens insolvency proceedings, whereas failure to submit it can be grounds for an offence.

The Chief Authorizing Officers shall be responsible for the accuracy of the data contained in those documents.

Based on the documents submitted by the Chief Authorizing Officer, the General Directorate of the County's Public Finance shall register the court order that opens insolvency proceedings in the local Insolvency Register of the ATU.

The General Directorate of the County's Public Finance and that of Bucharest shall publish, on the website of the Ministry of Public Finance, the Local insolvency register of the ATU which must be regularly updated, whenever an insolvency procedure is opened for an ATU.

On June 17th 2013, not even a month from the entry into force of the law, the insolvency proceedings against Aninoasa within Hunedoara County were already opened.

The already promulgated regulatory act determines/establishes in detail the role and tasks of the appointed judge, of the assembly of creditors and of the official

receiver, as well as the effects of the opening of insolvency proceedings of administrative-territorial units.

In this article, we wanted to present in detail the method of starting and terminating the procedure for opening insolvency proceedings of administrative-territorial units, since the whole process is a very extensive one and cannot be the subject of a single paper-work.

3.   ENDING THE PROCEDURE OF INSOLVENCY OF THE ADMINISTRATIVE-TERRITORIAL UNIT

In case the administrative- territorial unit does not meet the condition of insolvency, the appointed judge shall bring in the verdict of terminating the proceedings, even though not all claims/receivables contained in the recovery plan have been cancelled. The verdict of terminating insolvency proceedings is notified by the Chief Authorizing Officer/ the official receiver of the General Directorate of the County's Public Finance in order to be mentioned in the Local Insolvency Register of the ATU. After adopting the court order regarding the termination of insolvency proceedings, the Chief Authorizing Officer shall notify, within five days, the General Directorate of the County's Public Finance of its decision in order to be recorded in the Local Insolvency Register of the ATU.

In order to record the termination of insolvency proceedings in the Local Insolvency Register of the ATU, the Chief Authorizing Officer / the official receiver shall submit to the General Directorate of the County's Public Finance the following documents:

a) a written demand for recording the termination of insolvency proceedings in the Local Insolvency Register of the ATU;

b) the verdict of terminating insolvency proceedings;

c) analysis of the situation regarding the closing of insolvency proceedings.

The analysis of the situation regarding the termination of insolvency proceedings, in accordance with the specimen presented in the annex no. 2a, is to be filled out by the Chief Authorizing Officer / the official receiver with the information recorded on the date of closing insolvency proceedings.

The General Directorate of the County's Public Finance and that of Bucharest registers the written demands regarding the notification of terminating insolvency proceedings of the administrative territorial units in Local Insolvency Register of the ATUs in the order of their submission by the Chief Authorizing Officers / the official receivers.

Based on the documents submitted by the Chief Authorizing Officer / the official receiver the General Directorate of the County's Public Finance and that of Bucharest registers the verdict of terminating insolvency proceedings in the Local Insolvency Register of the ATUs.

The General Directorate of the County's Public Finance and that of Bucharest must publish, on the website of the Ministry of Finance, the indication of terminating insolvency proceedings of the administrative territorial unit in the Local Insolvency Register of administrative-territorial units.

The General Directorate of the County's Public Finance and that of Bucharest shall communicate monthly, but no later than the 10th of each month for the previous month, the opening/closing of insolvency proceedings to the Ministry of Public Finance, to the General Directorate of Budgetary Policy Accounts.

4. ASPECTS OF COMPARATIVE LEGISLATION ON THE REGULATION OF THE INSOLVENCY CONCEPT OF ADMINISTRATIVE-TERRITORIAL UNITS

Other states have also tied to rules the insolvency of municipalities. It is the case of the **USA** that has developed a legislative code in this respect – the Bankruptcy Code. In this field there is a long-established practice of approx. 70 years, and so far there have been filed over 500 requests for opening proceedings. It targets cities, villages, fiscal districts, school districts and municipalities. The purpose of the procedure is to provide municipalities facing financial problems protection against creditors in order to develop and negotiate a debt restructuring plan by extending their due date, by reducing the debt or the interest or refinancing them by acquiring new loans. The law does not provide the possibility of liquidation. Practically, reconsidering the date of payment and reducing the debt is a form of ending cash-flow /balance sheet insolvency.

On the contrary, in **France**, there is no special regulation concerning the insolvency of administrative-territorial units and no relevant practice in this field.

5. CONCLUSIONS

It can be noted that the financial crisis is not a judicial procedure, but a purely administrative one which is triggered by the deliberative authority who, as a result of this decision, delegates the authorizing officer to draw up a financial recovery plan.

The main effect of entering a financial crisis is that the administrative-territorial unit will be managed during the period of the financial crisis on the basis of the recovery plan in order to improve the financial situation.

The concept of financial crisis covers one essential aspect of the relationship between local public authorities and various parties, with which they are in collaboration, aiming to unfreeze the activity of providers of goods, services and works which have to collect debts from local public administrations.

We consider that the local public administration played its role in the European integration process through the reforms that were implemented. However, beyond the progress registered after 1990 and because of the need to set up new and modern foundations and in terms of obeying the principle of legality, it is necessary to continue the reform. We believe that one of the main objectives should be to take further measures to strengthen the financial capacity of administrative-territorial units.

We may take this stand because a real decentralization and autonomy cannot be achieved in the absence of financial resources, meaning that as long as local funds are still dependent on transfers from the State budget, the local autonomy of administrative-territorial units is limited and is likely to remain just a propagandistic

concept, whereas small and poor territorial collectivities will never be truly autonomous, but will remain indefinitely dependent on aid given by the State to be able to survive, or, as we could remark that through the adoption of legislative measures which have introduced new concepts in the year 2013, territorial-administrative units may be susceptible to financial crises or even insolvency.

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IMPACT OF INNOVATION UPON THE DYNAMICS OF ROMANIAN SMALL AND MEDIUM SIZED ENTERPRISES

JEANINA CIUREA, SUZANA DEMYEN [*]

ABSTRACT: *Innovation is central to economic growth, as the area in which it develops takes the whole sphere of economic activities: product, process, service, organization, marketing, hence the economic effects they may cause. Creating "innovative enterprises", giving tax cuts to certain periods of time, preferential loans, creating funds 'risk capital' are just some of the measures that European countries which already apply and Romania, willing to encourage innovation. The present paper presents two ways of exposing this issue, using theoretical sources but also real official data concerning the concept of innovation and also the ways of applying it within small and medium sized enterprises.*

KEYWORDS: *innovation, SME, dinamics, management, organization.*

JEL CLASIFICATION: *O31, O32.*

1. INNOVATION AND IT'S INFLUENCE OVER THE DINAMICS OF AN ENTERPRISE

The existence of a market economy dominated by frequent changes, but also by success, especially during the last two decades, assumed taking over of practices of the European Union, trying to align a set of general and specific standards. In the attempt to keep pace with market trends, to cope with increasingly fierce competition and generate competitiveness there were imposed new requirements to address concepts such as "innovation", "technology transfer", "industrial property", "compliance rules" which involved simultaneously the creation of policies that ensure both "convergence and consistency".

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Referring to the concept of 'innovation', it becomes necessary to develop it from the perspective of Joseph Schumpeter, who in 1935, in his "Theory of Economic Development" defined innovation as "the engine of a dynamic process in which new technologies replace old ones through a process that he called it "creative destruction" (Schumpeter, 1912/1934).

Under the new definitions, identified in the literature, innovation is seen mainly as an introduction of new products or improves existing ones, but it also aims to identify new methods of implementing new business processes, both primary and auxiliary. If we talk about innovation, we also refer to "production systems, the management subsystems, introducing a new organizational structure or improving the existing one, with emphasis on hierarchical relationships and dependencies in the sphere of information, competence, responsibility or decision, the introduction of a new organizational culture or improving the present" (Grabar, Pachura, Modrak, Bunaciu, 2011).

The definition given by the European Commission identifies innovation as a 'conversion of new knowledge into economic and social benefits, as a result of complex interactions between multiple actors in a system consisting of an environment (local, national, regional one) containing firms, research institutions, funders, and networks by which all these elements manage to get in touch (European Commission, 2002). The latter emphasizes the materialization of an idea into a "commercial success", but it involves a complex process, especially since the innovation is seen as "a special business instrument, applied in order to introduce new solutions or new services" (Durlik 1998).

Innovation can also be regarded as an element that generates competitiveness, holding a vital role in shaping an organization's market position, especially the position next to the competition, but also assuming the role of "creating prosperity" (according to Gary Hamel, in Ciobanu, Ciulu, 2010). Current competitive environment requires frequent changes, companies have to transform innovation into a continuous process, the desire to create prosperity and positive results. Given the challenges imposed by the economic crisis, we can identify the category of SMEs as organizations that have features such as "openness, active spirit and dynamic characteristics", especially given the conjecture that determine a continue adaptation of products, services and hence the entire business of the company to new market trends.

SMEs are the "engine" of the economy in Romania, but also in Europe, "representing a key factor for growth, innovation, employment, labor and social integration", the small and medium enterprises having a number of specific features, which are representative for the current economic context dominated by the effects of the global crisis. In Romania, public policy assigns due importance of the SME sector by implementing various tools, supporting either directly (through national or European funds), or indirectly by determining a favorable regulatory framework. The SME sector in Romania has a number of features, by which can be particularly different than other member states of the European Union. According to UNIDO, "in terms of employment, domestic SMEs are in line with the European average share of about two-thirds of the total, however, there is a problem regarding SME contribution

to gross value added, which in Romania is approx. 54 %, while considering the EU is closer to 60 %" (UNIDO, 2005).

This is mainly explained by the fact that SMEs represent the "overall level of economic disparities of a country compared to the European Union level, but so far there is no structural analysis to decompose the causes of these gaps through the judicious contribution to the development of the SME sector economic (...), most countries being based on the dynamism and resilience to risk of private companies" (United Nations Industrial Development Organization (UNIDO), 2005).

Definition of SMEs in the literature and also those offered by official entities, intersect in a number of common points. OECD (2005) defines SMEs as "companies with subsidiaries, independent, with a small number of employees. The number of employees varies from one country to another, the upper limit being 250 employees for the European Union", noting that "some countries have adjusted the limit to 200 employees, while the United States include in the SME category companies that have less than 500 employees". The limits place in the category of small firms the ones with fewer than 50 employees, while microenterprises are those with fewer than 10 employees. This definition of SMEs, however, was amended by the European Commission, which from the 1st of January 2005 completed the list of characteristics with new features, including more pronounced financial limitations: "the turnover of medium-sized companies (50-249 employees) does not exceed 50 million euro, while for small enterprises (10-49 employees), turnover does not exceeding 10 million. The same indicator considered for micro enterprises (companies with less than 10 employees) must not exceed 2 million euro" (according to the European Commission).

In Romania (Buglea, 2010), firms are classified according to the criteria concerning number of employees, the net turnover or total assets being as specified by Ordinance no. 27/2006, amending and supplementing the Law no. 346/2004 on stimulating the creation and development of small and medium enterprises, approved by Law no. 175/2006 :

- Microenterprises - have up to 9 employees and an annual turnover or total assets net of up to 2 million euro, equivalent;
- Small enterprises - have between 10 and 49 employees and an annual turnover or total assets net of up to 10 million euro, equivalent;
- Medium-sized enterprises - have between 50 and 249 employees and an annual net turnover of 50 million equivalents in lei or total assets not exceeding the equivalent in RON of 43 million euro.

"Beyond quantitative arguments, SMEs are the engine of economic growth because most of them are characterized by dynamism, flexibility and innovative power, being able to quickly seize market trends and adapt on the fly to changes in the economy" (Pîslaru et al, 2012). In support of this idea comes the European Commission arguments, expressed in the Annual Report on SMEs, ideas which summarized reveal that SMEs have the major contribution to the implementation of the objectives regarding the overall economy for the following reasons:

- they have a low magnitude in size, which reduces bureaucratic issues, there are encouraged close relations and imposing the control is easier;
- they are more adaptable to changes, generate jobs;

- they are more inclined to promote flexibility;
- they constitute the pillars in the shade of large enterprises;
- they offer greater possibilities for professional development.

As a state member of the European Union, Romania has expressed concerns regarding innovation, trying to align to external standards, the measures discussed being represented mainly by national and European programs, in order to support the SME sector to encourage investment in research, development and innovation.

"Innovation in firms is central and largely relates to planned changes to improve overall performance" (OECD, 2005), innovation as a system having the starting point within the organizations, as illustrated below:
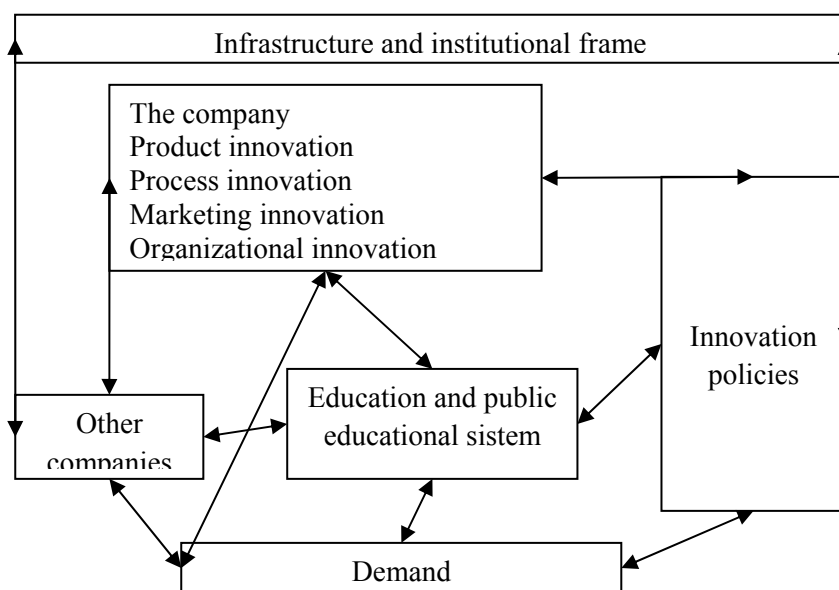
Source: The Regional Innovation Strategy of Western Region Romania, 2009-2013

Figure 1. Innovation as a system

The manifestation of the phenomenon of innovation varies depending on a number of criteria, including scope, type of organization or region to which it belongs. Overall, the importance of innovation was synthesized by an Economist Intelligence Unit study (2008) by the following coordinates:

- Innovation is the key to sustainable growth in the medium-developed countries, it is not sufficient just an imitation of innovations developed by others;
- Despite massive foreign investments that have implemented technology and know-how, this has not resulted in a similar growth in the national economy;
- In the past five years innovation in the countries of Central and Eastern Europe was modest compared with the developed countries of the EU, and this trend continues to maintain;
- A part of the local SMEs have shown that successful innovation and export are possible despite the lack of brand recognition abroad.

2. THE IMPACT OF INNOVATION UPON ROMANIAN SMEs

The evolution of these businesses also depends on a number of factors that must be considered, including the need to develop and implement strategies, both on short and long term, although a more careful analysis of this issue reveals that in most cases (55.40 %), companies do not develop strategic plans. 38.54 % of companies achieved annual plans and strategies, while only a small proportion of SMEs (6.06%) carry out long-term planning activities. This is still a necessity, if it is desired an enhancement of the competitive advantages of firms. According to the White Paper of SMEs in 2013, the main competitive advantages of an enterprise are the following aspects:
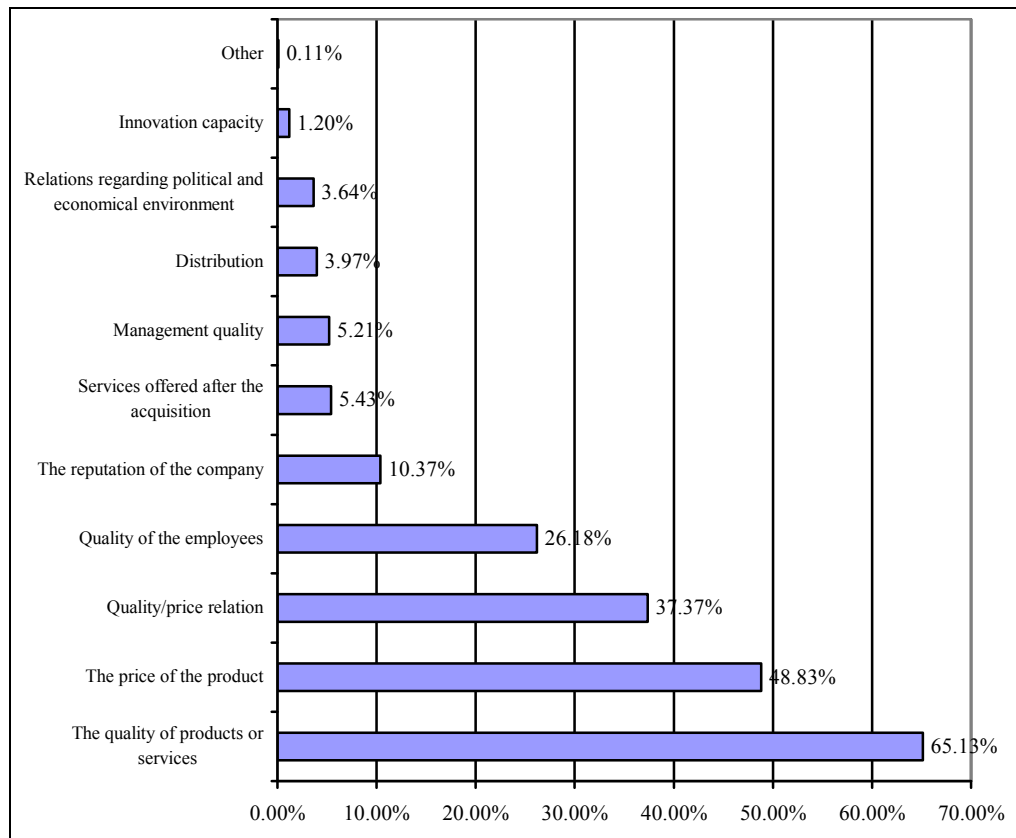
Source: White Book of SMEs, 2013

Figure 2. Competitive advantages of SMEs

We therefore observe that an enterprise identifies harder the innovation as competitive advantage, the percentage is only 1.2%, and if we perform an analysis taking into account the age of the firms, we find that at the beginning of the activity (0-5 years) and those that have exceeded the activity of 15 years are more receptive to identify their capacity for innovation as competitive advantage (1.41 % and 1.43%),

while only 0.38% of firms with an activity between 10 and 15 years usually do this. In terms of regional issues, the innovation capability distinguishes the strong competitive advantage only if the West Region (5.26%) while in the other regions, the values are much lower, reaching even 0% in the South East. In terms of business size, small enterprises demonstrate a higher capacity for innovation (2.25%), in opposition to the medium sized ones (1.52%) or even microenterprises (0.99%).

	Development of new products	Development of new technologies	New technological approaches	System development	Human resource training	No issues concerned
☐ Bucharest Ilfov	43.47%	20.61%	21.84%	4.08%	4.90%	28.78%
◼ Center	41.16%	18.65%	24.44%	5.14%	3.86%	36.66%
◼ North West	53.24%	12.95%	33.81%	7.19%	3.60%	27.34%
◼ West	16.67%	10.53%	17.54%	30.70%	6.14%	35.09%
☐ South West	13.52%	9.02%	5.33%	8.20%	2.87%	68.44%
☐ South	48.66%	14.18%	19.16%	9.20%	9.96%	24.52%
◼ South East	30.33%	18.85%	20.49%	2.46%	0%	45.08%
☐ North East	33.56%	20.13%	12.75%	7.38%	4.03%	46.98%

Source: The White Book of SMEs

Figure 3. Main concerns of SMEs in the field of innovation

A careful analysis of the innovative activity within an enterprise has gained greater importance over the last decades, within a stronger shaping of a knowledge

society and a knowledge-based management. Also noteworthy is that innovative activities within an organization are classified according to their nature or categories that are included. Thus, according to the study by the Council of Private Small and Medium Enterprises, "innovation efforts within SMEs focused primarily" on the following aspects: human resources training (4.76 %), upgrading system (7.6%), new technologies (16.45%), management and marketing approaches (19.51%), new products (37.21%).

Important to note however is the fact that about 38 % of companies say they do not carry out innovative activities at all. If we consider the age of the firms in the business, the latter percentage is maintained on average, be it new businesses that are on the market for less than five years, whether we refer to the more established organizations. By comparison, the innovation activities within these SMEs can be analyzed at the regional level, being able to perform a number of comparisons according to each criterion innovation effort.

Thus, if we speak of the effort focused on developing innovative new products, we face different situations from a region to another, higher values being found in the South (48.66 %) and North West (53.24%). Efforts to develop new technologies, as well as other activities moreover, are lower than those directed towards product development. In this way, we identify a uniform tendency of regions to align the same approach to this issue. An exception is the West region, which pays attention to system modernization (30.17%), while the corresponding percentages than other regions exceed 9% for the highest percentage, while reducing their efforts towards the development of new products to 16.67 %.

Depending on the size of firms, we find that microenterprises focus mainly on developing new products (35.89 %), and less on human resources (3.74%) or system upgrade issues (6.74%), the trend being maintained also regarding small and medium sized enterprises, the difference being the fact that the weights assigned to each of these categories is 41.51% and 50% for new products, 8.30 % and 13.64 % for training of human resources and 9.81 % and 18.18 % when referring to the system upgrade.

There are also cases in which innovation is not a constant activity within the organization, fact which is more prevalent in the case of microenterprises (40.83 %), than in other cases (26.79 % of small businesses, 9.09 % of medium sized enterprises). Innovation is also harder accepted by entrepreneurs who have only basic training or studies, it is not found in 7.43 % of cases, the percentage decreased with the identification of a higher level of training. When referring to entrepreneurs with elementary studies, we see that they are not interested to implement new approaches to management or marketing, or for upgrading or professional development system, being inclined towards product development or introduction of new technologies. The percentages vary from the other two categories, those of entrepreneurs with secondary and higher education and directing their attention to other innovative activities. The shares of investment devoted to innovation vary from one enterprise to another, as from one region to another, as follows in table 1.

Modalities of accomplishing and implementation of innovation within a company can take many forms, which, according to the study conducted by the National Council of Private Small and Medium Enterprises are represented mainly by

the individual conduct of research - development (40.52 %) but also to adapt the innovations initiated by other organizations (30.05 %), taking them over (21.95 %), cooperation with other organizations regarding research and development (7.48%). In table 1 we can identify two trends that are uniform across all regions, namely: on the one hand, we note that in most cases, there are not allocated more than 76 % percent, except in North West and Central Region (0.69%, or 0.63 %), but also the tendency is to not allocate any percentage of the innovation activity (percentage of 0 % being identified in the case of 33-57 % of companies).

Table 1. Share of investment devoted to innovation

No	Percent of investment dedicated to innovation	North East Region	South East Region	South Region	South West Region	West Region	North East Region	Central Region	Region of Bucharest Ilfov
1	0%	54,97%	57,38%	39,25%	53,69%	38,60%	33,10%	45,11%	42,34%
2	1-5%	11,26%	20,49%	24,91%	20,90%	22,81%	40%	23,97%	32,26%
3	6-10%	15,89%	14,75%	20,00%	16,80%	13,16%	13,79%	18,93%	16,13%
4	11-20%	4,64%	6,56%	9,43%	4,51%	7,02%	8,28%	7,26%	6,65%
5	21-50%	9,93%	0%	4,15%	3,69%	15,79%	3,45%	2,84%	2,22%
6	51-75%	3,31%	0,82%	1,89%	0,41%	2,63%	0,69%	1,26%	0,40%
7	Peste 76%	0%	0%	0,38%	0%	0%	0,69%	0,63%	0%

Source: The White Book of SMEs

At the regional level, taking elements of integrated innovation designed by other organizations is mostly common in the North East (37.96 %) and West (36.96 %) and the least in the North West (7.69 %). This last region maintain appropriate conduct but a high percentage of individual activities (53.85 %), with moderate variations in other regions in terms of this indicator. Cooperation between organizations is the least accepted and adopted by firms in all eight regions, the rate to peak in the North East (16.06 %), while in the South West does not exceed 0.49% hit rate.

Considering the size of firms, we find that microenterprises focus mainly on the conduct of individual research and innovation, putting less emphasis on cooperation with other organizations (only in a proportion of 6.93 %). Small individual focuses on the development of activities (36.63 %), but to an extent close to the percentage allocated to adapt the innovations initiated by other organizations (32.51 %). Innovation through cooperation with other organizations is the least accepted, not only by microenterprises, but also by small (10.70 %) and medium ones (6.45%), the latter mainly aiming adjustment and modification of the innovations initiated by other organizations (35.48 %).

Although they have been identified as essential within the development of a society based on knowledge, research and innovation require investment. The main sources of funding that can be identified in this respect are mostly SMEs own (at a rate of 89.24 %), followed by bank loans (18.97 %), EU funds financing (5.83 %), as well as other types of grants, in a lower proportion, even less than 1 %.

	North East	South East	South	South West	West Region	North West Region	Central Region	Bucharest Ilfov
☐ Full takeover of new elements developed by other organizations	37.96%	29.47%	17.96%	23.53%	36.96%	7.69%	26.52%	15.10%
☐ Individual development of activities	27.01%	35.79%	45.31%	44.61%	31.52%	53.85%	38.26%	40.50%
☐ Cooperation with other organizations	16.06%	4.21%	9.80%	0.49%	13%	3.08%	4.17%	9.61%
☐ Adjustment of new elements	18.98%	30.53%	26.94%	31.37%	18.48%	35.38%	31.06%	34.78%

Source: The White Book of SMEs, 2013

Figure 4. Ways of applying innovation in Romanian enterprises

Regional analysis shows that all regions remain above trend, their own sources being found first, the small regional variations, as follows:
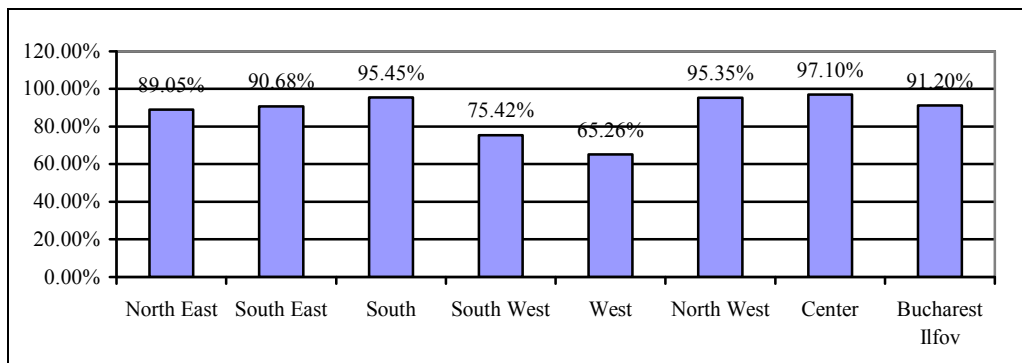
Source: The White Book of SMEs, 2013

Figure 5. Regional fluctuation of own financing sources

The highest percentage of own resources dedicated for financing belong to the Central, North West and Southern Regions, while the Western region ranks last with 65.26 % allocation. In the latter case, however, as well as in terms of the South West, we observe a higher share of investment from bank loans (27.37 % and 32.63 %), other regions accounting for this category investment from 10 to 22%. Funds from local authorities are lacking in most regions, except the center (0.35 %) and Bucharest- Ilfov (1.13 %).

Although since joining the European Union, funds for investment have increased and can be attracted through financing schemes, it remains a fairly low percentage in most regions, ranging between 3 and 7 %. The only region where we identify a higher percentage is South West with 13.14%. EU funds to finance innovation activities were especially attracted by medium enterprises (13.33%), less by the micro (5.03 %) or small ones (8.37 %), this trend being maintained for the other sources of funding also, the weights for medium enterprises exceeding the others.

The recovery of these investments is viewed differently depending on the company, the assessment of the optimal duration is performed according to the following schedule:
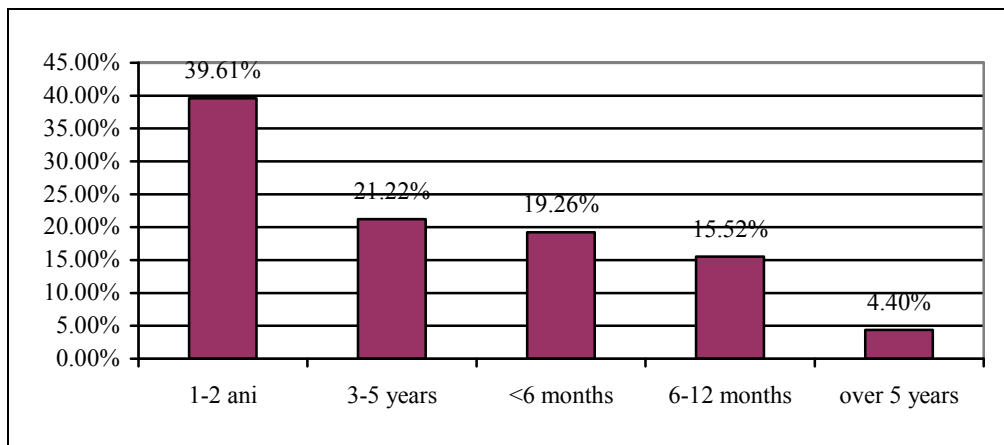
Source: The White Book of SMEs, 2013

Figure 6. Recovery of investments in innovation activities

3. CONCLUSIONS

Research and innovation, as well as other management activities, face a number of barriers, of which the study developed by the National Council of Private Small and Medium Sized Enterprises identified the following:
- High cost of operations;
- Insufficient funds;
- Uncertainty about the demand for innovative products;
- Difficult access to information;
- Lack of long or medium term forecasts;

- Rigidity of the eligibility of projects funded through public schemes;
- Difficulty in finding partners for cooperation;
- Difficult access to information on new technologies;
- Problems with the quality of human resources.

Addressing in particular to SMEs, understanding the dynamism with which they act, and states understand their difficulties related to the innovation process - lack of capital, the specialists - and provides significant financial incentives and research teams to boost these firms to innovate.

Creating "innovative enterprises", giving tax cuts to certain periods of time, preferential loans, creating funds 'risk capital' are just some of the measures that European countries which already apply and Romania, willing encourage innovation, you have to learn them.

The complexity of the innovation process and one of the important features that it should have - speed of response - economists turned their attention to the small and medium enterprise, enterprise characterized by greater openness to the new, dynamic, active spirit of competition. It is observed even in the case of Romania, the emergence of enterprise products, processes and services less developed in the past and begin to have all major market segments: the case of representing horizontal auto equipment, information technology included in the product, equipment health, energy, specialized services, all characterized by the "high-tech".

In determining the impact of innovation activity over the dynamics of small and medium sized enterprises, it also requires consideration of the influences that may cause a negative development of activities in an organization. Studies prepared by the National Council of Private Small and Medium Sized Enterprises identify as the most significant threat to businesses the following phenomena: a worldwide economic crisis (69.05 %), followed by the development of the legislative framework, thought to influence the SMEs in a proportion of 48.28 %, but also the inefficient anti-crisis measures taken by political representatives (35.79 %) and corruption, bureaucracy or instability phenomenon of business, each of these showing less influence, between 20 and 29%. Each of these expose a contextual development, representing variable phenomena that in an unstable economic environment can lead to stagnation or even an economic decline, especially when discussing small and medium sized enterprises.

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COMPETITIVENESS IN THE INTERNATIONAL BEEF MARKET: AN ANALYSIS OF THE BRAZILIAN AND AUSTRALIAN MARKETS

DANIEL ARRUDA CORONEL, DIEGO PIEROTTI PROCÓPIO, VIVIANI SILVA LÍRIO [*]

ABSTRACT: *Beef cattle production is the major Brazilian agribusiness sector, as a supplier for both the domestic and the international markets. Given the importance of Brazil in this segment, this study aims to analyze the competitiveness of the Brazilian and Australian beef market between 1998 and 2009 by using indexes of global marketplace positioning, competitiveness indexes and the Michaely index, as well as the coefficient of divergence. Another aim of this study was to evaluate the production structure of both countries. The results showed that Australia is more competitive throughout the analyzed period, except for 1999, when Brazil was more competitive because of the devaluation of the real against the dollar, which boosted Brazilian exports. The results of the analysis of the production structure show that there are differences between the production methods in Brazil and Australia.*

KEY WORDS: Beef *cattle production, International Trade, Agribusiness*.

JEL CLASSIFICATION: *F10.*

1. INTRODUCTION

Beef cattle production in Brazil has grown as regards both production and productivity as a result of agricultural expansion in the Midwest and Southeast regions. Therefore, Brazil has achieved world prominence as one of the largest producers and

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exporters of beef. However, the extensive production method which is predominant in Brazil compromises meat quality and hinders trade with other international markets.

Despite this scenario, technologies are being developed in Brazil to improve the means of production. Innovations that are worth of notice include strategic supplementation, crossbreeding of genetically superior breeds, use of new varieties of fodder for animal feeding, ear tags for animal identification, and vaccines, among other methods that have improved beef production system. Also in this respect, Reis (2003) points out that the beef cattle production in Brazil has different production systems (confinement, semi-confinement and extensive), and such disparity in the production methods results in changes in the levels of productivity. These production differences are caused by several factors, such as spatial organization of land use, productive capital structure, soil fertility, climate, and type of technology employed, particularly. High levels of productivity and quality are achieved in modern cattle farms, where appropriate technology is adopted.

In contrast, the quality of beef cattle in Australia meets international standards because the Australian beef production method is quite adequate. Tools such as beef traceability[1] and beef certification[2] are used; for this reason, this country is a worldwide reference in beef cattle production.

Although there are differences between Brazil and Australia as regards beef production, they both stand out as major *players* in the international beef market. In 2009, according to the *Food and Agriculture Organization of the United Nations* (FAO, 2011), Brazil's share in total beef exports was of 12.34%, followed by Australia's share of 11.44%. Table 1 shows the share of both countries in the international beef market between 1998 and 2009.

Table 1 shows the Brazil and Australia have been increasing their share in the international beef market in terms of export values. However, an analysis of the quantity sold by Brazil, and the increased volume exported in the period between 1998 and 2009 shows that Brazil´s share is bigger than Australia´s. While the former achieved a growth rate of 476.97%, the latter increased only by 5.13% over the same analysed period.

In this context, this study aims to analyze the competitiveness of both countries (Brazil and Australia) in order to specify which one is more competitive and if it is marketed by the traded amount or by the added value. The specific objectives are the following: i) to determine the market share of each country in the international beef market in the period between 1998 and 2009, and ii) to calculate and compare methodological rates in order to specify which country has competitive advantage.

This study is organized into four sections other than this introduction. Section 2 discusses the theoretical background for the present study; Section 3 explains the

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[1] Traceability can be defined as the mechanism that enables the identification of product's origin from the field to the final consumer, which may or may not have gone through one or more transformations as in the case of minimally processed foods (ROCK; LOPES, 2002).

[2] Certification is required for some control measures such as staff training, record of identified treatments, records of transaction and cattle mobility, prevention against leather damage, adequate transportation, chemical labelling and storage of materials, safe use of chemical products, treatment records, food storage and internal verification procedures (ROCHA;LOPES, 2002).

methodological procedures and the source of data; Section 4 analyzes and discusses the obtained results; finally, Section 5 makes some concluding remarks about the study.

Table 1. Brazilian and Australian share in world exports in value (U$S 1.000) and quantity (tonnes)

YEAR	BRAZIL		AUSTRALIA	
	Exported value	**Exported Quantity**	**Exported value**	**Exported Quantity**
1998	539.070	246.456	1.822.562	1.191.886
1999	808.458	381.092	1.976.007	1.182.920
2000	783.188	410.779	2.111.434	1.208.058
2001	1.008.676	645.045	2.344.046	1.265.526
2002	1.089.924	757.924	2.273.788	1.236.017
2003	1.507.643	1.022.792	2.396.207	1.142.745
2004	2.428.669	1.433.574	3.456.910	1.263.517
2005	2.964.685	1.650.729	3.627.789	1.272.533
2006	3.816.876	1.864.211	3.727.925	1.314.219
2007	4.263.834	1.956.881	3.802.863	1.284.627
2008	4.991.491	1.599.938	4.304.275	1.289.908
2009	3.732.079	1.421.991	3.458.340	1.253.147

Source: FAO (2011)

2. THEORETICAL BACKGROUND

The Classical School of Economics has drawn upon the ideas of Adam Smith and David Ricardo to provide Economics with a focus for the systematic analysis of trade between countries.

In 1776, Adam Smith published *An Inquiry into the Nature and Causes of the Wealth of Nations*. In this book, Smith outlines guidelines for the trade between nations, and crucial differences can be observed between Smith and the mercantilists.

Based on the comparison of labour productivity, Smith formulated the theory that became known as Absolute Advantages, whose basic assumption is that two nations could have gains from trade if they decided to trade with each other.

According to Salvatore (1999), the principle of Absolute Advantage posits that nations should specialize in the intensive *commodity* which they could produce with greater absolute advantage rather than the *commodity* which they produce with less absolute disadvantage.

The Theory of Absolute Advantage did not fully explain the basis of trade and, according to Rainelli (1998), it had a major limitation: if a country did not offer any absolute advantage, it could not trade.

David Ricardo developed the theory of Adam Smith further by introducing, in the Principles of Political Economy, the Law of Comparative Advantage. For Ricardo, even if a nation has an absolute disadvantage in the production of both *commodities*,

they could still trade, since that nation could specialize in the production of their *commodity* of lower absolute disadvantage.

For Maia (2001) and Gonçalves *et al.* (1998), the Theory of Comparative Advantage does not explain the contemporary international trade, since it does not consider the role performed by technology, product differentiation, increasing returns to scale. Moreover, the Theory of Comparative Advantages assumes that there is only one factor of production; that trade takes place between two countries; that transport costs are absent; and that the Trade Balance is always equilibrated.

The Neoclassical Theory emerged with the publication of the article *The Effects of Foreign Trade on the Distribution of Income* in 1919, written by Swedish economist Eli Heckscher. Heckscher's article had not been analyzed or discussed until Swedish economist Bertil Ohlin analyzed it and published the book of Inter-Regional and International Trade in 1933, with the assumptions of the Neoclassical Theory of International Trade.

According to Salvatore (1999) and Williamson (1998), the Heckscher-Ohlin theorem can be summarized as follows: a country will export *commodities* that use its abundant factor of production intensively and import *commodities* that require the use of its scarce factor and higher production cost.

The big difference between the Classical and the Neoclassical Theory of International Trade, in accordance with Brum (2002) and Ferrari Filho (1997), is that the neoclassical economist avoid the Ricardian model, based on a single factor of production, and adopt an analysis that takes into consideration all production factors, the intensively of their use and the nature of their interaction with production resources, in addition to the technology individual countries use in production.

The Hecksher-Ohlin theorem is based on the following assumptions: there are two nations and two factors of production (capital and labour); technology is available worldwide; *commodity* x is labour-intensive and *commodity* Y is capital-intensive in the two trading countries; the two *commodities* are produced under constant returns to scale; production has incomplete specialization in both countries; the countries share identical and homothetic preferences; there is perfect competition in both countries; there is perfect mobility of production factors in both countries, but no international mobility of factors; there are no costs, tariffs and barriers to trade; all resources are fully employed in both countries, and international trade between both countries is equilibrated. It can thus be stated that countries tend to export goods produced with the intensive use of factors that they own in abundance, and import products that intensively use the production factors that are rare for them.

The assumptions made by Heckscher-Ohlin had great importance and influence on subsequent models of international trade. However, as the globalization process expanded, new models and new theories of international trade emerged in order to try to explain the new appropriation of international trade, particularly the Linder theory, the Product Cycle, developed by Vernon, and the Model of Technology Lag, postulated by Posner.

The development of trade relations between countries reveals that competitiveness is considered to be an important cause and effect of trade between nations. The economic transformations that occurred in the 1980s and 1990s fostered a

more comprehensive view of competitiveness, in which international trade and competitiveness are affected not only by a country's factor endowments, but also by other variables such as exchange rate, costs and productivity.

3. METHODOLOGY

3.1. Position in World Market (S)

This indicator allows describing if a country is gaining, losing or maintaining their position in the global market. The present study focuses on beef. The result of the indicator is expressed as a percentage, and may take values between -100 and 100; the higher the value achieved, the more intense is a country's share in the international market of the product in question (GOMES, 2011).

$$S_{kt} = 100 \times \left(\frac{X_{kt} - M_{kt}}{X_t} \right)$$

where:
S_{ki}: Position in the world market of product "i" from country "k".
X_{ki}: Value of exports of product "i" from country "k".
M_{ki}: Value of imports of product "i" from country "k".
X_i: Value of global exports of product "i".

3.2. Competitiveness Index (CI)

This index compares the competitiveness of two countries ("j" and "m") exporting a product ("i") to a market ("k"). The formula takes into account the relevance, in a country's export basket, of the item whose competitiveness is to be measured, as well as the competitor country`s share in a given market. This is what is known as effective or ex-post competitiveness (BATISTA, 1999).

$$IC_{jm}^{k} = 100 \times \sum_{i=1}^{n} \times \left\{ \frac{M_{i,j}^{k} \times M_{i,m}^{k}}{M_{j}^{k} \times \left(M_{i}^{k} - M_{i,j}^{k} \right)} \right\}$$

where:
IC_{jm}^{k}: is the competitiveness index of exporting country "j" compared to competitor country "m" in market "k";
$M_{i,j}^{k}$: are the imports of product "i" from country "j" by market "k";
M_{j}^{k}: are the imports from country "j" by market "k";
$M_{i,m}^{k}$: are the imports of product "i" from country "m" by market "k";
M_{i}^{k}: are the imports of product "i" by market "k";

3.3. Coefficient of Divergence (CD)

This index measures the similarity of the distributions of export sectors between pairs of countries. When the coefficient of divergence is equal to 100, the analysed nations have identical commercial structures; in contrast, when the index is null, these structures differ (DÍAZ MORA, 2001).

$$CD_{AB} = \left[1 - \left(\frac{\sum_i |S_{iA} - S_{iB}|}{2} \right) \times 100 \right]$$

where:

CD_{AB}: coefficient of divergence of countries A and B;

S_{iA}: represents the share of product or sector "i" in country A's exports;

S_{iB}: represents the share of product or sector "i"in country B's exports;

3.4. Michaely Index (MI)

For Depetris *et al.* (2010), the Michaely Index is a measure of international trade specialization which takes into account both the exports and imports of a product; it ranges between -1 and 1.

$$MI_{ki} = \frac{X_{ki}}{X_k} - \frac{M_{ki}}{M_k}$$

In which:

MI_{ki}: Michaely Index of product "i" from country "k"

X_{ki}: Value of the exportations of product "i" from country "k".

X_k: Total value of the exports of country "k".

M_{ki}: Value of the exports of product "i" from country "k"

M_k: Total value of the imports from country "k"

3.5. Source of data

The data used in this study were collected on the FAOSTAT database, covering the period between 1998 and 2009 for the purposes of analysis. Data were comprised of the total value of total world beef imports; the total value of Brazil's world exports; the total value of Australia's world exports; the total value of Brazil's world beef exports; and the total value of Australia's world beef exports, with the home country's world exports being equivalent to imports of goods and services from the home country by the rest of the world.

4. ANALYSIS AND DISCUSSION OF THE RESULTS

4.1. Analysis of Market Positioning

This sub-section briefly seeks to compare the position of Brazil and of Australia in the international beef market in the period between 1998 and 2009. The

results presented below were obtained through the Index of Market Positioning (S) and are shown in percentage terms in Figure 1.
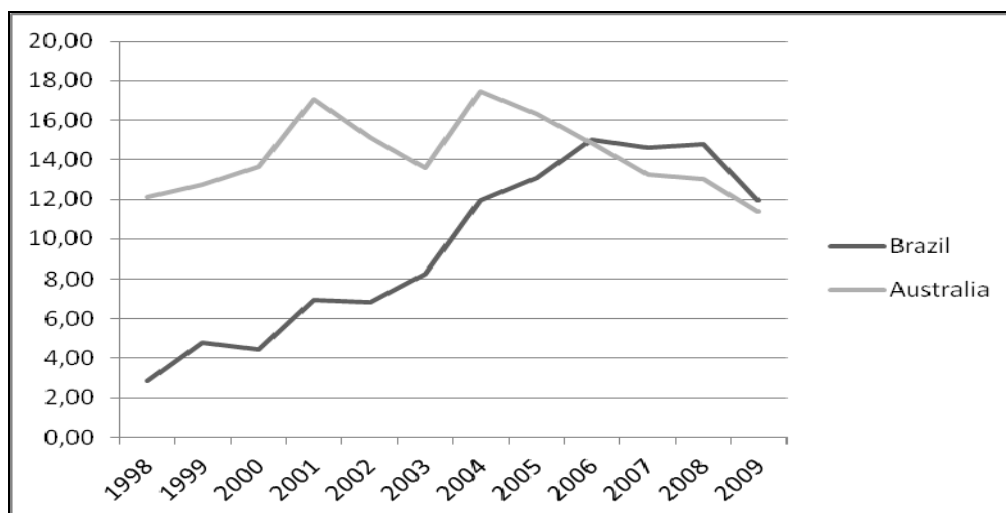
Source: Research results

Figure 1. Position of Brazil and Australia in the world beef market from 1998 to 2009

Figure 1 shows that the share of the Brazilian beef increased in the international market during the period analyzed while the beef produced in Australia has remained as a consolidated product in the world market since the early 2000s. From the year 2008 onwards, the share of both countries has decreased in the international beef market, a fact Baldwin (2009) associated with the international financial crisis, which affected the market not only of agricultural products, but also that of other economic sectors.

Kume (2010) cites some studies that sought to establish the relationship between the deepening international financial crisis and the decline in trade among nations: Kei-Mu (2009) observes that as a result of the crisis, the income of the US population and American imports have been reduced, thus reducing the exports of countries that are trading partners with the United States. Mora and Powers (2009) point out that the reduced availability of resources[3] granted by banks to finance imports of economic agents from different nations has also caused the decline in exports and imports of world economies. Finally, Kume (2009) also explains that the reduced industrial production across nations also caused a reduction in the volume of international trade.

Figure 1 illustrates a reduction in the Australian market share in the overall international trade of beef and an apparent stability of the share of the Brazilian economy in the same market between 2004 and 2009. This occurs as a result of the

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[3]Resources made available to importers by banks are known as 'letter of credit' and such administrative procedure occurs as follows: banks take on the responsibility of effecting the payment to exporters and expect to obtain the repayment from the importing firms (MORA e POWERS, 2009).

growth in beef exports of the United States after the sanitary crisis occurred in that North America country. Figure 2 shows the behaviour of bovine meat exports to other countries from1998 to 2009.
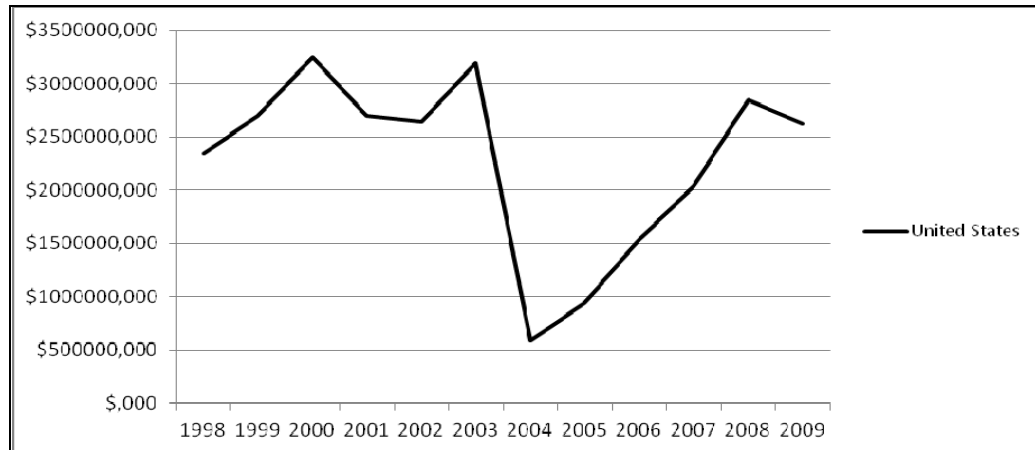
Source: FAO (2011)

Figure 2. U.S. beef exports (in thousand dollars)

Therefore, the next subsections will analyze competitiveness between Brazil and Australia as well as discuss the reasons why Brazilian beef exports have increased.

4.2. Analysis of the Competitiveness Index
4.2.1. Brazil

The analysis of the index in this subsection will take into account Brazil as an exporting country and Australia as a competitor country.

The highest rate of Brazilian competitiveness against Australia was in 2004 (0.503), which can be explained by the fact that the value of Brazilian exports had the largest increase in 2004 compared to the previous year: 61.09%. The analyses below were made between periods, and comparisons were made with data of the start and end years of the period; the variables considered were the total value of world beef imports and the total values of Brazilian and Australian beef exports.

Between 1998 and 2001, competitiveness rate grew by 117, 6%; during this period, world imports declined by 8.48%. Australian exports grew by 28.61% while Brazilian exports increased by 70.07% - a greater expansion than that of the competitor country. From 2001 to 2004, competitiveness rate grew by 57.1%, and world beef imports increased by 43.91%. In this period, Brazilian beef exports also outnumbered Australian ones: 140.77% compared to 47.47%, respectively.

According to Franchini (2006), Brazil[4] ranked second among the largest beef producers in the world from 1990 to 2005, with such position in the global scenario

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[4]For Junqueira (2006), the growth in Brazilian bovine meat production was due to improvements in nutrition, pasture and investments in genetics.

being a result of the increased production volume (by 89%); in contrast, beef production of all other nations grew only by 13% in the same period. Moreover, Brazil increased its share in the international beef market during the period analyzed and such growth happened because of an increase in the volume of Brazilian beef exports.

Table 2. Competitiveness index of Brazil

YEAR	COMPETITIVENESS INDEX
1998	0,147
1999	0,228
2000	0,205
2001	0,320
2002	0,296
2003	0,308
2004	0,503
2005	0,476
2006	0,488
2007	0,417
2008	0,389
2009	0,318

Source: Research results

Source: Research results

Figure 3. Brazilian competitiveness index

In the last period of analysis (2004 to 2009), there was a reduction in the rate by 36.77% while world imports grew by 53.26%; Australian exports increased by 0.04% and Brazilian exports increased by 53.66%. The decrease in the competitiveness rate can be explained by the increase in beef exports from the U.S. and India. Figure 3

shows a better overview of the behaviour of the Brazilian Competitiveness Index in the analyzed period.

Junqueira (2006) points out that the increase in beef exports was due to the growth of foreign sales of fresh beef, while processed beef lost ground. Also according to Junqueira, processed beef accounted for about 72% of Brazilian beef exports in 1998, while fresh beef, for approximately 76% of exports in 2005; as a result, Brazil managed to expand trade relations with other countries such as Russia and the United States. However, Brazil could have made a bigger profit out of beef sales if it had added value to the product.

4.2.2. Australia

This section describes the analysis of the Australian Competitiveness Index, considering Australia as an exporting country and Brazil as a competing nation, as shown by Table 3.

Table 3. Competitiveness index of Australia

YEAR	COMPETITIVENESS INDEX
1998	0,149
1999	0,214
2000	0,220
2001	0,337
2002	0,296
2003	0,317
2004	0,643
2005	0,604
2006	0,583
2007	0,465
2008	0,401
2009	0,313

Source: Research results

The highest rate of Australian competitiveness against Brazil also occurred in 2004, representing a value of 0.643. In that year, Australia had a highest increase in the volume of exports (44.26%) compared to the previous year.

Between 1998 and 2001, Australia's competitiveness rate grew by 126.1%, even though Brazilian exports outnumbered Australian ones in that period. The increase in the Australian competition index was due to the fact that the market share of Australia's world beef exports rose more than that of Brazil's in the analyzed period.

According to Pereira (2009), outbreaks of *bovine spongiform encephalopathy* in the United States and Canada in the early 2000s benefited Australian exports, which were targeted at markets that could not be supplied with U.S. and Canadian beef.

Buainain and Batalha (2007) reported that Australia exported mainly to Asian countries, including Japan, whose consumer market is very demanding.

Between 2001 a 2004, competition rate rose by 90.80%, for the same reason observed in the previous period. Finally, from 2004 to 2009, the rate decreased by 84.97%. This reduction occurred because the share of Australian beef exports in overall exports gradually declined over those years. Figure 4 offers a clearer picture of the behaviour of the Australian index.
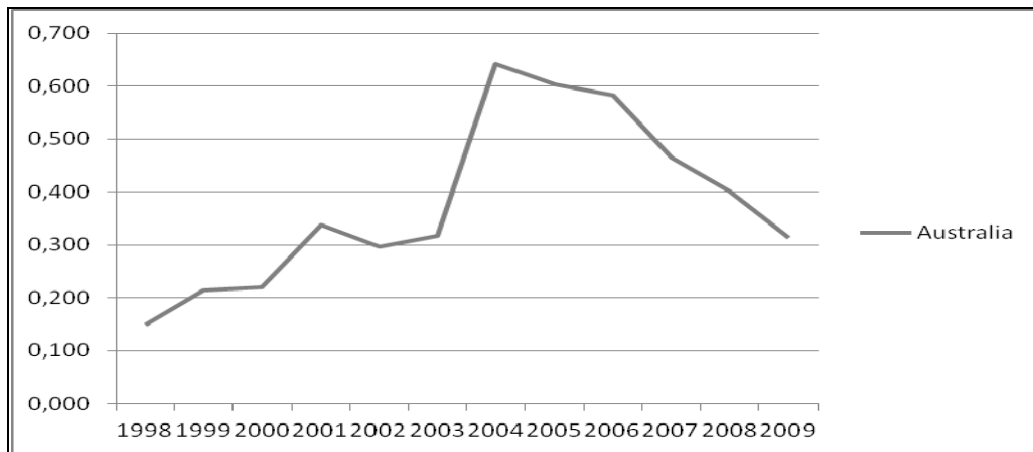
Source: Research results

Figure 4. Australian competitiveness index

4.2.3. Brazil and Australia

This subsection describes the behaviour of the competitiveness indexes of Brazil and Australia in the period from 1998 to 2009, as shown in Figure 5.
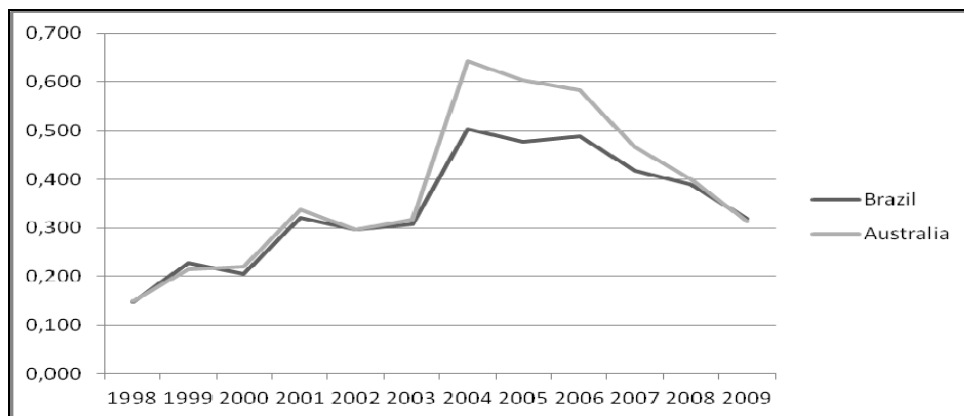
Source: Research results

Figure 5. Competitiveness indexes of Brazil and of Australia

Figure 5 shows Australia's predominance over Brazil in the beef market throughout the analyzed period, except for 1999, when the Brazilian competitiveness rate was higher than the Australian one. This can be explained, according to Reis (2003), by the devaluation of the real against the dollar, which boosted Brazilian beef exports, which rose by 36.31% compared to the previous year.

Junqueira (2006) confirms that although Brazil exports a bigger amount of beef than Australia, Australian revenue from beef sales to other countries is higher because of it offers higher quality, standardized products. Table 4 clearly shows the amount earned by some beef-exporting countries in the year 2004, thus confirming the disparity in revenue between Brazil and Australia.

Table 4. Average price per tonne of beef exported in 2004

Country	*US$/ton*
United States	3.671,27
Australia	**3.520,50**
Uruguay	2.526,54
Argentina	2.518,37
Brazil	**2.122,07**

Source: FAO, apud Junqueira (2006).

The downward trend in the indexes of both countries from the year of 2004 onwards is explained by the rise of the United States and India in the world's beef market. According to FAOSTAT (2011), the U.S. economy had a share of about 8.72% while India had a share of 3.42 % of the total world beef exports in the year 2008.

4.3. Analysis of the Coefficient of Divergence

The section below analyzes the coefficient of divergence, as shown in Table 5. The analysis considered Brazil as country A and Australia as country B. According to Table 4, the index had negative values in all the analyzed period, achieving the value zero in 2007, and reaching values other than 100 across the whole period. This indicates that there are differences between the trade structures of Brazil and Australia, thus indicating a disparity between the productive systems of both countries.

According to Filho (2006), the international beef market is divided into two blocks of countries that have export producer surplus. The first group is known as "Non-FMD circuits", which are free of sanitary problems, with Australia being included. The other group is known as "FMD Circuits", comprised of countries which are not free of the FMD disease, for example, Brazil. Filho explains that beef belonging to the first group is sold at higher prices than beef from the second group.

Moreover, Pereira (2009) reports that Australia has the most favourable sanitary conditions to prevent the spread of diseases such as FMD (food-and-mouth disease) among cattle, and both the government and cattle farmers from Australia maintain surveillance programs to prevent the contamination of the animals. Pitelli (2004) points out that Australia has one of the tightest control mechanisms against

infectious diseases in cattle and buffaloes and has not had an FMD outbreak since 1872.

Table 5. Coefficient of divergence between Brazil and Australia

YEAR	COEFFICIENT OF DIVERGENCE
1998	-105,956
1999	-92,843
2000	-114,367
2001	-102,021
2002	-81,281
2003	-55,033
2004	-88,317
2005	-61,184
2006	-22,766
2007	-0,805
2008	-10,154
2009	-8,680

Source: Research results

Miranda (2001) reports that Australia has been increasing its share in the world market as a result of product diversification, with higher value being added to beef products. This business strategy increases remuneration of the links of the Australian production chain and makes such chain more competitive.

According to Pigatto et al (1999), the Brazilian beef production chain is unstructured, and they claim that organization is required between the links so that the chain can gain competitiveness in international markets. Jank (1996) points out that the lack of organization of the supply chain is one of the factors that results in lack of traceability by the producer. In his turn, Almeida (2009) challenges the the existing differences between cattle raising farms: while some have high production efficiency, others have extractive characteristics.

Buainain and Batalha (2007) stress the barriers that Brazil has to transcend in order to improve competitiveness in the beef production chain: overcome sanitary barriers; develop quality standards that can earn recognition of export markets; form a better coordinated chain, overcome limiting such as export quotas, tariffs and subsidized competition, and, finally, place products with higher added value in the international market.

4.4. Michaely Index analysis

Finally, competitiveness between Brazil and Australia is verified by means of the Michaely index, but Brazilian and Australian beef imports are also taken into consideration. The results are shown in Table 6.

Table 6. Results of the Michaely Index for Brazilian and Australian beef from 1998 to 2009

YEAR	BRAZIL	AUSTRALIA
1998	0,00895	0,03282
1999	0,01543	0,03544
2000	0,01250	0,03714
2001	0,01632	0,03780
2002	0,01667	0,03440
2003	0,01944	0,03168
2004	0,02406	0,04283
2005	0,02397	0,03718
2006	0,02700	0,03222
2007	0,02579	0,02673
2008	0,02453	0,02285
2009	0,02350	0,02228

Source: Research results

The values in Table 6 show that Australia was a more competitive country than Brazil concerning beef exports to international markets for most of the analyzed period, and particularly between 1998 and 2007, while Brazil was more competitive than Australia in terms of beef exports in the years 2008 and 2009.

However, Australia was more competitive than Brazil during most of the analyzed period, as a result of efficient management of the beef supply chain by responsible economic agents, as discussed previously. In contrast, as regards adding value to beef, Brazil lags behind the standards required by the best beef markets, for example, Japan and the European Union. Tirado *et al* (2008) sees the ineffective sanitary inspection in the beef production process as the main obstacle for Brazil to supply the best markets with quality beef.

5. CONCLUSION

The results of this study show that Australia is more competitive in the international beef market than Brazil, although Brazilian exports outnumbered Australian exports after 2006. This is the result of the efficient work performed by the Australian Government, which invested in the sector after facing international health crises, especially in the 1990s. As a consequence, long-term, significant changes occurred in the production system. In addition, Australia ranked as the leading beef exporter in terms of quality and high price.

The results for production structure in both countries show differences between the Brazilian and Australian supply chains, indicating that Brazil´s Beef Agribusiness System (SAG) needs to be improved and managed in order to match the standards of the production and surveillance method used in Australia.

In summary, Brazilian beef cattle industry needs investments from public and private organizations in order to better coordinate and organize the links that form the

production chain, thus making Brazilian products more competitive on the international scenario.

This study has shed light on the Brazilian and Australian beef market. However, many other aspects can be analyzed; for example, advanced studies can be conducted to identify factors associated with beef market competitiveness. In addition, scenarios can be simulated through Computable General Equilibrium models and Space Allocation models in order to signal prospective gains that Brazil may have in view of declines in tariff and non-tariff barriers that imposed by the main import markets.

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ROMANIAN ACCOUNTING - A TALE OF TWO STANDARDS

MARIUS DEAC [*]

ABSTRACT: *The process of accounting harmonization in Europe has started in 1978 with the adoption of the Fourth Council Directive 78/660/EEC regarding the annual accounts of limited liability companies. The harmonization process continued with the regulation of the consolidated annual accounts with the enactment of the Seventh Council Directive 83/349/EEC. In 2002 the European Parliament has adopted the EC Regulation No. 1606/2002 requiring all listed group entities within EU to apply the International Accounting Standards for their consolidated financial statements starting from 2005. This has led to the use of a dual accounting standardization as listed entities are required to use IAS/IFRS while non-listed entities use the national GAAP harmonized with the 4th and 7th directives. The adoption of the new accounting directive 2013/34/EU does not solve this differentiation as it doesn't allow the option for national accounting regulators the use of IFRS for SMEs. Romania, as a member of the European Union, is no exception from this usage of a dual accounting standard. After the fall of the communist regime, Romania has modernized its accounting system by adopting a French inspired, EU 4th directive compliant national GAAP. Between 2001 and 2005 there was a strong interest towards the adoption of IAS/IFRS that went beyond the scope of EC Regulation No. 1606/2002. This has changed in 2005 when IAS/IFRSs were considered as an option of additional voluntary disclosure. From 2006, Romania has aligned its national legislation to the requirements of EC Regulation No. 1606/2002. The application of this dual standard accounting system has been cumbersome especially for the entities that were required to prepare two different annual accounts, one using IAS/IFRS and one using Romanian GAAP. This obstacle has been overcome in 2012 when certain entities were allowed to prepare their financial statements using only IFRS.*

KEY WORDS: *IFRS; IAS; 4th accounting directive; 7th accounting directive; accounting harmonization*

JEL CLASSIFICATION: *M40, M41, M48.*

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1. THE DEVELOPMENT OF DOUBLE ENTRY ACCOUNTING

Accounting origins can be traced to ancient times and are closely linked to the development of numeration and counting (Brown, 2006).

With the development of trade and the founding of states, some form of organization and keeping accounts has emerged. One of the earliest known law codes, the code of Hammurabi, instated by the Babylonian king Hammurabi (1792-1750 B.C.), discovered at Susa in 1901, contains a number of commerce account keeping regulations (Brown, 2006).

The art of keeping of accounts has flourished in the ancient Egypt and Babylonia. Yet, just the keeping of accounts is far away from the modern accounting system, and can hardly be considered accounting (Stevelinck & Most, 1985).

Modern accounting characterized by the use of a double entry system can be traced back to 15th century Italy. The first known book on double entry accounting belongs to Benedetto Cotrugli and was entitled "Della mercatura et del mercante perfetto, libri quattro scritti già più di anni CX ed bora dati in luce" and it was written in 1458 but not published until 1573.

The father of modern accounting is generally considered to be Luca Pacioli who wrote the first published book describing the principles of double entry accounting. His work - mainly a thesis on mathematics entitled "Summa de Arithmetica, Geometria, Proportioni et Proportionalità" has a chapter dedicated to accounting under the title "Particularis de Computis et Scripturis" ("Particulars of Reckonings and Their Recordings")" (Chatfield & Vangermeersch, 1996).

It is worth noting that Pacioli is not the inventor of accounting. He describes a technique that was common practice for Venice traders for more than 200 years before his work. But his book contributed to the spread accounting throughout Europe. The development of double entry accounting was the decisive event in European economic history (Spengler et al., 2006).

2. THE ACCOUNTING HARMONIZATION PROCESS WITHIN THE EUROPEAN UNION

The process of accounting harmonization in Europe can be traced back to the times of Pacioli when his work "Summa de Arithmetica, Geometria, Proportioni et Proportionalità" has spread throughout Europe influencing the accounting practices on the entire continent.

The first official effort towards the harmonization of accounting in Europe has been the taken in 1978 with the adoption of the Fourth Council Directive 78/660/EEC of 25 July 1978 regarding the annual accounts of limited liability companies (EC, 1978). The directive establishes the extent of financial information that should be made available to the public by limited liability companies and certain forms of partnership in the European Community. The main focus of the directive is to describe the components of the annual accounts (balance sheet, profit and loss account and the notes to the accounts), the publication and auditing requirements of the annual accounts depending on the size of the company.

The regulation of consolidated annual accounts of companies within European Union has been undertaken a few years later, with the enactment of the Seventh Council Directive 83/349/EEC of 13 June 1983 (EC, 1983). The directive defines the circumstances in which consolidated accounts are to be drawn up, the contents of the consolidated annual reports and the accompanying notes, and the publication and auditing requirements for the consolidated accounts.

In 1984, a new directive comes to define the qualifications of persons responsible for carrying out the statutory audits of the accounting documents required by the fourth and seventh Directives (EC, 1984).

A step towards a larger harmonization process transcending EU borders was the adoption of Commission Regulation No 1569/2007 of 21 December 2007 establishing a mechanism for the determination of equivalence of accounting standards applied by third country issuers of securities pursuant to Directives 2003/71/EC and 2004/109/EC of the European Parliament and of the Council. This regulation establishes an "equivalence mechanism" in relation to third country GAAPs allowing foreign companies listed on EU stock markets to prepare their annual accounts using their own GAAP instead of using IFRS (EC, 2007).

Recently, the 4th and the 7th Directives were replaced by a new Accounting Directive 2013/34/EU which entered into force on 20 July 2013. Member States were given two years to comply with this new Directive. The new directive sets the requirements for preparation, presentation, publication and auditing requirements for both individual and consolidated financial statements.

In 2002 the European Union has endorsed the International Accounting Standards (IAS/IFRS) through the adoption of the EC Regulation on the Application of International Accounting Standards No. 1606/2002 of the European Parliament and of the Council of July 19, 2002, (EC, 2002; IASPlus, 2013). All companies that were listed on a regulated market, including banks and insurance companies were required to prepare and publish their consolidated financial statements in accordance with IFRSs starting from 2005.

Not all IAS/IFRS are applicable in EU. The European Commission has to endorse every IAS/IFRS standards. For a standard to be adopted and applicable within EU it has to meet the following criteria:

1. the standards does not deteriorate the true and fair view of the assets, liabilities, financial position and profit or loss of individual or consolidated financial statements and
2. is beneficial to the European public good and
3. it meets the criteria of understandability, relevance, reliability, and comparability (EC, 2002)

Almost all IAS/IFRSs are adopted and applicable to publicly traded enterprises within EU, with a certain delay that is due to the imposed endorsement of every standard by the EC. The most notable divergence between EC and IASB has been the adoption of certain provisions of IAS 39 "Financial Instruments: Recognition and Measurement" that required the use of fair value for derivative instruments.

3. ACCOUNTING HARMONIZATION IN ROMANIA

Some authors like Rusu et al. (1991) consider that by 1200 the Italian accounting must have spread to Romania, through the presence of Venetian or Genovese merchants on Romanian territories. Some evidence of bookkeeping was found by Radu (1995) on ancient country estates.

Yet, the practice of double entry accounting can be traced back only to the 17th century when there is evidence of accounting records for some factories in Sibiu, Braşov and Bucharest (Demetrescu, 1972; Ionaşcu, 1997).

Under the communist regime, accounting was used as a tool for the objectives and needs of the centrally planned economy and to safeguard the socialist property entrusted to the enterprise (Makarov, 1983 as cited by MacLullich & Gurau, 2004). The lack of a real price mechanism has led to a neutralization of the accounting as a tool for measuring economic performance (MacLullich & Gurau, 2004).

There was some form of accounting harmonization between the Soviet Bloc countries as the accounting regulators in these countries all looked at Soviet Union for guidance and there was a need of standardization to facilitate trade between countries (MacLullich & Gurau, 2004).

After the 1989 revolution, Romania needed a new accounting standard in line with its passage from a centralized communist economic system to a market economy (Duţia, 1995; Bailey, 1995). In 1991, Romanian authorities have signed a cooperation agreement with the French Ministry of Finance and Economy, the French national accountancy body, "Ordre des Experts Comptables" and French national auditing body, "la Compagnie Nationale des Commissaires aux Comptes".

During 1992-1993 the new accounting standards have been drafted by an accountancy normalization department within the Romanian Ministry of Finance, with the assistance of French consultants. During 1993, a pilot group of 75 enterprises has been selected to test the implementation of the new accounting standards.

The year 1994 marks the start of the implementation of the new Romania GAAP. The introduction of a new accounting law in 1991 (RO, 1991) and especially the Government Ordinance no. 704 (Romanian Government, 1993) has marked the passage from a communist accounting system to an EU 4th directive compliant accounting.

In 1999 the Romanian Accounting Standards were revised, with the introduction of Ministry of Finance Order no. 403 (1999) regarding the introduction of a national GAAP harmonized with the EU 4th accounting directive and the International Accounting Standards. The new Romanian GAAP has been applied starting with the financial reports for the year 1999.

The Ministry of Finance Order no. 403 (1999) set up a calendar for the adoption of International Accounting Standards (IAS) in Romania. For the year 1999, a set of 13 companies were selected as a pilot group to apply IAS for their 1999 financial reports. A larger group (comprised of companies listed at Bucharest Stock Exchange, national enterprises, large companies that were considered of national importance and companies with operations on capital markets) was scheduled to apply IASs starting with the financial year 2000. A third group defined using a set of size criteria (total

assets, annual turnover, number of employees) was supposed to start using the new standards based on a calendar spanning the period 2001-2005.

In 2001, the Ministry of Finance Order no. 403 (1999) was superseded by the Order no. 94 of the Ministry of Public Finance (2001) regarding the implementation of accounting harmonized with the EU 4th accounting directive and the International Accounting Standards. The new order stated that a number of 72 enterprises traded on Bucharest Stock exchange market, 20 national enterprises and 105 listed on the secondary stock market RASDAQ were supposed to use the international accounting standards for their financial reports for the year 2000. The calendar to extend the application of IASs to other companies was the same as the one in the Ministry of Finance Order no. 403 (1999).

The Ministry of Finance order no. 990 (2002) simplifies the criteria for an enterprise to be included in the list of companies that use IASs in their financial reports by including all the companies that for their financial year 2000 exceed two of the following three criteria:

- yearly turnover of over 9,000,000 euro
- total assets over 4,500,000 euro
- number of employees greater than 250

The new criteria extended the group of companies that were required to use international accounting standards to about 1,000 enterprises.

Yet another modification to the list of entities that were required to use the international accounting rules for the financial year 2003 came with the enactment of Ministry of Public Finance order no. 1742 (2002). The new law extended the list by including all the enterprises that were under the supervision of the Romanian National Securities Commission.

During 2003 the list of enterprises that were required to prepare their financial statements according to IFRSs and the criteria for an enterprise to be included in the before mentioned list were modified successively by the Ministry of Public Finance order no. 1784 (2003) and order no. 1827 (2003). The new list of companies encompasses an additional 400 companies that were supposed to use IFRSs starting in the year 2004 (for annual accounts for the financial year 2003).

For the year 2005 the new criteria for a company to be required to switch from using RAS (Romanian Accounting Standards) to IFRS were to exceed two of the following three conditions:

- yearly turnover of over 7,300,000 euro
- total assets over 3,650,000 euro
- number of employees greater than 50

During 2005, Romanian Ministry of Public Finance issued order no. 907 (2005) applicable for the financial reports from 2006 onwards, which replaced IFRSs with RAS (4th EU accounting directive) for all Romanian enterprises except financial institutions that were required to present two sets of reports (one in compliance with IFRS and one in accordance with RAS). IFRSs were allowed as an option for public interest entities.

In 2006 the entities whose shares were listed on a regulated market and were preparing consolidated financial statements were required to use IFRSs for their

financial reports from 2007 onward as stipulated in Romanian Ministry of Public Finance order no. 1121 (2006). Public interest entities are still allowed to use IFRSs for their individual and consolidated financial reports as an option for additional disclosure purposes (their legal requirements were to prepare financial reports according to RAS/ EU 4th directive).

Starting with the financial statements for the year 2012, financial institution that operate in Romania and are under the supervision of the National Bank of Romania (NBR), are required to use IFRSs according to NBR order no. 9 and 27 (2010).

1978 • EU: the Fourth Council Directive 78/660/EEC regarding the annual accounts of limited liability companies

1983 • EU: the Seventh Council Directive 83/349/EEC regarding consolidated annual accounts of companies within European Union

1994 • RO: the adoption of a Frecnh inspired and EU 4th directive compliant Romanian accounting GAAP

1999 • RO: the adoption of IAS in Romania (Ministry of Finance Order no. 403/1999)

2002 • EU: EC Regulation No. 1606/2002 - the adoption of IAS/IFRS for the consolidated statements of listed companies within EU

2001-2003 • RO: the succesive expansion of the number of companies required to apply IAS/IFRS (Ministry of Finance Order no. 94/2001, 990/2002, 1742/2002, 1784/2003, 1827/2003)

2005 • EU: the effective date of EC Regulation No. 1606/2002 (IAS/IFRS)

2005 • RO: IFRS are no longer mandatory and are regarded as an option for voluntary aditional disclosure (Ministry of Finance Order no. 907/2005)

2006 • RO: IFRS are mandatory for consolidated financial statements of listed companies (Ministry of Finance Order no. 1121/2006)

2012 • RO: IFRS are mandatory for entities whose shares are traded on a regulated market, financial institutions, insurance companies and the institutions that operate on capital markets (Romanian Ministry of Public Finance order no. 881/2012)

2013 • EU: the new Accounting Directive 2013/34/EU replacing the 4th and 7th directives

Figure 1. The timeline of accounting harmonization in EU and Romania

The Order no. 881 of the Romanian Ministry of Public Finance (2012) introduces the requirement for the entities whose shares are traded on a regulated market to prepare their individual financial statements according to the IFRSs.

Financial institutions are also required to prepare their financial statements according to IFRSs. These entities are no longer required to prepare financial reports according to RAS and are required to continue to apply IFRSs even after their shares are no longer traded on a regulated market. Insurance companies under the supervision of the Romanian Insurance Supervisory Commission and the institutions that operate on capital markets and are under the supervision of Romanian National Securities Commission are required to prepare two sets of financial reports (one according to RAS and one according to IFRSs) (Romanian National Securities Commission order no. 116 (2011) and the Romanian Insurance Supervisory Commission Bulletin no. 2 (2012)).

The timeline of accounting harmonization in EU and Romania is summarized in Figure 1.

4. CONCLUSIONS

The provisions of EC Regulation No. 1606/2002 of the European Parliament and of the Council that allows member countries to require companies to prepare their individual financial statements according to national accounting standards and the consolidated statements according to IFRS has led to the development of two parallel accounting systems greatly increasing the complexity of preparing financial reports for listed companies throughout Europe (Haller, 2002; Larson & Street, 2004). In Romania, the recent developments introduced by Order no. 881 of the Romanian Ministry of Public Finance that allows entities whose shares are traded on a regulated market to prepare their individual financial statements according to the IFRSs comes to simplify the preparation of consolidated accounts through the use of a single accounting standard for those companies.

Some authors consider the application of IAS/IFRS as being complicated, costly, complex, and burdensome (Larson & Street, 2004; Jermakowicz & Gornik-Tomaszewski, 2006). The switch from a rules based accounting system to a principle based one as is the case of switching from RAS to IFRSs is a more complicated task than just a change of accounting rules and additional guidance might be required (Eichhorst, Steen, van der Tas, & Smits, 2002; Schipper, 2005). This might explain why Romanian accounting regulators have switched back and forth between IAS/IFRSs and the national, continental European rules based accounting system, between 2001 and 2012.

The implementation of IFRS for Romanian public traded companies and insurance and finance institutions in parallel with a national accounting standard harmonized with EU directives does not provide a reasonable level of comparability between the annual accounts of listed and not listed entities. But this lack of comparability is generalized throughout Europe as noted by Flower (2005). The adoption of the new accounting directive 2013/34/EU does not solve this differentiation as it doesn't allow the option for national accounting regulators the use of IFRS for SMEs.

The studies regarding the benefits of the adoption of IFRS in EU countries have come to conflicting conclusions. Brochet, Jagolinzer and Riedl (2012) have

found that mandatory IFRS adoption in UK has improved the comparability of the financial reports and has reduced the insiders' ability to exploit private information. Another study carried out by Callao, Jarne and Laínez (2007) on the enterprises included in the Spanish IBEX-35 index has focused on the effects of IFRS adoption on the comparability and relevance of their financial reports and found no improvement. Further studies are needed to determine whether the adoption of IFRS in Romania has improved the relevance and comparability of the financial statements of those companies.

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KEYING AND ROLE PLAY IN BUSINESS COMMUNICATION: GENDER, AGE AND RACE CUES

GABRIELA DUMBRAVĂ [*]

ABSTRACT: This study comes as a sequel to other two papers published in this journal in 2010 and 2012[1] being part of a larger research that approaches business communication from the perspective of Goffman's theory of the relational dimension of meaning. The paper starts from the premise that meaning is generated within the context of each specific interaction, as a result of a culturally determined process of framing, during which inherited patterns of thought and behavior establish well defined positions from which the interlocutors perceive and respond to one another. It also aims at further analyzing the process of keying by identifying the paradigm shifts that individualize business encounters according to gender, age, and race cues, as well as the communication malfunctions induced by keying errors (misunderstandings, conflict and discrimination).

KEY WORDS*: framing, keying, business communication, role play, gender, age, race, discrimination.*

JEL CLASSIFICATION: *D83*.

1. INTRODUCTION: NEGOCIATION AND ROLE PLAY IN BUSINESS ENCOUNTERS

As we have shown in a previous paper, "…human communication is endowed with meaning according to a set of rules and principles that pertain to the situation in

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[1] *The Concept Of Framing In Cross – Cultural Business Communication* (2010)*; Keying And Role Play In Business Encounters. Spatial, Temporal, Behavior And Language Cues* (2012)

which the interaction occurs rather than to the interaction itself. Under these circumstances, individuals engaged in any face-to-face interaction unconsciously place themselves in negotiating positions" (Dumbrava, 2012, p. 74). In the same sense, the process by which primary frames of communication are 'transcribed' with variations required by different contexts is called *keying*, a kind of tuning of social interaction that turns individuals into efficient social actors. Thus, keying in business communication involves a precise 'scripting' process during which the primary frames of daily interaction are modeled according to spatial, temporal, language and behavior cues, as well as by virtue of gender, age and race determined roles, all meant to foster power relations. As we are going to show further, any flaw in the paradigm of these social cues means a breaching of the script, a keying error that generates relational deviations such as misunderstanding, conflict, intolerance, and discrimination.

2. COMMUNICATION AND GENDER

The approach to gender related issues in business communication calls for the acknowledgment of the social and cultural dimensions of gender identity. In her article *Sociology of Gender. Studying The Relationship Between Gender And Society*, Ashley Crossman defines gender identity as 'a mixture of biology and socialization', reiterating the distinction between the terms *sex* and *gender*. Thus, sex refers to biological identity, which stems from physical and physiological characteristics, whereas gender refers to cultural identity, pertaining to "socially learned expectations and behaviors associated with being male or female" (Crossman, 2011).

Therefore, it become obvious that gender identity emerges at the interface between the roles that society assigns the individuals on grounds of their sex and the self-perception of the individuals themselves. Crossman defines this interface as 'gender socialization', which is actually a feedback loop in which people become aware of the society's expectations associated with their sex and, in compliance with them, they adjust all their social responses, from self-image to perceptions of and relations with other people. Ultimately, this process of fine-tuning gender-related behaviors is a matter of keying that generates specific scripts and roles for each communication context.

It is now common knowledge that business communication is seriously affected by gender stereotypes, generically known as *gender gap,* which involves preconceived ideas and, therefore, distorted expectations regarding the interlocutor, making effective communication impossible. In its turn, gender gap has a negative impact on such organizational aspects as teamwork and marketing relations.

In her book *Gender Smart: Solving the Communication Puzzle between Men and Women*, specialist in gender communication Jane Sanders holds that the first step towards bridging the gender gap and increasing the effectiveness of our communication with the opposite sex is awareness and understanding of the following:

a) differences between men and women are desirable and arbitrary, not right or wrong;

b) differences in behavior and language styles usually trigger misperceptions and misunderstandings by the opposite sex;

c) regardless of the significant progress in gender related business communication issues, a certain amount of stereotype will always exist, and, therefore, effective workplace relations are a matter of how we manage it on different organizational levels (Sanders, 2006, pp. 18-19).

According to the author, the real danger lies not in the stereotypes themselves, but in their use, most of the times subconsciously, to prejudge people's abilities and competence and develop unfair and incorrect expectations. Actually, stereotypes derive their validity from observed behavioral generalities, according to which, for instance, women are usually more emotional than men, whereas men tend to be more outwardly competitive. The key point of her argument is that "... just because a woman may be emotional, too sensitive in certain situations, nurturing, and a good cook, does not preclude her from also being decisive, competent, intelligent, and driven. And just because a man might be decisive, aggressive, logical, and independent does not mean that he is not also nurturing, sensitive, gentle in certain situations, and a good cook" (Sanders, 2006, p. 87).

In other words, as long as they are not used mechanically to make assumptions about a person's capabilities or behavior and pass judgments, stereotypes remain useful social cues that constantly adjust human relations.

If the issue of gender gap is somewhat natural, and can be even stimulating when managed properly, such an extreme consequence of gender-related stereotypes as discrimination is a major problem that can have devastating consequences regarding organizational efficiency and equilibrium. Gender discrimination occurs "when there is a bias based on a person's sex that leads to defining the roles he/she should play in society." (Wolfe, 2011) Extended to organizational operation, social prejudice acquires the status of discriminatory policy, by virtue of which, for instance, female employees can be deprived of access to senior positions, higher income, or can be forced to choose between career and motherhood.

After decades of one-sided approaches that invariably identified male prejudice as the unique source of women's discrimination, specialists in workplace relations have come to the conclusion that a more balanced perspective is not only more revealing in terms of pinpointing causes, but also more efficient in terms of analyzing effects and finding solutions. Therefore, a change in the perception of gender determined social roles calls for two considerations, namely:

- stereotypes are constantly reinforced from both parts;
- as a direct consequence of the above, social attitudes, both in the workplace and in society at large, can change only starting with a change of values, mentality and attitude centered upon the respect for and acceptance of diversity, whether of gender, age, or race, because "...the real enemies behind gender stereotypes are ignorance, intolerance, and stagnant societies that resists change" (Wolfe, 2011).

3. COMMUNICATION AND AGE

Like gender, age is a biological parameter which, due to its heavy load of stereotypical perceptions, becomes a major social parameter able to undermine efficient communication both in everyday life and in the workplace. As retirement has been more and more delayed over the past decades, nowadays, an organization is likely to bring together people with as much as 50 years age difference between them. This phenomenon has raised the issue of generational stereotypes and their impact on the work environment.

In their book *Putting Diversity to Work,* Simma Lieberman, an expert in gender communication, and Kate Berardo, an intercultural relations trainer, use the significant age difference between themselves to emphasize that disparate ages do not necessarily mean difficult collaboration; on the contrary, as the two authors confess, their own solid partnership in organizing trainings and writing books is pertinent proof that teamwork can be enriched precisely due to the variety of experiences and perspectives put in by representatives of different generations.

The authors start from the premise that people are products of their history, environment and personal experiences, which shape different ways of thinking, and diverse systems of values and goals. Therefore, in order not to end up in stereotypes, the issue of bridging age gaps should be viewed in a holistic manner, taking into account all the dimensions of diversity and individuality.

In this context, the book leads to the conclusion that the concept of generation gap should not be overrated, since the bridging of age difference and generational stereotypes is achievable by meeting two requirements, namely: suspending our assumptions and judgments, and engaging in dialogue across generations (Lieberman & Berardo, 2003, p. 156).

The most obvious manifestation of generational stereotypes is what we call *age discrimination,* that is the biased attitude towards an interlocutor based on preconceived, age-related ideas and expectations regarding the respective person. Like in the case of gender discrimination, which prevents women from advancing in rank according to their competence, knowledge and skills, age discrimination becomes an invisible barrier in front of older workers in terms of advancement or a job change within a company.

Another similarity between gender and age discrimination is that they are both based rather on emotional response than on conscious, logical judgment. On the other hand, since it never comes as a straightforward statement or explicit reaction, but rather as a subtle, insinuating message underlying the interviewer's discourse, it is also difficult to prove and to fight. Age discrimination, therefore, is never admitted or declared verbally. It is only strongly and painfully felt by the older persons when their promotion is long due, or during job hunting interviews, when their anger and frustration is proportional to their eroded self esteem and confidence.

Virginia Bola is a Doctor in Psychology who has dedicated her research to the emotional effects of such social issues as unemployment, aging and overweight on the individual, suggests in her first book, *The Wolf at the Door: An Unemployment*

Survival Manual, the following approaches to be considered by older persons in order to obtain a more rational response from a younger employer or interviewer:

1. Put the age issue forward in a positive, objective manner, meant to trigger an unemotional response and inhibit interviewer defensiveness.
2. Acknowledge age as a source of valuable experience for any employer, and emphasize your ability to adapted organizational changes over the years and to embrace new ideas and technical progress into your work performance.
3. Acknowledge common misperceptions about older age, such as hard-to-break habits, lack of flexibility, technological ignorance, and distrust of young authority, especially if young, and shatter those myths one by one with convincing examples.
4. Once you have demolished the myths of age, emphasize its strengths: reliability, mature judgment, lack of impulsivity, timeliness, a strong work ethic, and the ability to perform without outside distractions such as personal relationship problems, child commitments, and social responsibilities (Bola, 2003, pp. 80-81).

In spite of the visible progress that has been made in the past years in terms of organizational behavior and employment policy, there are still numerous cases of age discrimination both at the workplace and in recruitment policies. Consequently, there emerged a massive body of literature dedicated to the subject, either providing the major cues of age discrimination or offering legal or psychological consultancy. For instance, in her article *Nine Signs of Age discrimination*, employment lawyer Donna Ballman enumerates the top signs of age discrimination, so that employees should be able to realize when they are subjected to discriminatory treatment:

*   Biased comments, which are the most obvious and offensive, consist of such appellations as "grandma" or "old man", when the boss asks an employee about retirement plans, or tells him/her the company needs a younger image.
*   Comparisons, as a result of which an employee notices that he/she is treated differently than the others in such situations as layoffs.
*   Disparate discipline, when the older employee is disciplined for something that younger employees do without consequences.
*   Promotions, when the older employee is not chosen for a promotion that he/she applied for in favor of a younger, less qualified co-worker.
*   Favoritism, if younger employees are given the assignments and equipment, and older employees are excluded from key meetings, or socializing events.
*   Hiring or promoting young, less qualified employees, to the detriment of older, more or equally qualified ones.
*   Sudden negative performance reviews from the management after a certain age.
*   Harassment, in cases when the employee senses that the boss presses him/her to quit the job by bad treatment, offensive jokes or contemptuous attitude (Ballman, 2012).

In any of these cases, the employees who are the targets of discrimination are advised gather evidence and to report the specific situations and to consult an employment lawyer.

In the US, the major example of democracy in every area of social life, employees can address these issues to the Supreme Court, or even file a charge of discrimination with the U.S. Equal Employment Opportunity Commission. Moreover, the American legal system has issues such documents as the *Age Discrimination in Employment Act of 1967*, and *The Older Workers Benefit Protection Act of 1990*, meant to protect employees over 40 against age related abuse from companies, both in the workplace , and as far as recruitment procedures are concerned.

4. COMMUNICATION AND RACE

Of all the discriminations that disagree with politically correct behavior, the race related prejudices prove to be the most aggressive in manifestation and the most resistant to social change. Although the efforts to eliminate workplace racism began as early as in the 60's of the last century, and progress has been made in this area to the extent to which it is considered inacceptable in most developed countries, there are still individuals whose thinking and corresponding behavior remain so racially prejudiced that they can create and maintain an uncomfortable working environment. Racist attitude is the more disruptive when cultivated by the senior management in an organization.

However obvious it may be that racism is not to be tolerated under any circumstances, the issue of how we should deal with it remains complex and delicate.

Specialists in communication agree upon the necessity to react promptly and firmly to such attitudes because, otherwise, the message we convey is one of tacit agreement or acceptance.

Like in the case of gender and age discrimination, race related discriminatory treatment refers to the company's failure to hire or promote an individual on account of their race. Typical cases of race discrimination are the following:

- ethnic related questions included in a job interview, as long as they affect hiring decisions.
- hiring or promoting a less qualified individual to a position targeted by an employee or applicant of another race.
- involuntary discrimination, when a company displays hiring procedures or workplace policies that have a greater effect on certain races.

In the US, any form of racial discrimination in society or at the workplace is strictly prohibited and sanctioned by a number of federal and state laws.

The primary body of federal laws that address racial discrimination in the workplace and secures the citizens equal employment opportunities is *Title VII of the Civil Rights Act of 1964*. This document basically prohibits employers from:

- failing or refusing to hire an employee based on their race;
- firing or disciplining an employee because of their race;

- paying an employee less or providing them fewer benefits on account of their race;
- failing to provide benefits, promotions, or opportunities, to an employee because of their race;
- improperly classifying or segregating employees or applicants by race.

In the same context, employment agencies cannot make decisions on referrals or work assignments based on an individual's race, and labor unions and representatives cannot refuse membership or expel individuals because of their race.

5. CONCLUSIONS

As we have shown, there is a well-defined legal context meant to accommodate social interaction, whether in society or at work. However, taking into account that human communication is culturally-determined, its malfunctions can be most efficiently dealt with by adjusting the patterns of thought and behavior that underlie them. Thus, genuine, long-term change of social relations can be achieved only by an evolution in the individual's system of values and mentality. Only such steady development can eventually produce what we call socially and culturally literate individuals who:

- possess a sense of personal, social and cultural identity;
- understand continuity and change in a global context;
- show interest in the immediate and wider world;
- communicate effectively;
- make informed decision and take social action;
- understand diversity and empathize with people in other cultures (*The Economy of Culture in Europe*, p. 218).

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GONE FISHIN' EFFECTS ON THE BUCHAREST STOCK EXCHANGE

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ABSTRACT: *This paper investigates the presence of Gone Fishin' Effects on the Romanian Capital Market from January 2000 to July 2013. In this analysis we employ daily values of five main indexes of Bucharest Stock Exchange. We use GARCH models to reveal this seasonality not only on indexes returns but also on the capital market volatility. In order to identify the differences between quiet and turbulent periods of time we split our sample of data into two sub-samples. The first, from January 2000 to December 2006, corresponds to a relative quiet period, while the second, from January 2007 to August 2013, corresponds to a turbulent period. Our results indicate the decline of Gone Fishin' Effects on returns from the first to the second sub-sample.*

KEY WORDS: *Calendar Anomalies, GARCH, Romanian Capital Market, Volatility, Persistence in Time.*

JEL CLASSIFICATION: *G02, G14, G19.*

1. INTRODUCTION

The Gone Fishin' Effect is a calendar anomaly consisting in significant differences between the stock returns from the periods associated to the summer holidays (July – September for the Northern Hemisphere and January - March for the Southern Hemisphere) and the rest of the year (Hong & Yu, 2009). This seasonality could be related to some particularities of investors' behavior during the holidays. Their aversion to risk could be increased because the so called spirit of holiday (Brockman & Michayluk, 1998; Bouman & Jacobsen, 2002; Coakley et al., 2007). During these periods, when many investors are gone, the volume of transactions on the stock markets decreases and the stock prices fall (Hong & Yu, 2009). In comparison with the rest of the year, the investors usually spent larger amounts of money which

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could cause some liquidity constrains (Abadir et al., 2005). Moreover, the good weather that usually occurs in the months of summer holidays could affect the investors' behaviors (Hirshleifer & Shumway, 2003; Cao & Wei, 2005).

The knowledge about calendar anomalies, such as Gone Fishin' Effect, could be exploited by the investors in building successful strategies of trading on the stock markets. This kind of opportunities are used, by Behavioral Finance theories, as arguments against Fama (1970) Efficient Markets Hypothesis (EMH) which stipulates that the past values of stock prices are not useful in obtaining profits on the capital markets. However, the exploitation of the calendar anomalies is very difficult if they are not persistent in time. Some studies revealed the changes suffered, in the last decades, by these forms of seasonality (Dimson & Marsh, 1999; Marquering et al., 2006; Siriopoulos & Giannopoulos, 2006). It was also proved that passing from quiet to turbulent periods could affect some calendar anomalies (Holden et al., 2005).

In the last decades it was revealed the importance of the volatility of stock prices in investment decisions. The discovery of General AutoRegressive Conditional Heteroskedasticity (GARCH) models facilitated the analysis of the time-varying volatility of financial markets (Engle,1982; Bollersev,1986). These models were also employed for studying the seasonality of the stock prices returns and volatility (Choudhry, 2000; Kiymaz & Berument, 2003).

In this paper we study the presence of the Gone Fishin' Effects on the Bucharest Stock Exchange (BSE) from January 2000 to July 2013. In order to analyze the persistence in time of this calendar anomaly we perform our investigation for two periods of time: the first, from January 2000 to December 2006, when stock prices experienced a moderate growth could be considered as relatively quiet, while the second, from January 2007 to July 2013 was affected by significant turbulences caused by events such as Romania's adhesion to the European Union or the recent global crisis. We employ GARCH models to reveal the seasonality not only for the indexes returns but also for their volatility. Along with the standard GARCH model we use also other variants which allow us to capture the asymmetrical reactions of stocks volatility to good and bad news such as Nelson (1991) EGARCH and Glosten et al. (1993) GJR GARCH.

The rest of this paper is organized as it follows: the second part describes the data and the methodology used to study the Gone Fishin' Effects, the third part presents the empirical results and the fourth part concludes.

2. DATA AND METHODOLOGY

In this investigation about the presence of the Gone Fishin' Effects we employ daily closing values of five important indexes of BSE: BET, BET-C, BET-FI, BET-XT and BET-NG from January 2000 to July 2013. We use two sub-samples of data:
-      the first sub-sample, from January 2000 to December 2006, corresponding to a relative quiet period;
-      the second sub-sample, from January 2007 to July 2013, corresponding to a turbulent period.

Not all the indexes covered integrally the two periods. The calculation of BET FI started in November 2000, while BET-XT and BET-NG were launched in January 2007 (Table 1).

Table 1. Compositions and sub-samples of the BSE indexes

Index	Composition	First sub-sample (quiet period)	Second sub-sample (turbulent period)
BET	Contains the shares of most liquid 10 companies listed on the BSE regulated market	January 2000 - December 2006	January 2007 – July 2013
BET-C	Contains all the big companies listed on BSE, excepting the investment funds (SIFs)	January 2000 - December 2006	January 2007 – July 2013
BET-FI	The five investment funds (SIFs)	November 2000 - December 2006	January 2007 – July 2013
BET-XT	Contains the most liquid 25 shares traded on the BSE, including SIFs	x	January 2007 – July 2013
BET-NG	Contains the shares of companies which have the main business activity located in the energy sector and the related utilities	x	January 2007 – July 2013

For all the five indexes we compound logarithmic returns ($r_{i,t}$) as:

$$r_t = [\ln(P_t) - \ln(P_{t-1})]*100 \qquad (1)$$

where P_t and P_{t-1} are the closing prices of an index on the days t and t-1, respectively.

In order to avoid spurious regressions on GARCH models we analyze the stationarity of returns by employing the Augmented Dickey – Fuller (ADF) unit root tests with intercept as deterministic term (Dickey & Fuller, 1979). The numbers of lags are chosen based on Akaike Information Criteria (Akaike, 1973). We continue by investigating the autocorrelation and the heteroscedasticity on returns employing ARMA (p, q) models, in which the values of p and q are determined by Box-Jenkins methodology (Box et al., 1994). On the residuals of these regressions we run the Ljung - Box test Q and the Engle Lagrange Multiplier (LM) test for ARCH effects (Ljung & Box, 1978; Engle, 1982).

We identify the Gone Fishin' Effects using a dummy variable, named GF, which takes value 1 for every day of the period July - September and zero otherwise. All the three variants of GARCH models are described by two equations: the conditional mean and the conditional variance. The first equation expresses the values of returns (r_t) as:

$$r_t = \mu_0 + \mu_1 * GF_t + \sum_{k=1}^{n} (\xi_k * r_{t-k}) + \varepsilon_t \qquad (2)$$

where:

μ_0 is a constant reflecting the returns from the days without summer holiday (October - June);

μ_1 is a coefficient which reflects the differences between the returns from the days of summer holiday (July - September) and those from the rest of the year;

ξ_k is a coefficient of the k-order lagged returns;

n represents the number of lagged returns, calculated by the Akaike Final Prediction Error Criterion (Akaike, 1969);

ε_t is the error term.

The second equation, which expresses the conditional variance of the returns (σ_t^2), has different forms for the three GARCH models. For the first one it consists in:

$$\sigma_t^2 = \omega + v * GF_t + \sum_{k=1}^{q} \alpha_k * \varepsilon_{t-k}^2 + \sum_{l=1}^{p} (\beta_l * \sigma_{t-l}^2) \qquad (3)$$

where:

ω is a constant term reflecting the volatility of the returns from the days without summer holiday;

v is a coefficient which reflects the Gone Fishin' effects on the stocks volatility;

α_k (k = 1, 2, …q) are the coefficients associated to the squared values of the lagged values of error term from the conditional mean equation;

q is the number of lagged values of the error term, calculated by the Akaike Information Criteria (Akaike, 1973);

β_l (l = 1, 2, …p) are coefficients associated to the lagged values of the conditional variance;

p is the number of lagged values of conditional variance, calculated also by the Akaike Information Criteria.

For the GJR GARCH model, the conditional variance of the returns is expressed as:

$$\sigma_t^2 = \omega + v * GF_t + \sum_{k=1}^{q} [\alpha_k * \varepsilon_{t-k}^2 + \gamma_k * \varepsilon_{t-k}^2 * I(\varepsilon_{t-k} < 0)] + \sum_{l=1}^{p} (\beta_l * \sigma_{t-l}^2) \quad (4)$$

where:

$I(\varepsilon_{t-k}<0)$ is a dummy variable, taking the value 1 if the k-lagged error term is strict negative and value zero otherwise;

γ_k is the coefficient associated to the variable $I(\varepsilon_{t-k}<0)$, expressing the asymmetrical responses of the volatility on the good and bad news.

For the EGARCH model, the conditional variance equation has the form:

$$\ln(\sigma_t^2) = \varpi + v * GF_t + \sum_{j=1}^{p} \beta_j * \ln(\sigma_{t-j}^2) + \sum_{k=1}^{p} \left[\gamma_k * \frac{\varepsilon_{t-k}}{\sqrt{\sigma_{t-k}^2}} + \alpha_k * \left(\frac{\varepsilon_{t-k}}{\sqrt{\sigma_{t-k}^2}} - \sqrt{\frac{2}{\pi}} \right) \right] \quad (5)$$

which could be transformed in:

$$\ln(\sigma_t^2) = \omega + v * GF_t + \sum_{j=1}^{p} \beta_j * \ln(\sigma_{t-j}^2) + \sum_{k=1}^{p} \left[\gamma_k * \varepsilon_{t-k} + \alpha_k * |\varepsilon_{t-k}| \right] \tag{6}$$

where $\omega = \varpi - \sqrt{\dfrac{2}{\pi}} * \sum_{k=1}^{p} \alpha_k$

For all the returns, after performing the two regressions of GARCH models we investigate the presence of the ARCH effects on their residuals by employing Lagrange Multiplier (LM) tests. We consider a model as valid only if it eliminates ARCH effects. For each index, we use the significance of the specific GARCH terms as criteria to choose between the valid models.

3. EMPIRICAL RESULTS

The descriptive statistics of the returns indicate, for both sub-samples, differences between the returns from the summer holidays (the period July – September) and the rest of the year (Table 2).

Table 2. Descriptive statistics of returns from the first sub-sample

Index	Mean	Median	Standard Deviation	Skewness	Minimum	Maximum
First sub-sample; July - September						
BET	0.165277	0.111185	1.52080	-0.65407	-9.39800	8.95773
BET C	0.123746	0.0803791	1.16914	-0.23842	-5.15229	6.24570
BET FI	0.411625	0.217678	2.23802	0.547106	-10.9945	13.0864
First sub-sample; October - June						
BET	0.166969	0.111138	1.55605	-0.12409	-11.9018	8.37798
BET C	0.140834	0.117953	1.36256	-0.37541	-10.2876	5.85592
BET FI	0.223936	0.119234	2.34984	0.112618	-12.3493	10.2708
Second sub-sample; July - September						
BET	-0.056373	-0.043204	1.75290	-0.211275	-8.76389	8.84876
BET C	-0.045970	-0.031918	1.58806	-0.352349	-7.69957	8.16686
BET FI	-0.060353	-0.090268	2.37245	0.324658	-9.40364	13.5634
BET XT	-0.066816	-0.048421	1.84007	-0.160455	-9.32892	9.54710
BET NG	-0.043433	-0.027806	1.80502	0.135222	-9.21942	10.5822
Second sub-sample; October - June						
BET	-0.0171697	0.0571190	1.91388	-0.637370	-13.1168	10.5645
BET C	-0.0330822	0.0494921	1.77245	-0.785856	-12.1184	10.8906
BET FI	-0.0640453	0.000000	2.79055	-0.319141	-16.0756	13.8255
BET XT	-0.0405672	0.0427129	2.06764	-0.580275	-12.6874	11.0239
BET NG	-0.0279403	-0.0048979	2.01853	-0.508333	-15.2569	13.4552

The results of ADF tests indicate the stationarity of the returns for both sub-samples (Table 3).

Table 3. Results of ADF tests for the returns

Index	First sub-sample		Second sub-sample	
	Number of lags	Test statistics	Number of lags	Test statistics
BET	24	-8.41907***	19	-7.18438***
BET C	19	-8.15408***	21	-7.0756***
BET FI	16	-7.80248***	19	-7.98841***
BET XT	x	x	19	-7.28617***
BET NG	x	x	19	-7.82667***

*Note: ***, **, * mean significant at 0.01, 0.05 and 0.1 levels, respectively.*

The Table 4 reports the results of Ljung-Box Q and ARCH LM tests which indicate, for all the returns, the presence of the autocorrelation and the heteroscedasticity of the residuals from ARMA models.

Table 4. Results of Ljung-Box Q and ARCH LM tests

Index	First sub-sample		Second sub-sample	
	Ljung-Box Q Tests	ARCH LM Tests	Ljung-Box Q Tests	ARCH LM Tests
BET	11.0535*	219.3***	10.3392*	255.727***
BET C	7.64962*	171.071***	8.57509**	286.072***
BET FI	15.2338***	117.136***	9.14922**	369.018***
BET XT	x	x	7.49322*	316.136***
BET NG	x	x	8.32526**	508.898***

*Note: ***, **, * mean significant at 0.01, 0.05, and 0.1 levels, respectively.*

For the first sub-sample we perform the GARCH models on the returns of BET, BET C and BET FI. The results of conditional mean equation indicate, for all three indexes, the significance of the constant term (Table 5).

Table 5. Results of conditional mean equation for the first sub-sample

Index	BET	BET C	BET FI
Constant term	0.145380 (0.0341972) [4.251]***	0.119774 (0.0287636) [4.164]***	0.206315 (0.0579342) [3.561]***
Coefficient of GF variable	-0.0522323 (0.0549734) [-0.9501]	-0.0271653 (0.0471161) [-0.5766]	-0.0462522 (0.0859064) [-0.5384]
First order lagged returns	0.134167 (0.0261135) [5.138]***	0.152701 (0.0268534) [5.686]***	x

*Notes: Standard errors in round brackets; z-statistics in square brackets; ***, **, * mean significant at 0.01, 0.05, and 0.1 levels, respectively.*

For all the three indexes, the best GARCH variant proved to be the standard (symmetrical) one. The results of conditional variance equation indicate the significance of the constant term for the three indexes, while the coefficient of the GF variable is significant only for BET and BET C (Table 6).

Table 6. Results of conditional variance equation for the first sub-sample

Index	BET GARCH (1,1)	BET C GARCH (1,1)	BET FI GARCH (1,1)
Constant term	0.157994 (0.0686516) [2.301]**	0.171748 (0.064907) [2.646]***	0.319983 (0.167759) [1.907]*
Coefficient of GF variable	-0.0785822 (0.0356022) [-2.207]**	-0.0584878 (0.0342588) [-1.707]*	-0.134152 (0.0954519) [-1.405]
alpha	0.204879 (0.0559382) [3.663]***	0.260300 (0.0626375) [4.156]***	0.226223 (0.0710127) [3.186]***
beta	0.75143 (0.0713656) [10.53]***	0.671714 (0.0798128) [8.416]***	0.762146 (0.0738723) [10.32]***
ARCH LM tests for the residuals of GARCH models	6.4069	15.3448	1.9374

*Notes: Standard errors in round brackets; z-statistics in square brackets; ***, **, * mean significant at 0.01, 0.05, and 0.1 levels, respectively.*

The results of GARCH conditional mean equation for the second sub-sample indicate no significance for the constant term or for the coefficient of GF variable (Table 7).

Table 7. Results of conditional mean equation for the second sub-sample

Index	BET	BET C	BET FI	BET XT	BET NG
Constant term	0.00506748 (0.0328361) [0.1543]	0.00688515 (0.0283229) [0.2431]	-0.0123816 (0.041624) [-0.2975]	-0.0027808 (0.0314765) [-0.08835]	-0.0020821 (0.0311856) [-0.06676]
Coefficient of GF variable	-0.0030043 (0.0625517) [-0.04803]	0.00671805 (0.0576619) [0.1165]	0.027563 (0.0770249) [0.3578]	0.0133233 (0.0319823) [0.4166]	0.0201269 (0.0434422) [0.4633]
First order lagged returns	0.0669097 (0.0265431) [2.521]**	x	0.0987989 (0.0272495) [3.626]***	x	x

*Notes: Standard errors in round brackets; z-statistics in square brackets; ***, **, * mean significant at 0.01, 0.05, and 0.1 levels, respectively.*

For the second sub-sample we find that for three indexes (BET, BET XT and BET NG) the most adequate model is EGARCH. For BET FI we use GJR GARCH model, while for BET C we chose the standard GARCH model. The results of

conditional variance equation indicate the significance of the constant term for four indexes (BET, BET C, BET XT and BET NG), while the coefficient of GF variable was found not significant for any index (Table 8).

Table 8. Results of conditional variance equation for the second sub-sample

Index	BET EGARCH (1,1)	BET C GARCH (1,1)	BET FI GJR GARCH (1,1)	BET XT EGARCH (1,1)	BET NG EGARCH (1,1)
Constant term	-0.247299 (0.0506010) [-4.887]***	0.0310219 (0.0158615) [1.956]*	0.0229731 (0.0154523) [1.487]	-0.194460 (0.0434056) [-4.480]***	-0.221863 (0.0493272) [-4.498]***
Coeff. of GF variable	0.00155405 (0.0185622) [0.08372]	-0.00236263 (0.0190157) [-0.1242]	-0.0133260 (0.022542) [-0.5912]	-0.00114038 (0.0139519) [-0.08174]	0.00244536 (0.0169147) [0.1446]
alpha	0.364179 (0.0835239) [4.360]***	0.156403 (0.042056) [3.719]***	0.123805 (0.0301929) [4.100]***	0.279661 (0.0665795) [4.200]***	0.335220 (0.0831829) [4.030]***
gamma	-0.0494860 (0.0263701) [-1.877]*	x	0.171436 (0.05254) [3.263]***	-0.0377840 (0.017968) [-2.103]**	-0.0463324 (0.0254806) [-1.818]*
beta	0.963325 (0.0175985) [54.74]***	0.844413 (0.0405758) [20.81]***	0.880368 (0.0264018) [33.35]***	0.980507 (0.00996761) [98.37]***	0.964040 (0.018935) [50.91]***
ARCH LM tests for the residuals of GARCH models	39.6576	39.6342	2.13427	7.57371	7.22758

Notes: Standard errors in round brackets; z-statistics in square brackets; ***, **, * mean significant at 0.01, 0.05, and 0.1 levels, respectively.

4. CONCLUSIONS

In this paper we approached the Gone Fishin' Effects on BSE for two periods: the first one from January 2000 to December 2006 and the second one from January 2000 to July 2013. For the returns, we found that this calendar anomaly was significant during the first period, but it disappeared in the second one. For the volatility, we found the Gone Fishin' Effects during both periods, but with more intensity in the first one.

For the second period of time BET FI was the single index which didn't display Gone Fishin' Effect on volatility. This fact could suggest that shares of the investment funds reflected by this index are not so sensitive to the holiday spirit as shares of the other companies.

Our analysis identified asymmetrical reactions of the returns to good and bad news only for the second sub-sample. We could link this evolution to the impact of the global crisis which affected the investors' behaviors in the context of stocks prices decline.

The disappearance of Gone Fishin' Effects on returns between 2007 and 2013 could be linked to the substantial development that Romanian capital market experienced in this period of time. Another explanation is that the holiday spirit didn't survive in turbulent times.

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MODERN FEATURES OF FINANCIAL GLOBALIZATION

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ABSTRACT: *Nowadays, financial globalization as latest stage of financial internationalization process becomes to be the most discussed subject by economic scientists. It has many forms of manifestation and directions of development. One of the main features of financial globalization is increasing the role of the financial sector, linked with the expansion of the scope and complexity of foreign economic relations. The financial system has increasingly become a means of redistribution of financial resources in accordance with the needs and possibilities of development of production not only at national but also at the global level. In this work are presented modern views on financial globalization under aspect of concepts, trends, effects and perspectives.*

KEYWORDS: *Financial globalization, global financial market, world financial centres, international financial flows.*

JEL CLASSIFICATION: *G15.*

1. VIEWS ON FINANCIAL GLOBALIZATION

1.1. Definition of financial globalization

Globalization is an objective world tendency, due to the strengthening of international political, cultural, economic, financial, informational, technical and other ties between the States at various levels. It implies a process of transformation of the world economy in the single market for goods, services, capital, labour and knowledge. In essence, globalization can be defined as a higher stage of the internationalization of economic life, its further development (Sharonov, 2008, p. 126).

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In our opinion, financial globalization is a form of general process of globalization and has many aspects, therefore economic literature contain different definitions of this notion, provided from various sources:

✓ The term financial globalization refers to the process by which financial markets of various countries of the globe are integrated as one. Financial globalization may also be defined as a free movement of finance across national boundaries without facing any restrictions (Arestis, Santonu, 2003, p. 1);

✓ Financial globalization is understood as the integration of a country's local financial system with international financial markets and institutions (Schmukler, 2004, p. 39);

✓ Financial globalization is an aggregate concept that refers to rising global linkages through cross-border financial flows (Prasad, 2003, p. 7);

✓ We could define financial integration as the process by which financial markets and institutions become more tightly interlinked and move closer to full integration, under which the law of one price would hold (Gudmundsson, 2008, p. 9);

✓ Financial globalization is higher stage of internationalization of activity of the financial markets in all its forms for the purpose of ensuring requirements of development of the currency and financial relations (Bulatov, 1999).

As result, in our understanding, *financial globalization is a process which is an integral part of the overall process of globalization, aimed at creating a single financial market and flowing through increased international movement of financial capital.*

1.2. Main aspects of financial globalization

Often the term financial globalization is used with another – financial integration, which refers to an individual country's linkages to international capital markets. (Prasad, 2003, p. 7)

In the context of globalization we may identify four types of financial integration (Kenen, 2007, p. 179):

1. Integration of the public sector by way of sovereign borrowing, which can take two forms: the issuance of foreign-currency debt, whether under foreign or domestic law, and the issuance of local-currency debt which foreigners can purchase on the issuer's home market.

2. Integration of the corporate sector by way of foreign direct investment, as well as cross-border borrowing and equity issues in other countries' markets.

3. The further integration of the corporate sector that occurs when institutional and individual investors buy and sell the stocks and bonds of other countries' firms in those countries' asset markets.

4. The integration of the banking sector by way of the worldwide interbank market in which they can borrow or lend temporarily - the option

exercised with dire consequences by some of the East Asian countries' banks a few years ago.

The modern concept of financial globalization was formed in early 2000 years and can be expressed in the following aspects (Evlahova, 2007, p. 4):

1. financial globalization is part of economic globalization, which is an increasing economic interdependence of countries around the world and by the growing volume of cross-border transactions of goods, services and capital, the rapid and widespread diffusion of technologies.

2. financial globalization has become the dominant form of economic globalization. Capital was the most mobile factors of production, which allowed him to move quickly in search of profits great facilitate this process contributed to the liberalization of capital movements. A role in enhancing the mobility of capital has the information revolution, manifested not only in the broad introduction of means of communication and information, but also in creating new channels of capital flows (Internet).

3. financial globalization has changed the composition and structure of entities that affect the world economy, putting in first place the transnational companies and banks, reducing the role of the national State and exposing the inadequacy of international financial institutions for the new challenges of development of the world economy. The consequence of these changes has been the loss of the State many of the regulatory instruments and reduced effectiveness of monetary and fiscal measures. This gave rise to talk about the transformation of national financial systems under the impact of financial globalization.

The evolution of financial globalization occurs in two ways: Qualitative; Extensive

The qualitative (internal) way is expressed by important institutional changes, which are, on the one hand, withdrawing the various barriers to the cross-border movement of capital, and, on the other hand, in establishing cooperation between the financial institutions of different countries, up to complete their merger. As a result, national financial (stock) markets are interrelated parts, in fact, a single, integrated world market.

On the other hand, should take into account the fact that financial globalization proceeds in terms of creating a new global financial system

The extensive way is spread in breadth, which finds expression in the rapid growth of quantitative parameters characterizing the momentum of world trade, foreign direct investment and international financial borrowings.

2. MAIN TENDENCIES OF FINANCIAL GLOBALIZATION

2.1. Essential growth average daily turnover in global foreign exchange markets

If in 1987 - $600 billion, at the end of the 1992 - $1 billion, in 1997 - $1,2 trillion, in 2000 - $1,5 trillion; in 2005 - 2006 annual volume of daily turnover in the foreign exchange market ranged from $2 trillion up to $ 4 trillion.

In 2008 the turnover it reached $ 4.5 trillion on the day and from April 2009 the amount was reduced to $3 trillion; in 2010 - $ 4 trillion; in 2011 grew to a record value of $ 4.7 trillion. In 2012 average daily turnover in the global foreign exchange market has reached $5.3 trillion.

Global FX turnover was 34**%** higher in April 2013 than in April 2010, with average daily turnover of $5.345 trillion/day compared to $3.971 trillion/day.

With all this there are predictions according to which the subsequent growth of daily turnover to $ 10 trillion in the year 2020.
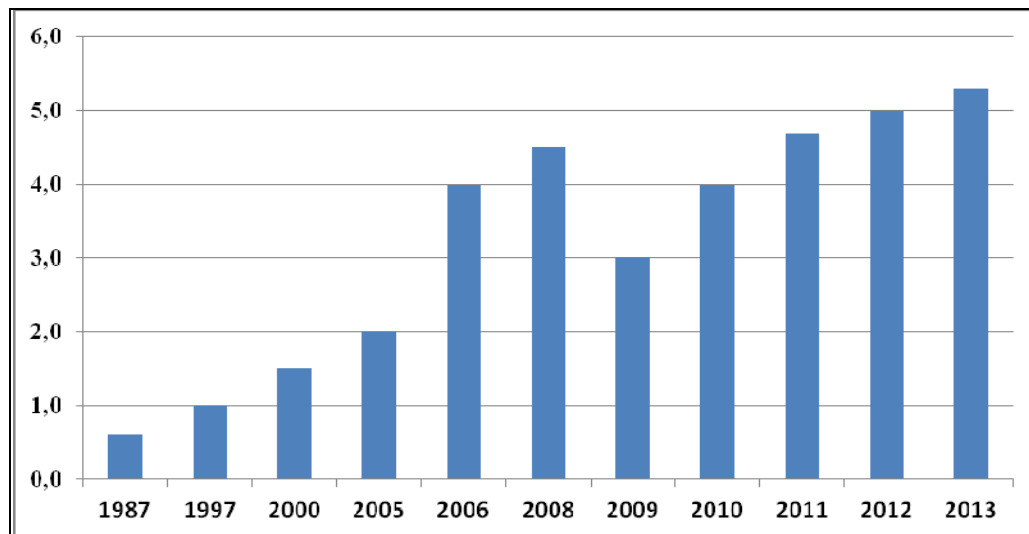
Sources: Foreign exchange market, http://en.wikipedia.org/wiki/Foreign_exchange_market and Robert Mackenzie Smith, FX now a $5.3 trillion per day market, says BIS, http://www.risk.net/risk-magazine/news/2293080/fx-now-a-usd53-trillion-per-day-market-says-bis

Figure 1. The average daily turnover in global foreign exchange markets dynamic, 1987-2013

In April 2013 USD, EUR and JPY remained the top traded currencies (shares below based on 200 share – showing double sided nature of fx trade):
- USD (87 - up from 84.9 share)
- EUR (34.2 – down from 39.1 share)
- JPY (23 – up from 19 share)
- GBP (11.8 – down from 12.9 share)

Figure 2 presents the top of global centers on FX market.

London retained position as top with 41% of global volumes up from 37% in 2010, followed by NY with 18.9% up from 17.9%.

The structure global foreign exchange market turnover by instruments in April 2013 is as the following (in US$ billion):
- Foreign exchange instruments - 5,345
- Spot transactions - 2,046

- Outright forwards - 680
- FX swaps - 2,228
- Currency swaps - 54
- Options and other products – 337.
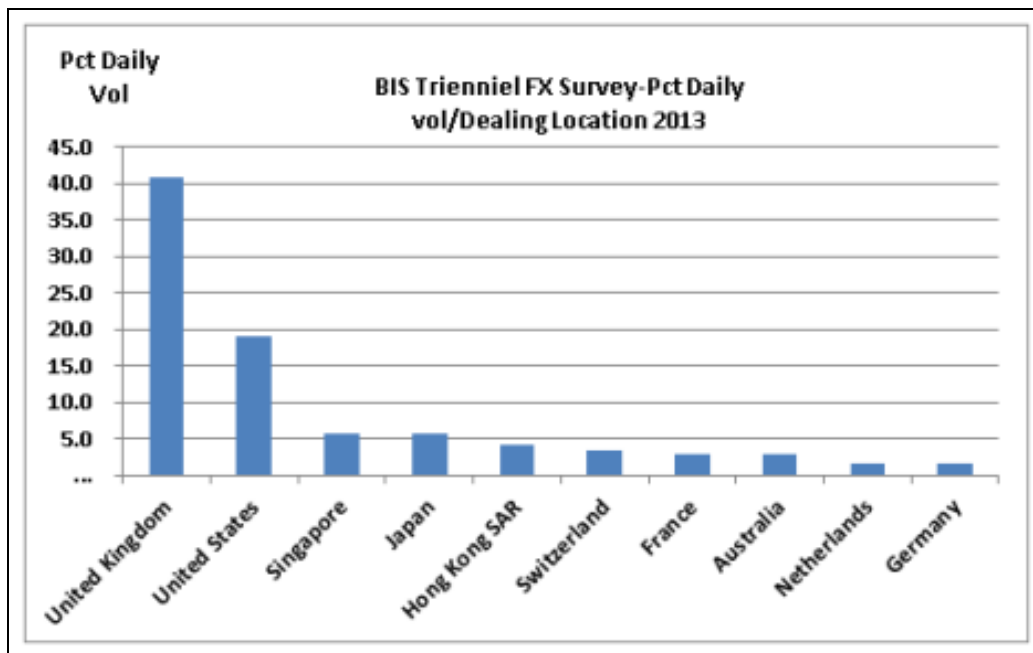
Sources: Blank Paul, Global FX daily turnover reaches $5.345 trillion up 34% according to 2013 BIS Triennial Survey, September 8, 2013, http://singledealerplatforms.org/2013/09/08/global-fx-daily-turnover-reaches-5-345-trillion-up-34-according-to-2013-bis-triennial-survey/

Figure 2. Daily FX volume by Dealing location (Pct daily volumes)

## 2.2. Amplification of global foreign direct investments (FDI)

Figure 3 demonstrates the dynamic of FDI inflows.

Global foreign direct investment (FDI) inflows fell by 18% from $1.65 trillion in 2011 to $1.35 trillion in 2012. (UNCTAD, 2013, p. 12)

This sharp decline was in stark contrast to other key economic indicators such as GDP, international trade and employment, which all registered positive growth at the global level. Economic fragility and policy uncertainty in a number of major economies gave rise to caution among investors. Furthermore, many transnational corporations (TNCs) re-profiled their investments overseas, including through restructuring of assets, divestment and relocation. The road to FDI recovery is thus proving bumpy and may take longer than expected (Zhan James, 2013, p. 4).

FDI flows in 2013 are expected to remain close to the 2012 level, with an upper range of $1.45 trillion – a level comparable to the pre-crisis average of 2005–2007. As macroeconomic conditions improve and investors regain confidence in the

medium term, TNCs may convert their record levels of cash holdings into new investments. FDI flows may then reach the level of $1.6 trillion in 2014 and $1.8 trillion in 2015.
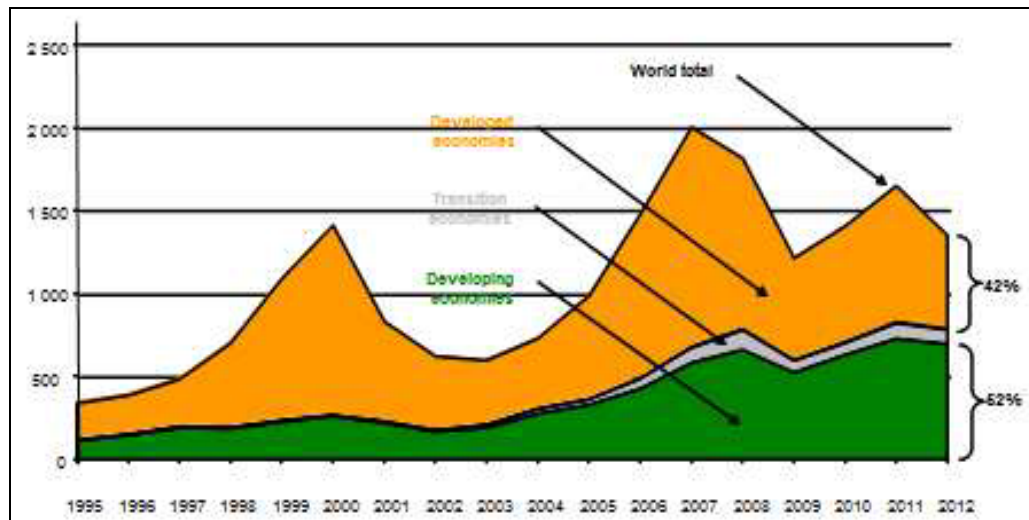
Figure 3. FDI inflows, global and by group of economies, 1995–2012 (Billions of dollars)

FDI flows to developing economies proved to be much more resilient than flows to developed countries, recording their second highest level – even though they declined slightly (by 4 per cent) to $703 billion in 2012.

They accounted for a record 52 per cent of global FDI inflows, exceeding flows to developed economies for the first time ever, by $142 billion.

2.3. The positive dynamic of global capital market

Global financial assets - or the value of equity-market capitalization, corporate and government bonds, and loans - have grown by just 1.9 percent annually since the crisis, down from average annual growth of 7.9 percent from 1990 to 2007 (Figure 4).

Global financial assets have grown to $225 trillion, but growth has slowed since 2007.

The main segment of Global Capital Market that in the amount of $62 trillion remains Nonsecuritized Loans (27.6 share), followed by Global Equity Market with $50 trillion (22.2 share), Global Government Bond Market with $47 trillion (20.9 share) and Global Corporate Bond Market - $42 trillion (18.7 share).

2.4. Extension of global derivatives market

The global derivatives market is estimated in notional value at $1,200 trillion ($1.2 quadrillion). But is one of the biggest risks to the world's financial health.
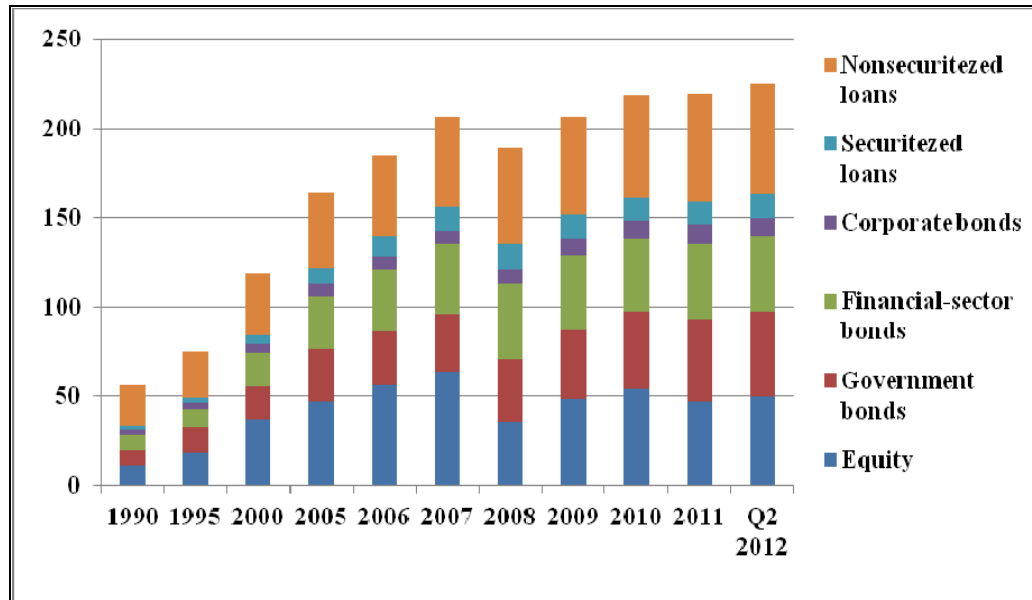
Source: Lund Susan, Daruvala Toos, Dobbs Richard, Härle Philipp, Kwek Ju-Hon, Falcón Ricardo, Financial globalization: Retreat or reset?, http://www.mckinsey.com/insights/ global_capital_markets/ financial_globalization

Figure 4. Structural movements of Global Capital Market

It's complex, it's unregulated, and it ought to be of concern to world leaders that its notional value is 20 times the size of the world economy. But traders rule the roost — and as much as risk managers and regulators might want to limit that risk, they lack the power or knowledge to do so.

The actual cash amount of the interest rates swaps might be 1% of the $1 million debt, while that $1 million is the "notional" amount. Applying that same 1% to the $1.2 quadrillion derivatives market would leave a cash amount of the derivatives market of $12 trillion — far smaller, but still 20% of the world economy.

2.5. Development of international banking system

The development of the world banking system is carried out in the following areas:
- Expanding international banking activities;
- Banking mergers - within a country and internationally;

Globally, the world banking system is developing in the following directions:

    a. Unification, standardization, national legislation on banking activity given in conformity with the international standards of banking;

    b. Development at the international level in accordance with the Basel Agreement (standards) of common approaches to evaluation (analysis) the financial status of the commercial banks of banking supervision bodies;

    c. Creation a single management and regulation institution of banking activities in the face of a world Central Bank. A prototype of the global Central Bank is currently the European Central Bank (Frankfurt am Main), which in 1999 was due to the ongoing process of integration in Europe within the EU.

In addition, an important trend in the world today can be called the miniaturization of banks. Table 1 contains main data on major banks for 2012 year.

Table 1. Major world banks consolidated assets for the year 2012 ($ mil.).

No.	Name of the Bank	Country	Total assets ($ mil.)
1.	Deutsche Bank AG	Germany	2,799,977
2.	HSBC	United Kingdom	2,555,579
3.	BNP Paribas	France	2,542,738
4.	Industrial and Commercial Bank of China	China	2,456,287
5.	Mitsubishi UFJ Financial Group	Japan	2,447,950
6.	Credit Agricole	France	2,431,796
7.	Barclays Group	United Kingdom	2,417,327
8.	Royal Bank of Scotland	United Kingdom	2,329,726
9.	JPMorgan Chase	United States	2,265,792
10.	Bank of America	United States	2,129,046

Source: World's 50 Biggest Banks 2012, http://www.gfmag.com/tools/best-banks/11986-worlds-50-biggest-banks-2012.html#axzz2hmSyRnTa

In 2012 the total amount of banking assets from the top was $24,4 trill, increasing to 2011 with $1.7 trillion.

Global megabanks may continue to merge and will consolidate in the coming decades. This trend will remain in the lead until the visible "new realities of rationality" would sweep them.

But already today are banks, which will have the greatest impact in the near future. Compared with modern megababanks of the future will be much smaller in size, which gives us the right to call them micro banks. These banks will become a mass phenomenon and will enter his page in history of successful banking business of the 21st century. It will be the small credit institutions having significantly fewer staff than just a staff of the departments of information technology (IT-Department) of megabanks. Nevertheless, microbanks are global players in the market, with only small offices and obeying the laws of several countries. They will be able to perform a wide range of banking operations and services from virtually anywhere in the world, existing almost entirely in cyberspace are so-called virtual banks to service the virtual world.

Therefore, the main question of reliability, stability of banks – is not only a question of the size of its equity capital and more – the problem of the quality of their management.

2.6. Rising of global financial centres

A global financial centre is a city with a large number of internationally significant banks, businesses, and stock exchanges. An international financial centre is a non-specific term usually used to describe an important participant in international financial market trading. An international financial centre will usually have at least one major stock market.

The globalization of financial services markets, accompanied by a concentration of participants and operations, facilitates intensive growth and consolidation of world financial centres. Three cities — London, New York and Tokyo — accounted for over 1/3 world titles property management of institutional investors, and more than half of the volume of operations of currency exchanges in the world.

2.7. Development of international financial institution activity

For example, today is widely discussed the possibility of transforming the IMF into a World Central Bank. Also, increase the role of the World Bank Group, the Bank for International Settlements, of the International Securities Market Association, the World Federation of Exchanges, International Association of Insurance Supervisors and other.

2.8. Consolidation of some segments international financial market

Obvious examples are NASDAQ OMX, NYSE Euronext, CEE Stock Exchange Group and London Stock Exchange Group. But the most remarkable is The NASDAQ OMX Group, Inc., the world's largest exchange company. It delivers trading, exchange technology and public company services across six continents, with approximately 3,700 listed companies. NASDAQ OMX offers multiple capital raising solutions to companies around the globe, including its U.S. listings market, NASDAQ OMX Nordic, NASDAQ OMX Baltic, NASDAQ OMX First North, and the U.S. 144A sector. The company offers trading across multiple asset classes including equities, derivatives, debt, commodities, structured products and exchange-traded funds. NASDAQ OMX technology supports the operations of over 70 exchanges, clearing organizations and central securities depositories in more than 50 countries. NASDAQ OMX Nordic and NASDAQ OMX Baltic are not legal entities but describe the common offering from NASDAQ OMX exchanges in Helsinki, Copenhagen, Stockholm, Iceland, Tallinn, Riga, and Vilnius. (NASDAQ)

3. OTHER ASPECTS OF FINANCIAL GLOBALIZATION

Economic integrity the world is formed, in part, because financial information is transmitted almost instantly, world markets and financial centres are connected by the most modern means of communication and operate 24 hours a day, in close collaboration with each other.

Together with global financial flows on the world move new technologies in many countries is modernizing the structure of the economy. In the Group of economically developed countries, undoubtedly, there has been a relative stabilization of exchange rates, supported by the globalization of the world financial markets. Developments in these markets provides more efficient than before, placing financial resources in the international scale. The ratio of demand and supply of capital is now at the supranational level, that prejudice is a much better investment. Large enterprises meet their financing needs not only, and often not primarily on the domestic market of the country. Similarly, investments are made wherever it is most advantageous to the entire world economy.

The globalization of the world financial markets, enables the recycling of capital accumulated by companies, banks, Governments, such as the export of oil and other commodities higher demand. The money is allocated for the financing of the world economy.

The globalization of world markets has created many financial innovations, new complex financial tools that enable to reduce the currency, credit, stock transactions risks. Global investment program of large investors are much safer in terms of business than previous investments within individual countries. Corporate financial management quite dynamically adapts to the new realities of a globalizing world economy.

However, by the end of the last century, the euphoria over the success of the globalization of the world economy will certainly come to an end. And financial sphere has been the focus of destabilization of the world economy.

Mentioned "hot" financial flows, cruising between the countries has already led to large-scale financial crises, showed how volatile the global financial system.

Globalization has exacerbated the problem of international debt, negative influence on national monetary policies in individual countries.

Operational innovation and new financial instruments that reduce the risks of investment, oppose the globalism and absence of control of financial business, which greatly increase these risks.

The benefits of the globalization of financial markets for economically developed countries does not apply to the entire world community. The situation on currency, credit, stock markets in developing countries remains extremely volatile. The main actors in the world of finance - TNK and TNB - have brought and continue to bring in well-known economic difficulties and contradictions in the economic life of many dozens of countries.

It is in the financial sphere, globalization develops in a few countries and peoples benefit and harm is much greater. It can be stated that the growth of inadaptability of the globalizing economy.

The globalization of the world financial market has brought the liberalization of national measures for State regulation of the economy. However, economic processes often become dangerous, freed from any form of external regulation. A paradoxical situation: in all developed countries, despite the liberalization of national financial markets still are much stiffer than the production and trade, including foreign.

At the same time, international supranational financial operations, huge financial flows, international financial centre not only are not regulated, but often even just not controlled from the outside. Indeed, in the world financial institution that acted similar to functions of country central banks, but at the supranational level.

In the banking sector there is no international system of deposit insurance, uniform reserve requirements, a unified methodology for banking audit. Clearly lacking at the supra-national level, common, or at least a coordinated bank bankruptcy law, which is particularly important in the context of "overcrowding" in the world of banks. It is not about restrictions on the movement of capital in the world in general, and about the need to regulate investment structure.

But the acute problem of regulation of world financial markets, the globalization of the world economy cannot be solved by individual countries. It needs supranational measures adequate to the scale of the process.

The International Monetary Fund on its status is not engaged in the design challenge of globalizing international regulation of financial markets. The London and Paris Clubs of creditors are not busy to regulate the uncontrolled financial flows, especially the "hot money".

However, the need for supranational coordinated effects in the process of globalization in the financial sphere is becoming increasingly urgent.

To resume above related, we can affirm that financial globalization is a complex process with many aspects and developing tendencies. It deserves special attention to avoid its negative manifestations, especially to reduce the vulnerability national economy from the negative effects in the financial sector, and to use its useful properties.

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ANALYSIS ABSORPTION CAPACITY OF EUROPEAN FUNDS UNDER THE OPERATIONAL PROGRAMME HUMAN RESOURCES DEVELOPMENT

DANIELA FLORESCU, PETRE BREZEANU, LILIAN ONESCU [*]

ABSTRACT: *One of the main goals of the European Union is the economic progress. In the last 50 years, and especially beginning with the '80s, remarkable efforts have been made for removing the borders between the EU national economies and for creating a unique market where goods, persons, capital and services could move freely. Commercial interchanges between UE states have significantly grown and at the same time EU has become a global commercial force. EU's goal is to become the most dynamic economy based on global recognition. This implies a significant investment in research, education and forming, which allows the population to have access to this new information. This research work displays diverse aspects concerning the Romania's ability draw of irredeemable funds in period 2007 – 2013, focusing on human capital development activity. Today, the problem absorptions are no longer able to develop projects, that knowing a significant improvement but the stage of implementation and funding.*

KEY WORS: *absorption capacity, convergence, human capital development irredeemable financing, regression.*

JEL CLASSIFICATION: *F36, O19.*

1. INTRODUCTION

As a continent formed by nations forever aspiring to national identity and economic, political and cultural affirmation, Europe faced an evolution based on conflicts, characterized by a competitive commerce, colonial disputes and wars, as well as manifestations of exaggerated nationalisms that dominated nations' existence.

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The last few years brought a significant dynamic at European Union's level in what territorial cohesion is concerned - a domain that is still in undergoing consolidation. According to the Treaty of Lisbon, territorial cohesion has become the third dimension of the cohesion policy, together with the social and economic components. The idea of territorial cohesion represents the expression of balanced, coherent and harmonious territorial development regarding economic and social activities, equipment, accessibility and the quality of the environment, the existence of equitable living and working conditions for all the citizens no matter the place they are located. Territorial cohesion policy wishes to reduce development differences between geographic regions, between the urban and rural environment, the center and the suburbs, as well as to prevent the increase of territorial disparities.

The objective of economic and social cohesion was mentioned in the Single European Act and became a reality in 1988 by the adoption of the first regulation which represented the beginning of the cohesion policy. The Maastricht, Amsterdam and Nice Treaties reassured the importance of this policy and its scope was extended by the Lisbon Treaty project and by acquiring new territorial dimensions. Cohesion policy represents a local policy that assigns each European territory a role, meaning that it does not represent an obstacle in the allocation of economic activities, but could itself become a way of development. Latest economic theories confirm this approach through a series of case studies that prove the fact that *geography matters, but regional policy can make the difference.*

2. OPERATIONAL PROGRAM HUMAN RESOURCES DEVELOPMENT (SOP – HRD)

Romania ESF interventions in human resources development, as set out in the National Strategic Reference Framework 2007-2013 will ensure investment in human capital, modernization of education and training, increasing access to employment and strengthening social inclusion for vulnerable groups.

The need to provide qualified competitive human resources on the European labour market arises from the understanding of the fact that the competitive advantages that today determine the economic growth of Romania, cannot ensure long term sustainability, given the increased pressures caused by globalization and the continuous introduction of new technologies. Only a flexible and higher qualified workforce could react to the constant changes in the labour market.

The overall objective of the program is to develop human capital and to increase its competitiveness by connecting education and continuous training with the labour market and the certainty of choosing opportunities for participation to a labour market that is modern, flexible and includes 1.650.000 persons. In fact, the National Strategic Reference estimates that "there will be an increase in employment of about 164,000 people by 2013 compared to 2005, the figure indicating a net increase in the average number of employees in the general economy as a result of differences between new jobs created and staff reductions.

Before the elaboration of this objective a thorough socio-economic analysis was made and the result showed at national level the following phenomena: low skilled

labor due to low participation rates in education and training, particularly in rural areas; inability of institutions responsible for education and employment to adapt quickly to the new requirements of the labor market; increased poverty, especially among risk groups (gypsies, monoparental families that have more than two children, post-institutionalized young people); decrease in the percentage of active population in conjunction with a pronounced aging and a growing phenomenon of migration, etc.

A blooming economy is based on a long term active working population that constantly improves its competencies during their professional activity – Lifetime learning is the specific terminology. In the EU, the number of adults taking part in the forming activities has grown, reaching 9,6% in 2009, gathering population with ages between 25 and 65 years old.

In order to implement this operational program for 2007-2013 funds worth 4089.3 million euro have been allocated (3476.2 million euro from European Funds, 85.01%).
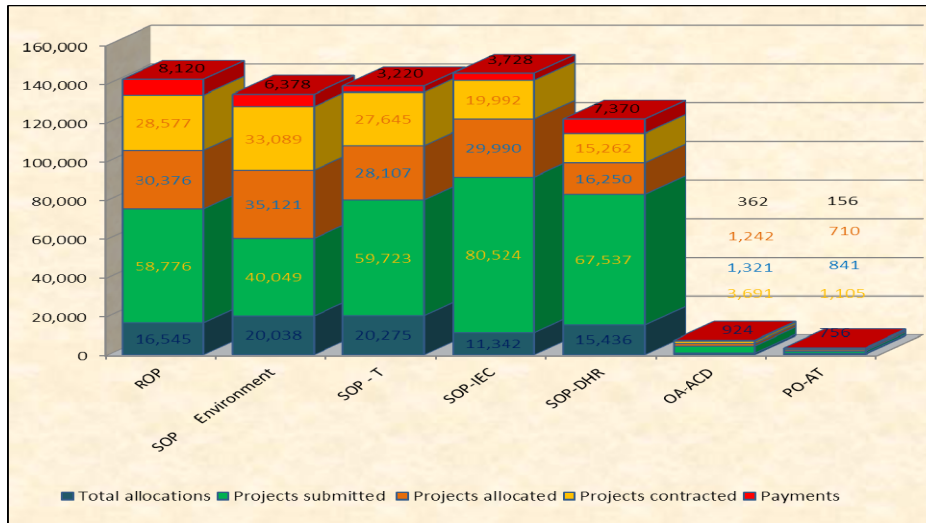

Source: own processing based on data provided by: http://www.posdru/index.php/pos-dru.pdf
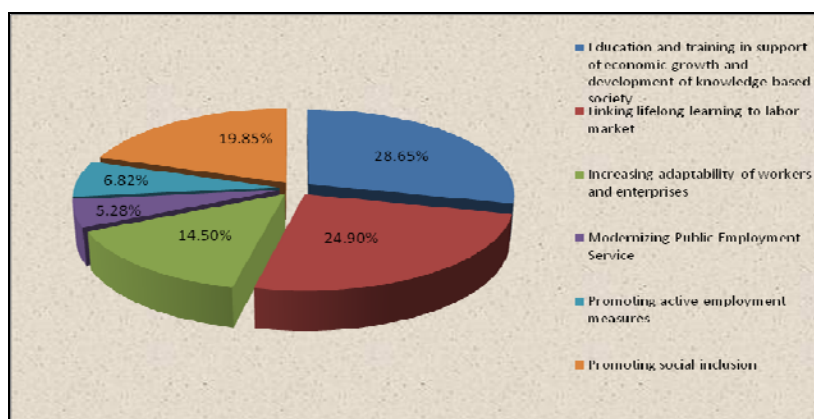
Figure 1. Axis distribution of funds under SOP – HRD 2007 – 2013 programming period

Following the stage of grants absorption we can say that this operational program proved to be successful. This situation is the result of efforts made in the first years of SOP HRD in order to contract a significant percentage of ESF 2007 - 2013 allocation to ensure financial flows to avoid automatic disengagement. As regards EU funds absorption stage, the operational programs situation at September 20, 2013 is shown in figure 2.

If regarding the number of projects submitted, approved and contracted, Romania has one of the highest rates within the EU, in terms of absorption at September 20, 2013 it barely reached 34.38%, the total operational programs. If we refer to the January 2009 period we can notice a growth in the rate of absorption, but if we compare it to the other member states of the EU we are placed last. Regarding the situation for each operational program, the Sectoral Operational Program Development of Human Resources has registered the highest percentage, 47.75% respectively while the Transport Operational Programme was at the opposite end with only 15.88%.

Figure 2. Grants' stage of absorption – September 20, 2013 (million lei)

3. LINKING INTENSITY AND DEPENDENCY SIGNIFICANCE TESTING OF THE RELATIONSHIP BETWEEN THE ALLOCATIONS, THE AMOUNT REQUESTED THROUGH THE SUBMITTED PROJECTS, THE VALUE OF THE APPROVED PROJECTS, OF THOSE THAT GOT CONTRACTED AND THE ABSORPTION CAPACITY

Taking into account the low level of absorption capacity as well as the significant differences between the phases of the grants accessing process we wish to determine the intensity and dependency signification of the link between the dependent variable, endogenous, value of payments (value of payments made to the structural and cohesion funds beneficiaries) and the exogenous variables: allocations (amounts given from EU budget), submitted projects (value requested by potential beneficiaries of European funds through grant applications that come together with the submitted projects), approved projects (value of the approved projects after final evaluation made by the management authorities) and contracted projects (contracted values that is to be absorbed as a consequence of implementing the projects).

Both the prevision on the absorption level as the way of establishing the link between the absorption level and the value of submitted projects, were made based on data provided by the Authority for Structural Funds Coordination and the Ministry of European Affairs by analyzing the evolution of the five indicators for 69 months.

In order to test the intensity of the connection as well as the signification of the dependency between the values of allocations, the value requested through the submitted projects, the value of approved projects, of the contracted projects and the capacity of absorption regarding all operational programs, we followed the following steps:
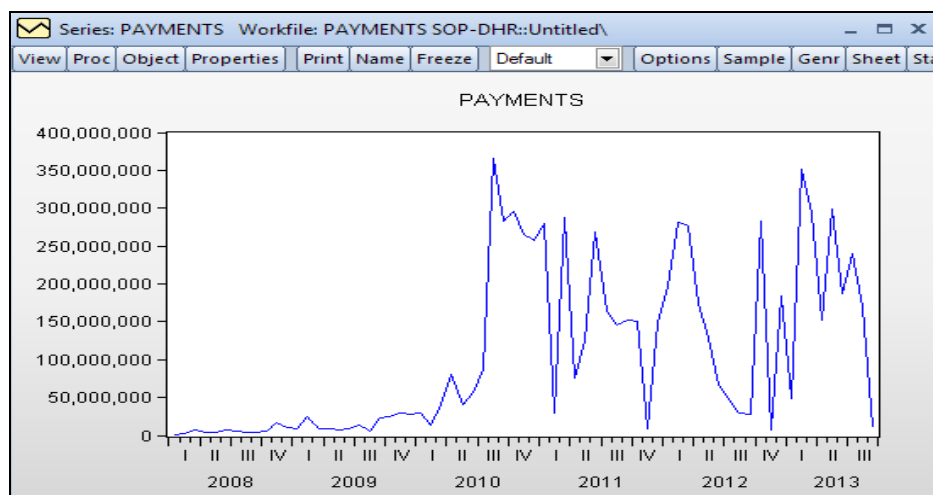
a) Analysis of the data afferent to the payment to structural and cohesion funds beneficiaries indicator

Source: own processing based on data provided by: http://www.fonduri-structurale-europene.ro.html

Figure 3. Graph data series on financing investment projects of European funds, the Operational Programme Human Resources Development, in the period January 2008 - September 2013

Upward trend, but uneven, can be observed by analyzing the descriptive statistics for the data series analyzed in relation to a normal distribution.

Following the descriptive statistics analysis were separated the following distribution characteristics:

- mean, an indicator of central tendency that characterizes the average payments made to beneficiaries of structural funds in the Operational Programme Human Resources Development in amount of 107 million RON;
- median, value recorded in the middle of the period analyzed, the data series that divides into two equal parts, are at amount of 48.644 million RON;
- extreme values of the period with a maximum of amount 365 million RON recorded in August 2010 and a minimum of 521,738 RON in January 2008;
- Standard deviation of individual values from the mean value: 112 million RON;
- because the coefficient of asymmetry of the data series around its mean (skewness 0.76) recorded a positive value, we conclude that the distribution is asymmetrical at right, valorile extreme fiind situate în dreapta mediei;
- kurtosis = 2.11, shows that the distribution of the data series is a type leptokurtic;
- therefore, Jarque-Bera test, based both on the coefficients skewness and kurtosis, shows that the series of indicator payments is not exactly follow a normal distribution.

Source: own processing based on data provided by: http://www.fonduri-structurale-europene.ro.html
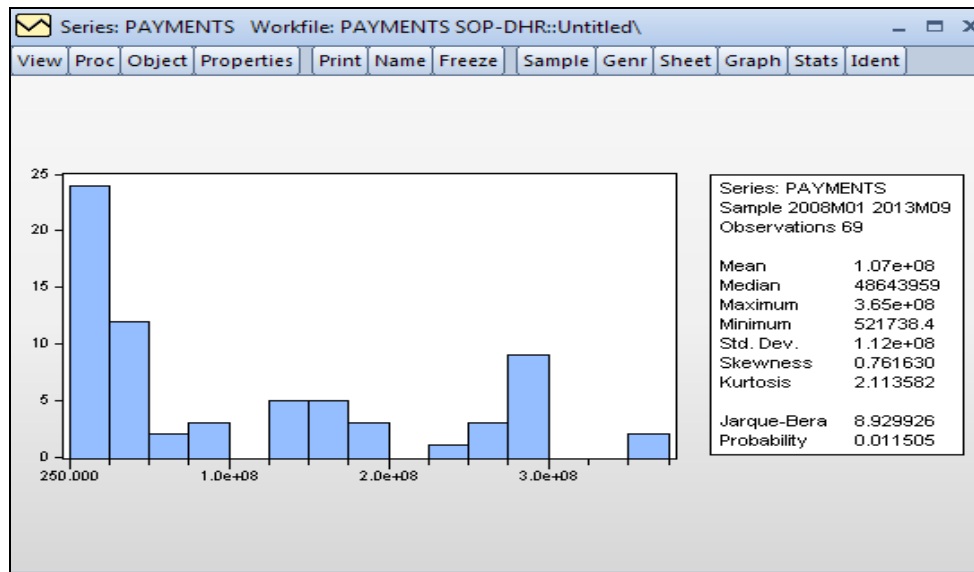
Figure 4. Distribution histogram data series on the development value of payments, the Operational Programme Human Resources Development, in the period January 2008 - September 2013

b) Testing the connection's intensity and dependency significance between the allocations, the value of submitted projects, approved ones, contracted projects and the absorption capacity through the scatter analysis

In order to obtain conclusive results, capable of providing unaltered information due to some extreme values, we adjusted the values considered to be exaggerated as follows:

- In the column that included the total value of submitted projects we replaced: September's 2009 values (submissions exceeded 21,61 times allocations) and October's 2009 values (submissions exceeded 19,91 times the allocations) with the values recorded in July and August 2009; April's and May's 2009 values (submissions exceeded 9,97 and 13,13 times the allocations) with the February and March 2010 values; September's 2010 value (submissions exceeded 10,69 times allocations) with August's 2010 value; August's 2010 values (submissions were 3,12 time fewer than allocations) with September's 2012 values;

- In the column for the total worth of approved projects we replaced the values of December 2009 when the value of approved projects exceeded 13,48 times the allocations and 2,1 times the value of submitted projects, with the value of the previous month; the value of July 2012 when the eligible projects were worth 1,98 times the value of submitted projects and 4,79 times the value of allocations for the same period;

- In the column designated for the value of contracted projects we replaced the value the values of September 2012 with the values of August because the value of contracted projects was placed below 50% of the value of allocations.

- In the column regarding the total amount of payments we replaced the value recorded in August 2012 with the value recorded in September 2012.

- In the amount payments column values have replaced months: November 2008, February 2009, August 2010, September 2010, February 2013, March 2013 and May 2013 with the values recorded in the previous month.

Results showed the following:

➢ Multiple R = 0.964069, indicates a strong and a positive link between the payments and the four independent variables studied (allocations , submitted projects, approved projects, contracted projects);

➢ R Square = 96.1823% shows how the change in payments is explained by the influence of four independent variables (allocations, submitted projects, approved projects, contracted projects);

➢ The F test (F = 429.29), shows a positive value, which validates the linear regression model describing the relationship between the payment projects and the allocations, the submitted projects, the approved projects and the contracted projects.

➢ Intercept   in the amount of -14,601,603.17 RON, shows that as the payments could be made given that there were no amounts allocated not submitted any project on any of the axes of funding and obviously had not approved and contracted any project. Because *t Stat* = 3.66 and *P-value* = 0.00005 (less than 0.05), means that this coefficient is significantly (for a probability of about 99.99% > 95%, as has been established initially). In fact, that both the lower and upper confidence interval (-22,561,045.96≤ β_0 ≥ -6,642,160.4) for this parameter is negative shows that the general community is a significant parameter.

For all that, the coefficient value of approved projects with a value of 0.0675, show that an increase in contracted projects with a one RON, the payments will decrease by 0.0675RON. Because *t Stat* = 1,19 and *P-value* este 0.235 (less than 0.05), means that this coefficient is insignificant (for a probability of about 76.5%). In fact, that the lower limit of confidence interval (-0.1804≤ β_3 ≥ 0.0452) for this program is negative, and the upper limit is positive show that the general community parameter is approximately zero.

c) Checking disturbet interdependence in relation to their values

The fact that the linear regression is not an corresponding estimate, we will confirm the presence of autocorrelation errors. Since the d_{calc} = 0.305, also upper and lower limits of determination range autocorrelation by method Durbin-Watson, for 4 degrees of freedom and the 69 observations are 1.46, respectively 1.63, see that the calculated value is not included in the range [d_{up}; 4 - d_{up}], more precisely between [2.37; 2.54], but between [0; d_{lower}], which indicates the presence of positive autocorrelation of residue values.

The White test for error homoscedasticity shows that errors are homoscedastic and the calculated value is 0.4238 < 1.145 (Table value for $\chi2$ distribution, 4 degrees of freedom and probability of 95%, the maximum permissible error of 5% = 1.145).

Source: own processing based on data provided by: http://www.fonduri-structurale-europene.ro.html

Figure 5. Testing autocorrelation errors, the Operational Programme Human Resources Development, in the period January 2008 - September 2013

Source: own processing based on data provided by: http://www.fonduri-structurale-europene.ro.html

Figure 6. The White Test in the period January 2008 - September 2013

Because between the payments and the four independent variables studied (allocations, submitted projects, approved projects, contracted projects) there is a strong link, but the parameter value of approved projects proved to be statistically insignificant, the model can be used in the future to achieve a predicted value of payments developments within the Operational Programme Human Resources Development.

4. CONCLUSIONS

In addition, despite the fact that the series of data regarding the payment-value indicator do not follow a regular repartition, the link between this endogenous indicator and the other four exogenous indicators (allocations, total value of submitted projects, total value of approved projects and total value of contracted projects) is very strong. Testing the significance of the in line multiple regression model and of the parameters by using the Excel program and the Eviews program led to the conclusion that the model is invalid

The reasons for which Romania had one of the lowest absorption rates are various and differ from one project to another. While the entrepreneurs are suffocated by the number of notifications that they must obtain in order to complete a file and to obtain co-financing, the local authorities face difficulties since the moment of writing the projects, the civil servants do not have enough experience in managing European financed projects and asking for the services of a consultancy company is not the best solution considering the fact that public institutions are supposed to reduce budget expenditures. On the other hand, management authorities admit the fact that all the requested documents for the file are too thick which leads in some cases to a delay in submitting the projects. The submitted projects can last to be resolved and get approved in some cases almost a year. It's a vicious circle. It's well known that there is no solution to this situation. It's a problem in the system but no one finds the time to fix it.

Despite all the problems that have to face, European funds remain a real help for any type of entrepreneur due to the simple reason that these funds are nonrefundable. It is a fact that at the beginning of the current programming period, more specifically in 2007, Romania gave more to the EU budget than received, but since 2008, Romania became a beneficiary of such funds.

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CORRELATION ANALYSIS OF THE AUDIT COMMITTEE AND PROFITABILITY INDICATORS

MELINDA TIMEA FÜLÖP [*]

ABSTRACT: *The main role of corporate governance is to restore market confidence and in this process plays an important role the audit committee. The purpose of this case study is to analyze the correlations between the Audit Committee and profitability indicators. Considering the achievement of the objectives proposed in this research, our research is based on a deductive approach from general aspects to particular aspects that combines quantitative and qualitative studies. Theoretical knowledge is used for a better understanding of a phenomenon and not for making assumptions. Thus, in order to achieve our study, we selected 25 companies listed on Berlin Stock Exchange. Following this study, we concluded that the role of the audit committee is crucial.*

KEY WORDS: *audit committee, independence, professional expertise.*

JEL CLASSIFICATION: *M40, M41, M42.*

1. INTRODUCTION

The term of audit committee is closely related to scandals from United States of America - Enron, Worldcom, etc. It is considered that the financial reporting process based on audit committee of a corporation. Since their inception, audit committees have responsibilities established by law, but after Enron, audit committees increased their respective responsibilities according to the Sarbanes-Oxley Act of 2002.

The Audit committee concept was first introduced by the New York Stock Exchange (NYSE) in 1939. In the early seventies Securities Commission of the United States recommends that listed companies establish an audit committee composed of non-executive directors, and in 1979 the New York Stock Exchange listing imposed as a requirement that all members of an audit committee must be independent members.

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Ruzaidah and Takiah (2004) consider that the audit committee is one of the key elements of corporate governance structure and monitoring role in the control of management.

The main objective of the Audit Committee is to ensure transparency, to promote shareholder value maximization entity and to prevent obtaining personal benefits by managers (Wathne & Heide, 2000).

Regarding the characteristics of the Audit Committee, studies have shown that:
- ✓ Independence of the Audit Committee members is associated with decreased cases of fraud (Abbott et al., 2000)
- ✓ The number and the professional expertise of the Audit Committee are not directly related to the reduction misstated income (Abbott, et al., 2000)
- ✓ Reduced number of members, the low percentage of independence, a few meetings of the Audit Committee are potentiates of fraud at the company level (Beasley et al., 2000)

Craven and Wallace (2001) consider that an effective audit committee should focus on improving performance and competitiveness of entity. Also, Wathne and Heide's (2000) consider that the effectiveness of an audit committee is based tracking entity to maximize value for shareholders and prevent obtaining personal benefits by managers.

The practitioners suggest that audit committees are not strong enough to resolve conflicts with management. It is generally accepted that for an audit committee to be effective, a majority, if not all members should be independent (Cadbury, 1992) and should have knowledge in accounting, auditing and control (Cohen, et al. 2000, Seow & Goodwin, 2000).

2. RESEARCH METHODOLOGY

The methodology involved quantitative research methods with the purpose of classification of information, building statistical models and explain the results. For the study case we selected a sample of 25 companies listed on the stock exchange in Berlin and company annual financial reports available on their website. Based on data we calculated for each company financial indicators for 2012, which I then imported into SPSS in order to achieve empirical analysis of the impact of the Audit Committee on the performance characteristics of the entity.

To achieve that goal we have chosen a sample of 25 companies listed on the main stock index in Berlin. Thus we selected the top 25 in terms of the entity of the market value of the shares.

For each entity, we extract information on the audit committee and financial indicators to study a possible correlation between them.

The characteristics of the Audit Committee included in the analysis are:
- ✓ Number of members
- ✓ Structure of the Audit Committee
- ✓ Number of meetings
- ✓ Professional Experience
- ✓ Independence of Audit Committee

✓ Position of the Audit Committee
On that basis of these elements we formulated the six hypotheses:

H1: The number of members of the Audit Committee does not influence the performance of the entity, the alternative that the members of the Audit Committee influence the performance of the entity.

H2 : The structure of the Audit Committee does not influence the performance of the entity, the alternative that the structure influences the performance of the entity's audit committee.

H3 : The number of meetings does not affect the performance of the entity, the alternative that the number of meetings influence the performance of the entity.

H4 : The professional experience of the members of the Audit Committee does not influence the performance of the entity, the alternative that the level of experience influences the performance of the entity.

H5 : The independence of the Audit Committee does not influence the performance of the entity, the alternative audit committee independence affects the entity's performance.

H6 : Position Audit Committee within the entity does not influence its performance with an alternative that has an influence on the entity's performance

3. THE STUDY RESULTS

Thus, by analyzing all the variables in a regression we obtained the following results:

Table 1. ANOVA statistical test - dependent variable ROA
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.020	5	.005	1.792	.163[b]
	Resiudal	.038	19	.003		
	Total	.056	24			

Source: Author's projection with SPSS

    a. *Dependent Variable ROA*
    b. *Predicators:(Constant), Independence, Structure , Nr_meetings , Prof_ Exp , Nr_members*

Analyzing the Sig (from Table ANOVA) corresponding to this regression, we notice that it is greater than 0.1, then the linear relationship between variables is not considered significant. Therefore, the general form of the model is not appropriate and we have to eliminate some variables. By analyzing the Correlations table will eliminate variables whose significance exceeds the permissible Sig: Structure, Nr_meetings, Prof_ Exp and Position.

Table 2. Correlations between variables - dependent variable ROA
Correlations

		ROA	Nr_ members	Structure	Nr_ meetings	Prof_ Exp	Indepen- dence	Position
Pearson Correlation	ROA	1.000	-.297	.230	-.297	-.096	.441	
	Nr_members	-.297	1.000	-.198	.331	.026	-.396	
	Structure	.230	-.198	1.000	-.296	-.193	.028	
	Nr_meetings	-.297	.331	-.296	1.000	.075	-.163	
	Prof_ Exp	-.096	.026	-.193	.075	1.000	.420	
	Independence	.441	-.396	-.028	-.163	.420	1.000	
	Position							1.000
Sig.(1-tailed)	ROA		.076	.137	.135	.324	.014	.000
	Nr_members	.076		.172	.053	.451	.025	.000
	Structure	.137	.172		.075	.177	.447	.000
	Nr_meetings	.135	.053	.075		.360	.216	.000
	Prof_ Exp	.324	.451	.177	.360		.020	.000
	Independence	.014	.025	.447	.216	.020		.000
	Position	.000	.000	.000	.000	.000	.000	

Source: Author's projection with SPSS

Conclusively, we have accepted hypothesis H2, H3, H4 and H6 respectively the fact that these factors do not influence the dependent variable of ROA.

By building a regression with the remaining variables we obtain the following results:

Table 3. ANOVA statistical test - dependent variable ROA
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.012	2	.007	2.980	.072[b]
	Resiudal	.044	22	.003		
	Total	.056	24			

Source: Author's projection with SPSS
    a. *Dependent Variable ROA*
    b. *Predicators: (Constant), Independence, Nr_members*

The final regression formula is:

$$ROA = \alpha 0 + \alpha 1 Nr\_members + \alpha 5 Independencea$$

The value of F, 2980, has tested the global significance of the independent variables. Sig value of the ANOVA model is 0.072, which is less than the chosen significance threshold of 0.1. Therefore the linear relationship between the variables analyzed is significant. Following our analysis we can say that we reject the hypothesis

H1, H5, and therefore we accept their alternatives, namely that Nr_members Independence of Audit Committee and members influence ROA (performance entity).

From Table Descriptive Statistics we estimate that, in average, the companies selected have four members of the Audit Committee and the percentage of independence is 25.66%.

Table 4. The descriptive statistics - dependent variable ROA
Descriptive Statistics

	Mean	Std.Deviation	N
ROA	.06104	.048378	25
Nr_members	4.32	1.108	25
Independence	.25664	.163272	25

Source: Author's projection with SPSS

From the Table of Correlations by Pearson's coefficient analysis we observed that the members of the Audit Committee Independence is directly correlated with ROA, suggesting that an increase of the number of independent members on the committee will determine an increase in the ROA and vice versa. Regarding to relationship between the members of the Audit Committee and ROA it is an indirect one. Sig-sized amount of variables considered in the model falls within the established materiality.

Table 5. Correlations between variables - dependent variable ROA
Correlations

		ROA	Nr_members	Independence
Pearson Correlation	ROA	1.000	-.297	.441
	Nr_members	-.297	1.000	-.396
	Independence	.441	-.396	1.000
Sig.(1-tailed)	ROA		.073	.014
	Nr_members	.073		.025
	Independence	.014	.025	
N	ROA	25	25	25
	Nr_members	25	25	25
	Independence	25	25	25

Source: Author's projection with SPSS

The Summary shows the linear regression correlation coefficient R, the coefficient of determination R2, standard error, and Durbin-Watson.

The value of R indicates whether there is or not a correlation between the dependent variable (ROA) variables Independence (Nr_members and Independence). This indicator can range between -1 and 1. In this case, it resulted in a value of 0.462. Independence variables of this regression explained variance in the proportion of 21.30% ROA, as indicating the value of R2. Therefore we consider that there are low correlation between ROA and Independence variables. With Durbin-Watson test check if residues are Independence or not. Analyzing the Durbin-Watson statistic obtained, DW = 2.050, we see that is greater than the upper limit of theoretical statistics DW =

1.864 (for a threshold of 0.1 and N = 25) and we can say that the residues are not correlated.

Table 6. Model Summary - dependent variable ROA
Model Summary[b]

Model	R	R Square	Ajusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.462[a]	.213	.142	.044821	.213	2.980	2	22	.072	2.050

Source: Author's projection with SPSS
   a. *Predictors: (Constant), Independencea, Nr_members*
   b. *Dependent Variable: ROA*

Table 7. Coefficients situation - dependent variable ROA
Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90.0% Confidence Interval of B		Correlations		
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part
1 (Constant)	.060	.048		1.240	.228	-.023	.142			
Nr_members	-.007	.009	-.147	-.715	.428	-.022	.009	-.297	-.151	-.135
Independencea	.114	.061	.383	1.861	.076	.009	.218	.441	.369	.352

Source: Author's projection with SPSS
   a. *Dependent Variable ROA*

The Coefficients table contains information on the coefficients:
column B - coefficient,
Std. Error - standard error of the coefficient (standard deviation random distribution coefficient),
Beta - standardized coefficient (shown with one standard deviation change ROA if Independence variables change one standard deviation),
t - statistic test of significance of the coefficient,
Sig. - Critical probability test.

Therefore, a coefficient is significant (non-zero in the regression equation) where Sig <0.1. In our case the most significant coefficient is found for the variable Independence, resulting in that the degree of independence of Audit Committee members influence the utmost ROA. From coefficients table result the linear regression:

$$ROA= 0,060-0,006*Nr\_members +0,114* Independence$$

Applying the same methodology as in the above case, we will analyze the influence of the Audit Committee on ROE.

Sig's value of this regression is higher than materiality determined, it is not representative. Therefore, we eliminate variables whose sig exceeds permissible level of significance (Prof_ Exp, Independence and position) and we accept hypotheses H4, H5 and H6.

Table 8. Correlations between variables - dependent variable ROE
Correlations

		ROE	Nr_ members	Structure	Nr_ meetings	Prof_ Exp	Indepen-dence	Position
Pearson Correlation	ROE	1.000	-.323	.377	-.372	-.132	.194	
	Nr_members	-.323	1.000	-.198	.331	.026	-.396	
	Structure	.377	-.198	1.000	-.296	-.193	.028	
	Nr_meetings	-.372	.331	-.296	1.000	.075	-.163	
	Prof_ Exp	-.132	.026	-.193	.075	1.000	.420	
	Independence	.194	-.396	-.028	-.163	.420	1.000	
	Position							1.000
Sig.(1-tailed)	ROA		.058	.032	.033	.265	.176	.000
	Nr_members	.058		.172	.053	.451	.025	.000
	Structure	.032	.172		.075	.177	.447	.000
	Nr_meetings	.033	.053	.075		.360	.216	.000
	Prof_ Exp	.265	.451	.177	.360		.020	.000
	Independence	.176	.025	.447	.216	.020		.000
	Position	.000	.000	.000	.000	.000	.000	

Source: Author's projection with SPSS

Table 9. ANOVA statistical test - dependent variable ROE
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	5	.000	1.387	.273[b]
	Resiudal	.000	19	.000		
	Total	.000	24			

Source: Author's projection with SPSS
     a.   *Dependent Variable ROE*
     b.   *Predicators:(Constant), Independence, Structure , Nr_meetings , Prof_ Exp , Nr_members*

Building a regression with the remaining variables we obtain the following results:

Table 10. ANOVA statistical test - dependent variable ROE
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	3	.000	2.327	.104[b]
	Resiudal	.000	21	.000		
	Total	.000	24			

Source: Author's projection with SPSS
     a.   *Dependent Variable ROA*
     b.   *Predicators:(Constant), Independence, Structure , Nr_members*

Because the Sig model (0.104) exceeds materiality especially Nr_members we remove the variable (because it has the highest value of Sig's).

Thus we accept the hypothesis H1, that the number of members of the Audit Committee does not influence the performance of the entity represented by ROE.

Form of the regression model becomes:

$$ROE=\alpha 0+\alpha 2 \text{ Structure } +\alpha 3 \text{ Nr\_meetings}$$

Table 11. ANOVA statistical test - dependent variable ROE
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	2	.000	3.039	.068[b]
	Resiudal	.000	22	.000		
	Total	.000	24			

Source: Author's projection with SPSS
a. *Dependent Variable ROE*
b. *Predicators:(Constant), Nr_meetings , Structure*

From the table we can appreciate that Statistics Descriptive average Audit Committee analyzed a structure composed 67.60% of non-executive directors and an average of four meetings per year.

Table 12. Descriptive Statistics - dependent variable ROE
Descriptive Statistics

	Mean	Std.Deviation	N
ROE	.00312	.003609	25
Structure	.67604	.191537	25
Fec_sedinte	4.36	1.150	25

Source: Author's projection with SPSS

From the table of Correlations by Pearson's coefficient analysis we observed that the structure of the Audit Committee is directly correlated to ROE, suggesting that an increase of non-executive members of the Committee will determine an increase in the ROE, and vice versa. Regarding to relationship between the frequency of meetings of the Audit Committee and ROE this is an indirect one. Sig-sized amount of variables considered in the model falls within the established materiality.

In the Model Summary we study the value of R2, which indicates that only 21.6% of the variance is explained by variables ROE Independence of this regression. I therefore consider that between ROE and Independence variables are low correlation.

The information related to coefficients can be found in the table below. In our case, the frequency of meetings of the Audit Committee utmost influence ROE. From the table of coefficients can write the linear regression:

$$ROA= 0,002+0,006*Structure -0,001*Nr\_meetings$$

Table 13. Model Summary - dependent variable ROE
Model Summary[b]

Model	R	R Square	Ajusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.465[a]	.216	.145	.003337	.216	3.039	2	22	.068	1.599

Source: Author's projection with SPSS
  a. *Predictors: (Constant), Nr_meetings , Structure*
  b. *Dependent Variable: ROE*

Table 14. Situation coefficients - dependent variable ROE
Coefficients [a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90.0% Confidence Interval of B		Correlations		
	B	Std.Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part
1 (Constant)	.003	.005		549	.594	-.005	.010			
Structure	.007	.005	.292	1.480	.153	-.001	.012	.377	.301	.279
Nr_meetings	-.001	.001	-.285	-1.445	.163	.003	.000	.372	-.294	-.273

Source: Author's projection with SPSS
  a. *Dependent Variable ROE*

4. CONCLUSIONS

Both during the crisis and post-crisis period, it has been demonstrated the importance of effective audit committee. The interaction of the Audit Committee with other functions of the entity and external factors are significant. In the profitability indicators, we identified correlations between the number of members, Structure, Independence and number of meetings of the members of the Audit Committee.

In conclusion, the Audit Committee's contribution to the efficiency and effectiveness of company is indisputable, as long as the basic principle in its organization (the members of the Audit Committee, adequate experience in financial accounting and auditing, Audit Committee members, structure represented by percentage of non-executive). The Audit Committee represents the interests of shareholders and ensures that activities related to financial reporting, internal control and audit (internal and external) are done according to their interests.

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ECONOMIC GROWTH AT REGIONAL LEVEL AND INNOVATION: IS THERE ANY LINK?

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ABSTRACT*: The role of innovation on growth has been analysed to some extent and has been relying mostly on research findings undertaken in developed countries. The aim of this paper is to analyse whether innovation has any role at regional level for potentially explaining the variations in growth among regions, particularly in developing countries. The paper draws upon previous work and to undertake the research, data available from the Enterprise Survey was used to test the potential impact of innovation on economic growth at regional level. The results showed that innovation affects growth using a sample for Romania. This study can constitute the basis for understanding the concept of innovation in relation to regional economic growth and further research in Romania and beyond.*

KEYWORDS: *economic development; regional growth; innovation; regional innovation system.*

JEL CLASSIFICATION: *O47, R58.*

1. INTRODUCTION

Differences across regions within countries are often greater than differences between countries, and little attention was paid to regional development compared to national growth priorities. Regions should promote their own growth by mobilizing local assets and resources so as to capitalize on their specific competitive advantages, rather than depending on national transfers and subsidies to help them grow. Traditional policies based only on infrastructure or schooling/education are not sufficient for this task and a more comprehensive policy is needed, one integrating these two policies in a coordinated agenda across levels of government and which foster business development and innovation. The role of innovation at regional level for potentially explaining the variations in growth among regions in Romania needs

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further research. In this paper we would like to check whether innovation positively affects growth just as endogenous theory suggests.

2. LITERATURE REVIEW

According to the neoclassical theory, the growth has been seen as being determined by the accumulation of physical and human capital, while according to the endogenous growth, this has been seen as a process linked to the features of the place, as it is the case for innovation, knowledge and human capital. The neoclassical theories rely on capital accumulation, as in the case of Solow (1956) and Swan (1956) and technology has been seen as exogenous (Barro, 1997) and therefore not included in models. Technology has been brought into the models via the including R&D theories, as in the case of Romer (1990), Barro and Sala-i-Martin (1995). All these theories state that economic growth can be explained via the stock of physical capital, human capital and innovation. While much more attention has been given to their analysis at national level, the regional and local dimension does not have to be neglected. In the case of innovation, the interaction of economic agents and the exchange of ideas require social capital.

According to the neoclassical theories, growth in the long term is based on the continuous technological progress in the form of new goods, markets or processes (Aghion and Howitt, 1998) and it can be mathematically expressed as a function of capital accumulation under the assumption of perfect competition and diminishing returns (Solow, 1956; Swan, 1956). The R&D theories were introduced and imperfect competition was factored into the model (Romer, 1990).

An innovation system consists of elements and relationships which interact in the production phase, dissemination and use of new knowledge. This knowledge is exploited by the practice, including commercial use. Thus, the knowledge created, disseminated and used are not always in the form of commercial products or services, but may have practical and social effects. More specifically knowledge may take the form of ideas and concepts, new skills or competencies, and organizational or technological advances.

An innovation system is a dynamic social system and a central activity in the system, learning regional innovation system (RIS) is a normative and descriptive approach that aims to capture how the technological development takes place in a territory. The approach has been considered in several studies, emphasizing the importance of regions as economic and technological modes of organization and the effect on policies and measures to increase the innovative capacity of all types of regions.

It is generally accepted that the innovative performance of regions is improved when firms are encouraged to be innovative best by interacting with various support organizations and companies within their region. In this respect, the institutional characteristics of the region, transmission infrastructure and knowledge transfer system, as well as strategies and performance of individual firms can constitute the basic conditions and stimuli in promoting innovation activities.

However, the variety of regional innovation systems of definitions creates confusion and problems of empirical validation studies making it difficult for researchers and policy makers from what should be a regional system of innovation. Approach suffers from the absence of a conceptual base unit through a universal model, or even smaller, there may be to conduct research and policy.

Emphasizing a localized learning and the existence of interdependence is not sufficient simply to understand the scale of a regional innovation system can work study. Place more emphasis on the landscape of local institutions without a satisfactory outcome which institutions are or how they interact in different systems at different scales, or different levels of inter-relationship.

Current research on RIS has many shortcomings. The theoretical base is not well developed and many things which were written in this regard lack clarity, it is necessary to accurately assess and research firm conclusions on policy. It is not appropriate to define RIS as all those factors which influence the innovation process. Such definitions are not operational. For this reason, need more and better research on RIS in order to formulate guidelines for regional innovation policies, in particular small and medium-sized regions.

Buesa (2010) studied the main factors for regional innovation in Europe using a knowledge production function which combines regression with factorial analysis.

Drivera (2008) analyzed the role of micro and macroeconomic factors in the innovation process by using a database on innovation across British regions in over 1990-2006. In addition to confirming that the impact of the classic factors which explain the decline in innovation in the 1990's, the study evidenced that there is relation between innovation and the importance of human capital.

3. SOME METHODOLOGICAL ASPECTS

Following the literature review, we will briefly mention some key methodological elements that will be used in conducting the research. We intend to use the concepts presented in previous section and apply them to the regional growth and innovation. The study aims to analyze the key determinants of regional growth, the length of time needed for these factors to generate growth, and the most successful combination of factors leads to several suggestions for effective regional policies. Particular emphasis will be on innovation and research and development (R&D). We estimate that investments in R&D have a positive effect on patent activity in all categories, as do R&D expenditures by businesses, the public sector, higher-education institutions and the private non-profit sector.

In order to analyze regional innovation, we propose the use of a linear model inspired from the models used by the OECD for the regional growth analysis where we test the potential impact of several variables on regional economic growth in Romania - previous studies have shown a link between R & D and trademarks as well as a link between them and growth, since investment is higher in R & D, greater innovation capacity and growth - this would be tested using Eurostat, Enterprise Surveys and Romanian National Institute for Statistics for 2006-2009, as data is available for

Romania. Variables like education, infrastructure, employment, patenting investments in R&D, are considered.

For conducting the research, we selected the main determinants of regional growth in the relevant theories (neoclassical and endogenous growth, and more recently the new economic geography). Models not only include variables related to traditional theories of neo -classical growth, but also endogenous determinants. One of the most important neo -classical models is convergence. The implication is that the convergence of the poorer regions that are more steady state would tend to grow faster and therefore converge. One of the ways in which economic growth models attempt to test this hypothesis is by including in the equation the initial levels of income. A negative sign of the estimated coefficient, therefore, would indicate that lagging regions catch up with other regions and convergence occurs. Conversely, a positive signal would be higher rates of growth in rich regions and, therefore, the phenomenon of divergence would occur.

The main difficulties were related to the data collection needed to identify appropriate indicators for measuring certain complex phenomena as innovation is. In addition to the convergence hypothesis, neo -classical growth theory relies heavily on capital, the main determinant of economic growth. The lack of regional data prevents the use of a measure of physical capital such as private investment or gross fixed capital formation. However, road infrastructure indicator is used as a proxy for physical capital. Endogenous growth theory emphasizes the role of human capital and R & D as a source of unlimited growth. However, the lack of regional data limits the ability to capture the qualitative nature of the effects of human capital.

Technological change is represented in the model by using input and output indicators for innovation. For input indicators, a measure of research and development expenses is used while for output indicators, the patenting activity is captured. The proposed model includes variables for labor market measures of agglomeration economies and geographical measures (distance from markets and accessibility to markets) as proxies for transport costs.

4. RESULTS

The results showed that innovation affects growth as endogenous growth theory suggests. However, this positive relationship between innovation and economic growth is revealed using patents as measurement unit, and not total expenditure on R&D. Although initially this may seem puzzling, it refers to the innovation process itself. R&D spending is actually one of many inputs used in production process innovation. Patenting is only one possible outcome and patents often end up not being used by industry, they are often more a result of a larger process. R&D expenses should be related to patent, not directly from economic growth, so this indirect relationship with economic growth could explain these results. This indirect relationship is supported by the results of the model 11, when R&D expenditure by source of funding are considered (Table 1, 2).

The first five models aim to check the impact of infrastructure, education, employment on regional growth. Infrastructure by itself does not seem to have a

significant impact (very small only) but it becomes significant when it is put in conjunction with education.

Although infrastructure was included as a proxy for physical capital, based on this measure has two limitations. First, the highways are just part of the infrastructure (public capital) and other investments with direct impact on productive activities - either by allowing them or reducing costs - such as energy, telecommunications, railways and airports are not accounted for. Second, public investment, however, private capital stocks are not considered because data is not available for this sector regionally. Thus it is not surprising that results are not significant on their own.

Table 1. Results (Model 1-5)

	Model 1	Model 2	Model 3	Model 4	Model 5
Const	0.0257	0.0009	0.1342	0.1463	0.1485
	(2.5)**	(0.1)	(10.67)**	(8.9)**	(9.1)**
Y*initial*	-0.0004	0.001	-0.011	-0.0082	-0.0087
	(-0.4)	(0.8)	(-8.2)**	(-5.9) **	(-5.3) **
Infr	-	0.005	-	0.008	0.011
		(0.7)		(1.2)	(1.6)
EducPrim	-	-	-0.008	-0.021	-0.02
			(-8.9)**	(-10.7) **	(-10.9) **
EducTert			0.006	0.002	0.008
			(7.4)**	(9.04) **	(8.3) **
Empl					-0.03
					(-2.4)**
Patent					
R&DTotal					
R&Dpriv					
R&Dguv					
R&Dinsteduc					
AglAg					
AglMan					
AglInt					
Accessmarket					
Distmarket					
R	0.001	0.0087	0.284	0.306	0.354
R adjusted	-0.0019	0.0017	0.2812	0.284	0.342
F	0.7	1.43	38.73 **	29.44 **	26.39 **
N	382	346	305	293	293

The level of education has an influence on the economic growth (measured through tertiary education has a positive effect while measured through primary

education it is negatively influencing growth). This is what it was expected as the highly educated people are likely to generate innovative ideas.

Table 2. Preliminary results (Model 6-11)

	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
Const	0.1967	0.197	0.29	0.282	0.116	-0.011
	(7.1)**	(4.8)**	(6.1)**	(9.7)**	(1.2)	(-0.2)
Y*initial*	-0.017	-0.023	-0.04	-0.042	-0.03	-0.003
	(-5.11) **	(-4.05) **	(-5.8) **	(-8.06) **	(-4.8) **	(-1.05)
Infr	0.012	0.018	0.0111	0.015	0.0162	0.027
	(1.98)*	(2.44)*	(1.3)	(2.3)	(1.5)	(3.3.)**
EducPrim	0.0027	-0.003	-0.006	-0.0063	-0.008	-
	(-3.8) **	(-4.1) **	(-4.9) **	(-5.2) **	(-5.95) **	
EducTert	-	-	0.007	0.008	0.0098	0.005
			(5.8) **	(-5.9) **	(7.5) **	(4.7) **
Empl						
Patent	0.0018					
	(2.6)**					
R&DTotal		0.001	-0.0005		-0.0003	
		(0.8)	(-0.4)		(-0.34)	
R&Dpriv						-0.003
						(-2.4) **
R&Dguv						-0.0036
						(-2.8) **
R&Dinsteduc						-0.005
						(-4.95) **
AglAg			-0.0018	-0.0006	-0.0023	
			(-2.07) *	(-1.05)	(-1.02)	
AglMan			-0.0033	-0.006	-0.0013	
			(-2.97) **	(-3.95) **	(-0.9)	
AglInt			-0.004	-0.0036	-0.0017	0.0016
			(-2.17) *	(-3.05) **	(-0.85)	(0.99)
Accessmarket			0.00016	0.0008		0.003
			(0.5)	(1.5)		(2.3)*
Distmarket					0.0425	
					(3.85) **	
R	0.148	0.1364	0.4552	0.4589	0.5298	0.4011
R adjusted	0.133	0.126	0.425	0.426	0.498	0.384
F	10.35 **	7.45 **	15.36 **	18.32 **	16.45 **	11.4 **
N	274	231	217	282	217	196

Regions with insufficient human capital will not increase while those with high levels of endogenous elements will reap the benefits of growth. It is also important to note that the employment rate did not significantly affect growth, although of course, affects the levels of income per capita. Results for employment may reflect convergence mechanics. Regions with lower employment rates do not fully exploit their labor resources and, therefore, are located far from the ideal situation of production possibilities curve.

Patents (model 6) seem to have a small but significant impact on growth when education and infrastructure indicators are included. Total expenditure with R&D does not seem to have a significant impact but when this is broken down by categories, this becomes significant and the coefficient is negative. Other variables such as those related to agglomeration, distance and accessibility to market are included.

5. CONCLUSION

The paper brought into discussion the role of innovation in the context of economic growth and regional development and it provided a short review of the literature in this sense. This is the basis for an extensive research on the role of innovation in regional growth. R & D is a determinant of growth indirectly through its impact on patenting activity. The preliminary results showed that economic growth depends on endogenous factors like infrastructure, education, innovation.

Investments in R & D have an effect on patent activity in all categories considered, costs to businesses, public sector, higher education institutions and private non-profit sector, and when the education and infrastructure related variables are included.

However, innovation is a longer-term process. When measured by number of patent applications, seems to have a positive influence on regional development only after some years. Nevertheless, more research needs to be undertaken by making the distinction between the product and process innovation and to allow for a longer timeframe being subject to analysis in order to make the results and conclusions stronger and more relevant.

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THE FISCAL COUNCIL ANALYSIS ON THE BUDGET FISCAL STRATEGY IN ROMANIA DURING 2013-2016

ROXANA ISPAS [*]

ABSTRACT: *This paper presents an analysis done by the Fiscal Council, upon the request of the Ministry of Finance, on the State Budget Law for 2013, the report regarding macroeconomic situation in 2013, the draft law of state social insurance budget for 2013 and its afferent explanatory memorandum as well as on the budget fiscal strategy for the period 2014-2016.*

KEY WORDS: *Fiscal Council, strategy, deficit, GDP, budget aggregates, external financing.*

JEL CLASSIFICATION: *E62, F65, H32, H25.*

1. INTRODUCTION

Documents required by the Fiscal Council for elaboration of the analysis refers to the Report on macroeconomic situation in 2013 and its projection for the period 2013-2016, respectively the updated version of BFS 2013-2015 and the package of amendments to the Tax Code which came into effect since the 1st of February 2013.

The legislative procedure must comply with the principle of transparency enshrined in Law n. 69/2010, under which "the government and local authorities are required to make public and maintain in debate for a reasonable time all the necessary information enabling the evaluation of fiscal and budgetary policy's implementation, their results and the state of public central and local finances".

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2. ROLE OF FISCAL COUNCIL

Under the Fiscal Responsibility Law no. 69/2010, article 40, paragraph (2), letter d), the Fiscal Council has also as task "the analysis and drafting of opinions and recommendations, both prior Government approval and before submission to Parliament on the annual budget laws." Thus, given its mandate in accordance with Law no. 69/2010, the Fiscal Council issued the following opinions and recommendations on the draft budget for 2013:

1. Consolidated General Budget for 2013 (and therefore medium-term budgetary projection) is based on a macroeconomic evolution scenario significantly more unfavourable compared to the one taken into account in developing the fiscal strategy 2013-2015 in the form adopted by the Government (June 2012) .

2. According to the latest macroeconomic projections, economic growth in 2013 is estimated to be only 1, 6% in real terms, compared with a growth forecast of 3, 1 % that was used in developing the strategy. Moreover, the nominal GDP for 2013 relevant for determining the share of budgetary aggregates in GDP is substantially revised down due to both statistical review for nominal GDP in 2011 (-21, 9 billion lei, or -3, 8 %) and economic advance lower than expected during 2012 (updated projection has shown an increase of only 0, 2 %, compared with a forecast of 1, 7% envisaged in developing the Budget Fiscal Strategy 2013-2015 adopted by the Government).

Moreover, the projection of economic growth in 2013 is lower compared even with the most recent assessment of the European Commission in November 2012, which was of 2, 2%. Updated projections for economic growth are below potential GDP growth rates for both 2012 and 2013 (measured by the latest European Commission forecast at 2, 1% and 2, 4%), which implies an expansion of output deficit in the economy and hence a worsening of the cyclical component of the budget balance.

This means that reducing the deficit to 2, 3% of GDP at the end of 2012 involved a structural adjustment effort higher than the one initially considered and maintaining the structural adjustment proposed in 2013, in line with the commitment of achieving the medium-term objective of a structural deficit of 1% of GDP in 2014, resulted, at the same time, in an actual higher deficit.

Fiscal Council described as realistic the macroeconomic scenario considered in the elaboration of budget, assessing the balance of risks to be relatively equilibrated.

On the one hand, amid persistent sovereign debt crisis, major uncertainties still remain regarding economic dynamics in the Euro zone, which implies the existence of adverse risks to the materialization of the targeted economic growth, being possible certain evolutions worse than those anticipated in the case of external demand or any escalation of risk aversion, which would adversely affect the availability and cost of external financing.

On the other hand, the so far good performance of Romania in terms of adjusting budgetary imbalance and the relatively low level of debt compared to the countries from Euro zone and Central and Eastern Europe is expected to have a favourable effect on investors' perception, which might be enforced by further

structural reforms and an expected output from the excessive deficit procedure during the current year.

3. FISCAL POLICY REVISION

The significant revision of the macroeconomic framework implies that the Fiscal Budget Strategy for the period 2013-2015 adopted by the Government in June 2012 is no longer important. Moreover, that form of the fiscal budget strategy and the law related to the approval of fiscal indicators specified in the budget framework did not follow throughout the legislative process (the latter only passed in the Senate) and, from the strictly legal point of view, the installation of a new government means it is not constrained by the Strategy. Although the Government has developed an updated version of the budget fiscal strategy, it should pass through the full legislative process of approval prior budgeting for the following year, thus being able to anchor fiscal policy parameters on medium term and to allow assessment of the compliance with the tax rules stipulated by Law n. 69/2010.

Draft budget for 2013 foresees a deficit target of 13, 394 billion lei, i.e. 2, 15% of GDP, which is larger by 1, 7 billion (or 0, 35 pp of GDP, of which 0, 1pp. are due to revision of nominal GDP) compared to the limit proposed by the government following the adoption in June 2012 of the Budget Fiscal Strategy 2013-2015.

Upward revision of the deficit target reflects, on the one hand, the worsening of economic growth perspectives in 2013, but also the partial accommodation of some additional expenditure due to acceptance by the Government in December 2012 of flat-rate corrections (valued at 3, 11 billion lei), proposed by the European Commission in order to prevent disengagement of some reimbursable funds from the 2007-2013 allocation for those operational programs in which, as consequence of the audits made, major weaknesses in procurement procedures were found.

Fiscal Council considers that the proposed target is consistent with the structural adjustment line (according to the ESA95 level of deficit) which is needed to achieve in 2014 the medium-term target of 1% structural deficit (which would ensure compliance with the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union ratified in June 2012).

The total revenues of general consolidated budget are estimated to be at a level of 209, 285 billion lei (33, 6% of GDP), higher by 15, 586 billion lei (+8, 05%) compared to the preliminary execution level at the end of 2012, a significant portion of the increase in revenues being attributable to the projected increase in inputs of post-accession reimbursable grants (3, 08 billion lei, i.e. 37%).

Projected revenues include an exceptional income component (one-off) valued at 3, 16 billion lei, coming from the rest of the 2, 1 billion lei gained by lending the frequency bands to mobile operators (910 million lei have already been paid in 2012), and implementing a new scheme of chain extinguishing of overdue obligations to the state budget (with a 1 billion lei impact on revenue and expenditure).

In addition, beyond announced fiscal policy measures (oil and tobacco excise indexation according to the calendar published, increase of the CAS share paid by

employees transferred to pillar II of pension) the draft budget includes a package of measures on revenues with a future impact estimated at 2, 98 billion lei.

Revenue projection for 2013 appears to be realistic and well founded, being in line with the expected developments of relevant macroeconomic bases and the impact of discretionary measures (which also appears as properly assessed).

Consolidated general state expenditures are valued at 222, 68 billion lei (35, 7% of GDP), up by 15, 3 billion (or 0, 3 pp of GDP) compared to the level recorded at the end of last year according to preliminary execution.

But for the inputs associated to financial assistance from the EU and other donors (funds after accession and pre-accession funds and other donations), the increase of expenditures is lower than nominal GDP and they decrease (compared with 2012 adjusted value) by 0,2 percentage points of GDP (from 34,9% of GDP to 34,7% of GDP). Therefore, dynamics of government expenditures respects the spirit of tax rule stated by article 6, letter. d) of Law n. 69/2010, that "the annual growth rate of total expenditure of the general government budget will be kept under annual growth rate of nominal GDP projected for the budget year, until the preliminary sold of general government budget has recorded CAS in the year preceding the year for which the budget draft is elaborated."

Beyond the correction rate applicable to operational programs, the level of budgetary spending accommodates 0, 9 billion lei corresponding to the tranche of 10% of enforceable titles afferent to wage obligations related to certain categories of public sector employees (at the level of staff expense) and almost 3, 5 billion lei in expenditure on goods and services meant for the implementation of the EU directive on combating late payment in commercial transactions.

Since both those already mentioned expenditures were already charged in the execution in accrual system of the corresponding ESA95, this should contribute to a significant balancing of cash deficits and ESA 95 in 2013, which is likely to lead to an even higher adjustment at the latter' level in comparison with its counterpart cash, sufficient in terms of structural adjustment necessary step.

Due to lower than expected revenues in 2013, flat tax could increase in 2014. The flat tax increase would be necessary if the IMF and European Council do not accept for 2014 a higher budget deficit from EU co-financing funds, so to allow the increase of salaries and pensions, especially after nine months earnings well below the program set in early 2013.

After the first 9 months of 2013, revenues were approximately six billion lei under the estimation made at the beginning of year, due to lower than expected performance in the banking system, resulting from changes in tax legislation and a weaker collection of taxes that could be explained by the reorganization of NAFA and loss of profits estimated by NBR.

However, the authorities have a program for next year which assumes no tax increases, if the European Commission will accept a budget amendment for the last quarter that incorporates an economic growth of 2.2% this year and the investment clause will be applied for 2014.

The European Commission is currently discussing the introduction of rules to allow the exceeding of the budget deficit targets with the sums allocated to co-

investment programs supported by EU funds for states found in difficult conditions without jeopardizing the level of 3% of GDP deficit.

In 2013 the economic growth is based mainly on exports, which reflects negatively on the state budget because signifies VAT refunds.

A solution for higher receivables in 2014 would be the domestic aggregate growth from both public investment, including EU programs, and private sector consumption, following the completion of the budgetary rectification.

For 2014, before determining if fiscal measures are needed, the evaluation starts from the basic variables, namely economic growth, inflation and deficit, so as not to jeopardize framing in the deficit threshold of 3% of GDP.

An increase of the flat tax, currently at 16%, and a reduction of VAT, which is now 24% are foreshadowed for fiscal year 2014. One version was that they should reach the same level (20 or 22%).

Unification of flat tax with VAT at 22% would allow even a reduction of CAS and the scenario with 20% flat tax and 22% VAT would cover only pensions and salaries, which involve a budgetary effort of 3 billion lei.

Compared with the budget rectified in July of 2013, execution in September has brought down revenues (excluding EU funds) by 2.5 billion, after 3.5 milliard lei were cut at the ratification.

Of the minus 2.5 billion lei gathered for the last two months, almost 40% represents incomes unrealized from the NBR profit tax, estimated at around 1 billion lei that was not realized.

However, the Ministry of Finance was significantly below the deficit agreed with the IMF for the end of September 2013, meaning 9, 1 billion lei.

4. FISCAL, FINANCIAL AND LEGAL MEASURES

The main measures taken for fiscal consolidation:

• Increasing the efficiency of the tax system refers to the process of harmonization of national legislation with Community law by transposition into national law of the Directives adopted at European level in the field of VAT and excise duties, developing the strategy for the new tax regime in the oil and natural gas domain for the period 2015-2024, transposition into national law of Directives that have been adopted by the European Commission in the field of excise duties, within the terms laid down in those directives, for improving tax legislation in relation to escapist phenomena in order to counter them, increasing revenues by broadening the tax base.

• Continuation of structural reforms through comprehensive reforms in the health sector: development of a strategic plan, which sets out the main objectives of reform and deadlines; defining the basic service package which will be financed from public funds within the limits of available funds; shifting health care delivery from hospital system to outpatient one and the primary care system; re-evaluation of financing system of hospitals; review of national health programs; the introduction of co-payment took place on the 1st of April 2013 , the minimum co-payment is 5 lei and the maximum is 10 lei. Co-payment will be charged by each

hospital, based on the approval of the Board, once, at discharge. By this mechanism, the unjustified availability of medical services is reduced and there is a more accurate control of the consumption of medical services in the hospital. There are limited as well bogus admissions that could be resolved inpatient or outpatient day.

Comprehensive reform of the transport and energy sectors is a crucial element of the economic program of growth and increase of investments. The corporate governance law provides for the appointment of board and professional managers in state enterprises that are under the process of monitoring and remain in majority in state's property. Selection of board members and managers is made solely on the basis of lists of candidates drawn up by independent firms employed to support this process.

The role of structural reforms is to restore confidence and stabilize the economic and financial situation, and they are the starting point for a sustainable economic recovery, generating jobs, leading to the transformation of the economy in the medium term.

Another objective is to strengthen budget discipline by paying the arrears of the state budget, local authorities and state enterprises and prevent formation of new arrears.

By the preventive stand-by agreement signed with international financial organisms, Romania has committed to gradually reduce and then totally eliminate the arrears recorded in central and local government, commitment to be respected as this agreement is the essential condition for strengthening the improved perception of foreign investors on the national economy and finally repositioning public finances on strong fundamentals.

To have the time necessary to complete the proposed corrective measures, a two months extension of the program has been requested till the end of May 2013. Measures taken in 2013 to reduce the arrears were taken by the mean of:

1. The Law on State Budget for 2013, no.5/2013 provided that the amounts included in the budgets of the ministries, as transfers from the state budget to local budgets, are allocated with priority to territorial-administrative units / subdivisions that have recorded arrears as result of failing to fulfil contracts concluded with them, according to law.

2. Government Emergency Ordinance no.3/2013 regulating measures to reduce arrears in the economy, other financial measures, and modification of legislation envisaged that authorized credit officers of the local budgets of territorial-administrative units / subdivisions, who record arrears on January 31, 2013 from providers of goods, services and works, are obliged to reduce their volume with at least 85 %, by 31 March 2013. To achieve this measure, the possibility was created for the administrative - territorial units / divisions to contract from the Ministry of Finance, until March 29, 2013, loans from privatization payments recorded in the General Account of Treasury within the limit of 500 million, with a maximum repayment term of five years and an interest rate at the level of the monetary policy interest rate applied by the National Bank of Romania of 5, 25% per year. Debt limit for these loans is a maximum of 70 %, calculated in accordance with article

63, paragraph 4 of the Law on Local Public Finances no.273/2006, amended and supplemented.

3. Through Government Emergency Ordinance no.12/2013 regarding certain financial - tax measures and extension of deadlines, the possibility was given to county councils to allocate to territorial-administrative units / subdivisions that recorded arrears sums able to settle those, from the amount afferent to the percentage 20% deducted from the 18.5% income tax and amounts deducted from the tax added value, in order to balance local budgets.

4. The Minister of Public Finance Order no.241/2013 on empowering the managerial staff of county and Bucharest public finance offices to carry out checks on arrears recorded by territorial-administrative units / subdivisions, as amended, has approved the checks on correct highlighting the arrears in the accounts of territorial-administrative units / subdivisions, at the 31st of January 2013.

5. Law no.72/2013 on the measures to combat late payment in the executions of obligations resulting from contracts between professionals and between them and the contracting authorities, published in the Official Gazette of Romania, Part I, no. 182, dated 02.04.2013, was adopted in order to transpose EU Directive nr.7/2011 on combating late payments in commercial activity and it is applied to all contracts concluded after the entry into force (3 days from publication in the Gazette Romanian Official Journal).

Measures that must be taken into consideration by public institutions in applying the law:

• Institutions that have, under the law, regulatory powers must review, where applicable, secondary rules containing provisions contrary to Directive (payment terms greater than those specified above, verification procedures of the compliance of goods that go beyond the 30 days, etc.);

• Contracts (including framework contracts), to be completed by contracting authorities after the entry into force of the transposing legislation cannot contain clauses contrary to the Directive (e.g. payment terms greater than 60 days). If the new contract does not stipulate payment terms, public institutions must ensure payment within the statutory 30 days.

Table 1. Total expenditures and investment expenditures included in CGB during 2012-2016

	2012 Execution	**2013 Proposals**	**2014 Estimates**	**2015 Estimates**	**2016 Estimates**
Total Expenditures in CGB (mil. lei)	207.922,00	222.679,00	235.986,00	247.212,00	260.610,00
% of GDP	35,4	35,7	35,7	35,5	35,5
Investment Expenditures in CGB (mil. lei)	35.085,00	36.954,00	43.161,00	47.811,00	55.961,00
% of Total Expenditures	16,8	16,6	18,3	19,3	21,5

Public institutions must ensure that there is budgetary allocation for execution of the obligations to be incurred; in the event that they exceed budget allocations, fault for payment defaults will exclusive belong to public institution responsible for payment.

Increasing the efficiency of budget allocations through the public investments reform refers to the orientation of substantial funds to co-finance European projects and priority funding, from their own resources, of those investments that have high performance and can be completed in an average time horizon (3-5 years).

5. CONCLUSIONS

The economic model of development, from financial and budgetary perspective, will be focused on public investment, those investments designed to support infrastructure, agriculture and rural development, energy and advanced technology. A new approach to financing investment will be considered, different from the years 2010-2011, as well as a limit for funding from the state budget and an orientation on those projects funded primarily from European programs with reimbursable funds for which an audit and a multiplication perspective of how to invest public money exist. It is necessary to elaborate a new framework for the public-private partnership, appreciating the highly positive economic role that a more dynamic public sector could play by promoting the development of infrastructure programs able to attract significant private funding. The advantage of this solution is relieving pressure on the state budget (especially in the context of a fiscal area which is pre-determined by the applicable grant agreements and the effects of economic crisis), as far as the related complexities and risks are managed in an informed, transparent and substantiated manner.

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POSSIBILITIES FOR USING THE EFFECTS METHOD IN MINING PROJECTS ASSESSMENT

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ABSTRACT: *Some distinctive essential aspects, characterizing most mining projects - the high level of investment effort, the major impact upon turning to good account of a significant part of the national wealth (the useful mineral deposits), the extremely limited character of the state's available resources (the only one to finance such projects) - have transferred the problem of their financial evaluation from a microeconomic level to a macroeconomic one. A macroeconomic assessment supposes an identification and quantification of all effects taken by two fundamental alternatives - "with" or "without" a project, at a social and economical scale. On this assertion there could be determined the added value corresponding to each way, the alternative having the highest added value will be considered feasible.*

KEY WORDS: *mining projects, macroeconomic assessment, effects method.*

JEL CLASSIFICATION: *D24*

1. INTRODUCTION

Analysis of mining projects from an economic perspective (Ask the company operating underground or day), which are highlighted various deposits of useful minerals, highlights some key features specific to them, namely:
- large volume of capital investments;
- long-lasting recovery of amounts invested;
- losses by securing significant capital due to relatively long periods (sometimes up to 10 years) to achieve;
- low rates (or no) of profit;
- high-intensity use of inputs "capital";
- high value of the investment-specific.

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All this gives the mining sector projects individuality in relation to other development projects in the economy. However, the extent to which such projects are promoted and supported, and how to achieve them have a powerful impact on an important component of national wealth: the reserves of useful minerals.

All the peculiarities previously submitted and current economic and financial situation of mining enterprises in Romania (actually mining industry as a whole) problem transferring necessarily require assessment of mining projects of national importance in macroeconomic microeconomic level.

Financial and economic feasibility of such projects should not and can not be assessed only on the basis of specific indicators microeconomic level, but also requires consideration of macroeconomic aggregates sizes .

Only so can be highlighted effects induced by these projects in the national economy, reflected effects of flows of goods, services and money arising from mining branch and other branches of the economy and between branch mining and state budgets.

2. INFLUENCE FACTORS OF ECONOMIC EFFICIENCY

Economic efficiency is a highly complex synthetic indicator, which is influenced by many factors. These factors can be classified according to several criteria, as shown below.

A. Criterion of how the factors acting. In relation to this criterion are distinguished two types of factors, namely:

a) direct-acting factors: level training and workforce training; quality fixed capital used in production; structure of capital used in production; degree of workability and quality of natural resources attracted in the economic cycle; methods of management, organization and production scheduling directly used in practice; the technical progress; the quality of products; a certain market position; the organization of ancillary activities within the company.

b) indirect-acting factors: the modernization of business - units in related industries; quality raw materials; technical performance of equipment made by supplying branches; quality of education at the national level; structure of demand for products and services in the market; reorientation demands of society; ensuring a certain degree of civilization and comfort of the people.

B. Criterion of factors character. In relation to this criterion are distinguished four categories of factors, namely:

a) technical and organizational factors (related to technical and organizational measures regarding the introduction of technical progress and improvement of the methods of organizing production and labor): type production technologies used;

- the degree of mechanization and automation of production processes; management system used; existing skill level labor and skill level required by the technologies used; labor discipline; the use of working time; efficiency equipment; productivity; consumption norms; utilities required.

b) economic factors (related to material, human and financial resources of the company): types of materials used; specific consumption of materials; labor

consumption; production costs; product selling prices; position in the market; how to provide sources of funding; cost of borrowed capital.

c) social-political factors (connected directly to the nature of the relations of production and the economic and financial policy of the state): social situation of the area in which the enterprise is located; relations-union employers; union-types of claims; existence of certain rules at sector or branch of activity; subsidizing production; existence of certain strategies on branch.

d) natural factors (related to particular conditions): the geographical area where the enterprise is located; topography and climate conditions; location of the company in relation to residential areas; main ways of transport and utility networks; the industrial development of the area.

C. Criterion of factors inclusion. In relation to this criterion are distinguished two types of factors, namely:

a) general factors (acting in any field), presented in the previous criteria;

b) specific factors (which falls in the category without exception, almost all the natural factors which are of particular importance in mining branch): type deposit; location of the deposit in the earth's crust; deposit form; depth from the surface; volume (tonnage) reserves; characteristics substance minerals; geo-mechanical characteristics and physico-chemical properties of the surrounding rocks; geo-mechanics rock-coverings; tectonic deposit; existence of gas in the reservoir; existence of water reservoirs; deposit hydrogeology; contents in useful components; cooking options; opening and operating methods can be applied; technical labor safety rules need to be respected.

3. PARTICULARITIES OF THE ECONOMICAL EFFICIENCY IN MINING BRANCH

The production of branch mining is conducted in both units for minerals extraction and preparation units. The relationships that are formed between inputs material, financial and human in production in this sector compared to the different manufacturing industries.

The branch operation mineral resources deficiencies in the labor relations shows specificity means that labor and work is in constant motion while the work object (rock or deposit of useful minerals) is fixed. Continuous movement of labor aims both handling and supervision of machines, equipment and installations working and traveling from one job to another.

Another feature of the production process mining branch is the fact that always work requires knowledge of the subject prior execution of geological and topographical research subsoil and deposit works generating additional costs.

Continuous shifting of jobs in underground work conditions characterized by varying pressures permanent mining of gas fumes, flood water and rocks surrounding the reservoir characteristics and the occurrence of random events, the previously unanticipated, causes in the organizational structure mining sectors performing specific maintenance characteristics mining, insurance normal parameters of the atmosphere of jobs, insurance jobs utility, degassing layers coal, waste water, which is another feature.

Specific conditions in which the production process in mining branch generates high consumption of inputs per unit of product, particularly high consumption of labor, which is a special feature of the operation of underground minerals.

Considering the actual conditions of the production deployment in branch mining can highlight one nine feature, namely the permanent concern for the proper production scheduling and the introduction of complex mining technology based on mechanization and automation of production, which of reducing human effort and providing increased security measures work.

Mining industry activity is directly related to the existence of exploitable reserves underground in certain geographical areas. This raises an important feature, namely on territorial location under severely restricted relief, climate, human settlements and industrial economic activities. Becomes necessary in solving special problems related to providing access in areas with reserves of useful minerals, development of housing construction, social and administrative colonies located in remote areas, long-distance transport of personnel to jobs, grid connections local and national transport networks for water, power and heat.

Solving such problems requires investment performance of work requiring the existence of adequate financial funds. Appears as a new feature of the production mining branch namely that it involves carrying out mining capital expenditure objectives with a particular structure, which is directly influenced by the specific territorial location of mines.

Toward the above, exploitation of coal presents particularities with even more. By its scope, coal mining branch provides both the necessary industrial coal consumption (energy branch, the steel industry, etc.) and social consumption of the population. Viewed from the share of coal in the national energy balance, coal mining can be considered complex strategic branch of the national economy. Being strategically important industry, its activities should be continued, even if sometimes caused by coal mining costs are very high and cannot be covered by the selling price. This raises the need to subsidize coal production, which is another characteristic of the production process in this sector.

The production of coal mining branch aims extraction directly from nature reserves of coal, causing more significant changes in the natural environment, some irreversible, which is actually another feature.

In this context, human influence on the environment caused by coal mining activities and non-coal must consider two main issues, namely: socio-economic effectiveness of introducing national and international economic circuit of useful mineral reserves however, is a national or international wealth exhausted, that assessment of the effects of branch activity on the natural coal in designing and implementing solutions to protect natural and remove the effects of environmental pollution when it was damaged. How to solve these two problems cause a certain strategy to develop the mining sector as a whole.

Ensemble technical and technological features above constitute, economic, particularly economic efficiency operating branch reserves of useful mineral substances.

4. USING THE EFFECTS METHOD IN MINING PROJECTS ASSESSMENT

Effects method was originally designed for developing countries. It appeared, however, that you can apply them even in economically developed countries (eg France, starting in 1970).

In times of crisis, even in developed countries, there was a significant under-utilization of various categories of labor (unemployment), under-utilization of production capacity and a significant dependence on foreign trade (but not in the sense that, given globalization, trade flows have surpassed national borders, making a reality of the global economy).

It is quite obvious that Romania, categorized developing country, and who are in a period of transition from centralized economy to free market economy is characterized acute mentioned: unemployment, underutilization of capacity and dependence on foreign trade.

Therefore, evaluation of mining projects of national importance (projects to continue operating through modernization, reconstruction and development or new development projects) will not be able to bypass the method effects.

The method involves the effects of four phases:
- Overview of the project;
- Analyze the financial return of the project;
- A study of economic evaluation is to compare two alternatives to satisfy domestic demand same: Alternative "with project" and alternative "without project";
- Drawing conclusions on the evaluation of the project after effects method.
- Each of these phases will be given below;
- Overview of the project must be carried out in technical and economic terms.

The technical aspect is considered: the conditions of ore reserves of useful mineral substances, quality, opportunities for expansion of reserves required opening mining, mining methods, mining technologies, techniques of preparation.

The economic aspect is reflected in the specification of the following: capital expenditure required and the timing of their annual operating expenses and maintenance, annual gross revenues from the sale of mining production, the economic life of the project.

Special attention should be paid to the structure and keeping operating costs to be properly identified destinations monetary flows posed.

Annual gross revenues are estimated taking into account the quality of the output produced and mineral commodities market.

In analyzing the financial return of the project will be considered important alternative substance minerals.

Will be considered by the project, the domestic market will be provided with a mineral raw material of the same quality and the same price as in the use of imports.

Also, for future mining company (performed by the project), will be considered to overhead costs and payments department, they are treated as internal transfers from enterprise branch.

Fundamental indicator for assessing the financial feasibility of the project is the result of gross operating rate, calculated as a ratio between annual gross operating

result and the investment required for the project. It can be also established internal rate of return of the project and the term (discounted) payback.

Economic evaluation of the project is in a process developed over five phases:

- precise definition of equivalent statements in terms of satisfying domestic demand that production be a done project (alternative "with project") or not done (alternative "without project");
- alternative analysis "with project " in terms of induced expenditures, to conduct this analysis it is necessary to have economic information on both the project itself (structure costs, capital expenditures reflected in the structure and the operation and maintenance), and the entire economic system it would integrate (picture input or input- output between branches);
- analysis on the same terms, the alternative "no project"
- comparing alternative "to project" the alternative "no project" to reflect the net effects of the project on the national economy;
- presentation as indicators of the effects that the project will induce the economy (on this basis will be assessed interest that the project poses to the national economy).

The analysis of the two alternatives, "with project" and "without project" involves, first, an identification of the main activities that generate costs in each of them.

There is then a disaggregation of the total amount of these expenses to reveal how much of their value lies consumption from domestic production and imports as returns.

Because it has a picture showing the structure of intermediate consumption, consumption of domestic production are, in turn, analyzed as: how much was their contribution to the achievement of domestic and import as represented.

In this way it can be revealed eventually, the indicator will be the basis on which the project compared the two alternatives, represented by the "added value".

A comparison also take into consideration the overall, for each alternative in part, the effects on:

- income populations and their distribution in the country, due to the wages paid to employees;
- the state budget and state social insurance budget through fees paid and any payment of their tasks (eg, unemployment benefits if one of the versions, the "no project" requires dismissal of staff and not hiring unemployed already existing);
- employment in economic sectors upstream and downstream of mining branch;
- the creation of additional regional income;
- volume and dynamics of investments in mining branch and other branches;
- production of other branches;
- foreign trade, balance of payments and foreign exchange reserves in the country.

Applying the effect ends with the conclusions that should be highlighted superiority in relation to the possibilities and needs of the national economy of one of the two alternatives, reflected in a synthetic indicator which can be either value added rate (calculated as the ratio annual percentage of the value added and the total investment) or additional value (calculated as the difference between the annual added value of the two alternatives, "with project" and "without project").

5. CONCLUSIONS

Diversity calculations that the method entails effects would only reflect the diversity of objectives and existing restrictions.

This diversity can however be structured around two main poles:

- o pole "national economy", where they will be retrieved global economic calculation and partial calculations of various aspects relating to national objectives and restrictions (economic growth, balanced budget, unemployment/jobs, increase the general welfare);
- o pole "enterprise", where they will be found financial calculations of return, taking into account the financial stability necessary restriction reflecting the company.

On these calculations, we have to remember two things.

From the outset, it should be clear that there is no a priori reason leading to the need to achieve results consistent with their performance. It is obvious that these calculations are based on different rationales: the first is based on reasoning "plan", with its restrictions and objectives, and the other, on the undertaking reasoning 'market'. Any inconsistency between the two types of calculations would only reflect on the project, the contradiction between the two logics: a "plan" and "market".

No synthetic computing aims, ex ante, to reduce this contradiction is not possible. One such attempt will only mask the contradiction and not to eliminate it. But the method is precisely this role, highlight the contradiction in the economic evaluation stage, ie to assess the economic policy adopted (tax, customs, credit, grant, etc). Capable of conducting two types of calculations to results comparable.

The second aspect is that the assessment calculations "national economy" is likely to be reduced, ex ante, to a single global economic calculation.

The diversity of these calculations would only reflect the diversity of targeted objectives and constraints encountered in the national economy when it takes into account the limited resources of the state budget allocated differently among the various branches of domestic economy.

Although extensive calculations assume a significant amount of information on the project under assessment (intermediate consumption coefficients between branches, for example), consider the use of the method in assessing the effects of mining projects of national importance is absolutely necessary, because only in this way that can be realized fair allocation of state resources, while emphasizing, for every project, it has multiple effects on: employed labor income; employment available; state resources; activities and application in various branches of the national economy; regional development of the country.

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METHODS INDICATORS EQUIVALENCE FOR ECONOMIC RESEARCH OF THE LONG-TERM CAPITAL INVESTMENT PROJECT

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ABSTRACT: *In economics, projects having an economical life more than a yearlong are considered log term investments. An economic study of these projects cannot skip over the fundamental criteria represented by the economic indicator known as the "invested capital return". The trend of merging of the most important methods for economic study of long term investment projects have led to defining four fundamental methods: the internal rate of return method; -the explicit reinvestment rate of return method; the annual value method; the present value method. We could demonstrate the equivalence of these indicators for projects that allow application of these four methods.*

KEY WORDS: *long-term capital investment projects, economic study, internal rate of return, explicite reinvestment rate of retourn, annual value, present value.*

JEL CLASSIFICATION: O16, O22

1. INTRODUCTION

A fundamental criterion for investment decisions of private companies, and public enterprises engaged in economic activity profitable, is the rate of return on invested capital (which shows as "wins" the annual monetary unit invested).

Consequently, any economic study of a project involving capital investment must be such as to include issues related to return on capital invested in the project will produce thought or you have to produce.

Projects are considered long-term capital investment, by convention, those projects that revenue streams, costs and profits are staggered current time for more than one year.

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Obviously, economic study of these projects should include issues related to return on capital invested.

The project approach to establish the fundamental economic indicator requires a mesh (often at a time of year) and scheduling of all cash flows over the entire economic life of the project.

Translated into a graphic form, the process of digitization and timing diagram takes the form of cash flow, after certain rules, are plotted all the cash flows on the project implementation and subsequent operation generates.

Using the convention of discrete placement at one year interval of arrows, at the start of the period, under axis for negative flows and at the end of period, above the axis, for positive flows, we can distinguish four models of representation of cash flows:

- the general model (figure 1): many periods with negative cash flows with different amount of money, investments in the first stage scheduled on many years, running in condition of net positive cash flow, even if some capital investments are performed;
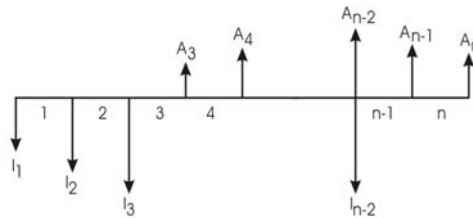
Figure 1.

- the particular model 1 (figure 2): after an initial stage which preserves the mode of repartition of money according to the general model, a first particular case appears, when the positive flows are uniform on the all period in which the assessment is preformed;
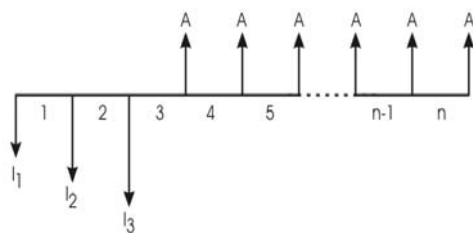
Figure 2.

- the particular model 2 (figure 3): the initial stage of investment is a particular case, the entire amount of cash is invested at the start of the first period, the present moment, and in the running stage the flows are no uniform , as in the general case;

Figure 3.

- the particular model 3 (figure 4): the initial stage is as in the particular model 2 and in the running stage as in the particular stage case 1, After a unique investment in the e actual moment, at he beginning of the firs period, many periods follow at the end of which positive flow appears, the same for all the periods.
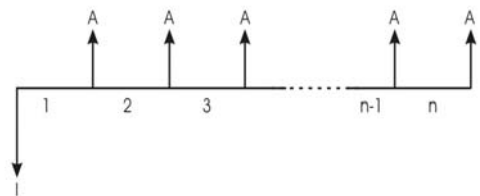
Figure 4.

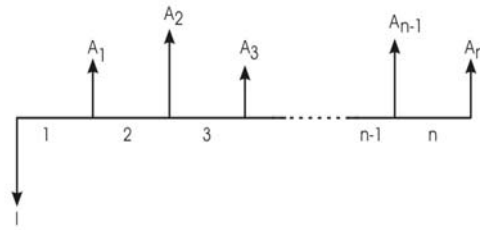In order to assess the economic efficiency of the project in which the influence of the factor time will be considered, a prediction of the scheduling of annual cash flows will be necessary, based on certain hypotheses which not are the subject of the present paper. We arrive then to associate to the project one of the models of scheduling, and related to it to adopt an appropriate method of assessment of capital return.

Economic evaluation of projects consider the following cash flows:

I_t - capital expenditures or investments (index t indicates that the investment is made at the beginning of t);

V_t - gross income in year t (actual cash inflows obtained by selling production achieved);

C_t - operating costs and maintenance in year t (actual cash outflows that do not include depreciation);

VS_n - residual salvage value at the end of the economic life of the project;

n - the economic life of the project (years).

Customizing complex decision situation is reached simplest cases.

Depending on the situation decision (embodied in some form of cash flow diagram) may apply different methods of economic study of the project.

In observance of the methods is recommended "to individual cases - simple methods; to complex cases - general methods".

Although economic study of capital investment projects using methods and especially indicators plentiful at present there is a strong tendency to unify these basic methods.

Anglo-Saxon economic literature can be found following four methods:

- internal rate of return method (return) IRR (The Internal Rate of Return);

- explicit reinvestment rate method, ERR (The Explicit Reinvestment Rate of Return);

- annual value method, AW (The Annual Worth);

- present value method, PW (The Present Worth).

The name comes from methods based indicator used to highlight the return to capital invested.

But all methods include the calculation relationships, estimates, statements and assumptions that are used to determine the basic indicator .

2. INTERNAL RATE OF RETURN METHOD (IRR)

It is the most general and most widely used in economic studies. Mathematically, the internal rate of return is the real solution of the equation

$$-\sum_{t=1}^{n} I_t (1+r)^{-(t-1)} + \sum_{t=1}^{n} (V_t - C_t)(1+r)^{-t} + \\ + VS_n (1+r)^{-n} = 0 \tag{1}$$

To decide on the feasibility of the project analyzed RIR compares with a Rate of Return Minimum Permissible (RRMP).

If the project is feasible, and if the project is feasible.

3. EXPLICIT REINVESTMENT RATE METHOD (ERR)

Method is applicable only in particular conditions, for projects with a single initial capital investment (I), followed by uniform streams of income and expenditure gross annual operating and maintenance, ie

$$V_1 = V_2 = ... = V_t = ...V_n = V \qquad \text{and}$$
$$C_1 = C_2 = ... = C_t = ... = C_n = C$$

To calculate the indicator showing the return on investment capital using the following relations

$$ERR = \frac{B}{I}100 \qquad [\%] \tag{2}$$

$$B = V_b - \left[(C_e + C_m) + D \right] \tag{3}$$

$$D = (I - VS_n) \frac{r^*}{(1 + r^*)^n - 1} \tag{4}$$

where: B - annual gross savings;

V_b - Annual gross income;

$(C_e + C_m)$ - annual operating expenses and maintenance;

D - annual depreciation of the capital invested in the project;

r^* - the rate of return to capital and reinvested recovered.

Feasibility of the project is assessed by comparing the ERR with RRMP. If the project is feasible, and if the project is feasible.

4. ANNUAL VALUE METHOD (AW)

It is a method applied in exactly the same conditions as explicit reinvestment rate method.

The annual value is determined by the relation

$$AW = V_b - \left[(C_e + C_m) + D + B^* \right] \tag{5}$$

where

$$B^* = I \frac{RRMA}{100} \tag{6}$$

represents the opportunity cost of capital.

Feasibility of the project is assessed by comparing AW with 0 (zero).

5. PRESENT VALUE METHOD (VP)

It is a general method, internal rate of return similar to the method (in fact, the first step in the application). The present value is determined by the relation

$$PW = -\sum_{t=1}^{n} I_t (1 + RRMA)^{-(t-1)} +$$

$$+ \sum_{t=1}^{n} (V_t - C_t)(1 + RRMA)^{-t} + \tag{7}$$

$$+ VS_n (1 + RRMA)^{-n}$$

Feasibility of the project is assessed by comparing PW with 0 (zero).

6. DEMONSTRATION OF EQUIVALENCE INDICATORS OF FOUR METHODS

There are projects that can be applied to any of the four basic methods of economic study, final conclusions are identical.

There are also projects that due to the particularities posed regarding the timing of annual cash flows , require the use of only certain methods.

Applying a method that does not lend itself to the type of project contemplated may lead to erroneous conclusions and make wrong decisions.

But can demonstrate equivalence of the four basic methods (in fact, their indicators) for a project whose economic study can be done using any of these.

Equivalence indicators equivalence methods materializes conclusions arrived at by applying methods (whether it seeks to establish the feasibility and prepare a "ranking " of the project) .

To demonstrate equivalence study methods economic indicators projects with long-term capital investment starts from the relationship indicator "present value".

$$PW = -\sum_{t=1}^{n} I_t (1+r)^{-(t-1)} + \sum_{t=1}^{n} (V_t - C_t)(1+r)^{-t} + VS_n (1+r)^{-n}$$

which can be rewritten as

$$PW = -I - \sum_{t=2}^{n} I_t (1+r)^{-(t-1)} + \sum_{t=1}^{n} (V_t - C_t)(1+r)^{-t} + VS_n (1+r)^{-n}$$

where I is the investment made at the beginning of the first year of the economic life of n years of the project.

It is noted that $PW = f(r)$ and is obtained by summing algebraically all the cash flows of the project, made at the present time (date), the discount rate is a minimum rate of return permisible (RRMP).

If recovery means that the project provides capital, an annual return on capital remains invested in the project (equal to r), and an annual overprofit, the present value (at a rate r) of these supraprofituri is just the present value calculated.

PW amount is therefore an indicator of the additional attractiveness of the project.

Based on this finding, which reflects the essence of the issue efficiency of investment, gradually, it can lead to other interpretations.

If the mean annual percentage gain is achieved r capital invested in the project remained fully recover invested capital.

The discount rate r used in this case is just a project internal rate of return (IRR was defined as the discount rate of the cash flows generated by the project for which the algebraic sum of their present values is equal to zero).

It means therefore that the PW position can be reached immediately IRR condition requiring $PW = 0$ and solving the equation in r thus obtained.

This proves the equivalence of two methods general fundamental indicators: internal rate of return method and present value method.

To demonstrate the equivalence of all four indicators (IRR, ERR, AW, PW) required three simplifying assumptions (generated by the conditions of application of the methods explicit reinvestment rate and annual), namely:

- rescue residual values at the end of the economic life of the project are zero, ie $VS_n = 0$

- the project requires an initial investment capital alone (the beginning of the first year), potential replacements and maintenance capacity after realizing the sinking fund account, so $I_t = 0$ where $t \in [2; n]$

- period of the project is very short, insignificant in relation to its economic life, and after commissioning, every year, there is the same gross revenue streams and operating expenses, ie

$$V_1 = V_2 = ... = V_t = ...V_n = V \quad \text{and}$$
$$C_1 = C_2 = ... = C_t = ... = C_n = C$$

so

$$B_1 = B_2 = ... = B_t = ... = B_n = B$$

where: $B = V - C$

Based on these assumptions, the relationship indicator PW takes the form

$$PW = -I + (V - C)\sum_{t=1}^{n}(1+r)^{-t}$$

But

$$\sum_{t=1}^{n}(1+r)^{-t} = \frac{(1+r)^n - 1}{r(1+r)^n} = \frac{1}{r}\left[1 - \frac{1}{(1+r)^n}\right]$$

From where

$$PW = -I + B\frac{1}{r}\left[1 - \frac{1}{(1+r)^n}\right]$$

the possible interpretations below.

a) If the limit, it means that give

$$I = B\frac{1}{r}\left[1 - \frac{1}{(1+r)^n}\right]$$

term of the right side of this equality representing annual profits amount updated economic lifetime of the project in years.

The relationship shows that the maximum investment an investor is willing to accept to achieve an annual B throughout the economic life of the project.

b). If the means to give $PW + I = B\frac{1}{r}\left[1 - \frac{1}{(1+r)^n}\right]$ relationship showing that the

"can support" for an investment greater than the sum I (determined by the project), the difference (PW) is just the present value of the project.

If the hypothesis is accepted perpetuity (theoretical, practical, years) as

$$\lim_{n\to\infty}\left[1 - \frac{1}{(1+r)^n}\right] = 1$$

for PW indicator it is obtained the following relationship

$$PW = -I + \frac{B}{r}$$

which can be interpreted as follows.

b_1). If, at the limit $PW = 0$, it means $r = IRR$, so $PW = B\frac{1}{IRR}$

This result allows us to interpret the significance of the relationship between IRR and RRMP size and highlight the links between the internal rate of return method and explicit reinvestment rate method.

1/IRR report represents a period of recovery for the period (in years) the initial investment will be recovered on account of annual profits constant B of the project.

1/RRMP report shows the number of years the initial investment would be recovered if it had done every year on capital invested, a return equal to RRMP.

If $IRR > RRMP$, $\frac{1}{IRR} < \frac{1}{RRMP}$, invested capital is recovered in a shorter

period, which means that a longer economic life of the project only works for profit, which makes their discounted amount is greater than a project same economic life, but with a rate of return equal to RRMP.

The relation $I = B \dfrac{1}{IRR}$, can be also written as $IRR = \dfrac{B}{I}$, hence the conclusion that, being thus put out the equivalence of the two fundamental indicators.

b_2.) If $PW > 0$, it means that $RRMP = r < IRR$, being available the following relation $PW + I = \dfrac{B}{r}$, from which we have $PW = \dfrac{B}{r} - I$ or $PW = \dfrac{B - rI}{r}$ and $AW = B - rI$

The relation of present value becomes $PW = \dfrac{VA}{r}$, thus showing that the present value (PV) is nothing but the sum of all updated over profits made the whole economic life of the project.

7. CONCLUSIONS

Fundamental to approximate the preliminary assessment of a project is the relationship $I = \dfrac{B}{r}$ (also known as "cap testing") which interpretation allows a three-fold, namely:

- if r has the meaning of a minimum return rate allowed, then B shows that annual profits to be made, the entire economic life of the project so as to be justified in terms of a rational investor, the total investment I;

- if the minimum allowable rate of return an investor is r, I show the maximum investment that he is willing to do to earn each year, throughout the economic life of the project, profit B.

Every year, when the entire economic life of the project, obtain a profit B, the initial investment is I, r designates the rate of return on invested capital, operational feasibility of the project is assessed by comparing the rate of return r minimum allowable .

Relationship "test cap" established under some simplifying assumptions, the interpretations that are suitable, once put out equivalent study methods economic indicators projects with long-term capital investment, but only for those projects that can be addressed by any of the four methods.

If such a multiple approach is not possible, the equivalence of the four indicators is reduced to the equivalent of only two: internal rate of return and present value, corresponding to the general economic study methods.

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HIGHLIGHTING THE ECONOMIC INFORMATION CIRCUIT IN THE TOURISM ENTITIES

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ABSTRACT: *To ensure the success of the tourism unit and how they can develop long-term adaptation skills in various sectors of the market services they are constantly monitoring and evaluating the organization's position in relation to the environment in which that organization operates. As a receiver of information, the unit must be concerned to ensure a steady flow of information about the evolution of the main field of operation. Sources of information, information flows and circuits are different from a tourism drive to another, depending on the specific activity, the management structure of the organization, the complexity of the user commands and system responses they must give.*

KEY WORDS: *tourism, economic, information, decision, management.*

JEL CLASIFICATION: *A10, M41.*

1. INTRODUCTION

Travel firms are under the direct influence of continued growth and professional responsibilities of statutory rules, modification of fees and increasing competition in services. To meet these challenges, companies call for strategic thinking and pursuing business activity as a business, not as a practice. This represents that success is often linked to tourism drive and how it is organized and effectiveness depends on how the potential tourist is operated according to his expectations. Throughout history, the economic progress of human society was based on a set of inputs, in which the information plays an important role.

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2. DISCUSSION

Tourist service providers whose main provision are accommodation and food have their own organizational structure and function integrated. The good organization of the unit depends on the success of business travel management.

General Structure of a tourism service provider is: reception service, whose duties are to meet clients, their record in hotel etc; monitoring and maintenance service floor, which provides teaching and receiving guest rooms, cleanliness of the accommodation etc.; catering service, the composition of which, as appropriate, shall be: restaurant, cafe, bar, cafeteria, disco etc.; other operational, commercial, garage, laundry etc.; commercial service; financial and accounting services; personal service.

Information within the firm are tailored to the interest already exists and they are relatively small costs but may not be current and in a form that do not facilitate their use. In the category of secondary sources of information are included: information desk inside the unit purchased from external sources, publications, government agencies. The most valuable source of information for managers of tourism establishments are in their own company. The decision to introduce information technology in the tourism unit can be viewed in terms of three stages: initiation, decision making and implementation.

In the activity of the tourism entities, the manager must obtain the necessary information at minimum cost. Streamlining business information economy requires consideration of the primary sources of information. The category of primary sources of information include: observation, experiment, survey, estimates of group.

Observation has as main advantages that the information is obtained directly and eliminates the influences, but can affect the object of observation and be inaccurate. The experiment provides control of a number of variables but must be prepared correctly and to take into account the fact that it may not be representative.

One of the most used methods for obtaining information is poll. The survey is an effective way to obtain information from large groups of people but it is necessary to consider the questionnaire design and size. The group estimates that it can obtain information from the experts and this is the only way to get certain information.

Seen as a whole, as an organism with multiple vital activities, the organization's information subsystem in the tourism and service must act and react simultaneously, putting into operation the modules composing it optimal to meet the following basic activities:
-   supply - domestic production and import - material resources in a volume based strictly and appropriately sized to ensure the continued operation of the productive activity of the organization;
-   dissolution - delivering products and their own production, according to the order that the unique management and self control emits both global program development phase and during implementation;
-   judicious use with high efficiency, all material resources, reduce consumption rules and regulations, for the full and complex own raw materials base;

- ensuring an optimum inventory of materials and products with minimal material and financial stocks mobilization and redistribution of excess demand that has become unnecessary for consumption;
- collecting, refurbishing and re-use of all resources in recyclable materials resulting from the processes of production and consumption;
- economic contracts concluded with beneficiaries / buyers of services and the agreements with suppliers and raw material resources for their own economic activity.

In all units, tourism activities are based on information, so the benefits they bring trough information technology application may be present at various levels of the organization and can have a significant influence on every level different.

Characteristic of modern organizations is the great variation of circuits and information flows, as shown and after grading according to the main criteria:

a) the direction of vehicular and organizational characteristics of the extremities, the following types of information flow:

- vertical, who is set between stations or compartments located on
different hierarchical levels which have direct relationship of subordination. This type convey information flow upward and downward, with the organizational foundation hierarchical relationships:

- horizontally is established between positions and departments on the same hierarchical level, the transfer of information foundation is horizontal and cooperative organizational or functional relationships:

- skew information flow is established between stations or compartments located on different hierarchical levels, between which there is direct relationship of subordination and information circulate upward and downward. Organizational foundation of this type of flow is the functional relations staff or control.

b) by the frequency of occurrence, information flows are:

- regular ones are repeated at intervals (quarter, month, etc.), the basis of their production depicting sequential processes work. These flows are due to cyclical execution and management processes;

- occasional or random flows with a frequency they produce with the foundation of situations, endogenous or exogenous organization.

c) after the destination information and its circuit:

- internal flows - flows of information to create business tourism facilities;

- external flows - flows of information created by the enterprise from the outside or external to the enterprise;

To ensure the success of the tourism unit and how they can develop long-term adaptation skills in various sectors of the market services they are constantly monitoring and evaluating the organization's position in relation to the environment in which that organization operates. As a receiver of information, the unit must be concerned to ensure a steady flow of information about the evolution of the main field of operation.

Sources of information, information flows and circuits are different from a tourism drive to another, depending on the specific activity, the management structure of the organization, the complexity of the user commands and system responses they

must give. Therefore, the development of programs and applications necessary for operation of the unit travel information subsystem must take account of the specific establishment, not to request unnecessary information processing and to avoid distortion or miscarriage of situations during processing of foreign intelligence module or subsystem as a whole.

Tourism units therefore appear in triple aspect: the generator of information, consumer information, and carrier information. Use of tools and technologies will generate vast changes in the organizational structure of the unit travel both vertically and horizontally. Implementation of new techniques and technologies will require special efforts to increase human resource, organizational forms and methods of adapting to the new leadership, optimal integration of personnel, requiring the active participation of all employees in achieving the goals and objectives of the tourism unit. In the context of restructuring the organization and cost control functions necessary information technology to maintain profitable unit. The majority of the tourism units managers, have difficulties in justifying the high cost of information technology, compared to other functions of the unit. Tourism management unit involves the use of information coming from both primary sources and secondary. The unit uses information from both sources to control and direct the work of its interior but also to analyze what is happening in the external economic environment. However, we can not say that the value of information from primary sources is higher than those from secondary sources or vice versa, because the structure of organizations may vary.

The main requirements for travel information systems of units may be considered as follows:

- ensuring a high degree of efficiency, of the occurrence of a phenomenon to finding him, from taking measures to respond and remedy the situation must pass a short time. The smaller the distance in time between the removal of the phenomenon and with greater efficiency, and the consequences are less negative. It is noteworthy that the lack of information on the material, the depletion of a stock, a break in supply etc. should be here soon as the decision-making body takes the necessary measures.

- providing a preventive system, knowing that the decision-making body has permanent reverse supply and deliveries of material resources inventory dynamics, pace and level of consumption. This requirement assumes that it is better to prevent than to remove the negative consequences of the emergence of a phenomenon. No matter how small the interruption of activity, it means lost capacity in the period, which will affect the beneficiaries of the products concerned, with chain, as a seismic wave, consequences to all beneficiaries of economic relations provided by the guilty.

- operational knowledge of how to use the material resources, especially the way in which the indicators of consumer rules and imposes regulations.

- encompassing a very broad area of information, practically the information system of the tourism unit shall include all working points, which will be linked to the focus. Very wide range of information takes into account the fact that the system is comprised not only by recipients and providers of information, but also factors that should contribute to the decision.

- developing an open information system, susceptible to improvements in walking, continuous adaptations to new conditions appearing in time. We have in mind the

communications nodes, etc. organization and management systems. Force can change from one period to another, depending on the needs of economic management and in this stage subsystem unit travel information must be flexible and open to adapt immediately to the new situation without interruptions and delays in the information, without delay in the transmission of the decision and reporting its realization.

- maintain the security and integrity of information desk unit. The protection of information assets of the unit and its possibilities of doing business has become particularly important. Significant loss of information or information processing capacity can irreparably damage the competitive position of the company or its financial situation.

For a tourism unit manager, user of information system in decision making, information system success will be measured not only by its technical efficiency, and also by the effectiveness in achieving the final goals of the user and the unit. Multiple connections and inverse acting on the information subsystem tourism economic units, and within them, are permanent and dynamic as shown in Figure 1. Inside the unit, the organization's work is continuous and must operate without interruption, and outside relationships with suppliers and customers is also done continuously living tissue on economic relations between the components of each subsystem, the objective necessity of continuous conduct of business.
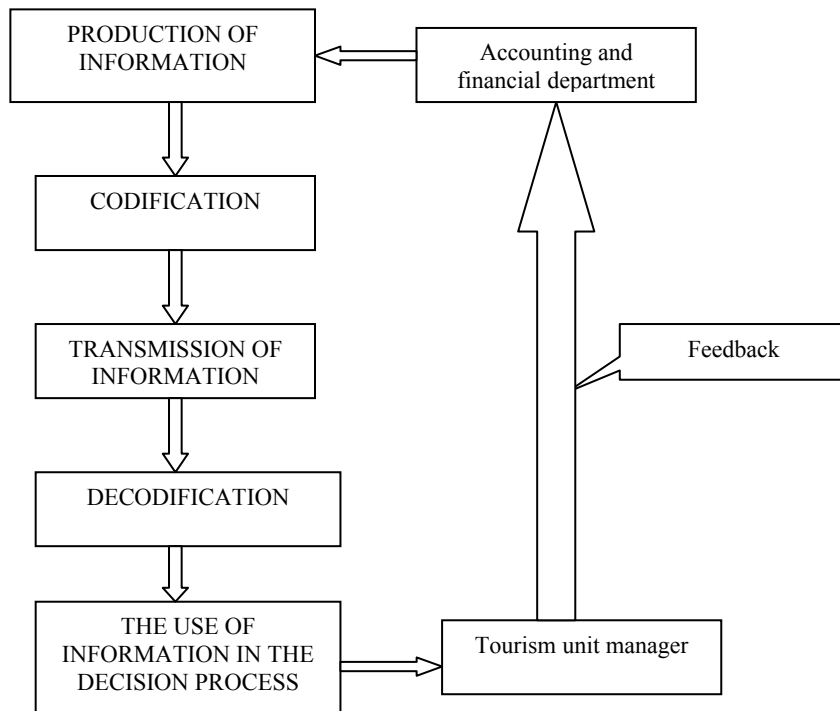
Figure 1. Linking economic information subsystem (financial - accounting) with the tourism unit management needs

The purpose of information management, implicit knowledge and information I think is to create a collective memory in the tourism unit to react faster and more accurately than the competition to the emergence of new situations. The positive consequences of the development of information systems for tourism establishments are multiple: enhancing the use of information, increase the use of electronic equipment built into the system, reducing unit cost information, etc.
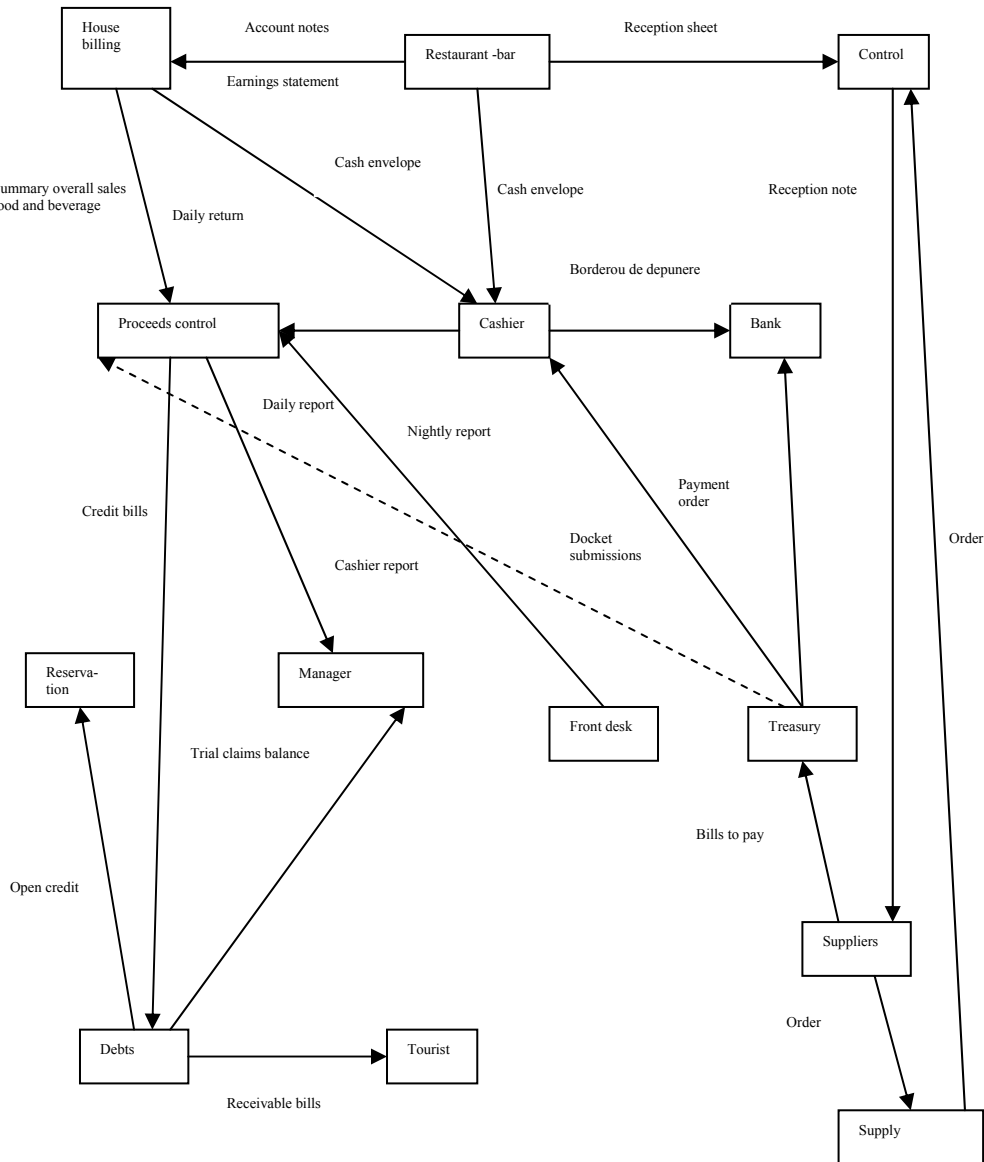
Figure 2. Detailed sheet of the information flow in the financial department of the tourism units

Tourism facilities should pay more attention to the intensive use of information provided by small tourism firms that have the same characteristics as small firms in other sectors of activity which sometimes do not have extensive resources have limited financial reserves and human expertise. Access to external data is often limited by the resources available. Small firms often offer niche products or services which distinguish the deep and standardized offered by large firms that is often limited to customer base.

Tourism activities must be analyzed bridged in the manner in which all relationships are well understood functional arising between economic processes, how they are interrelated both internally and in the external organization (Figure 2).

Performance achieved through continuous improvement and cost reduction in information processing technology has provided the necessary capacity for tourism units not only to live in a knowledge economy but to exploit this type of economy. Information systems have become a vital component of the tourism organizations. Regarding the introduction of information technology, King and Anderson were writing: "More research is needed to test the applicability of various organizations existing models in the introduction of information technology, and whether is needed to develop some new models based on the observation of the real world".

3. CONCLUSION

If an organization in tourism can to define very specific requirements for its services in resource use throughout the production process, performance can be optimized and the efficiency can be maximized.

In a multi process organization, each operating unit will have a basic set of activities that must successfully meet the customer requirements and to reach the recipient on time.

The increasing importance of the relationship between information, knowledge and information technology has encouraged the growth of interest in professional way in which tourism facilities operate.

As a result it is very important to interpret and understand how the whole unit works, how the decision is based not only on the formal side of its business but also on the informal side of its entire relational networks.

Having established the informational needs of the beneficiaries of their services, an important issue is the setting related information flows and circuits. There should be avoided very long paths that can generate some difficulties in transmission and especially the interpretation of the information. The existence of computer networks facilitates more fluent information in quantity and quality required by the various beneficiaries.

Objectives and tasks of economic activity should be expressed clearly, with continuity strategy report in order to achieve their goals. Current technological trends and development need to be assessed as short-term options and also in terms of the implications they produce on long-term development.

The goal of using information systems in business travel management business is mainly represented by the efficient activity of units in the field as a whole and in

particular also of the employees using the most suitable information products to users. Information systems are used to improve personal and professional performance of the tourism facilities. For this reason, attention should be paid to the quality and presentation of information to managers and other users as well as more precise and complete definition of the duties, powers and responsibilities that allow each employee, department or manager the widespread use of information.

In the tourism unit business, production, circulation and use of information is a conscious process, organized, which is generally structured as a system of social and economic indicators which are characterized by complex quantitative and qualitative phenomena processes that affect the drive.

The quality of the tourism unit to be a carrier of information comes from the affiliation to the economic environment that generates a set of legal relations filing and employing economic and commercial responsibilities.

The severity of changes in tourism product influence to some extent how it receives consumer acceptance, and therefore its sales volume. Consequently, the tourism unit faces a dilemma: on the one hand, in order to survive, companies must adopt these new technologies, and on the other hand they must protect existing business in the event that these emerging technologies do not enjoy successful. So what they have achieved suppliers, customers and competitors must be critically analyzed in terms of the economic implications of tourism unit strategies.

Given that trade, the volume of information is very high and there are very many genesis points so the selection, and aggregation and conjunction of data should be carried, yet down in order not to give "a clear path of movement" of large information that can not be used or is unnecessary for the authority decision.

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INSURANCE MARKET. GENERAL CONSIDERATIONS OF INSURANCES IN ROMANIA

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ABSTRACT: *Insurance is a contract made by a company or society, or by the state, to provide a guarantee for loss, damage, illness, death etc in return for regular payments. In other words it is a means by which one pays a relatively small known cost for protection against an uncertain and much larger cost. Still, this contract (insurance policy) makes it possible for the insured to cover only losses that are measurable in terms of money and caused strictly by hazardous events, independent from own doing. If no such events should happen, the benefits won't exist in a tangible, material form, but will take the shape of security against ruin. Since the insurance industry has developed more during the last decade due to the powerful players that have entered the market, the services provided by the insurance companies, and not only their products have evolved a lot in order to meet the requirements of the consumers, and to make them familiar with this type of investments. Therefore all the means of advertising became essential in this process of implementation and familiarization with this area of activity: mass-media advertising, insurance brokerage companies, the internet are all parts of this process.*

1. INTRODUCTION

Risk and uncertainty exist whenever the future is unknown. Humankind has struggled through the ages to cope with risks and uncertainties, as well as their consequences, and has achieved a modest level of success in doing so. Indeed, one could argue that humanity's struggle to manage or cope with risk is a critical theme in social, economic and political history. Individuals, families, companies, they are all faced with potentially devastating monetary losses from a variety of hazards. Your house might burn down; you may be in an auto accident; you may suffer some kind of

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injury while at work or a serious illness. If you are a firm owner, a fire, an earthquake, a robbery they could all result in serious losses that might very easily lead to bankruptcy. An insurance program is a system of protection against huge monetary losses due to such hazards. A number of people agree to pay certain amounts (premiums) periodically in return for the guarantee that they will be compensated if they should incur a particular hazard or misfortune.

In the moment of closing the contract, the insured is asked a lot of questions which may seem to have no importance. But their role is to gather clear and exact data in order to avoid different fraud attempts. There is a risk for the insured to hide important information, such as the real value of the properties, another insurance policy for the same property or a bad health condition when signing the contract. So this type of questionnaire is a mean of protecting the companies from these types of fraud. In Romania, from the legal point of view, there is neither specific legislation for this field, nor centralized information or a database regarding this phenomenon. On our market, the policies most exposed to fraud are the ones for cars and properties. In 2010, from the total amount of paid policies, this type represented 1507 billion lei, which leads to the conclusion that in that year, the Romanian insurance market lost over 150 billion lei (PRIMM – the Magazine of Insurance" No.8/2012). An insurance company takes upon itself the risks of the insured. It analyses certain elements such as prices and risk probability and based on these studies, it establishes the **insurance premiums** (regular amounts to be paid by the insured).

As long as the losses of the insurer are less than the revenues from premiums and own investments, it has a profit. If losses start to overgrow revenues, the company might be forced to increase premiums in order to cover its costs. In Romania the **insurance activity** refers mainly to obtaining, mediating, negotiating, concluding insurance and re-insurance contracts; receiving insurance premiums, settling claims, recession and recovery activity; investing own funds attracted through the activity performed. The **insurer** can be either a Romanian or foreign legal person or a mutual company (being both insurer and insured). All these insurers function through **agents** who are authorized to negotiate or conclude contracts with third parties on their behalf, according to some agreed terms; these contracts contribute to the formation of the **insurance portfolio.**

Both ordinary people and companies may benefit from the different offers existing on the insurance market. Protection is available for everyone in many forms; all they have to do is choose the suitable one for your situation. In Romania there are now approximately 5 million people that **benefit from such services; almost 1 million of them have life insurance.**

2. MAIN FEATURES OF THE INSURANCE MARKET

There is a main question concerning the insurance within the economic frame: what is the essential, significant part of an insurance that makes it be different from other economic aspects? B. Csakany considers that there are three main features of the insurances: the existence of the risk, of the community of risk and of the mutuality in supporting the damages. According to other authors, the exclusive characteristics of the

insurances are the purpose and the method; the purpose- the compensation of the damages caused by natural calamities and accidents, the prevention of the damages (with the subsidiary consequence of the financing and crediting of the national economy); the method- the cover of some risks, the foundation of a risk community, all of these being materialised by creating and using the insurance fund (Popescu & Macovei).

The economic meaning of the insurance takes into account its following exclusive characteristics: a) the existence of risk; b) the existence of a community of risk; c) the creation of the insurance fund, by collecting the premiums paid by the insured persons and by using this fund according to the mutuality principle.

The insurance market has some characteristics, but the most important ones are the following: the atomicity of the participants, the fluidity of the market, the perfect mobility of the production factors, the transparency of the market and the homogeneity of the products. Such features also represent the supposed insurance market with perfect competition, with the explanation that these act in a different way according to the essential features of the participants, of the fluidity and transparency, of the mobility of the production factors and of the homogeneity of insurance products (Popescu & Macovei).

The homogeneousness of the product: Generally, the insurance is viewed by the customers as a good. The products of an insurer are considered identical or easy to substitute with the products of another insurer. On the insurance market there is marketed a wide range of products, consisting of insurances for various risks. One type of insurance can't be replaced with another. For example, the product "the insurance of motor vehicles for damages" can't be replaced neither by the product "the insurance for civil responsibility for motor vehicles" and nor by the product "life insurance". Insurance companies contract insurance for the same risks.

The transparency of the market means that all the commercial agents are perfectly informed, have a complete knowledge of the elements of the market and of the changes that may interfere with this. For a product it is enough to know its price, written down on a label or published somehow. To obtain the necessary information in order to take a decision, the interested persons have to appeal to a specialist, respectively to an insurance agent. *The atomization of the market:* A market is considered to be atomized when it gathers together such a great number of buyers and suppliers that none of the participants can influence its functioning.

The fluidity of the market appears when the buyers can independently choose their own suppliers, and the producers can independently entry or leave a specific market. The increase or the decrease of the number of insurance organisations is the result of the appearance on the market of new companies, mutual associations or other types of organisations, simultaneously with the leaving of others by liquidation, merging or change in the object of activity. Such fluctuations show that the insurance market is not a close market, but an open, changing one.

Perfect mobility of the factors of production: The nature of the activity of insurance and re-insurance for persons, goods, civil responsibility, provides a limited character to the mobility of the factors of production in this domain. Within the insurance market, the mobility of the factors of production is first of all limited to the

movement of the labour and of the capital between the few categories of insurance and re-insurance proclaimed in each country and between the different types of insurance organisations.

The restriction of the freedom to entry and to leave the insurance markets is a way to reduce the competition. There can be adopted laws that can increase the minimum capital requested to begin and to continue a certain type of insurance activity. The barriers to entry can be created by the government, probably at the request of the already existent insurers.

The demand for insurance comes from physical and juridical persons who can be insured and who want to contract different types of insurance. The demand for insurance is materialized in insurance contracts after it is confronted with the supply. It may be possible that not all the persons asking for offers from the insurance companies would contract insurance, because they don't find the desired convenience or because the suppliers don't accept the conditions of the petitioners. Finally, the size of the insurance market is expressed with the help of some indicators, like: the number of the contracts realized in a specific period, the number of active policies, the annual value of the insurance premiums, the value of the insured amounts during the specific period and the total value of the assumed commitments of the insurance companies at a moment in time.

The previous analysis involves the fact that the incitation of a person – of investing more or less – in function of his abhorrence changing given the risk cannot be a apriori predicted. If the comparative effect of change given the risk cannot be predicted for individual behaviour, not even when we have restrictions over the preferences such as the constant abhorrence given the risk, then it'll not be surprising if the effect of such changes over the equilibrium's level of expenditures as part as the games of obtaining the rent is also hard to predict (Ungureanu, et al., 2010, pp. 353-362).

The demand for insurance for persons, goods or public liability comes from natural persons who wish to contract insurance for their protection, for their families' protection and also from economic units concerned with the security of their employees in case of accidents and professional sickness. The demand for insurance of goods and public liability comes from juridical persons: all kinds of enterprises, public institutions, organizations with lucrative purpose and others interested in protecting the assets they possess against dangers and public liability to the third parties.

The demand for insurance of goods and civil responsibility has a constant increase in time. This continuous increase is remarkable as compared to the unstable demand for other goods and services. The demand for most of insurance products of the companies is relatively constant, too. For example, when the sales of a company suffer a decrease, this company can contract insurance with a reduced value, without giving up the insurance.

In Romania there is a big potential demand because of the great number of citizens, but the effective demand is reduced because of a small economic power of the population and because of its perception on the utilization of the insurance. The supply of insurance is sustained by specialized organizations, authorized to function within this field and financially capable of proceeding such an activity: commercial insurance

companies with private, mixed or state capital, mutual insurance organizations and tontines. Commercial insurance companies, no matter the property form, deal with this kind of activity according to the law, by making profits. Insurance mutual organizations proceed insurance operations for their members according to their own status of organization, based on the concept of mutuality. The purpose of the activity is to help their members and not to obtain profit. In some situations, such organizations receive subventions from the state to complete their own contributions when they can't cover all the expenses related to these contributions.

The supply for insurance can be radically and rapidly modified because of two reasons. First of all, the supply for insurance grounds more on financial capital rather than on physical capital. Financial capital, as compared to the physical capital, is very flexible. The mobility of the financial capital in insurance has been evidenced in the last years by the changes produced within the insurance market: the expansion of the Lloyd's subscribers, the increase of the number of re-insurers, especially external ones, the launching of life insurance on the insurance market of goods and civil responsibility.

A second reason that the supply of insurance can rapidly modify is that it is influenced by social factors and psychological factors. The real supply represents the value of the insurances that the insurers want to subscribe. The Romanian insurance market is a competitive market, although it hasn't reached the maturity phase, from this point of view. The supply is great only apparently, when we take into consideration the great number of insurance companies, because their financial capacity is totally insufficient to sustain the risks the potential insurants are confronted with. Another characteristic of the Romanian market is that a small number of insurance and/or re-insurance companies hold the most part of activity. Thus, 12 insurance companies held almost 98% of the total amount cashed in from the insurance premiums in 2007, 87% in 2008, 83.99% in 2009, 82.3% in 2010 and 80.14% in 2011 (XPRIMM The Bulletin of Insurance, Special Edition No.51).

The supply is concentrated on a small number of participants and products but, in the same time, there is a tendency to diversify the offer of insurance products. The companies which bring new products on the market are the ones with foreign capital, which become a serious competition for the Romanian ones.

There can be observed the fact that the relation between the suppliers and the petitioners on the insurance market can be realized in two ways:
- directly, through the personnel of the commercial insurance companies or of the mutual organizations;
- indirectly, through intermediate agents, insurance specialists, who have different names: brokers or courtiers.

The monopoly of the state in this domain is eliminated through the diversity of the types of insurance and re-insurance companies and of the insurance suppliers. The crossing to a liberalization of the property determined structural modifications related to the demand of insurance, too.

The multiplication of the economic decision centres means, as well, the multiplication of the points of generating the demand. The process of privatization through the decisional autonomy offered to the potential insured persons has a special

impact upon the level and the structure of the demand for insurance. It is understood that demand on the insurance market is determined by a series of factors, among which the most important are: the need for insurance which makes the demand to be a rational, calculated and also conditioned process; the level of disposable income, which determines the capacity of insurance of the economic and social agents and of population; the level of insurance premium, which makes the insurance to be or not attractive for a potential insured person. Proportionally with the level of income and premiums, the demand for different types of insurance can be more or less elastic.

Nowadays, the reality is that the insurance market becomes more and more important in Romania. This process of redefining the operational structures has caused a large number of effects. One can be represented by a new dimension of the market, both from the qualitative and quantitative point of view. "The Romanian insurance market underwent during the past few years both an important increase in product quality, and a great diversification of services. The presence on the market of a high number of companies, proves that the Romanian scene presents a real potential for growth and development, being in the same time one of the most attractive markets for foreign investors" (Ciurel, 2004).

The supply diversification, especially in the life insurance area, is the result of the increasing competition. The fact that many companies operating on this market are financial groups with international acknowledgement and experience represents a strong argument in favour of quality. From the quantitative point of view, the effects can be noticed even more easily. Still, even though the insurance is one of the most profitable market segments in Western European countries or US, in Romania insurance companies have great difficulties due, in the first place, to the way people view this type of activity.

Two years later, there were already 17 insurance companies, gathering between them 60 million USD of premiums, which is less than the sum received by a single company nowadays. Only one third of those companies survived, some never actually functioned, others couldn't increase their capital, and some were "swallowed" by much larger companies. After the market reform by raising the compulsory minimum social capital, the number of insurers was diminished at the end of last year, being now close to the figures from 2006-2007, this is 47 companies. In 2011 there were approximately 70 players on the Romanian insurance market. The loss was not significant, as the ones that couldn't adapt to the new conditions, had a market share of only 0.13%. We can observe a very strong concentration tendency, as the first ten insurers have about 80% of the market at present.

This happens because the foreign investors normally work with big and well-known companies or with those they use in the country of origin as well. Secondly, it is very difficult to gain a market share if you are new in the business: launching a new insurance company costs between five and ten million USD and for promotion alone, one million USD per year would be needed.

This competition concentration could have two opposite effects: on the one hand, it limits the balanced participation of all companies, which is a negative result, stopping their further development, and on the other hand, it increases the capital of the top insurers, leading to a safer environment for the insured.

3. ROMANIAN INSURANCE IN THE EUROPEAN CONTEXT

In Romania, we can say that the insurance market is at a crossroads. The results obtained last year by the Romanian insurance companies, even though they had a positive slope, weren't as impressive as to substantially modify the dynamics at the macroeconomic level. A study made by Roland Berger[1] shows that our country's insurance market is situated on one of the last positions, as compared to the other candidate countries to the European Union. Also, the results obtained by the ten candidate countries (Hungary, Poland, Check Republic, Bulgaria, Slovakia, Slovenia, Romania, the Baltic countries) are far below the results obtained by the actual members of the European Union. The states under consideration have accumulated, in terms of gross premium collected, 9.446 mil USD, of which Poland's market accounts for over 40% while Poland, the Czech Republic and Hungary share together over 72% of the market under scrutiny.

In spite of some differences, these markets share many features. For instance, the non-life market grossly prevails in each of the mentioned markets. Automobile insurance cumulatively holds the largest slice of the market, closely followed by fire and property insurance. A small number of competitors, mainly in foreign ownership, dominate the life market. In terms of gross premium collected, the main three competitors hold 75% to 90% of the life market in each of the economic systems considered, while the market share of the first five nears 82% to 97%. It is worth noting that during 2010 only 17 insurance businesses were operating in Slovenia, the regional champion in terms of gross premium spending/ inhabitant (USD 366) while 73 companies were authorized in Romania's market, where gross premium spending/ inhabitant is the next to the last (USD 1.8).

The penetration rate, one of the indicators that best reflect the importance of the insurance sector in the economy, is of 3.4% of GDP in EU and 2% in the candidate countries. In Romania, the penetration rate, which states the relation of the insurers' revenues from premiums per capita, although with an increasing trend (the equivalent of 11.8 $ in 2011 as compared to 10.6 $ in 2010), continues to stagnate at very low levels. When speaking about life insurance, the differences are even bigger -4.9% in EU and only 1% in the ten countries. Romania is one of the countries that contribute to the growth of these differences. In 2010, for example, in Romania, the insurance represented only 0.75% of GDP and the situation didn't change a lot since then. When analyzing the density of the insurance policies, Romania is again far behind the other nine countries. If Slovenia had 336$ per capita for insurance policies, Poland had 117$ and Hungary had 124$, Romania is again the last with 12.5$ per capita. This comparative study shows Poland as the only compatible country with the EU, both from the results and the legislative points of view. From 33 insurance companies in Poland, 17 have foreign majority capital. This situation can be explained by the unfavourable economic conditions, which have a negative impact on the insurance

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[1] The summarized version of the study published on www.1asig.ro under the name "The Romanian Insurance Market 2011"

market, such as the high inflation rate, the depreciation of the national currency, excessive fiscal policy, and the decrease in the population's power of purchase.

The study made by Roland Berger, draws some explicit conclusions regarding this matter:

- Gross premium collected per inhabitant is in an almost linear relationship to the gross domestic product per inhabitant. Slovenia and Romania are at the extremes of that line.
- Spending for life insurance premiums per inhabitant doesn't grow proportionally with the index of economic freedom (which shows a higher ability to save in hard currencies), and it is also in an indirect relationship with the average monthly salary (which suggests that insurance-related education has a greater influence).
- Countries where the insurance market is the most developed are clearly those in which   monetary policy and stability of prices, on one hand, and the ability to save in hard currencies, on the other hand, represent an economic reality. The leaders in this respect are the Check Republic and the Slovak Republic.

In 2010 the situation didn't change much as compared to the previous years. Romania is still on the last place in the Balkans, when we talk about insurance expense per capita. The following graph exemplifies the situation:
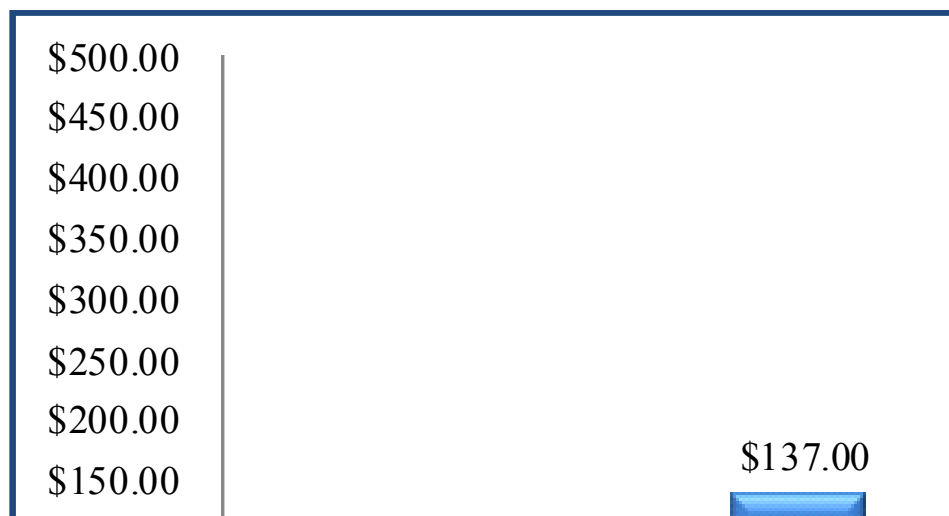
Source: The article "The Romanian Insurance Market 2011"

Figure 1. Insurance expenditures for 2010 (USD per capita)

The Romanian spends an average of 16$ per year on insurance. This is an infamous sum compared to our neighbours (Bulgaria 25$, Croatia 137$, Slovakia 177$, Slovenia 452$), but it is more than the 3$ we used to spend on insurance in 2004 for example. Nowadays, the insurance is one of the most dynamic markets on the Romanian scene.

4. THE ANALYSIS OF THE MAIN INDICATORS OF THE INSURANCE ACTIVITY

The "Report of the Insurance Activity", published by the Commission of Insurance Surveillance" thoroughly analysis each indicator of the insurance market. We have selected those we consider relevant to the purpose of our study, namely the development of the insurance sector. At the end of the year 2011, 73 insurance companies were legally registered, the only new company established last year and authorized by the Office of Surveillance of the Insurance and Reinsurance Activity being S.C. Grup As Life Insurances. During 2011, 9 companies have not cashed in any insurance premiums. The 64 companies that did cash in insurance premiums during 2011, the income resulted from the gross premiums, both for life and non-life insurances, summed up to 6738873.08 million lei, which means an 56.67% increase as compared to 2010. The inflation rate for 2011 was of 40.7% (The Statistical Yearbook-2011), which means that, in real terms, the gross amount of premiums cashed in (for direct contracts) increased with 12.06% as compared to 2010 (an increase rate smaller than the 14.33% recorded with respect to 2010).

The total income from cashed premiums was divided as follows:

- 5672287.51 million lei incomes from the direct non-life insurances, which represents an 50,52%increase as compared to 2010, and an 6,98% increase in real terms;
- 1066585.57 million lei incomes from direct life insurances, representing a 110.92% nominal increase as compared to 2010 and a 49.91% in real terms, taking into consideration the inflation rate. The percentage of GDP represented by the income from insurances also recorded an increase from 0.79% in 2010 to 0.85% in 2011.

The gross premiums cashed in for direct insurances between 2008 and 2011 (in million lei) had the following evolution:

Table 1. The evolution of income from premiums

Year	Nominal increase as compared to the previous year	Real increase as compared to the previous year
2009	85,18%	31,71%
2010	76,99%	14,33%
2011	57,67%	12,06%

Source: The report of the Commission for Insurance Surveillance for the year 2011

The following chart illustrates the evolution of the income from cashed in premiums from 2004 to 2011.
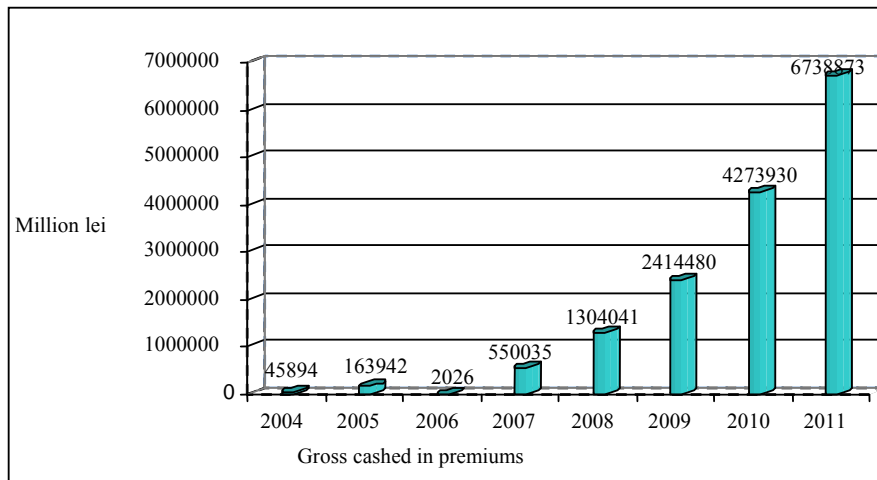
Source: The data from the Statistical Yearbook -2011

Figure 2. The evolution of the amount of cashed in premiums

General public liability insurance:

Table 2. The evolution of the general public liability insurance

Year	Nominal increase as compared to the previous year	Real increase as compared to the previous year
2009	76,96%	25,86%
2010	103,86%	31,69%
2011	63,70%	16,35%

Source: The report of the Commission for Insurance Surveillance for the year 2011

The above presented data prove that the premiums cashed in for the General Public Liability insurance have increased with 63.70% in 2011, as compared to 2010, which means a 16.35% in real terms. The companies OMNIASIG, ALLIANZ TIRIAC and ARDAF have cashed in together an amount of premiums of 195.218,6 million lei, representing 45.79% of the total amount of cashed in premiums on the market.

The damages paid in the year 2011 for the life and non life insurance contracts by the 64 active companies sum up to 2.489.789,2 million lei (of which: 2.406.352,22 mil. lei for the non life insurance contracts and 83.436,98 mil. lei for the life insurance contracts).

The evolution of the damages paid between 2008 and 2011 is depicted in table 3, while the chart illustrates the evolution of the amount of paid damages from 2004 to 2011:

The top three companies, ASIROM, OMNIASIG and ALLIANZ TIRIAC, have paid together an amount of 1378906.7 mil. lei, representing 55,38% of the total amount of damages paid last year by all the insurance companies

Table 3. The evolution of the amount of paid damages

Year	Nominal increase as compared to the previous year	Real increase as compared to the previous year
2009	46,17%	3,96%
2010	85,49%	19,82%
2011	31,32%	-6,66%

Source: The report of CSA for the year 2011

The paid damages for the non compulsory car insurances had the following evolution:

Table 4. The evolution of the amount of damages paid for non compulsory car insurances

Year	Nominal increase as compared to the previous year	Real increase as compared to the previous year
2009	58,94%	13,04%
2010	114,14%	38,33%
2011	48,57%	5,59%

Source: The report of the CSA for the year 2011

The annual increase rate of the paid damages has diminished considerably in 2011, down to 48.57%, as compared to the 114.14% in 2010, which means the increase in real terms was of only 5.59%, as compared to the 38,33% increase in 2010. Nevertheless, the damage rate was quite high for this type of insurances, of 58.55%, level close to the 58.63% recorded in 2010.

The public liability insurance or the "RCA" (*Raspundere civila auto*) is one of the few compulsory insurances in Romania, so its evolution must be considered separately. The following table presents both the nominal and the real evolution:

Table 5. The evolution of the public liability insurance

Year	Nominal increase as compared to the previous year	Real increase as compared to the previous year
2009	106,70%	47,01%
2010	66,38%	7,48%
2011	37,58%	-2,22%

Source: The report of the CSA for the year 2011

The total amount of the damages paid for the general public liability in the year 2011, increasing nominally by 37.85% and by 2.22% in real terms. As compared to 2010, one notices in 2011 a decrease in the increase rate of the paid damages (both in real and in nominal terms), evolution considered favourable.

Taking into consideration the cashed in insurance premiums and the paid damages during the year 2011, the situation presents itself as in table 6.

Some conclusions may be derived from the above presented data:

- The insurances for credits and warranties had the highest rate of paid damages, of 71,86%
- The lowest rate of paid damages was encountered in the case of life insurances, of 7,82%
- The overall rate of damages paid, for both life and non life categories, for the year 2011, decreased as compared to 2010, to 36,95%
- An increase in the rate of paid damages was noticed in the case of personal insurances, others than life insurance (10.39%), aviation insurance (26.24%) and insurance against financial loss from insured risks (11.15%).

Table 6. Rate of paid damages for different categories of insurance

No	Insurance category	Rate of paid damages %
1	a) life insurances	7,82
2	b) personal insurances, other than life insurances	23,05
3	c) non compulsory life insurances	58,55
4	d) naval and transport insurances	16,29
5	e) aviation insurances	29,26
6	f) insurance against fire and other property damages	14,95
7	g) public liability insurance	21,10
8	h) credits and warrants insurances	71,87
9	i) insurance against financial loss from insured risks	15,92
10	j) agricultural insurances	32,00
11	Compulsory public liability insurance	48,86
	TOTAL:	36,95

Source: the data from The Statistical Yearbook 2011

Table 7. The nominal evolution of the rates of increase/decrease of insurance premiums and paid damages on different types of insurances

No.	Insurance Category	Premiums (%)	Paid Damages (%)
1	a) life insurances	110,92	-30,77
2	b) personal insurances, other than life insurances	83,38	233,96
3	c) non compulsory life insurances	48,78	48,57
4	d) naval and transport insurances	53,57	-52,82
5	e) aviation insurances	33,14	1188,44
6	f) insurance against fire and other property damages	43,35	12,25
7	g) public liability insurance	63,70	37,58
8	h) credits and warrants insurances	35,99	-1,13
9	i) insurance against financial loss from insured risks	71,24	467,72
10	j) agricultural insurances	59,61	27,18
11	Compulsory public liability insurance	50,25	31,50

Source: the data from The Monthly Statistical Bulletin, July 2009

The evolution of the nominal rates of increase, in 2011 as compared to 2007, in what concerns the amount of gross cashed in premiums and paid damages, on categories of insurances, is summarized in table 7.

One immediately notices from the presented data, that the amount of commissions paid for the direct insurances has increased in 2011 with 88.08% as compared to 2010, the inflation rate determining a real increase of 33.68%.

The situation of technical reserves on all the insurance society was obtained by summarizing the data of the year 2011, taken from the Balance Sheets and the financial and statistical indicators[2]. The evolution of the total net profit and net loss recorded for the whole market was realized according to the data obtained from the annual Balance Sheets of the insurance companies[3]:

Table 8. The evolution of the profit of the insurance companies' accounts

Year	Nominal increase as compared to the previous year	Real increase as compared to the previous year
2009	92,12%	36,64%
2010	91,85%	23,94%
2011	-17,11%	-41,09%

5. CONCLUSIONS

How much, therefore, can the development of the insurance sector be in Romania? Obviously it cannot be very much higher than the rate of growth of the national economy.

How priorities changed in Romania as reform is delayed is obvious. We only add to this that at the question within the same GfK poll "For what purposes would you like to have more money available?" 46% of Romanians surveyed have answered "for food and dwelling expenses" while 36% answered "for basic households' needs and dwelling upgrade". Therefore, we can conclude, education about insurance is needed, but effects are limited.

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[2] The report for the year 2011 published by the Commission of Insurance Surveillance was realized based on the accounting information provided to the Commission by each insurance company
[3] The report for the year 2011 published by the Commission of Insurance Surveillance was realized based on the accounting information provided to the Commission by each insurance company

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THE RETIREMENT SYSTEM. FISCAL AND METHODOLOGICAL ASPECTS

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ABSTRACT: *Currently, in most countries, but particularly in European and in the more developed world, heated discussions about reforming the current pension system. To address adequately the taxation of pension incomes in our country is very important to know and how this issue is regulated in different countries, but especially the European ones in the developed world. In terms of taxation of pensions, European countries are divided into three groups: 1. European countries where pension income is not taxed: Bulgaria, Slovakia and Lithuania. 2. European countries where pension income is subject to progressive taxation: Belgium, Cyprus, Greece, Finland, France, Ireland, Luxembourg, Malta, United Kingdom, Norway (not EU member), the Netherlands and Spain. 3. European countries where pension income is taxed based flat: Austria, Estonia, Germany, Latvia, Portugal, Romania, Sweden, Slovenia and Hungary.*

KEY WORDS: *pensions, pension contributions, share, progressive taxation, the flat tax, the tax base, taxable matter, the basic salary, gross income.*

JEL CLASIFICATION: *F36, G23.*

1. PRELIMINARY SPECIFICATION

Currently, in most countries, but especially in the European discussions are heated, with the rank of priority zero on the current system of pension reform. The problem is the pension system and the European Commission's agenda for a public debate on this issue was launched on 7 July 2012. To address adequately the taxation of pension incomes in our country is very important to know and how this issue is regulated in different countries, but especially the European ones, which is the recital for which I prepared this material. Bulgaria, Lithuania and Slovakia do not tax pensions. Austria, Cyprus, Estonia, Finland, Germany, Latvia, Malta, Norway,

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Portugal, Romania, Slovenia and Sweden only taxing pension income taxable above a certain limit set by law. France, Ireland, Netherlands and Spain does not grant any exemption from taxation on small pensions, retirement income from being taxed from the first euro, some countries with particularly high rates, and 33.5% in the Netherlands.

About half of European countries fall into the category pensions taxable income and taxing work, combined with or separate them, mostly with progressive rates. The highest tax rates are between 40% and 52%, as in the Netherlands. Each State practice and some specific tax rules that change frequently, sometimes from one year to another.

In terms of taxation of pensions, European countries are divided into three groups: European countries where pension income is not taxed, Bulgaria, Slovakia and Lithuania; European countries where pension income is subject to progressive taxation: Belgium, Cyprus, Greece, Finland, France, Ireland, Luxembourg, Malta, United Kingdom, Norway (not EU member), the Netherlands and Spain; European countries where pension income is taxed based flat: Austria, Estonia, Germany, Latvia, Portugal, Romania, Sweden, Slovenia and Hungary.

In the taxation of pensions will be presented in each of these groups of countries and within countries of the Organization for Economic Cooperation and Development (OECD).

2. EUROPEAN COUNTRIES WHERE PENSION INCOME NOT TAXED

European countries that do not tax pension income are: Bulgaria, Slovakia and Lithuania.

3. EUROPEAN COUNTRIES WHERE PENSION INCOME ARE SUBJECT TO PROGRESSIVE TAXATION

European countries where pension income is subject to progressive taxation are: Belgium, Cyprus, Greece, Finland, France, Ireland, Luxembourg, Malta, United Kingdom, Norway (not EU member), the Netherlands and Spain. In these countries, pensions are considered income and taxed, in general, the same allowances and income that are taxed.

BELGIUM. In Belgium apply progressive taxation based on rates between 25% - 50%.

CYPRUS. Progressive taxation is applied in Cyprus on the following scale:

Table 1.

Tranche	Annual taxable income in retirement, Lei	Tax rate
a	0 – 19500	free
b	19501 – 28000	20%
c	28001 – 36300	25%
d	Over 36300	30%

FINLAND. Finland exempts from tax the pensions of less than 15,200 per year and for pensions of more than 15,200 per year use progressive rates ranging from 6.5% - 30.5%.

FRANCE. France applies progressive taxation based on the following scale:

Table 2.

Tranche	Annual taxable income in retirement, Lei	Tax rate
a	0 – 11720	5.5%
b	11721 – 26030	14%
c	26031 – 69783	30%
d	Over 69783	40%

GERMANY. Progressive taxation is applied in Germany. Pensions are exempt from taxation below 16,460 per year (the amount is doubled for married persons), granted the previous year

GREECE. In Greece, general rules apply progressive taxation, except for disabled veterans and their families, that the blind. Since September 2012 were introduced tax increments, the highest being 45% for income over 100,000 per year.

IRELAND. Ireland applies progressive taxation on the following scale:

Table 3.

Tranche	Annual taxable income in retirement, Lei	Tax rate
a	0 – 36400	20%
b	Over 36400	41%

LUXEMBOURG. Luxembourg applies progressive taxation based on a scale not more than 17 levels of taxation.

MALTA. Malta progressive taxation practice of taxation based on the following scale:

Table 4.

Tranche	Annual taxable income in retirement, Lei	Tax rate
a	0 – 8500	free
b	8501 – 19500	15% – 25%
c	Over 19501	35%

GREAT BRITAIN. In the United Kingdom apply progressive tax.

NORWAY (not an EU member). Pensions are subject to progressive income tax, except the minimum pension. From 2012 to apply a 15% tax on income from pensions of those who do not reside in Norway.

NETHERLANDS. Apply progressive taxation based on the following scale of taxation:

Table 5.

Tranche	Annual taxable income in retirement, Lei	Tax rate
a	0 – 17500	33.5%
b	17501 – 54776	41% – 42%
c	Over 54776	52%

SPAIN. Since 2009 was the shift from 5-4 steps depending on the progressive tax annual pension:

Table 6.

Tranche	Annual taxable income in retirement, Euro	Tax rate
a	0 – 17706	24%
b	17707 – 33006	28%
c	33007 – 53407	37%
d	Over 53007	43%

4. EUROPEAN COUNTRIES WHERE PENSION INCOME IS TAXED BASED ON FLAT

European countries where pension income is taxed based on the flat are: Austria, Estonia, Germany, Latvia, Portugal, Romania, Sweden, Slovenia and Hungary.

AUSTRIA. No withholding tax in 2008, pensions of less than 13,500 per year and in 2009, pensions of less than 15,000 Euros.

ESTONIA. For retired people, who continue to pursue his professional activities, income from pensions of less than 192 Euros a month are exempt from taxation. Retired Persons, which continues to pursue his professional activities, are exempt from income tax pensions of less than 336 Euros a month. For income exceeding these limits taxable pensions, taxation is based on a single rate.

LATVIA. Pensions granted before 1 January 1998 are not taxable. But tax is recalculated pensions granted after January 1, 1998 or greater than 2819 per year.

PORTUGAL. Pensions are not taxed under 6,000 per year, but are taxed more than 6,000 Euros.

ROMANIA. Retirement incomes of up to 1,000 lei, including, not subject to any income tax or to any social contributions. The pensions of more than 1,000 lei: a) only what exceeds 1,000 lei is subject to both the health contribution, the rate of 5.5% in 2012, and tax revenue, 16% b) income remaining after deduction calculation and contribution to health and income tax can not be less than 1,000 lei. For example, if a pension of 1,500 lei, shall be subject to tax contribution for health and only 500 lei (i.e. only what exceeds 1,000 million), not all pension of 1,500 lei.

SLOVENIA. Since 2011 pensions are not taxed less than 3051.35 per year (254.27 euro per month), but tax pensions above this limit.

SWEDEN. For people aged over 65 are not tax pensions of less than 2953 Euros a month. Otherwise income tax is applied, except for maintenance support for the elderly.

HUNGARY. Pensions are aggregated (globalizing) salary and total income is taxed.

5. TAXES AND CONTRIBUTIONS PAID BY PENSIONERS

Table 7. Average percentage of the pension

No.	Country	Taxes and contributions paid by pensioners (average percentage of the pension)		
1	Australia	0.0	2.8	10.7
2	Austria	11.1	24.7	29.7
3	Belgium	0.0	12.0	16.5
4	Canada	0.0	1.0	1.0
5	Czech Republic	0.0	0.0	0.0
6	Denmark	31.5	33.2	36.3
7	Finland	13.6	24.9	30.0
8	France	5.9	12.6	15.7
9	Germany	8.4	19.6	25.2
10	Greece	0.3	13.9	22.3
11	Hungary	0.2	11.2	23.8
12	Iceland	18.2	25.6	29.1
13	Ireland	0.0	0.0	0.0
14	Italy	24.1	24.1	24.1
15	Japan	9.7	8.0	10.7
16	Korea	0.8	1.6	2.2
17	Luxemburg	11.3	21.1	27.5
18	Mexic	0.0	0.0	0.0
19	Netherlands	17.4	25.6	31.4
20	New Zealand	17.6	17.6	17.6
21	Norway	9.8	17.3	20.1
22	Poland	14.1	17.0	18.0
23	Portugal	0.0	0.0	2.2
24	Slovak Republic	0.0	0.0	0.0
25	Spain	10.1	17.1	20.6
26	Sweden	23.8	27.9	33.3
27	Switzerland	2.6	19.6	19.2
28	Turkey	0.0	0.0	0.0
29	United Kingdom of Great Britain and Northern Ireland	0.9	2.8	3.6
30	United States of America	0.0	0.0	0.0
31	**OECD**	**7.7**	**12.7**	**15.7**

Source: models of retirement in the member countries of the Organisation for Economic Cooperation and Development (OECD). Note: The middle column shows the actual effective tax rate (%) for the average pension in each country

Average percentages of the pension in the member countries of the Organisation for Economic Cooperation and Development (OECD) are presented in table 7.

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THEORETICAL ASPECTS REGARDING PUBLIC EXPENDITURES

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ABSTRACT: *The first part of this work will treat the theoretical aspects of public expenditures. Taking the state as primary supplier of public goods, we have presented the concepts revolving around public and private goods, the theory of pure public goods, the four categories of goods and services, "club theory"etc. In the second part we analyse different concepts regarding public expenditures from an economic point of view, the subsystems of public expenditures, public versus budgetary expenditures, respectively public versus private expenditures.*

State implication in the economic and social life is present permanently in two ways: on the one hand by supplying quintessential services for the society related to national security, defence, health, education, social security, research, environmental protection, and on the other hand, by exercising its attributions as market regulator. In a market economy the state can be considered an economic entity supplying *public* goods in order to ensure a healthy functioning of the economy, and this intervention is focused on public resources being transformed into public goods of undeniable and undividable access, free of charge to the beneficiary.

I the modern age it was Adam Smith, the father of modern liberalism, who first observed the distinction between private and public goods. He demonstrated that there are "goods which even though can be of high advantage for society, they are of such nature that the profits resulted from them could never exceed the expenses of an

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individual or a group of individuals, thus making them impossible to accomplish" (Smith, 1994, p.779).

Nevertheless it was the economist Paul Samuelson who synthesized the public goods theory (Samuelson, 1954, p.387) in the fifties. Intrigued by the issue of "optimal public expenditures", he drew the line between two main goods categories: normal private consumption goods which can be shared between individuals and collective consumption goods of which every individual profits with the only condition that their individual consumption does not diminish other individual`s. Pure public goods, as defined by Samuelson are non-exclusive and non-rivalling, meaning that they are in contrast to private goods which can be purchased only if the buyer can afford to pay the market price of the respective good (McNutt, 2000, p.927). A private good is of high exclusivity because it can be used solely by the person who owns it and who paid for the value of the profits resulted from its use and rivalling characteristic consists of the fact that an extra unit of a private good will always have a supplementary marginal cost borne by the buys of the respective unit. Public goods are those goods and services for which there is no rivalry on the consumption market and which would be impossible to exclude (Stiglitz, 2000). If non-exclusiveness refers to the impossibility of excluding a consumer from the benefit right after the good is produced, its non-rivalling condition alludes to the fact that after the good is produced, an increase in the number of beneficiaries would not diminish the profit volume of those who already benefit from the goods (Moşteanu & Boloş, 2006, p.71).

Table 1. Goods and services categories

Characte-ristics	Possibility of exclusion (division possible)	Impossibility of exclusion (division impossible)
Rivalry (advised division rate CM>0)	**A – *Pure private goods*** • low exclusion costs • private companies products • distribution as per market • financed by selling them on the market Ex. Food, clothing.	**D – *Mixt collective services*** • consumed collectively but with risk of sunt supuse aglomerării • produced by companies or the public sector • distribution as per market or free of charge • financed by their market price or by taxes Ex. Human resources
Non-rivalling (division not advised: CM = 0)	**C – *Mixt collective services*** • external private goods and services • distribution as per market with tax deductions and coercive taxes • financed through selling Ex. Transport systems, tunnels, bridges, training fields	**B – *Pure collective services*** • high exclusion costs • produced by the public sector or by private companies assigned by the government • distributed freely • financed from taxation Ex. National defence, public lighting

Source: Profiroiu Alina, Hogye Mihaly, Moldovan Bogdan Andrei, Economie şi finanţe publice. Financial management, UBB Cluj-Napoca, 2011

In economy literature we find many attempts of defining a classification of goods based on economic criteria. In the table below (Table 1) we can find a classification divided in four categories of goods and services for which consumption is rivalling or non-rivalling, and exclusion possible or impossible (Profiroiu, et al., 2011):

- *Private goods and services* share the two characteristics, that of rivalry and the possibility of exclusion. Their accomplishment is not only possible but desirable from a resource allocation point of view, as the cost of production is usually greater than zero;
- *Pure public goods and services* are defined by parameters completely opposed to the above category as their consumption is non-rivalling and non-exclusive;
- *A first mixt collective services category* is emblematic of non-rivalry and the possibility of exclusion: up until the available capacity, their consumption is does not influence other individuals` but the owner can always reserve the service for those who pay the exclusion price;
- *The second mixt collective services category* has the exact opposite characteristics: those of rivalry and impossibility of exclusion.

There are few pure public goods that offer non-rivalling and non-exclusive benefits to community members and they often set aside of mixt goods, also known as impure public goods, having only one of the two properties (Cornes & Sandler, 1996). As a consequence, in certain situations, public goods can be substituted with private goods. Moreover, there are numerous authors who claim that is advised that only goods of national importance should be provided by the state, and that the rest of the goods be provided by the private sector. Private economic agents can be united and organized so that they can increase their efficiency and productivity, this being the reason why that theory is also named "the club theory" (Cismaş, 2004). This theory, initially developed by James Buchanan, one of the most prestigious theorists of modern liberalism, can be applied from supplying regional and local decentralized public goods to community projects and neighbourhood schemes (McNutt, 2000). Buchanan considered that along with private goods, you must have certain public goods and services that satisfy simultaneously all the members of a society, stressing the fact that in this public goods "business" all members of the consumer group need to take part at the contract negotiations regarding service provisioning. This clearly distinguishes public goods commerce from private goods commerce in which is involved more than one person (Popa, 2013).

The public sector contains those institutions and organizations which produce public goods and services, but is encompasses also more than that, as shown below (Miroiu, 2002):

- Institutions and organizations which are in charge of state level decision-making and its consequences;
- Consumption, investments and transfers made by the government. Consumption and investments regard resource allocation and is closely related to consumer preferences; transfers regard resource distribution mechanisms and depend on societal dominant conceptions about equity and social fairness;

- State goods production: the state owns production means and directly produces some of the goods; the state supplies certain goods (not necessarily produced by itself; this can be done via the state order mechanism); the state hires labour force and is in modern societies the largest employer.

Public expenditures concept is tightly related to that of public goods and public sector. Financing by the state of different domains, objectives and actions, which result in public goods and services satisfying public needs and serving general society interests, generates public expenditures which in fact are the consequence of the state putting in practice its functions and attributions.

The term public expenditure is used in two contexts: judicial and economic. In judicial terms, public expenditure incorporates the whole of the financial resources needed to run the public institutions. It is thus shown that public expenditures are carried out through a complex group of institutions and public entities authorised to perform payment operations in respect to public financial resources, as per legislation in force. In economic context, the term public expenditure refers to all the economic processes that ensure the distribution of the gross domestic product or financial resources so that actions and objectives of public interest at a national level can be performed.

Public expenses occur as a result of the state exercising its role of public authority and economic agent. Therefore they can be analysed starting from the two visions of public finances, the classic one of the "police state" era, meaning a state protecting its assets and its citizens against neighbour aggression, based on the „laissez-faire, laissez-passer" principle (Gherghina & Crețan, 2012) and the modern vision of the "welfare state" era, ensuring welfare for everyone, with the intervention of the state through economic procedures, especially financial-monetary, capable of influencing in a favourable manner the economic and social activities.

In the traditional public finance vision, public expenses represent the starting point of the entire economic life. These are granted much importance as the general view is that the state first spends its budget and afterwards determines the necessary income to cover the expenses. On the other hand, there is a lack of attention regarding the nature of these public expenditures and the manner in which they influence the social and economic life. The classical opinion is that establishing a structure for public expenditures is not a financial issue, but one of political choice, with an emphasis on expenditure volume and not content. The state is thus left with handling limited traditional assignments as internal order, national defence, diplomatic relationships or education. Along with these limited assignments, the state is considered a police state, and its institutions' functioning expenses are reduced to a minimum considered necessary in order to achieve a low budget government.

The determining objective in the public finance domain was limiting expenses to the minimum necessary for a normal state functioning, which should cover only the costs of services, institutions and public ventures strictly necessary to society and which cannot be supplied by the market in optimal price and quality conditions, based on the amount of the general contributions. The classical vision was that public expenditures were to be financed from income taxes and other taxes supported by the

members of the community only if they are carried out in the general interest of society (Văcărel, 2007).

The idea of a government that does not interfere with economic activities is attributed mainly to Adam Smith, but also to other thinkers who have analyzed the nature of government. Without admitting the state`s involvement in any particular interests, Smith suggests that the state needs to intervene in the economy in series of circumstances: fixing legal interest rates, post offices administration, primary compulsory instruction, organizing examinations for any liberal profession or power seat (Profiroiu, 2011). Smith considered that less a government is involved in the economic life the more it is efficient, even though he was not completely opposed to any action of the government; he advocated that the state should intervene only when "its scope is to promote general welfare". From Smith`s point of view, the state should not interfere with its citizen`s economic endeavours even though this does not mean that everything should be left to self-regulate on the market: competition loyalty should be ensured by the state (Maftei, 2006).

Highly relevant for the classic finance conception is the famous adage from Gaston Jèze, considered the father of finance studies: "There are public expenditures; the need to be covered" (Filip, 2006). He emphasized that "to set up a budget is to evaluate, enumerate and compare on a regular basis with foresight and for a future period the expenses and the incomes" (Lazăr, 2004). Therefore, the essential problem of public finance studies was finding ways to cover state expenditures which also meant ensuring a perfect functioning of public institutions.

Another advocate of the classical conception, French economist Paul Leroy Beaulieu made reference to the importance of matching public expenditures with the procurement of resources to cover them, stating that "public finance studies are in fact studies of public incomes and their usage for covering public expenditures" (Anghelache, et al., 2007).

Adolph Wagner opposed the laissez-faire doctrine, offering the state an active role in the economy. He conducted a comprehensive analysis of the public expenditures polemic, based on which he enunciated the law of public or national activities gradual increase in developed countries. Wagner`s law is based on a particular theory regarding the roles of the state, that of producer of certain goods and services and that of regulating authority for social and economic activities (Moşteanu, 2001). Wagner`s theory demonstrates that as the population density grows in urban areas, more social dimensions appear. These dimensions can be improved by adjusting social differences, determining governments to spend more per capita in urban environments. At the same time, industrialization lead to an economic boom, which in turn lead to a rise in urban population`s income and in goods and services offers, determining a diversification of public services (Inceu & Lazăr, 2000).

In the modern vision of public finances, the main focus of specialists becomes the study of those particular instruments using which the state can intervene in the economy, influencing economic mechanisms and social relations (Stănescu & Nedelescu, 2012). The nature of these expenses is therefore of greater importance. The state must first determine the income it can displace and then calculate its expenses in keeping with the economic and social effects that it can generate. For the modern state,

public finances are no longer a means of covering up its expenditures, but most of all a system for economic interventions. The research object is thus transferred from the study of mechanisms for covering public expenditures to the analysis of state intervention means through expenditures and income. Classic economists had a rather quantitative conception of public expenditures while modern economists are more focus on the qualitative approach (Drăcea, et al., 1999).

In public expenditure analysis, the main factor is the effect that a legislative decision has on social and economic life. Of the authors who have contributed significantly to creating the modern concept of public finances we can mention:

- John Maynard Keynes, who through his works addresses financial and monetary issues in the context of a demand for general economic balance, implicitly setting the basis of modern public finance concept. The Keynesistic doctrine gives much importance to the state and its financial mechanisms for influencing the evolution of society and the economy (Filip, 2006). In his view, governments should play a decisive role in establishing proper economic policies, and a decrease in demand would automatically be countered with a government intervention. In this way the government could intervene through fiscal policies, income tax mechanism, increasing public expenditures or decreasing income taxes, or through monetary policies, lowering interest rates or increasing the money supply (Maftei, 2005);
- Maurice Duverger, who pinpointed the differences between the classical and the modern public finance concepts and defined afterwards their research area as being "the science that studies the state`s activity when utilising financial mechanisms as expenditures, taxes, income taxes, budgets and monetary schemes etc.".
- James Buchanan, who also concluded that public finances study the economic activity of the government as an entity (socially-economic). He advocates that the science of public finances must contain two stages: the first stage defines what the government`s goals are and how efficient are its efforts in achieving them; the second stage defined behavioural changes of individuals in private or market economy.
- William Shultz and Lowell Harris stressing on the technical side of financial mechanisms, conclude that "the science of public finances handles the study of actions, principles, techniques and effects of establishing and spending funds by government institutions and public administrations" (Văcărel, et al., 2007). They consider public expenditures as purchasing power injections into income flows and recommend orientating and structuring public expenditures in such a way that they favour economic growth even by subsidizing private companies.

Public expenditures reflect socially-politic relations under a monetary form, between the state on the one hand and natural or legal persons on the other hand, upon distribution and usage of the state`s financial resources for accomplishing its functions. Public expenditures comprise all the expenses made through public institutions and which are covered from the state budget, the local budgets or from special funding and funding from institutions` budgets accumulated from their own incomes.
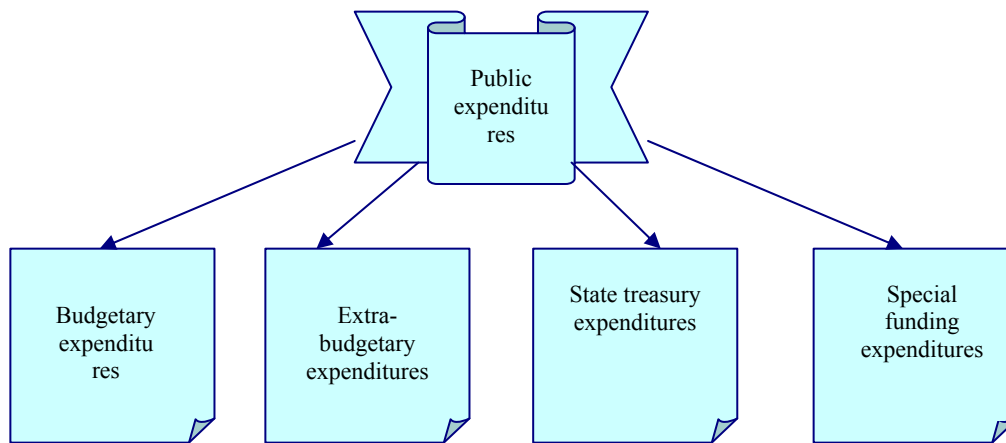
Figure 1. Public expenditure subsystems

Budgetary expenditures represent the main subsystem of public expenditures. They comprise only expenditures financed from the state budget, local budgets and state social security budget, by this meaning monetary resources managed by central or local authorities within the national public budget, but on a reduced scale. Budgetary expenses system is of greater importance as with these budgetary expenses, the Romanian state puts in practice its social and economic-financial politic. When discussing expenditures, we need to clearly distinguish the two notions of public and budgetary expenditures (table 2).

It can be said that all budgetary expenditures are public expenditures, though not all public expenses are budgetary expenditures. The great importance of public and budgetary expenditures, and the implications these have on macro-economic regulations are justified by the correlations between them. An analysis is thus imposed on a regular basis on the way these expenditures are carried out in order to emphasize the efficiency of resources allocated to certain projects, and also to identify actions to be taken so that the state budget contributes to macro-economic regulation.

These gains are justified as the budgetary practice in Romania is based on budgetary projections and restoration methods for budgetary procedures, achieved through budgetary corrections, with a reduced stress on methodology analysis in the way state`s budgetary expenditures are made, even though improving their efficiency would have a significant role in macro-economic regulation.

Extra-budgetary expenditures are those expenses financed from the resources accumulated and used directly by public institutions from their own activity, without being registered in the state budget. Expenditures made from special destination funds are destined for certain objectives or actions of public interest. They are financed from public resources accumulated as special separate funds, managed by certain ministries or state organizations. As an example, in order to complete objectives in the field of social insurances, agriculture, infrastructure management, funds are being raised for

social insurance, agriculture or infrastructure management and are being managed by their respective ministries for each specific domain needs.

Table 2. Public versus Budgetary Expenditures

Public expenditures	Budgetary expenditures
Comprising area	
- expenses financed from the state`s central administration budget; - expenses financed from the state`s local administration budget; - expenses financed from the state`s social insurance budget; - expenses financed from special destination funds; - expenses financed from extra-budgetary funds; - expenses financed from state`s treasury budget; - expenses financed from other sources than budgetary ones;	- financed from the state`s central administration budget; - financed from the state`s local administrations budget; - financed from the state`s social insurance budget; - financed from funds established by public autonomous institutions;
Payment methods	
- public expenses are carried out conditioned by available resources established outside the budget;	- budgetary expenses are conditioned by the provisions and approval of public finances law and the annual state budget law;
Approval process	
- approved by credit release authorities;	- approved by Parliament or local counsels;

Source: Moşteanu Tatiana şi colaboratorii - Finanţe publice, Editura Universitară, Bucureşti, 2008

All expenses that the state makes as a state-authority are public expenditures. All other expenditures made on basis of a contract are private expenditures of the state. In table 3 we find the distinction between public and private expenditures.

According to some economists, laws and regulations imposed by the state give way to expenditures in the private sector of the economy, these expenses being considered also public expenditures, fact which demonstrates the same faulty legislation.

The concept of public expenditures is closely linked to that of public sector, which can be regarded as a reflection of budgetary transactions, public ventures, public regulations etc. All of these components or politics are essential for issuing payments meant to cover general interest expenditures as education, health, defence, public order and national security.

Public expenditures can be defined also by their nature:
- state budget expenses distributed for central and local public administrations;
- payments made from the state social security budget for social security matters as unemployment compensation or other indemnities etc.;

- total public expenditures to which accumulate public companies expenditures.

Table 3. Public versus Private expenditures

Public expenditures	Private expenditures

- are concentrated on satisfying collective preferences (given that these preferences are common throughout the community) established upon collective options;
- finance production of public goods and services while also handling transfers for income redistribution in society;
- are made by an intermediate (state) as the beneficiaries of these public goods and services cannot create a direct link between their contribution to these expenditures (income taxes) and the profits obtained from using (consuming) these public goods and services; in other words the beneficiaries are unaware of the price paid by each one of them for having access to the use of certain public goods or services;
- their amount depends on many factors of which we mention:
  • population incline towards public goods and services consumption;
  • economic potential of the respective country;
  • ideology of parties at power;
  • population incline towards fiscal civism.
	- are concentrated on satisfying individual preferences established upon individual options;
	- finance exclusively payments made in exchange for goods and services (transfers outside this area of scope are rarely encountered);
	- made directly by the beneficiary of the respective goods and services, who is aware of the price paid, being able to balance occasional expenditures with the profits gained from using the respective good or service;
	- amount depends on each society individual's incline towards consumption.

Source: Văcărel Iulian şi colaboratorii - Finanţe publice, Ediţia a VI-a, Editura Didactică şi Pedagogică, Bucureşti, 2007

In the case of some analysis which compared the evolution of public expenditures in multiple states, on a certain length of time, one must keep in mind the definition of public expenditures adopted by each state. As an example, if in a country public expenditures are defined in relation to central and local authorities' spendings, and if in another country public companies' expenditures are added to form a total, the results of the comparison would be different and thus inaccurate or false.

CONCLUSION

Public goods have the property of non-exclusiveness and are non-rivalling through consumption, which means they are in opposition with private goods that can be acquired only by those who afford to pay the market price for them.

Budgetary expenses comprise only expenditures financed from the state budget, local budgets and state social insurance budget, meaning financial resources managed by central or local public administrations within the national public budget but with on a more restrained area. Ultimately it can be stated that all budgetary

expenditures are public expenditures, on the contrast not all public expenditures are budgetary expenditures.

All spending done by the state as a state-authority are considered public expenditures. All other spending done as a result of a contract are considered state private expenditures.

... „there are public expenditures; they need to be covered".

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PUBLIC EXPENDITURES POLITICS ON A NATIONAL LEVEL

ANA-PETRINA PĂUN, PETRE BREZEANU [*]

ABSTRACT: *The development level of a society is closely related to the development state of its individuals. Ensuring a high level of welfare for individuals is done through public politics. In this work, the definition of public politics is presented through the synthesis of several authors` points of view. Starting from these visions, we have presented at a national level the public politics of public expenditures and those of public debt respectively. In regard to public debt politics, we have presented the „Public debt management (Management of government public debt and the authorisation and supervision of local public debt)'' politic along with its aim and objectives. Towards the final part of the document we have emphasised the objectives of the strategy regarding government public debt management on medium term for 2012-2014 (Strategy).*

KEY WORDS: *public politics, government public debt, public guaranteed debt, public service duty, GDP.*

JEL CLASSIFICATION: *E60, H50.*

The development level of a society is closely linked to the commitment of its members that every individual can benefit of elementary development and survival instruments. The transgression into practice of these commitments regarding society`s members welfare is possible through the use of public politics. The terms "public politics" and "public politics analysis" have been used more and more often since the 1960s as the American government started adressing the problem of racial conflict and urban renewal.

At the beginning of the 1990s, the "capability of public politics" and "public politics analysis" were key terms in the governing process debate. In Romania the term "public politics" has penetrated specialised research and current language quite late

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(end of '90s decade). Initially the term used was borrowed from the English "policy", but due to the controversy regarding its wide spectrum of definitions, Romania preferred to use the french term of public politics (*politiques publiques*).

„A public politic is a network of linked decisions regarding the choice of objectives, means and resources granted in order to achieve it in specific situations" (Bondar, 2007, p.20).

The concept of public politics embodies a series of definitions, starting from the most simplist (Dye, 1992, p.4), to the most instrumentalist (Anderson, 1994, p.5). Starting from Easton`s definition (Easton, 1965), Thomas Dye concludes that only governments can assign with authority values for the entire society and thus "public politics is what governments decid to do or not to do".

Jean- Claude Thoenig (Thoening, 1985) considers that public politics gravitate in two parts: the first being represented by parties, parliaments, ministers who debate and establish priorities, grant resources and lead directions to follow while the other part is constituted by administrators who put into practice and implement the politics.

Marius Profiroiu (Profiroiu, 2006, p.19) is convinced that it is the action of multiple persons. Some of them are part of the "government" and others are outside these entities and they represent their majority by paying attention to the things that take form in society (poverty increase, air pollution, higher school abandon rates) and those they identify as problems. A solution for these problems could be found through a different approach to them. Therefore, a public politic represents a government action program in a sector of society or a geographic region: public order, health, road safety, a given city, country or community specifically defined.

Luminița Gabriela Popescu (Popescu, 2005, pp.84-85), mentions that public politics represent the answer which government offers to those needs of society considered as of general interest and utmost importance, as they are being carried out using public money. From this point of view, it is obvious that public politics are characterised by the values associated to the governing coalition or party doctrine.

As a conclusion, public politics have as objective to satisfy citizens` preferences,Ca o concluzie politicile publice au ca scop satisfacerea preferințelor cetățenilor, either of governing nature or any other type.

The fiscal policies promoted by the government authorities of any contemporary state are oriented, in general, towards achieving micro and macroeconomic objectives derived from the roles that the state needs to fulfil in the economy. In order to achieve those micro and macroeconomic goals, the government authorities promote different politics to direct activities from individual domains.

In the case of the public expenditures politic (according to the Implementing Commission of the National Economic Growth Strategy), its objective is to increase efficiency of public funds use through:
- perfecting budgetary management (financing based on programmes, multiannual budgets, monitoring investments objectives etc.);
- rationalization, funding and assessing budgetary expenditures in reference to real incomes, without calling for inflationist financing methods;
- ensuring perfect functioning of internal audit structures within all public institutions;

- increasing transparency of public expenditures by promoting regulations which specify the obligation of each beneficiary of public funding to make public the way it was used.
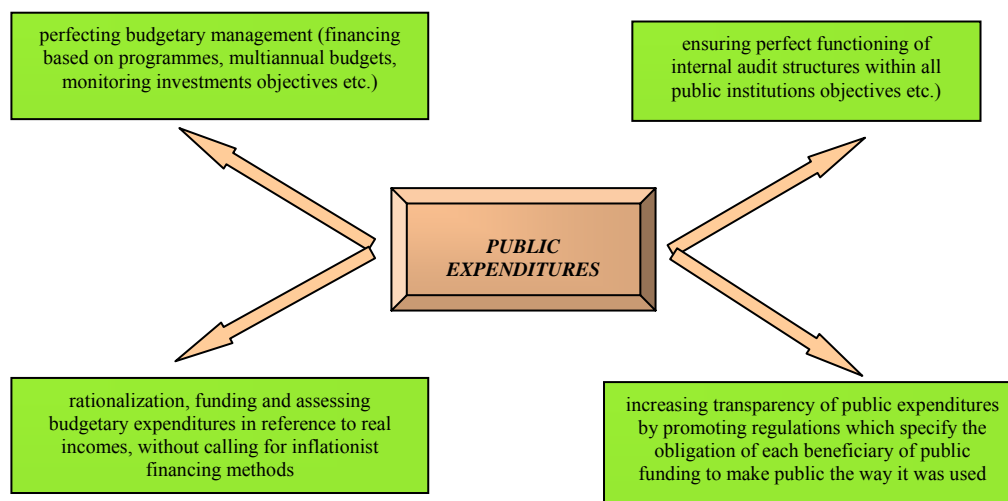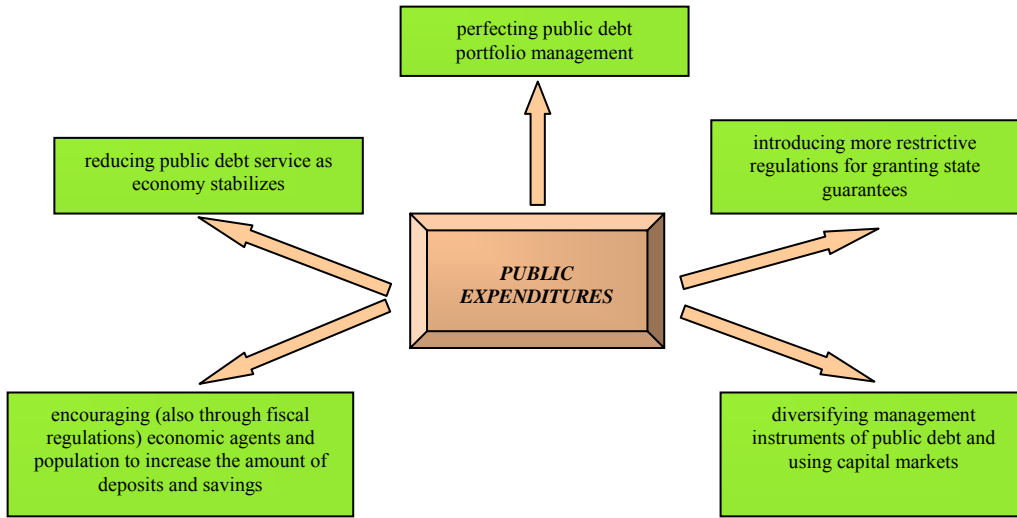

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**Figure 1. Public expenditures objectives**

The objective of public debt politics (according to the Implementing Commission of the National Economic Growth Strategy) is to control the level and structure of internal and external public debt in order to ensure macroeconomic balance, stimulate economic growth and properly finance public objectives of greatest importance through: perfecting public debt portfolio management; reducing public debt service as economy stabilizes; introducing more restrictive regulations for granting state guarantees; encouraging (also through fiscal regulations) economic agents and population to increase the amount of deposits and savings; diversifying management instruments of public debt and using capital markets.

According to current legislation (OUG 64/2007), the policy „Public debt management (Management of government public debt and the authorisation and supervision of local public debt)" has the objective to maintain a sustainable level of public debt and to correlate its convergence policies by: increasing efficiency, transparency and predictability in government public debt management; reducing long term costs associated to contracted government public debt and the risk of due obligations non-payment by the central public administration authorities; developing the public securities market; optimising government public debt portfolio structure; increasing government public debt management process flexibility and centralising all the public debt specific transactions at the Ministry of Public Finances.

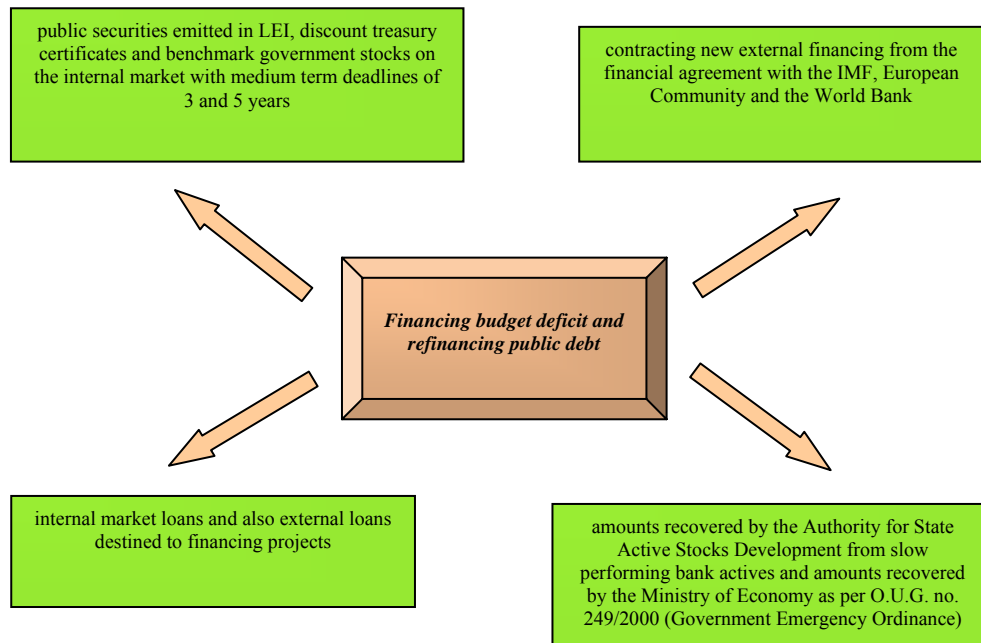Source: Authors

Figure 2. Public debt objectives
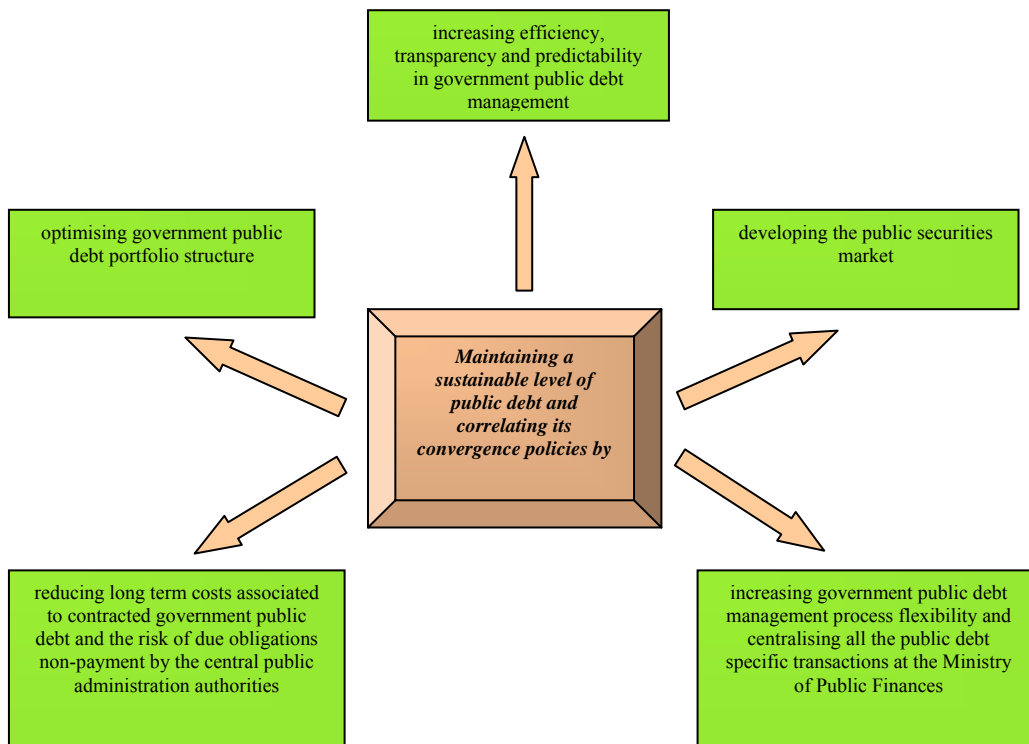
Source: Authors

Figure 3. "Public debt management" policy objectives

Regarding the optimisation of the government public debt portfolio structure, the financing of the budget deficit and refinancing government public debt was carried through mostly from internal sources and from complementary external sources using:
  - public securities emitted in LEI, discount treasury certificates and benchmark government stocks on the internal market with medium term deadlines of 3 and 5 years;
  - internal market loans and also external loans destined to financing projects;
  - contracting new external financing from the financial agreement with the IMF, European Community and the World Bank;
  - amounts recovered by the Authority for State Active Stocks Development from slow performing bank actives and amounts recovered by the Ministry of Economy as per O.U.G. no. 249/2000 (Government Emergency Ordinance).

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Financing budget deficit and refinancing public debt

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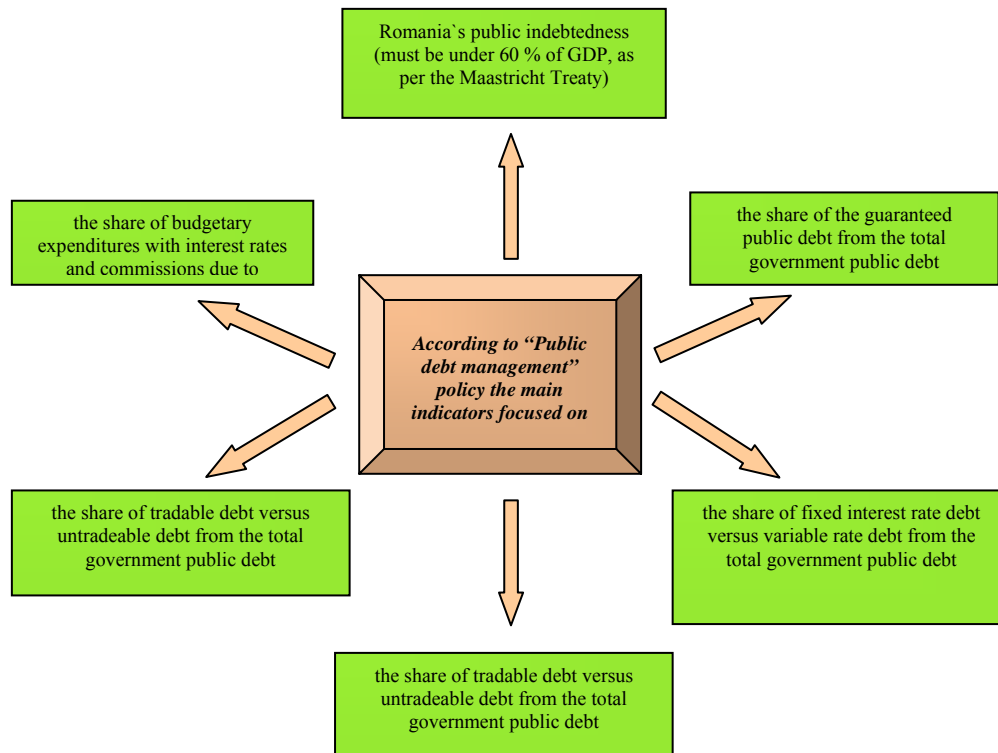
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Figure 4. Budgetary deficit financing and refinancing public debt sources

According to "Public debt management" policy the main indicators focused on: Romania`s public indebtedness (must be under 60 % of GDP, as per the Maastricht Treaty); the share of budgetary expenditures with interest rates and commissions due to government public debt; the share of the guaranteed public debt from the total government public debt; the share of debt in local currency versus that in other currencies from the total government public debt; the share of fixed interest rate debt versus variable rate debt from the total government public debt; the share of tradable debt versus untradeable debt from the total government public debt.

Due to modifications on the internal and external financial markets, public debt (OUG 64/2007) on 31.12.2012 was 240,8 billion leis, from which government public

debt amounted to 226,8 billion leis (representing 94,2% of total public debt), while local public debt was equivalent to 14,0 billion leis (representing 5,8 % of total public debt). The increase of public debt was determined mainly by the additional debt contracted to cover financing needs for budgetary deficit and to refinance government public debt. At the end of 2012 Romania`s public indebtedness rate reached 41% of GDP, a level clearly inferior to the 60% agreed through the Maastricht Treaty.

Figure 5. "Public debt management" policy indicators

The share of expenses with interest rates and commissions on government public debt from the total state budgetary expenses reached at the end of 2009 the level of 5%, compared to 3.5% which was the level recorded after the first year when the public politics were implemented. In the years 2010 and 2011 the share had a rising trend following that at the end of 2012, it reached 5.1% as there was a spike in the volume of interest rates and commissions applied to reimbursable finances contracted on the internal capital market to finance the budget deficit. The rise of expenditures with interest rates paid from the state budget in 2012 compared to 2011 was due to the debt contracted to cover the budget deficit for the years before, and also to short term government bonds emission, for which the discount needed to be paid on due date.
The indicators set in the public policy are enumerated in table 1 (according to data from the evaluation report of the "Public debt management" policy).

Table 1. "Public debt management" public policy indicators

Indicators	31.12 2007	31.12 2008	31.12 2009	31.12 2010[*]	31.12 2011[*]	31.12 2012[*]
Public debt /GDP[1]	19,9% of GDP	21,2% of GDP	29,3% of GDP	37,9% of GDP	40,1% of GDP	41% of GDP
Interest rates and commissions due to government public debt / state budget expenditures[2]	3,5%	3,6%	5%	3,5%	4,1%	5,1%
Direct public debt / Government public debt[3]	88,2%	91,3%	92,8%	91,8%	94,7%	94,2%
Guaranteed public debt / government public debt[4]	11,8%	8,7%	7,2%	8,2%	5,3%	5,8%
Local currency debt /government public debt[5]	53,2%	59,6%	47,5%	45,3%	48,8%	43,8%
Foreign currency debt / government public debt[6]	46,8%	40,4%	52,5%	54,7%	51,2%	56,2%
Fixed interest rate debt / government public debt[7]	30,7%	30,8%	45,9%	52%	54,9%	68,1%
Variable interest rate debt / government public debt[8]	69,3%	69,2%	54,1%	48%	45,1%	31,9%
Tradable debt / government public debt[9]	22,8%	25,9%	40,5%	42,3%	53,8%	58,2%
Untradeable debt / government public debt[10]	77,2%	74,1%	59,5%	57,7%	46,2%	41,8%

Source: Public Finances Ministry, Processed by the authors based on data from the Ministry of Public Finances

On the 31.12.2012 the share of guaranteed government public debt from the total government public debt stood at 5.8%, decreasing compared to the levels recorded in 2007, 2008, 2009 and 2010. From 2007 to 2012, by applying the public politics Public Finances Ministry managed to maintain a decreasing trend in guaranteed government public debt, thus reducing the risk of extra fees as warrantor and implicitly extra budgetary expenditures.

Compared to the years before, in 2012 there was registered an increase in the share of foreign currency debt contracted from the total government public debt, when it reached 56.2%. This increase was caused by contracting denominated loans in Euros. The decision to contract state loan in Euros took into consideration the following aspects: - reduced cost of denominated loans in Euros; removal of currency risk from the perspective of adopting a unique currency in 2015.

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[1] Romania`s public indebtedness degree

[2] the share of budgetary expenditures with interest rates and commissions due to government public debt from the total state budget expenditures

[3] the share of direct public debt from the total government public debt

[4] the share of guaranteed public debt from the from the total government public debt

[5] the share of local currency debt from the total government public debt

[6] the share of foreign currency debt from the total government public debt

[7] the share of fixed interest rate debt from the total government public debt

[8] the share of variable interest rate debt from the total government public debt

[9] the share of tradable debt from the total government public debt

[10] the share of untradeable debt from the total government public debt

The share of variable interest rate debt from the total government public debt has had an increasing trend over the five years, reaching 31.9% at the of 2012. Reducing the share resulted in a higher predictability rate when estimating the service level of government public debt and implicitly budgetary expenses.

At the end of 2012, tradable debt (government bonds) amounted to 58.2% from the total government public debt, of which 44.2% were government bonds emitted on the internal market, rising by 4.4% compared to 2011. The volume increase of government public debt contracted through tradable instruments has an effect on service due to government public debt by creating references regarding the cost of debt to be contracted.

Table 2. Objectives of the strategy for government public debt management on medium term 2012-2014 (Strategy)

INDICATORS	YEAR 2012	LIMITS FOR 2014 ACCORDING TO THE STRATEGY
Government public debt / gross domestic product (%)[11]	1,8%	max. 1,6%
Government public debt service / Gross domestic product (%)[12]	10,9%	max. 10,5%
Government public debt denominated in Euros / government public debt in foreign currencies (%)[13]	80%	min. 75%
Government public debt contracted in foreign currencies / Government public debt (%)[14]	56,2%	max. 50%
1 year deadline debt (initial time scale) / Government public debt (%)[15]	12,9%	max. 25%
Average timespan left for the government public debt portfolio (years)	4,4	min. 4,5
Residual maturity for state bonds emitted on internal market (years)	1,7	min. 2
Fixed interest rate debt / Government public debt (%)[16]	68,1%	-
Average timespan until next interest rate modification (years)	3,6	between 3 and 4
Government public debt with modified interest rate every 1 year / Government public debt (%)[17]	29%	max. 40%
Long and medium term emissions / internal market emissions (%)[18]	53%	min. 60%

Source: Public Finance Ministry

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[11] the share of government public debt cost (% of GDP).

[12] the share of government public debt service (% of GDP).

[13] the share of government public debt denominated in Euros from the total government public debt contracted in foreign currencies.

[14] the share of government public debt contracted in foreign currencies from the total government public debt (%).

[15] the share of 1 year deadline debt (initial time scale) from the government public debt (%).

[16] the increase in fixed rate debt share from the total government public debt (%).

[17] the share of government public debt with 1 year changing interest rate from the total government public debt (%).

[18] the share of long and mid-term emissions (% of the total internal market emissions).

In July 2012, the Strategy for government public debt management on medium term 2012-2014 (Strategy) was approved (consequence of debates with BNR - conforming to provisions of OUG 64/2007 regarding public debt, with later additions and modifications, but also with the IMF, the European Commission and the World Bank). For the government public debt management, the Ministry of Public Finances kept under careful observation the indicators from table 2 (according to data from the "Public debt management" policy evaluation report).

Presently Romania is finalising the setup of a second economic adjustment program together with the EU and the IMF. Following a request filed by Romanian authorities on February 17, 2011, the European Council and the IMF have negotiated with them a new preventive economic adjustment program. A two year program was then approved by the European Council on May 12, 2010 and on March 25, 2011 by the directive council of the IMF. The financial package agreed for amounts to almost 4.9 billion EUR, including 1.4 billion EUR from the EU and approximately 3.1 DST from the IMF.

The program`s objective is to facilitate a continuous orderly adjustment of budgetary deficits and on an external level, to strengthen the government`s economic policy credibility. Other objectives would be to adjust the current budget, consolidate the financial market reform, and concentrate more on product market reforms, labour market and EU funds absorption. It has been estimated that consolidating these objectives would increase Romania`s growth potential, sustain financial and monetary stability and build trust in the national currency. It would also reduce the probability of negative effects on companies' balance sheets and household budgets. As the program could not be completed in time because of delays on implementing reforms, the authorities have requested a three month time extension for the IMF program.

The economic adjustment program is constantly monitored by the Commission and the IMF every trimester by verifying terms contracted in the agreement Memorandum and the financial and economic policy Memorandum. Taking into consideration the conditions of the program and conforming to the agreement Memorandum, the countries participating in the program agreed to recurring reporting and monitoring and were thus excepted from the mandatory national reform programs transmission (NRP) and stability or convergence programs.

In this context, even though it had been officially excepted from this obligation, Romania presented in April 2013 an up to date NRP and a convergence program. These programs provide detailed information regarding actual progress made from the beginning of 2012 and government future plans. This information is at the base of the evaluation done in the current work orders of the Commission`s services. Through the national reform program, Romania emphasizes its commitment to approach the divergences in the following domains: public administration, business environment, economic competitiveness and local development, labour market and education, social inclusion and poverty decrease, research and development, climatic changes and energy sources. The convergence program demonstrates Romania`s engagement to improve its budgetary position in view of completing its mid-term objective and ensuring long term public finance sustainability, pursuant to the stability

and growth Pact. The program sent was submitted to a limited verification and it was approved by the government through a memorandum.

CONCLUSIONS

Due to modifications on the internal and external financial markets, public debt reached the highest level since the last five years at the end of 2012 when it amounted to 240.8 billion lei. This rise in public debt was determined mainly by debt contracted to cover budgetary deficit financing needs and refinancing of the total government public debt.

Romania`s public indebtedness reached a level below the 60% agreed for at the Maastricht Treaty. Interest rate expenditures paid from the state budget have risen in 2012 as new debt was contracted in order to cover budgetary deficits for the previous years. Between 2007 and 2012, by applying public politics, the Ministry of Public Finances managed to maintain a descending trend of guaranteed government public debt, thus reducing the risk of warrantor fees and budgetary expenses.

The rise in the share of government public debt contracted in foreign currencies was mainly because of denominated loans in Euros, and the share of variable interest rate debt from the total government public debt was on a slight decline over the course of five years.

In what concerns public politics, Romania accomplished its objective to reduce general public deficit to a level below 3% of the GDP, as per ESA terms in 2012.

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IDENTIFYING THE PARAMETERS OF THE MATHEMATICAL EXPENDITURE SYSTEM MODEL

ANA-PETRINA PĂUN, PETRE BREZEANU [*]

ABSTRACT: *This chapter describes an optimum regulation model for the public expenditures system in Romania. The aim of this work is to design an optimal control system of public expenditures in Romania. It contains an offline identification of the total public expenditures system in Romania for a timespan of 15 years. The total public expenditures system is a MISO type one (Multiple Input – Single Output) and is identified by the use of the lowest foursquare applied on an OE (Output Error) type model.*

KEY WORDS: *public expenditures, Gross Domestic Product, stochastic models, control system.*

JEL CLASSIFICATION: *E60, H50.*

1. INTRODUCTION

At present times, Romania does not have a well defined and optimised control system through which it can regulate public expenditures. Even though there have been released a number of studies on the subject, a general consensus has still not been reached so that scientific research could offer clear public expenditure optimisation models. The effectiveness of public expenditures could have a significant impact on the GDP, making this endeavour a highly desired objective for every country, including ours. Romania's mathematical public expenditure model is presented in the first part of this work. Based on this model for a certain reference amount imposed on public expenses, one can determine the composing elements of the input vector from the mathematical econometric system of Romania's public expenditures. It describes a regulating system for total public expenditures in Romania, utilizing a linear

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foursquare performance indicator. The Romanian total public expenditures system is characterised by the use of the smaller foursquare method applied on an autoregressive type Output Error model.

2. INPUT – OUTPUT STOCHASTIC MODELS

In this paragraph are being described the most utilised mono-variable stochastic models specific for SISO (Single Input – Single Output) economic systems. We mention here the auto-regressive (AR) models of types: MA (Moving Average), ARMA (Auto-regressive and moving average), ARX (auto-regressive controlled or with exogenous measures), OE (Output Error), or Box-Jenkins. There is also a mention about the multivariable stochastic model specific to MIMO (Multiple Input -Multiple Output) economic systems.

An economic system can be represented as a bloc scheme like the one hereunder in Figure 1.
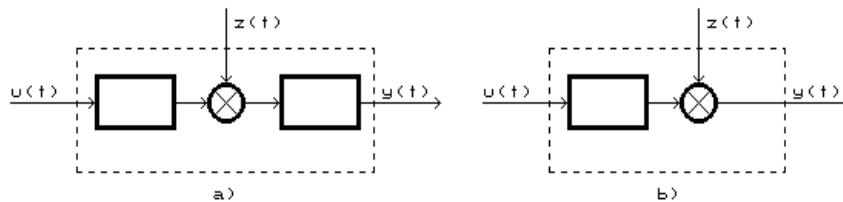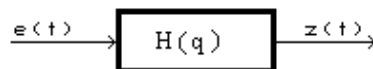

Source: Landau, I.D., Identificarea și comanda sistemelor, Editura Tehnică, București, 1997

Figure 1. Bloc scheme of an economic system

As a principle, the perturbation can act anywhere inside the economic process but if the system is linear, it can be transferred towards the exit of the system.

In the case when the perturbation $z(t)$ (noise) slightly influences the exit measurement $y(t)$, it can be ignored in the process of economic control; though when the influence is greater one must also take into consideration the path through which the perturbation is channelled towards the exit, in other words one also should require the mathematical model of the noise path.

In this case, the growth evolution can be determined if we know the models of the two paths (of control and noise), the entry signal $u(t)$ and the statistical characteristics of noise $z(t)$. If the perturbation is a random process having rational spectral density, as per the theory of spectral factorisation, $z(t)$ can be interpreted as being the exit of a rational stable filter of minimal phase at the entry of which is applied the white noise $e(t)$ (Figure 2).

Source: Landau, I.D., Identificarea și comanda sistemelor, Editura Tehnică, București, 1997

Figure 2. Bloc scheme of white noise filter

If *H(q)* is the transfer function of this filter, then *z(t)=H(q)·e(t)*. In this situation, a slightly different model, but nevertheless compliant with Figure 1.1.b is:

$$y(t) = G(q) \cdot u(t) + H(q) \cdot e(t) \tag{1.1}$$

The filters *G(q)*, *H(q)*, are functions which depend on variable q. Different forms of *G(q)*, *H(q)* lead to different models. The most general form, compliant to Figure 1.1.a, is :

$$\begin{cases} A(q) \cdot y(t) = \dfrac{B(q)}{F(q)} \cdot u(t-k) + \dfrac{C(q)}{D(q)} \cdot e(t) \\ M\left[e^2(t) \right] = \lambda^2 \end{cases} \tag{1.2}$$

Where we have : M is the statistical average, λ is noise dispersion, *k* is dead time expressed in the number of sampling periods, *e(t)* is model error, *t* is normalised time (real time divided by sampling period), *t* takes values from the whole numbers group $t \in \mathbf{Z}$, u(t) is the entry value at moment t , y(t) is the exit value at moment t , q^{-1} is the delay operator by one degree $q^{-1} \cdot u(t) = u(t-1)$; $q^{-k} \cdot u(t) = u(t-k)$.

The model described in equation (1.2) is also called ***theta model*** and is illustrated as a bloc scheme in Figure 3.
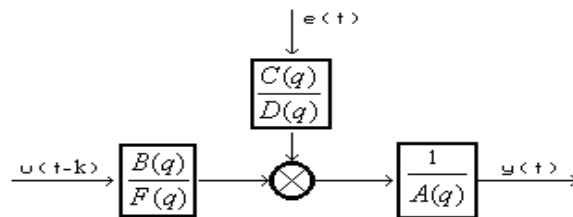
Source: Landau, I.D., Identificarea și comanda sistemelor, Editura Tehnică, București, 1997

Figure 3. General bloc scheme of a system described through a theta type model

In this model the polynomials *A, B, C, D, F* are defined as such:

$$A(q) = 1 + a_1 \cdot q^{-1} + a_2 \cdot q^{-2} + \cdots + a_{na} \cdot q^{-na} \tag{1.3}$$

$$B(q) = b_1 \cdot q^{-1} + b_2 \cdot q^{-2} + \cdots + b_{nb} \cdot q^{-nb} \tag{1.4}$$

$$C(q) = 1 + c_1 \cdot q^{-1} + c_2 \cdot q^{-2} + \cdots + c_{nc} \cdot q^{-nc} \tag{1.5}$$

$$D(q) = 1 + d_1 \cdot q^{-1} + d_2 \cdot q^{-2} + \cdots + d_{nd} \cdot q^{-nd} \tag{1.6}$$

$$F(q) = 1 + f_1 \cdot q^{-1} + f_2 \cdot q^{-2} + \cdots + f_{nf} \cdot q^{-nf} \tag{1.7}$$

the parameter vector being :

$$\theta = \left[a_1, \cdots, a_{na}, b_1, \cdots, b_{nb}, c_1, \cdots, c_{nc}, d_1, \cdots, d_{nd}, f_1, \cdots, f_{nf} \right]^T \tag{1.8}$$

Comparing (1.1) with (1.2), when $k = 0$, we conclude that:

$$\begin{cases} G(q) = \dfrac{B(q)}{A(q) \cdot F(q)} \\[3mm] H(q) = \dfrac{C(q)}{A(q) \cdot D(q)} \end{cases} \tag{1.9}$$

The existence of common poles (the zeroes from polynomial *A(q)*) prove that perturbation acts somewhere within the economic process. If degree *na* of polynomial *A(q)* is zero, then the two ways are completely separate and their effect is concentrated on the exit.

Special cases:
1.   If *nc=nd=nb=nf=0* then model (1.2) becomes:

$$\begin{cases} A(q) \cdot y(t) = e(t) \\ \theta = \left[a_1, a_2, \cdots, a_{na} \right]^T \end{cases} \tag{1.10}$$

The model given by the relationship (1.10) is named **auto-regressive model (AR).**
2. If *na=nb=nf=nd=0* we obtain a **moving average (MA)** model.
The equation defining this model is:

$$\begin{cases} y(t) = C(q) \cdot e(t) \\ \theta = \left[c_1, \cdots, c_{nc} \right]^T \end{cases} \tag{1.11}$$

3. If *nb=nf=nd=0* then the model is of the **auto-regressive moving average** type **(ARMA)**:

$$\begin{cases} A(q) \cdot y(t) = C(q) \cdot e(t) \\ \theta = \left[a_1, \cdots, a_{na}, c_1, \cdots, c_{nc} \right]^T \end{cases} \tag{1.12}$$

4. If *nf=nc=nd=0* then the model obtained is of the **auto-regressive controlled or with exogenous measures (ARX)**:

$$\begin{cases} A(q) \cdot y(t) = B(q) \cdot u(t - k) + e(t) \\ \theta = \left[a_1, \cdots, a_{na}, b_1, \cdots, b_{nb} \right]^T \end{cases} \tag{1.13}$$

5. If *nd=nf=0* we obtain a **auto-regressive model of moving average with exogenous measures (ARMAX):**

$$\begin{cases} A(q) \cdot y(t) = B(q) \cdot u(t-k) + C(q) \cdot e(t) \\ \theta = \left[a_1, \cdots, a_{na}, b_1, \cdots, b_{nb}, c_1, \cdots, c_{nc} \right]^T \end{cases} \qquad (1.14)$$

The model denominations come from the English **A**uto **R**egressive **M**oving **A**verage with e**X**ogenous control (auto-regressive models with moving average and exogenous control).

6. If *nf=nc=0* we obtain a **ARARX model**. The equation defining this type of model is:

$$\begin{cases} A(q) \cdot y(t) = B(q) \cdot u(t-k) + \dfrac{1}{D(q)} \cdot e(t) \\ \theta = \left[a_1, \cdots, a_{na}, b_1, \cdots, b_{nb}, d_1, \cdots, d_{nd} \right]^T \end{cases} \qquad (1.15)$$

The name ARARX refers to perturbation being modelled as an auto-regressive process, and the dynamics of the system is described by an ARX model.

7. If *na=nc=nd=0* we obtain an **OE model** (**O**utput **E**rror):

$$y(t) = \frac{B(q)}{F(q)} \cdot u(t-k) + e(t) \qquad (1.16)$$

8. If *na = 0* we obtain the model **Box – Jenkins**

$$y(t) = \frac{B(q)}{F(q)} \cdot u(t-k) + \frac{C(q)}{D(q)} \cdot e(t) \qquad (1.17)$$

The models presented here are mono-variable, specific to SISO (Single Input-Single Output) type economic systems. In the case of multi-variable economic systems (MIMO systems; Multiple Input -Multiple Output), the model (3.2) takes the following equation:

$$A(q) \cdot y(t) = F^{-1}(q)B(q) \cdot u(t-k) + D^{-1}(q)C(q) \cdot e(t) \qquad (1.18)$$

where:

$$A(q) = I + A_1 \cdot q^{-1} + A_2 \cdot q^{-2} + \cdots + A_{na} \cdot q^{-na} \quad \dim A_i = ny \times ny \qquad (1.19)$$

$$B(q) = B_1 \cdot q^{-1} + B_2 \cdot q^{-2} + \cdots + B_{nb} \cdot q^{-nb} \quad \dim B_i = ny \times nu \qquad (1.20)$$

$$C(q) = I + C_1 \cdot q^{-1} + C_2 \cdot q^{-2} + \cdots + C_{nc} \cdot q^{-nc} \quad \dim C_i = ny \times ny \qquad (1.21)$$

$$D(q) = I + D_1 \cdot q^{-1} + D_2 \cdot q^{-2} + \cdots + D_{nd} \cdot q^{-nd} \quad \dim D_i = ny \times ny \qquad (1.22)$$

$$F(q) = I + F_1 \cdot q^{-1} + F_2 \cdot q^{-2} + \cdots + F_{nf} \cdot q^{-nf} \quad \dim F_i = ny \times ny \qquad (1.23)$$

having $\dim y = ny \times 1$; $\dim u = nu \times 1$; $\dim e = ny \times 1$, and *I* being the unit matrix.

Also, unknown parameters are defined by the elements in matrixes $A_i, i = \overline{1, na}$, $B_i, i = \overline{1, nb}$, $C_i, i = \overline{1, nc}$, $D_i, i = \overline{1, nd}$, $F_i, i = \overline{1, nf}$.

The model resulting from equation (1.18) can give way to particular cases perfectly similar to those of the mono-variable system. For this reason, there is no point in repeating the equations of particular multi-variable models.

3. IDENTIFYING ECONOMIC SYSTEMS OFFLINE USING THE LOWEST FOURSQUARE METHOD

From a historical standpoint, the lowest foursquare method was used by Gauss to determine the planets` orbits.

In order to identify an economic system, this method is used to determine the model of the decisive part of a perturbed system taking as criteria the average square modelling error.

To identify the above mentioned method, we will consider that the system to be identified is approximated through a mono-variable ARX model:

$$A(q) \cdot y(t) = B(q) \cdot u(t - k) + e(t) \tag{1.24}$$

where:

$$A(q) = 1 + a_1 \cdot q^{-1} + a_2 \cdot q^{-2} + \cdots + a_{na} \cdot q^{-na} \tag{1.25}$$

$$B(q) = b_1 \cdot q^{-1} + b_2 \cdot q^{-2} + \cdots + b_{nb} \cdot q^{-nb} \tag{1.26}$$

Following, we introduce the notations below:

$$\theta = \left[a_1, \cdots, a_{na}, b_1, \cdots, b_{nb} \right]^T \tag{1.27}$$

$$\varphi(t) = \left[-y(t-1) \ldots - y(t-na) \quad u(t-(1+k)) \ldots u(t-(nb+k)) \right]^T \tag{1.28}$$

In these conditions, the equation (1.24) can be written thus:

$$y(t) = \varphi^T(t) \cdot \theta + e(t) \tag{1.29}$$

We can formulate the identification exercise as: knowing the input/output data from the economic system to be identified, please determine the parameters of model ARX so that the following performance index is at a minimum:

$$V(\theta) = \min\left[\sum_{t=1}^{N} e^2(t) \right] = \min\left[\sum_{t=1}^{N} \left(y(t) - \varphi^T(t) \cdot \theta \right)^2 \right] \tag{1.30}$$

where *N* is the available data number.

In view of determining parameters θ, two properties of vector derivative are presented hereunder:

P1. Considering $F(\theta) = c^T \cdot \theta$ where c is a constant vector of dimensions nx1, and θ is the dimension variables vector nx1. In this case we have:

$$\frac{\partial}{\partial \theta}\left[c^T \cdot \theta\right] = c \tag{1.31}$$

P2. Considering $F(\theta) = \theta^T \cdot A \cdot \theta$ where A is a constant and symmetrical matrix of dimensions nxn, and θ is the variable vector of dimensions nx1. In this case we have:

$$\frac{\partial}{\partial \theta}\left[\theta^T \cdot A \cdot \theta\right] = 2 \cdot A \cdot \theta \tag{1.32}$$

As we know**,** the critical points of function (1.30) are determined from the following equation system:

$$\frac{\partial}{\partial \theta}\left[V(\theta)\right] = 0 \tag{1.33}$$

The equation (1.33) can also be written thus:

$$D_1(\theta) = \frac{\partial}{\partial \theta}\left[\sum_{t=1}^{N}\left(y^2(t) - 2 \cdot y(t) \cdot \varphi^T(t) \cdot \theta + \left(\varphi^T(t) \cdot \theta\right)^2\right)\right] \tag{1.34}$$

After proceeding to a derivative in (1.34), we obtain:

$$D_1(\theta) = -2\frac{\partial}{\partial \theta}\sum_{t=1}^{N}\left(y(t) \cdot \varphi^T(t) \cdot \theta\right) + \frac{\partial}{\partial \theta}\sum_{t=1}^{N}\left(\varphi^T(t) \cdot \theta\right)^2 \tag{1.35}$$

The equation (1.35) can also be written thus:

$$D_1(\theta) = D_a(\theta) + D_b(\theta) \tag{1.36}$$

where:

$$D_a(\theta) = -2 \cdot \frac{\partial}{\partial \theta}\left\{\left[\sum_{t=1}^{N}\left(\varphi(t) \cdot y(t)\right)\right]^T \cdot \theta\right\} \tag{1.37}$$

$$D_b(\theta) = \frac{\partial}{\partial \theta} \left\{ \theta^T \cdot \left[\sum_{t=1}^{N} \left(\varphi(t) \cdot \varphi^T(t) \right) \right] \cdot \theta \right\} \tag{1.38}$$

By applying the above mentioned derivative properties, the equations (1.37) and (1.38) become:

$$D_a(\theta) = -2 \cdot \sum_{t=1}^{N} \left(\varphi(t) \cdot y(t) \right) \tag{1.39}$$

$$D_b(\theta) = 2 \cdot \left[\sum_{t=1}^{N} \left(\varphi(t) \cdot \varphi^T(t) \right) \right] \cdot \theta \tag{1.40}$$

In these conditions, the system (1.33) becomes:

$$\left[\sum_{t=1}^{N} \left(\varphi(t) \cdot \varphi^T(t) \right) \right] \cdot \theta = \sum_{t=1}^{N} \left(\varphi(t) \cdot y(t) \right) \tag{1.41}$$

The critical points are gives by the following equation:

$$\hat{\theta} = \left[\sum_{t=1}^{N} \left(\varphi(t) \cdot \varphi^T(t) \right) \right]^{-1} \cdot \left[\sum_{t=1}^{N} \left(\varphi(t) \cdot y(t) \right) \right] \tag{1.42}$$

In order to verify the nature of the critical points (1.42), we will calculate the second order derivative of function $V(\theta)$.

$$\frac{\partial^2}{\partial \theta^2} \left[V(\theta) \right] = \frac{\partial}{\partial \theta} \left[\frac{\partial}{\partial \theta} V(\theta) \right]^T \tag{1.43}$$

After calculations we obtain:

$$\frac{\partial^2}{\partial \theta^2} \left[V(\theta) \right] = 2 \sum_{t=1}^{N} \left(\varphi^T(t) \cdot \varphi(t) \right) \tag{1.44}$$

From (1.44) we can see that the second order derivative of function $V(\theta)$, is defined positively, indicating the fact that the critical points (1.42) are minimum local points of function $V(\theta)$.

In case the economic system is a multi-variable ARX one, we have:

$$A(q) \cdot y(t) = B(q) \cdot u(t-k) + e(t) \tag{1.45}$$

where:

$$A(q) = I + A_1 \cdot q^{-1} + A_2 \cdot q^{-2} + \cdots + A_{na} \cdot q^{-na} \quad \dim A_i = ny \times ny \qquad (1.46)$$

$$B(q) = B_1 \cdot q^{-1} + B_2 \cdot q^{-2} + \cdots + B_{nb} \cdot q^{-nb} \quad \dim B_i = ny \times nu \qquad (1.47)$$

We now introduce the following notations:

$$\theta^T = \left[A_1, \cdots, A_{na}, B_1, \cdots, B_{nb} \right] \qquad (1.48)$$

$$\varphi^T(t) = \left[-y^T(t-1) \ldots - y^T(t-na) \quad u^T(t-(1+k)) \ldots u^T(t-(nb+k)) \right]^T \qquad (1.49)$$

In these conditions, the equation (1.45) can also be written thus:

$$y(t) = \theta^T \varphi(t) + e(t) \qquad (1.50)$$

Proceeding similarly, the unknown parameters can be determined using the following equation:

$$\hat{\theta} = R^{-1} \cdot \Gamma \qquad (1.51)$$

where:

$$R = \sum_{t=1}^{N} \varphi(t)\varphi^T(t)$$
$$\Gamma = \sum_{t=1}^{N} \varphi(t)y^T(t) \qquad (1.52)$$

In the equation (1.51), we supposed that the inverse of matrix R exists.

4. OFF-LINE IDENTIFICATION OF PUBLIC EXPENDITURES SYSTEM IN ROMANIA

Romania`s public expenditures system, which will be discussed hereunder is presented in Figure 4.

From Figure 4 we notice that the public expenditures system is a MISO (Multiple Input – Single Output) type one, being identified using the lowest foursquare method applied on a OE (Output Error) model, as shown below:

$$y(t) = F^{-1}(q)B(q) \cdot u(t - nk) + e(t) \qquad (1.53)$$

where: $B(q) = B_1 \cdot q^{-1} + B_2 \cdot q^{-2} + \cdots + B_{nb} \cdot q^{-nb}$;

$F(q) = 1 + F_1 \cdot q^{-1} + F_2 \cdot q^{-2} + \cdots + F_{nf} \cdot q^{-nf}$, and   *nk* represents dead time vector expressed in the number of sampling periods.

After identifying the public expenditures system, for vectors *nb*, *nf* and *nk*

nb=[1 3 1 1 0 0 0 0 0 0];
nf=[1 2 2 1 0 0 0 0 0 0];
nk=[1 1 1 1 0 0 0 0 0 0];

we obtain:

$B_1(q) = -0.5505 \, q^{-1}$

$B_2(q) = 1.129 \, q^{-1} + 6.649 \, q^{-2} + 6.711 \, q^{-3}$

$B_3(q) = 1.298 \, q^{-1}$

$B_4(q) = 3.399 \, q^{-1}$

$B_5(q) = 0; \, B_6(q) = 0 \, ; \, B_7(q) = 0 \, ; \, B_8(q) = 0 \, ; \, B_9(q) = 0 \, ; \, B_{10}(q) = 0$

$F_1(q) = 1 - 0.2011 \, q^{-1}$

$F_2(q) = 1 + 0.4026 \, q^{-1} - 0.5974 \, q^{-2}$

$F_3(q) = 1 - 0.3848 \, q^{-1} + 0.9936 \, q^{-2}$

$F_4(q) = 1 + 0.8224 \, q^{-1}$

$F_5(q) = 1; \, F_6(q) = 1; \, F_7(q) = 1; \, F_8(q) = 1 \, ; \, F_9(q) = 1 \, ; \, F_{10}(q) = 1$.
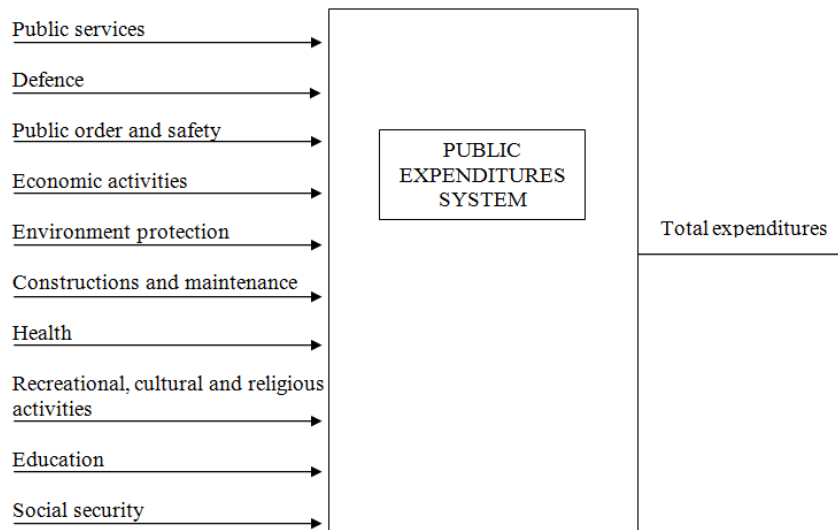
Source: Authors

Figure 4. Public expenditures system

When simulating the identified mathematical model (1.53), which has the inputs as in Figure 5, we obtain:
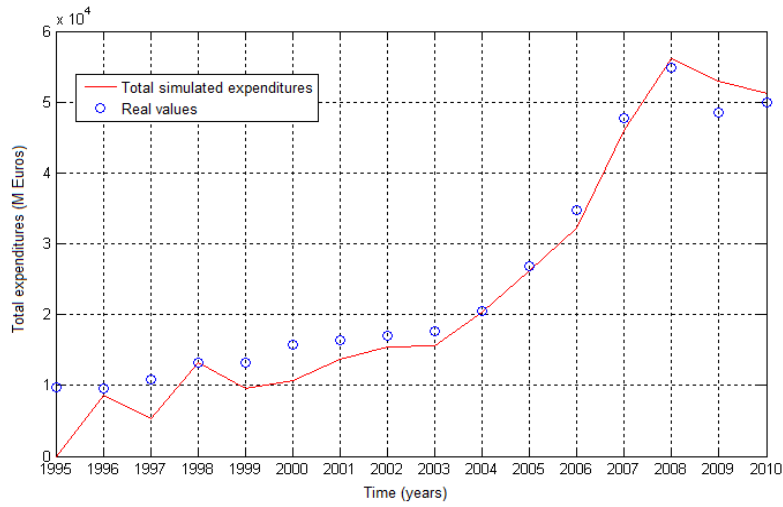
Source: Processing authors based on Eurostat data

Figure 5. Total expenditures evolution in Romania, 1995 – 2010

Based on model (1.53) we can predictions on total expenditures. In this way, if the elements of input vector „u" of the public expenditures system are filled in with components predictions for 2011 and 2012, by simulating the econometrical model above, we can obtain predictions on total public expenditures for the years 2011 and 2012.

After the simulation we have the following chart:
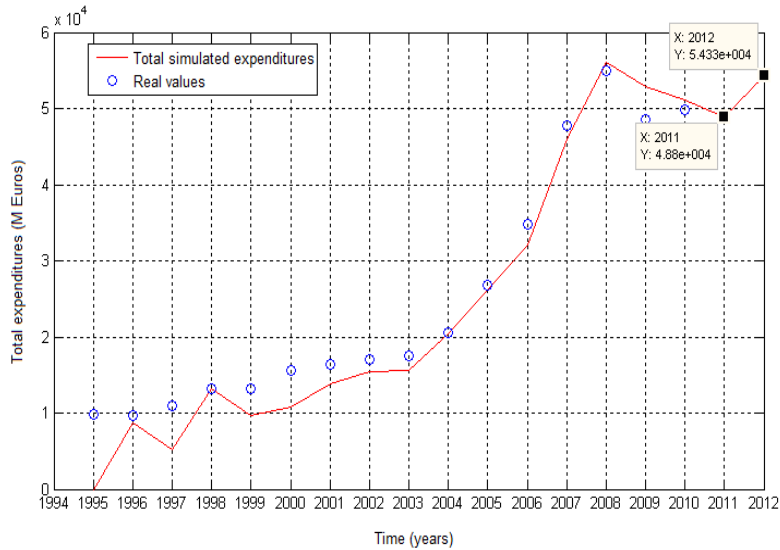
Source: Processing authors based on Eurostat data

Figure 6. Total expenditure predictions for Romania in 2011 and 2012

From Figure 6 we can see that the total expenditure predictions obtain from the simulation are:

Table 1. Predicted total expenditures

Time [years]	Predicted total expenditures [M Euros]
2011	48800
2012	54330

Source: Processing authors based on Eurostat data

5. OPTIMAL REGULATION OF THE PUBLIC EXPENDITURES SYSTEM IN ROMANIA

Based on the econometric model (1.53), we can design an optimised public expenditures control system. A system as such is presented here below in Figure 7.
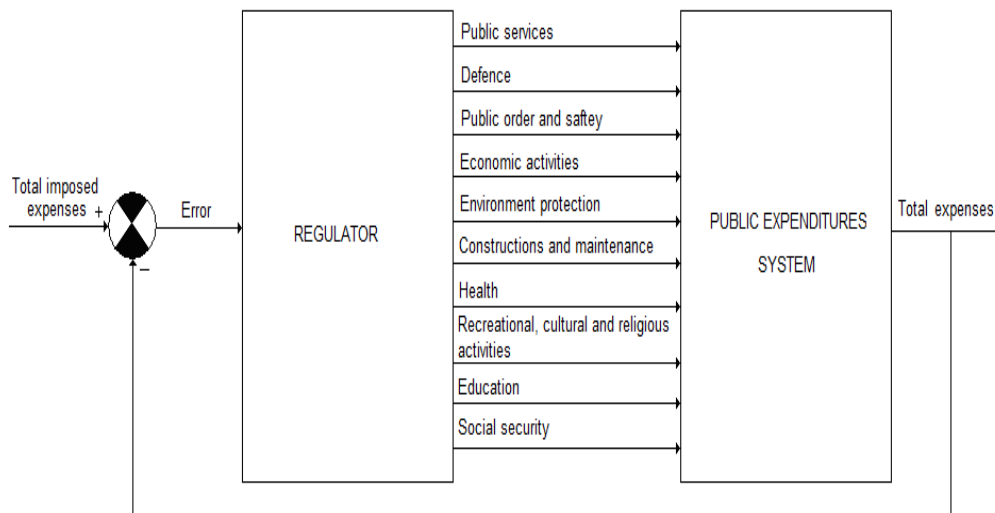
Source: Authors

Figure 7. Optimal public expenditures control system in Romania

The central element of the control system presented above is the compensator or regulator. It receives at input the error between imposed public expenditures and real public expenditures (obtained at the output of the public expenditures system).

The regulator processes the error based on certain regulations, also named the laws of regulation, in order to optimise the error between the two expenditures (imposed and real expenditures).

In order to design this regulator, we will determine from (1.53) the mathematical model input – status – output of public expenditures. To determine the

mathematical input – status – output model we will use the "Standard Completely Controllable Realization" (SCCR) for MIMO (Multiple Input – Single Output) [6] systems.

Based on method SCCR, we obtain a differential equation system defined by the relation (1.54).

$$\begin{cases} \dfrac{dx(t)}{dt} = A \cdot x(t) + B \cdot u(t) + G \cdot e(t) \\ y(t) = C \cdot x(t) + D \cdot u(t) + e(t) \end{cases} ; \quad x(t_0) = x_0 \qquad (1.54)$$

where:

- The status measures vector has 7 components and is defined by the following relation:

$$x = \begin{bmatrix} x_1 & x_2 & x_3 & x_4 & x_5 & x_6 & x_7 \end{bmatrix}^T \qquad (1.55)$$

- The input measures vector has 10 components and is defined by the following relation:

$$u = \begin{bmatrix} u_1 & u_2 & u_3 & u_4 & u_5 & u_6 & u_7 & u_8 & u_9 & u_{10} \end{bmatrix}^T \qquad (1.56)$$

where:

- u_1 is the symbol for public services expenditures;
- u_2 is the symbol for defence public expenditures;
- u_3 is the symbol for public order and safety expenditures;
- u_4 is the symbol for economic activities expenditures;
- u_5 is the symbol for environmental protection expenditures;
- u_6 is the symbol for constructions and maintenance expenditures;
- u_7 is the symbol for health system expenditures;
- u_8 is the symbol for amusement, cultural and religious expenditures;
- u_9 is the symbol for education expenditures;
- u_{10} is the symbol for social security expenditures;

The output measures vector "y" has a single component and is defined by the total public expenditures.

By applying the SCCR method for the public expenditures system defined by the relation (1.53) we obtain the following matrixes:

$$A = \begin{bmatrix} -0.6392 & 1 & 0 & 0 & 0 & 0 & 0 \\ -0.0870 & 0 & 1 & 0 & 0 & 0 & 0 \\ -0.7768 & 0 & 0 & 1 & 0 & 0 & 0 \\ 0.2420 & 0 & 0 & 0 & 1 & 0 & 0 \\ 0.4729 & 0 & 0 & 0 & 0 & 1 & 0 \\ -0.0981 & 0 & 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix} \qquad (1.57)$$

$$B = \begin{bmatrix} -0.5505 & 1.1292 & 1.2976 & 3.3987 & 0 & 0 & 0 & 0 & 0 & 0 \\ -0.4625 & 6.9160 & 1.3286 & -0.6227 & 0 & 0 & 0 & 0 & 0 & 0 \\ -0.1409 & 8.9493 & -0.6651 & 0.8078 & 0 & 0 & 0 & 0 & 0 & 0 \\ -0.4560 & 6.2735 & -0.5680 & 1.9760 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0.0416 & 8.2960 & 0.1282 & -2.4476 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0.2687 & 3.4777 & 0 & 0.4056 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -1.1025 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$$

$$(1.58)$$

$$C = \begin{bmatrix} 1 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix} \qquad (1.59)$$

$$D = \begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix} \qquad (1.60)$$

$$G = \begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}^{\mathrm{T}} \qquad (1.61)$$

The initial condition of the canonical input – status – output system (1.54) is given by the following vector:

$$x_0 = \begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}^{T} \qquad (1.62)$$

In order to design the regulator, we will formulate the following exercise:

Problem: Given the linear system (1.54), defined by matrixes (*A,B,C,D,K*), determine a linear system of the following composition:

$$\begin{cases} \dfrac{dx_c(t)}{dt} = A_c \cdot x_c(t) + B_c \cdot E(t) \\ y_c(t) = C_c \cdot x_c(t) + D_c \cdot E(t) \end{cases} \qquad (1.63)$$

Named regulator (or compensator), so that the performance index given by the relation (1.64), is at minimum:

$$J = \frac{1}{2} x^T (t_1) \cdot M \cdot x(t_1) + \frac{1}{2} \int_{t_0}^{t_1} \left[x^T (t) \cdot Q \cdot x(t) + u^T (t) \cdot R \cdot u(t) \right] dt \qquad (1.64)$$

where:

Q and M are symmetrical matrixes semi-defined positively, and *R* is a positive symmetrical matrix.

       We can see that the problem enunciated above is a Bolza optimisation type of problem.

       In the relation (1.63), the following notations have been used:

E (t) = Total imposed expenditures (t) – Total expenditures (t); y_c (t) = u (t)

$$\qquad\qquad (1.65)$$

       The problem above is resolved thus:

1. We estimate the system's status vector (1.54) using the estimate method based on the Kalman filter:

$$\frac{d\hat{x}(t)}{dt} = A \cdot \hat{x}(t) + B \cdot u(t) + K \cdot \left(E(t) - C \cdot \hat{x}(t) \right) \qquad (1.66)$$

where K is the Kalman matrix, and u are Romania's budgetary expenditure system inputs.

2. The Hamiltonian is then formed:

$$H(x,u,\lambda,t) = \frac{1}{2} \cdot \hat{x}^T (t) \cdot Q \cdot \hat{x}(t) + \frac{1}{2} \cdot u^T (t) \cdot R \cdot u(t) + \lambda^T \cdot \left(A \cdot \hat{x}(t) + B \cdot u(t) \right) (1.67)$$

3. We form the canonical system composed of the equations:

$$\begin{cases} \dfrac{d\hat{x}}{dt} = \dfrac{\partial H}{\partial \lambda} = A\hat{x} + Bu \\[2mm] \dfrac{d\lambda}{dt} = -\dfrac{\partial H}{\partial x} = -Q\hat{x} - A^T \lambda \end{cases} \qquad (1.68)$$

4. We extremize the Hamiltonian (1.67) in relation to u:

$$\frac{\partial H}{\partial u} = Ru + B^T \lambda \qquad (1.69)$$

5. from (1.69) results the optimal command:

$$u = -R^{-1} \cdot B^T \cdot \lambda \qquad (1.70)$$

6. In case the extremity t_1 is left alone, the secondary vector λ is chosen thus:

$$\lambda(t) = P \cdot \hat{x}(t) \tag{1.71}$$

where P is the solution to the differentiated Riccati equation:

$$\dot{P}(t) \cdot x(t) + P(t) \cdot \dot{x}(t) = -Q \cdot x(t) - A^T \cdot P \cdot x(t) \tag{1.72}$$

7. Based on the relation (1.71), the expression (1.70) becomes:

$$u(t) = -K_x \cdot \hat{x}(t) \tag{1.73}$$

where: $K_x = R^{-1} \cdot B^T \cdot P$. In these conditions, we obtain:

$$\frac{d}{dt}\begin{bmatrix} \hat{x} \\ x_i \end{bmatrix} = \begin{bmatrix} A - K_x \cdot B - K \cdot C & -B \cdot K_x \\ 0 & 0 \end{bmatrix} \cdot \begin{bmatrix} \hat{x} \\ x_i \end{bmatrix} + \begin{bmatrix} K_x \\ I \end{bmatrix} \cdot E(t) \tag{1.74}$$

$$y_c(t) = \begin{bmatrix} -K_x & I \end{bmatrix} \cdot \begin{bmatrix} \hat{x} \\ x_i \end{bmatrix} \tag{1.75}$$

where: $x_c = \begin{bmatrix} \hat{x} \\ x_i \end{bmatrix}$; $A_c = \begin{bmatrix} A - K_x \cdot B - K \cdot C & -B \cdot K_x \\ 0 & 0 \end{bmatrix}$; $B_c = \begin{bmatrix} K_x \\ I \end{bmatrix}$;

$C_c = \begin{bmatrix} -K_x & I \end{bmatrix}$; $D_c = 0$

Based on the equations presented above, the regulator used in an optimal budgetary expenditure control is defined by the following matrixes:

$$A_c = \begin{bmatrix}
-7.2444 & 0.1060 & -0.2472 & -0.7757 & 0.0929 & -0.1476 & -1.4952 & 1.4356 \\
-12.5412 & -3.2377 & -1.1975 & -2.3094 & -3.4912 & -1.5305 & -13.9216 & 0.6826 \\
-16.8527 & -3.4844 & -4.6887 & -3.2860 & -3.0557 & -1.3440 & -21.6729 & 1.1246 \\
-16.9610 & -2.4580 & -3.6120 & -3.3734 & -0.5426 & -0.2567 & -13.2971 & 1.2752 \\
-10.4611 & -3.4058 & -3.3006 & -2.9395 & -4.1907 & -0.9585 & -19.5444 & 0.0439 \\
-4.7503 & -1.3919 & -1.6452 & -1.5860 & -1.4188 & -1.2805 & -10.1936 & 0.4712 \\
-0.7549 & 0.4498 & 0.5049 & 0.4731 & 0.4526 & 0.2470 & 2.7770 & -0.1130 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0
\end{bmatrix}$$

$$\tag{1.66}$$

$$C_c = \begin{bmatrix} 0.0359 & 0.1064 & 0.0577 & 0.0028 & -0.4011 & -1.8308 & -7.9830 & -0.0768 \\ -0.0818 & -0.4080 & -0.4580 & -0.4291 & -0.4106 & -0.2240 & -2.5188 & 0.1025 \\ -0.7811 & -0.2781 & 0.6715 & 0.3871 & -0.4953 & -0.6341 & -0.4802 & 0.1101 \\ -0.3811 & -0.0041 & -0.1676 & -0.2330 & 0.2879 & -0.0234 & -0.7128 & 0.3339 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$$

(1.67)

$$B_c = \begin{bmatrix} -4.1842 \\ -11.0709 \\ -15.5499 \\ -16.3639 \\ -11.0891 \\ -4.2226 \\ -0.8452 \\ 1 \end{bmatrix}; \quad D_c = \begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}^T$$

(1.68)

These matrixes have been determined knowing that matrixes Q, R and M are:

$$Q = 5 \cdot I_7; \ R = 7; \ M = 0,7 \quad , I \text{ being the unit matrix} \quad (1.69)$$

Keeping the above in mind, we can create the simulation for the Matlab Simulink control system based on the following program:
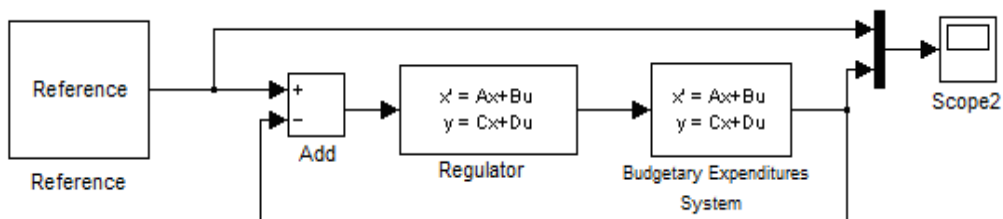
Source: Authors

Figure 8. Simulation program of the public expenditure control system in Romania

After the simulation, we impose a reference measurement for public expenditures of 60188M EURO and we obtain the following result:
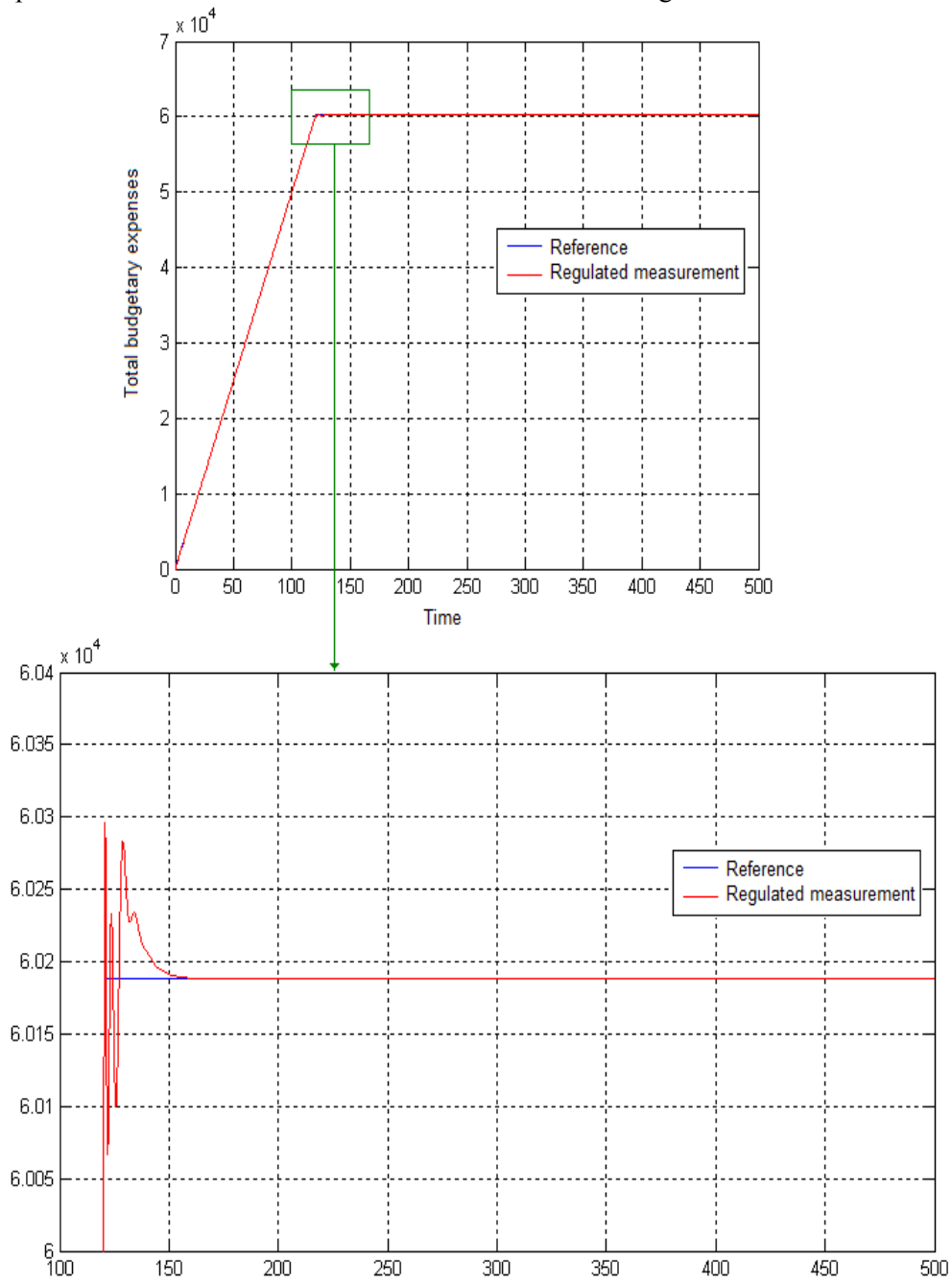
Source: Authors

Figure 9. Variation in time of total expenditures in tandem with the reference value

In Figure 9 we have a representation of the variation in time of total public expenditures for a given reference value. We notice that it stabilizes itself after a certain period of time.

6. CONCLUSIONS

In this article we have the description of a public expenditures regulation method in Romania achieved by designing an optimal control system.

The public expenditures control system gives an error that tends to zero, between imposed public expenditures and real expenditures.

Based on this model, for an imposed reference measurement of public expenditures, we can determine the composing elements of the input vector from the mathematical econometric model of Romania's public expenditures system.

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THE IMPACT OF DEPRECIATION ON COSTS

MARIANA RADU [*]

ABSTRACT: *It is known that depreciation is calculated in financial accounting by regulated criteria, depending on a conventional fixed life. Excluding depreciation depending on units produced (applied to buildings and special construction of mines, salt mines, quarries) where it is calculated per unit based on the exploitable reserve of useful mineral substance, the other depreciation methods do not always lead to fair and justified calculation of production costs. In this paper I will show how to record depreciation expenses in management accounting in Romania, the influence of methods of depreciation on costs, which are the restatements that depreciation expenses should be subject to for an accurate determination of production costs.*

1. INTRODUCTION

In order to exercise control over consumptions and the correct calculation of the cost of manufactured products, management accounting must record in time (at the time of execution) and in full the consumption incurred. For this we need to consider the type or categories of consumption, particularities and how to include them in the cost of manufactured products. Many of the expenses recorded in financial accounting are subject to restatements before being included in costs. Fixed assets depreciation may be recorded into Class 6 "Expense accounts" at permissible value tax, and in costs (Class 9 "Management accounts") to be distributed in an economic optics reflecting the rate of consumption of economic benefits expected due to assets depreciation. Differences between expenses recorded in the financial accounting and expenses incorporated into costs are known as differences of incorporation.

The purpose of this research is to show the impact of depreciation methods on costs used in Romania. Hypotheses representing the starting point of this research are:

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1. depreciations, other than straight-line, when practiced, load unevenly the costs of successive periods;
2. the correct calculation of costs require restatements of depreciation expenses.

I used both theoretical research on the concepts, theories and regulations in the field existing so far and also empirical research by presenting case studies trying to find solutions to the problems mentioned.

2. RECORDING DEPRECIATION IN MANAGEMENT ACCOUNTING

Depending on the type of activity, production technology, size of the enterprise, the number of manufactured products, depreciation may be included into management accounting in the following costing items:

1. Direct costs. Depreciation is direct cost when can be identified by object of calculation, case in which it can be included directly in the cost of products, works or services obtained within primary or auxiliary sections. This situation is met in the extractive industry sub-sectors; in the primary and auxiliary sections of homogeneous production; in the situation where on a specific machine within a section of production is manufactured a single product as object of calculation (the machine depreciation shall be wholly incorporated into the cost of obtained product).

In management accounting it is recorded into the account 921 "Costs related to core business", subsidiary detailed on each product. The enterprise may also opt to create a specific costing item called "Direct depreciation". The accounting formula of recording involves debiting account 921, subsidiary "Direct depreciation" (DD), sub-subsidiary "Product X" and crediting account 901 "Internal transactions relating to expenses":

921.DD.X.	=	901
"Costs related to core business".		"Internal transactions relating to
Direct depreciation. Product X		expenses"

2. Production overheads. In most cases, however, depreciation is identified by areas or sectors of expense. When identified in the production sections, tracking and control of depreciation expense is achieved through costing items: 922 "Costs related to auxiliary activities" (for auxiliary production sections) and 923 "Production overheads" (for primary production sections), subsidiary accounts split by each auxiliary (AS) and primary (PS) production sections. In this case the accounting formula of taking depreciation costs on tangible assets from financial accounting into management accounting is:

%	=	901
922.AS1		"Internal transactions relating to
"Costs related to auxiliary activities"		expenses"
Auxiliary production section no 1		
923.PS1		
"Production overheads"		
Primary section of production no 1		

Depreciation included in indirect costs in the sections may be included into the following costing items:

a) "Expenditure on the maintenance and operation of equipment" EMOE where is recorded the depreciation related to common machinery, vehicles, devices and equipment from the category of fixed assets of the department;

b) "Expenses of the section" ES, in "General interest expenses of the section" category, where is recorded the depreciation of buildings and of other fixed assets of the department (excluding machinery and means of transport).

3. Administrative overheads. They are recorded in this costing item, in the category "Administrative overheads", the depreciation of buildings and other fixed assets of general interest and management of the industrial unit. In management accounting is recorded using account 924 "Administrative overheads" not detailed in subsidiary accounts. The accounting formula of taking the depreciation from financial accounting into the management accounting is:

924 = 901
"Administrative overheads" "Internal transactions relating to expenses"

4. Distribution costs. In this costing item is recorded the depreciation of fixed assets used in its own distribution network, the account used being 925 "Distribution costs", which usually is not detailed in subsidiary accounts. The accounting formula is:

925 = 901
"Distribution costs" "Internal transactions relating to expenses"

3. INFLUENCE OF METHODS OF DEPRECIATION ON COSTS

It is known that depreciation is calculated in financial accounting by regulated criteria. Excluding depreciation of units produced (applied on buildings and special construction of mines, salt mines, quarries) where it is calculated per unit of product based on the exploitable reserve of useful mineral substance, the other depreciation methods do not always lead to fair and justified calculation of production costs. Straight-line depreciation involves including in the production costs an annual amount equal to the entire life of the fixed capital. Degressive and accelerated depreciation involve including in the production costs an annual amount that decreases from one year to another.

To illustrate how the method of depreciation used may influence the cost of products obtained, works executed, services provided, we shall start from the following simplified example:

We consider a company that during a reporting period had the following costs (excluding depreciation expense of fixed assets) to obtain the production:

- raw materials expenditure   50000 lei
- direct labor   25000 lei
- production overheads   15000 lei

(no depreciation)
Cost of production
(without the influence of depreciation)   90000 lei

Depreciation is calculated for the single equipment owned by the enterprise, its input value being of 50.000 lei, normal usage - 5 years.

To avoid allocation calculations of production overheads we assume that the enterprise has homogeneous production and that during the month produced over 100 pieces of finished product.

We intend to calculate the unit cost of the product obtained by including into the cost the full amount of depreciation recorded in financial accounting, depreciation calculated by: straight-line, degressive and accelerated systems.

3.1. Calculation of production cost by using straight-line depreciation regime

Straight-line depreciation rate K_L = 100 / 5 years = 20%

Monthly depreciation calculated for the machinery and the total and unit production cost of the finished products is calculated in Table 1.

Table 1. Influence of straight-line depreciation on cost

Years	Value for depreciation (lei)	Depreciation rate (%)	Annual depreciation (lei)	Monthly depreciation (lei)	Production cost (no depreciation) (lei)	Production cost	
						total (lei)	unit (lei/pcs)
0	1	2	3 = 1 x 2	4 = 3/12	5	6 = 4 + 5	7 = 6/100
1	50000	20	10000	833.33	90000.00	90833.33	908.33
2	50000	20	10000	833.33	90000.00	90833.33	908.33
3	50000	20	10000	833.33	90000.00	90833.33	908.33
4	50000	20	10000	833.33	90000.00	90833.33	908.33
5	50000	20	10000	833.33	90000.00	90833.33	908.33

It is noted that straight-line depreciation uniformly affects the cost of production obtained, while it maintains the same value (908.33 lei/pcs.).

3.2. Calculation of production cost by using degressive depreciation regime

Degressive depreciation rate is: $K_D = K_L$ x 1.5 = 20% x 1.5 = 30%
The production cost of product is calculated in Table 2.
In year 3: straight-line depreciation = (50.000 – 15.000 – 10.500)/3 years = 24.500 lei/3 years = 8.167 lei; degressive depreciation: 24.500 lei x 30% = 7.350 lei.
Since straight-line depreciation is higher, starting from year 3 straight-line depreciation regime applies. Straight-line depreciation rate K_L = 100/3 years = 33,33%.
By applying degressive depreciation is found that:
*   while depreciation is calculated using the degressive depreciation rate (in our example in the first two years) the production cost is loaded with depreciation increasingly less;

✘ while depreciation is calculated based on the straight-line depreciation rate, the production cost remains equal, but at a lower value than in the degressive depreciation period.

Table 2. Influence of degressive depreciation on cost

Years	Value for depreciation (lei)	Depreciation rate (%)	Annual depreciation (lei)	Monthly depreciation (lei)	Production cost (no depreciation) (lei)	Production cost	
						total (lei)	unit (lei/pcs)
0	1	2	3 = 1 x 2	4 = 3/12	5	6 = 4 + 5	7 = 6/100
1	50000	30.00	15000	1250.00	90000.00	91250.00	912.50
2	35000	30.00	10500	875.00	90000.00	90875.00	908.75
3	24500	33.33	8167	680.58	90000.00	90680.58	906.81
4	24500	33.33	8167	680.58	90000.00	90680.58	906.81
5	24500	33.33	8166	680.50	90000.00	90680.50	906.81

3.3. Calculation of production cost by using accelerated depreciation regime

In the first year the accelerated depreciation rate is applied $K_A = 50\%$. From the second year straight-line depreciation rate is applied: $K_L = 100/4$ years $= 25\%$. The following production costs are obtained:

Table 3. Influence of accelerated depreciation on cost

Years	Value for depreciation (lei)	Depreciation rate (%)	Annual depreciation (lei)	Monthly depreciation (lei)	Production cost (no depreciation) (lei)	Production cost	
						total (lei)	unit (lei/pcs.)
0	1	2	3 = 1 x 2	4 = 3/12	5	6 = 4 + 5	7 = 6/100
1	50000	50	25000	2083.33	90000.00	92083.33	920.83
2	25000	25	6250	520.83	90000.00	90520.83	905.21
3	25000	25	6250	520.83	90000.00	90520.83	905.21
4	25000	25	6250	520.83	90000.00	90520.83	905.21
5	25000	25	6250	520.83	90000.00	90520.83	905.21

It is found that:
- due to a rather large depreciation in the first year of functioning of the fixed asset, and production cost of the product is high this year;
- from the second year, meaning the year when straight-line depreciation applies, the cost of production is equal, however at a much lower value than the value calculated in the first year.

Following the results obtained in the case study presented, we conclude indeed that:

- depreciations, other than straight-line, when practiced, unequally load the costs of successive periods;
- depreciation is calculated on a rigid manner depending on a conventional fixed period of life: if a fixed asset is removed from service prematurely, the related expense increase excessively the costs; conversely, if a fixed asset is used longer than the initial period, costs will minimize.

4. INCLUDING DEPRECIATION INTO COST

Regulated criteria to calculate the depreciation in financial accounting may not always be used for a correct calculation and justification of the production costs. The depreciation method used should reflect the way in which the future economic benefits of an asset are expected to be consumed by the entity.

In compliance with the standard IAS 16 "Tangible assets" the life of an asset shall be determined through the analysis of several factors: the estimated level of asset use by the enterprise (based on production capacity or estimated production); the expected physical wear (depending on the operating conditions); obsolescence occurred or to occur; legal limits on the use of the asset (the leases).

According to IAS 16, the enterprise will be the one that will estimate the useful life of the asset. To be more precise, the professional reasoning must be manifested in full, not only at the beginning of the "life" of an asset, but also during it, when maybe it will be necessary to review the life cycle, in accordance with the mode of consumption of the future benefits. Useful life must be periodically reviewed and amended, if current estimates differ significantly from the earlier ones, it may be extended through repairs and improvements that add to the performance or, on the contrary, it can diminish as a result of technological progress or changes in the market structure. Thus, similar machines used by different enterprises acting on different markets, can have different lives.

In order to avoid conventional criteria used for calculating depreciation in the financial accounting in Romania, and which lead to its uneven incorporation into costs in successive periods, as well as for the accurate calculation of the cost of production of the goods produced by the enterprise, we recommend the inclusion of depreciation into costs based on economic criteria. Depreciation costs calculated this way shall be taken into account into incorporated costs and generate positive or negative "differences of incorporation" (Budugan, 2002, p. 213).

Management accounting allows the determination of the costs based on a depreciation that differs from the depreciation charges of financial accounting in three essential points:

✗ depreciation of a fixed asset in management accounting is calculated, not depending on the value of the purchase, but according to a present value: this value is based on market prices or, alternatively, on the coefficients established by experts in construction and equipment, or by any other means which the enterprise management deems appropriate; therefore, it is an allocation for the asset's renewal;

✗ in financial accounting the duration of use of a fixed asset is a conventional duration: it is a probable duration of use. It may be different from the actual duration of use based on which depreciation should be included in the cost;

✗ depreciation incorporation into costs is made as long as depreciation remains in operation: a prematurely antiquated equipment no longer causes depreciation expense included in cost; on the contrary, an equipment left in operation beyond the fiscal depreciation period or the period originally established as conventional duration determines hereinafter a depreciation expense.

The annuity for depreciation expense included in the cost is calculated for every asset or group of assets according to the relationship:

Annuity included into cost = Value of use of the asset /Planned duration of use.

Example: For a given period for a machine is recorded a tax depreciation of 10% per year. The machine has an entry value of 50.000 lei. One year after its entry in the enterprise patrimony, the management believes that the machine, which currently has a value of 70.000 lei (market price) will be used 6 more years.

The annual depreciation is:
- in financial accounting: 50.000 lei x 20% = 10.000 lei per year
$\Rightarrow$ 833,33 lei per month.
- in management accounting is retained the straight-line depreciation and the value incorporated into costs is: 70.000 lei : 6 years = 11.666,67 lei per year
$\Rightarrow$ 972,22 lei per month.
- difference of incorporation: 11.666,67 – 10.000 = 1.666,67 lei per year
$\Rightarrow$ 138,89 lei per month.

Schematically, each month, this aspect can be observed as shown in Figure 1.
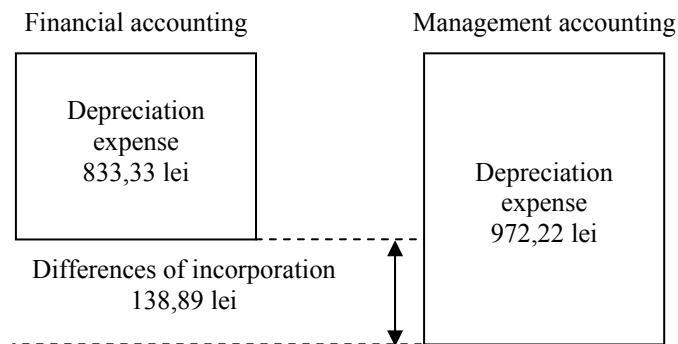
Figure 1. Incorporation of depreciation expense

The incorporation of depreciation into costs thus determined shall be valid, however, as long as the actual activity volume corresponds to the normal activity volume.

When depreciation is calculated in relation to time represents a fixed expense because it does not change when the activity volume changes. Depreciation included in the calculation article "Production overheads", or in other words, included in the fixed production overhead is allocated over costs based on normal production capacity.

Insufficient competitiveness of Romanian products on foreign markets is determined among other things also by partial use of the companies' equipment. Choosing the method of allocation of fixed costs, therefore, also depreciation expenses, should take into account the extent of utilization of production capacity. Thus, if we are dealing with a company where production capacities are used in full, depreciation can be fully absorbed by product cost and recovered by price. If the company is going through a period of crisis that manifests itself by reducing the activity, I appreciate that it is appropriate to employ the *method of rational imputation of structure cost*

(including depreciation). This way through the price will be recovered only a part of these expenses for the product concerned to keep its competitiveness on the market, and managers will be forced, given this situation, either to cut these expenses by forgoing the capabilities that they own and don't use, or to intensify the work of market prospecting to find those products required by the market with which to cover the entire production capacity.

The reasonable imputation allows including in the cost of products only a fraction of the fixed costs that correspond to a level of activity estimated as being normal. Thus, the cost will include all variables expenses related to the real activity and the proportion of fixed costs related to the level of activity considered to be normal. Therefore, it is about a calculation of a cost corrected with the variations in activity.

The rational imputation of fixed overhead (RF) involves first determining rational imputation coefficient (k), according to the relationship:

$$k = \text{Actual level of activity}/\text{Normal level of activity} \qquad (1)$$

Rational imputation of fixed overhead (RI_{fo}) and incorporable into products cost is:

$$RI_{fo} = RF \times k \qquad (2)$$

where: RF – real, actual fixed overhead.

It is calculated the difference of imputation (DI) between the real fixed overhead and rational imputation of fixed overhead and it is recognized as an expense of the period:

$$DI = RF - RI_{fo} \quad \text{or:} \quad DI = RF \times (1 - k) \qquad (3)$$

This difference may represent: *the sub-activity cost*, when the actual level of activity is lower than the normal level of activity, or can represent *over-activity benefit*, when the actual level exceeds the normal level of activity.

Thus, the fixed production overhead can be divided into two categories: that which is attributable to activities and products and corresponds to the structure expenditure corrected by the report: actual activity/normal activity and that which corresponds to the sub-activity or possibly the over-activity and that will not be attributed to products or activities, affecting directly the outcome of the exercise when it has emerged.

Example: Starting from the example shown above, we assume that the normal production of the production section is of 120 pieces. Unit variable costs are 900 lei/pcs. We assume that fixed costs of the section (fixed production overhead) consist solely of depreciation charges and are in the amount of 972.22 lei. In March of year N within the section were achieved 100 pieces produced. We are dealing with a sub-activity, the actual production being less than the normal production of 20 pieces. The unit production cost, calling for the rational imputation of fixed costs is calculated in table 4.

Table 4. Calculating the production cost

Indicators	Normal level of activity	March (actual level of activity)
Production volume	120 pcs.	100 pcs.
Variable costs	120 pcs. x 900 lei/ pcs. = 108.000 lei	100 pcs. x 900 lei/ pcs. = 90.000 lei
Rational imputation coefficient k	100 pcs./100 pcs. = 1	100 pcs./120 pcs. = 0,8333
Depreciation included into cost	972,22 lei x 1 = 972,22 lei	972,22 lei x 0,8333 = 810,15 lei
Total production costs	108.000 lei + 972,22 lei = 108.972,22 lei	90.000 lei + 810,15 lei = 90.810,15 lei
Unit production cost	108.972,22 lei/120 pcs. = 908,10 lei/ pcs.	90.810,15 lei/100 pcs. = 908,10 lei/ pcs.

In analyzing the sub-activity we should consider eliminating from the cost of the product the increases the sub-activity cost give rise to, making that products are not accepted in the market because of their high prices.

Note that in the example shown, despite the fact that real depreciation (calculated according to the amount of depreciation use and duration of use) is of 972.22 lei per month, in costs has been included only the amount of 810.15 lei. The difference of 162.07 lei (972.22 lei – 810.15 lei) represents the sub-activity cost and affects only the result in financial accounting. The inclusion of depreciation expenses in the costs (the entire amount of fixed costs by the way) based on the rational allocation coefficient leads to a balance of the unit production cost (908.10 lei/pcs.), regardless of changes in the volume of activity of the enterprise.

5. CONCLUSION

After the results obtained in the case studies presented above we can conclude that depreciations, other than straight-line, when practiced, unequally load costs of successive periods. Number one hypothesis is thus validated.

The second hypothesis is also validated, the presented restatements of depreciation costs in financial accounting aiming at a rational determination of the production costs calculated in management accounting. The depreciation inclusion into costs should consider the extent of utilization of production capacity. Each year must be recalculated the depreciation included into costs based on the current value of the asset and the probable duration of use. Also, the assets must be actually operating and depreciation expenses must be incorporated into the cost as long as the asset is used, even if it is fully depreciated in financial accounting.

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REAL CONVERGENCE IN ROMANIA - A COMPARATIVE APPROACH TO NON-ERM II COUNTRIES FROM CENTRAL AND EASTERN EUROPE

ADELA SOCOL, IMOLA DRIGĂ [*]

ABSTRACT: *The purpose of this paper is to survey the issue of real convergence in Central and Eastern Europe, based our approach on the literature review in the field and intended to develop a comparative approach of the main criteria of real convergence. We comparatively study Romania's situation face to European Union Member States that did not adhere until now to ERM Exchange Rate Mechanism II and that do not benefit of special opt-outs stipulations - Czech Republic, Hungary, Poland and Bulgaria. The challenges of the paper consisted in identification and choose of the criteria which properly characterize the real convergence issue of the national economies. This approach is imposed by the widespread concept of real convergence and its different meanings or measurement manners.*

KEY WORDS: *Real convergence, Non-ERM II Central and Eastern European countries, Inequalities.*

JEL CLASSIFICATION: *F36, F42, F33, E58.*

1. AIM AND RESEARCH METHODOLOGY

The starting point of this research is the provision contained by the 174 article of the Consolidated Version of the Treaty on the Functioning of the European Union, that presents the obligation of the European Union which, in order to promote its overall harmonious development, shall develop and pursue its actions leading to the strengthening of its economic, social and territorial cohesion.

The specialized literature and economic communities did not take over the economic cohesion concept and preferred and assigned like substitute the convergence concept, in order to describe the way whereby the subjects come from different

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directions and meet at the same point to become one thing. If we consider the national economies the subjects of the above definition, we can identify the convergence item in the European significance, according to its Treaty of Functioning. Although the Treaty does not mention the real convergence concept, this last term represents a significant concept of the contemporary economic life. Real convergence issue does not benefit of the same regulatory circumstances like the nominal convergence aspect, detailed in 140 article of the Treaty on the Functioning of the European Union, which require for each Member States the achievement of a high degree of sustainable convergence, equivalent to the fulfilment of the criteria of the nominal convergence on a long term.

According to national Convergence Programme 2011-2014, Romania maintains its commitment of adopting the euro currency in 2015 (Prime Minister's Decision no. 58/2011), even if until middle 2012, Romania did not assume the participation in the Exchange Rate Mechanism II, the Euro zone antechamber. The same situation regarding to not adopting of ERM II appears in the case of another countries from Central and Eastern Europe - Czech Republic, Hungary, Poland and Bulgaria. In this context, we consider this group of countries the subject of our research, in terms of real convergence. The previous research (Socol, 2012) studied the situation of these countries comparatively with Romania, from nominal convergence perspective. The results of the mentioned study suggests that no one of the countries does not fulfil the nominal convergence criteria during 2007-2011, even if there are countries that lonely achieve some criteria in few years, but looking back over the entire period, the analyzed countries do not fulfil the complete series of the nominal convergence criteria.

In the present paper, we analyzed specialized literature in the field and presented the theme from the general approach of the concept of real convergence towards the quantitative and qualitative techniques of interpreting the indicators of real convergence. These techniques belong to interpretive and critical paradigm and also to constructivist approach, based on the interpreting research. We underline the harsh way in selecting the representative studies in the area, considering the impressive number of them. Therefore, a major challenge was to distinguish among the indicators that provide measurement of real convergence. The research continues the similar steps initiated according to Monfort, 2008 and from methodological point of view, we studied some disparate indicators which can suggest the real convergence degree - GDP (Gross Domestic Product) per capita, the Gini coefficient GDP per capita, the unemployment rate and intra and extra-EU trade for the group of mentioned countries, based on the data provided by the European Commission EUROSTAT. Our research is a survey that conducts an update assessment of the real convergence aspects at the non-ERM II countries from Central and Eastern Europe - Czech Republic, Hungary, Poland, Bulgaria and Romania.

2. THEORETICAL BACKGROUND

The modern reference studies in the area are considered to be the '90th years papers which promoted the convergence concept in the sense that economies tend to grow faster in per capita terms when they are further below steady-state position (Barro

and Sala-i-Martin, 1992). In the same period were studied two considerable concepts of convergence - β convergence and σ convergence, especially through the empirical approaches. β convergence in its absolute sense is considered to exist if poor economies tend to grow faster than rich ones and σ convergence appears if the dispersion of real per capita levels of the group of economies tends to decrease over time (Sala-i-Martin, 1996).

In the last few years, we identify multiple studies which develop comprehensive literature review and original calculations regarding to European real convergence. In Romania, the Governor of the National Bank of Romania (Isărescu, 2008) underlined the necessity to focus not only on nominal convergence, in order to adopt euro, but also on several issues pertaining to real economic convergence, regarding to put in place the conditions necessary for a rapid, sound and sustainable economic growth.

Studied issued at the level of public institutions of European Union approached the convergence theme through the large size and very elaborated studies. Examination of the nominal convergence that implies studying of the provisions contained by the Treaty on the Functioning of the European Union, are periodically presented in the European Central Bank Report of Convergence (ECB, Convergence Reports, 2010). On the other hand, the real convergence European process is not official one and does not benefit by an official report. Nevertheless, we identify studies which present the measures and evolutions of the different criteria of real convergence. One of these types of studies presents both beta and sigma convergence EU-15 versus EU-27 and an analysis of disparities among European Union regions (Monfort, 2008).

Some authors studied the real convergence face to monetary convergence at the level of Central and Eastern European member states, in the EMU context, used the Balassa-Samuelson theory (De Grauwe & Schnabl, 2004). The authors underlined and explored the convergence dilemma, regarding to the developing countries in the economic catch-up process, which have higher productivity gains in the tradable sector than industrial countries and higher consumer price inflation which contributes to a secular catch-up of prices.

Real convergence concept benefits by many various definitions, which grasp affiliation to the growth theory, related to neoclassical growth model. These studies also present the Romania's situation comparative with the European Union's, referring to empirical analyses of β and σ convergence (Putinelu, 2010), (Begu, et al., 2010). Some authors (Drăgan & Pascariu, 2008) studied Romania's real convergence beteewn 1999-2008 and the regional disparities in the context of European convergence, inclusively between Beta and Sigma. Also, Romania was the subject of the analysis from nominal and real convergence point of view in the EU context (Triandafil, 2011), (Ungureanu, et. al, 2009).

Regional imbalances and convergence were studied based on dispersion method in order to identify the dynamics and amplitude differences in the level of regional development in European Union and Romania (Antonescu, 2012). The author describes the convergence tendency for the European regions in the last 10 years.

The econometric testing of the two types of real convergence - beta and sigma - was realized at the level of the development regions of Romania and showed the

inexistence of regional convergence process, which means that certain regions represent strong attraction poles that absorb larger amounts of capital and high-quality workforce to the detriment of less development regions (Sîrghi, 2009).

Also, the real convergence was a subject to others authors (Stoica, 2008) (Drigă & Niță, 2009), that underline that Romania should think at real convergence, not at the nominal one, to conscience the dangers of entering the euro area without the real convergence.

Iancu (Iancu, 2008) described three categories of convergence approaches, according to the existing studied and models: *the first* - real convergence as a natural process, based exclusively on the market forces, *the second* - actual real convergence between the poor and the rich countries, and *the third* - necessary and possible real convergence in a competitive market. The author analyzed GDP per capita and the variation coefficient of GDP per capita or the σ-convergence, for the EU Member States, between 1995 and 2006 and concluded about the necessity of EU sectoral policies, with favourable effects on the economic convergence of the less developed countries with the developed ones.

We are interested in the real convergence indicators which can contribute to convergence measurement and identified many landings, below synthesized:
- β convergence and σ convergence (Iancu, 2008);
- Income convergence, productivity convergence, relative prices convergence, employment structure convergence, educational convergence (Angelescu et. al, 2009);
- GDP per inhabitant, the structure of the national economy branches (% of GDP), the openness of the economy, foreign trade and its degree of integration into EU and the costs of labor (Ciobanu (Sireteanu), 2010);
- Synthetic indicators such as the dispersion ($\sigma2$), the square average diversion (σ), the variation coefficient (*CV*) or the linear average deviation (d) (Tănasie, 2010), (Pecican, 2010).

3. ANALYSIS

The purpose of this section is to examine the state of real convergence between Romania and the others European Union Member States that did not adhere until now to ERM Exchange Rate Mechanism II and that do not benefit of special opt-outs stipulations - Czech Republic CZ, Hungary HU, Poland PL and Bulgaria BG. According to information published by the European Commission, Czech Republic, Hungary, Poland and Bulgaria do not currently have a target date for adoption of the euro and for Romania, national target date for adoption of the euro is established for 01.01.2015 (European Commission, 2012). Communication on the euro adoption is an important task of the national banking authorities - central banks, which have to inform the citizens on your plans to adopt the euro, the technical ways of changes of the national currency, the benefits and challenges of the euro adoption.

In order to establish the Romania's real convergence situation comparative with the others non-ERM II countries from Central and Eastern Europe, we selected and analyzed some criteria from the literature, mentioned in the table below. Initial, the

proposed analysis horizon was 2002-2011, but unfortunately, the analysis horizon is not the same for all the studied criteria, in accordance with the data founded in the public reports of EUROSTAT Database.

Table 1. The analyzed real convergence criteria

Reference	Criterion of Measurement	Explanations	Analysis horizon
Nation's economic situation	GDP per capita - at market prices	It reflects the total value of all goods and services produced less the value of goods and services used for intermediate consumption in their production. Expressing GDP in PPS (purchasing power standards) eliminates differences in price levels between countries, and calculations on a per head basis allows for the comparison of economies significantly different in absolute size.	2004-2010 (EUROSTAT publish GDP per capita - at market prices, only since 2003)
Inequality of distribution of personal income	The Gini coefficient GDP per capita	The Gini coefficient is defined as the relationship of cumulative shares of the population arranged according to the level of equivalised disposable income, to the cumulative share of the equivalised total disposable income received by them.	2005-2009 (The Gini coefficient GDP per capita is not reported by the different countries - for example, in the Czech Republic case lacks data for 2000, 2002, 2003, 2004; in the Poland case lacks data for 2002, 2003, 2004)
Labor market	Unemployment rate, annual average	The unemployment rate represents unemployed persons as a percentage of the labour force based on International Labour Office (ILO) definition. The labour force is the total number of people employed and unemployed. Unemployed persons comprise persons aged 15 to 74 who: - Are without work during the reference week; - Are available to start work within the next two weeks; - And have been actively seeking work in the past four weeks or had already found a job to start within the next three months.	2002-2011
International trade	Share of exports by member state	Intra and Extra-EU trade by Member State and by product group.	2002-2011

Source: EUROSTAT Database - definitions of indicators

The evolution of GDP was presented for the period 2004-2010, based on the data provided by the European Commission EUROSTAT and emphasized the differences between the analyzed countries.

GDP per capita records the highest level in the case of Czech Republic, during the entire analyzed period. Hungary and Poland, the others two countries that adhered to European Union in 2004, registers also the superior values of GDP per capita, comparatively with the two countries that adhered in 2007 - Bulgaria and Romania. Romania get ahead only of Bulgaria, as opposite of the three leaders, our country is at significant distance. The significant differences of GDP per capita values between the studied countries indicate the inexistence of a real convergence process, owing to the inhomogeneous indicators for each country.
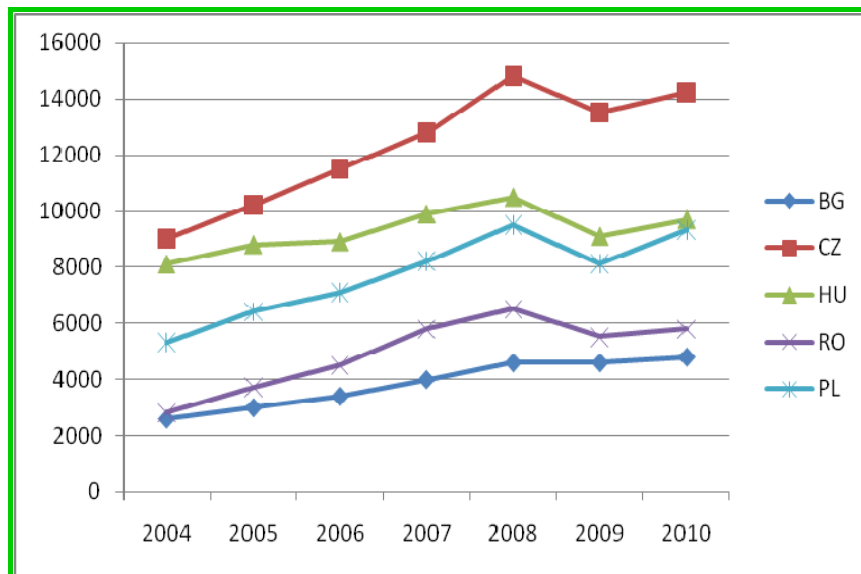
Figure 1. Evolution of GDP per capita of non-EMU Countries from Central and Eastern Europe, 2004-2010

We based our approach on Monfort (2008) that described the Gini coefficient which can be used in order to compare income distributions among countries. Monfort explained that the Gini coefficient varies between 0 and 1 and measures the inequality in the distribution of personal income or wealth. A low value indicates more equal distribution - 0 corresponding to perfect equality, while a high Gini coefficient indicates more unequal distribution - 1 corresponding to perfect inequality where income is concentrated in the hands of one individual.

From the Gini coefficient GDP per capita perspective, Romania presents the values which are not much over that the coefficient afferent of the EU-27, around 30. If we compare the distribution of personal income item, this situation shows a high level of convergence of our country with the EU-27. The analysis of Gini coefficient at the level of the other countries denotes the same supremacy of the countries that adhered to European Union in 2004 - Czech Republic, Hungary and Poland. These countries registered lower values of the Gini coefficient, associated with a great higher of equality in the distribution of personal income.
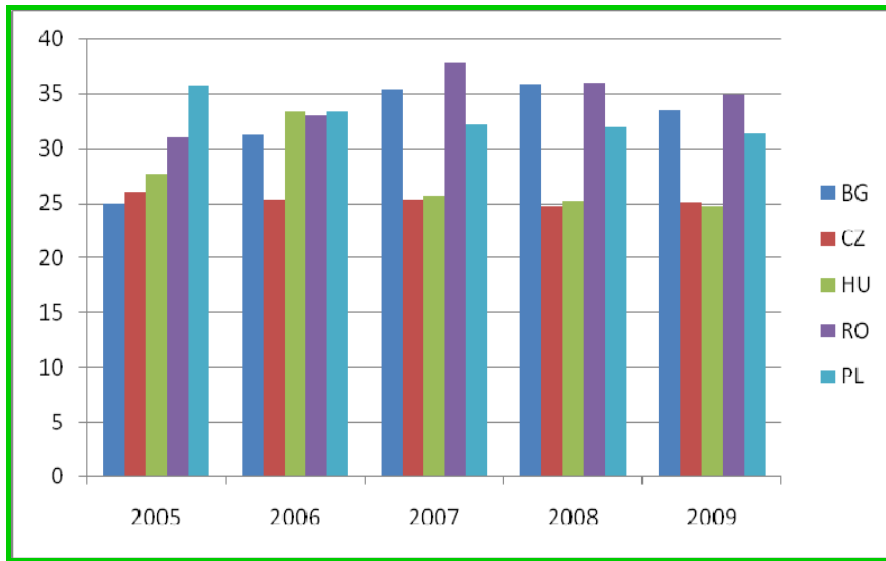
Figure 2. Evolution of Gini coefficient GDP per capita of non-EMU Countries from Central and Eastern Europe, 2005-2009

Taken into consideration the unemployment rate during 2002-2011, we observe that since 2008, the indicator records closed values in the studied countries, comparatively with the period 2002-2008, when the indicator varies in larger interval.
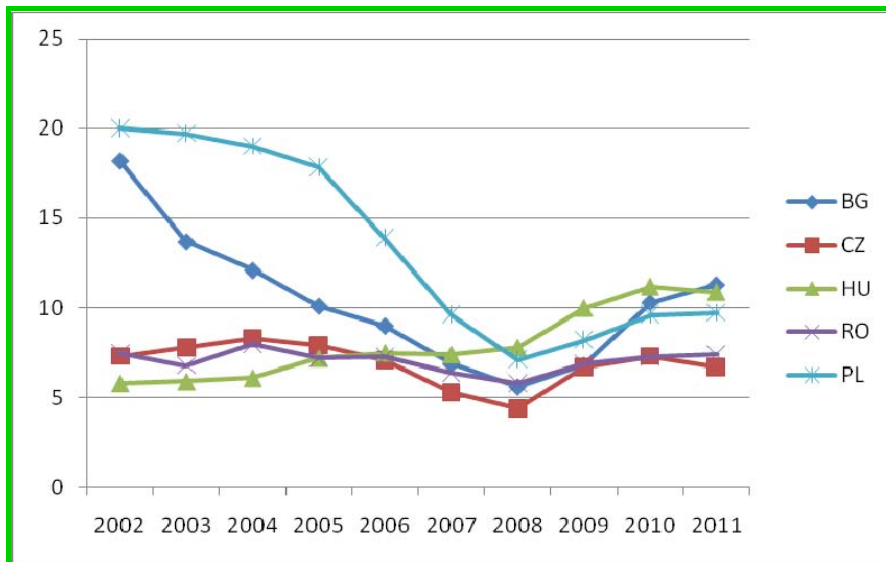
Figure 3. The unemployment rate of non-EMU Countries from Central and Eastern Europe, 2002-2011

Figure 3 shows that the unemployment rate registered dissimilar evolution in the analyzed countries. None of the countries present the linear evolutions and the group of the countries that adhered in 2004 is not the leaders of the sample. Without the establishment of a clear limit that characterizes the convergence, we consider that the evolution of the unemployment rate suggests rather the disparities during the period of observation.
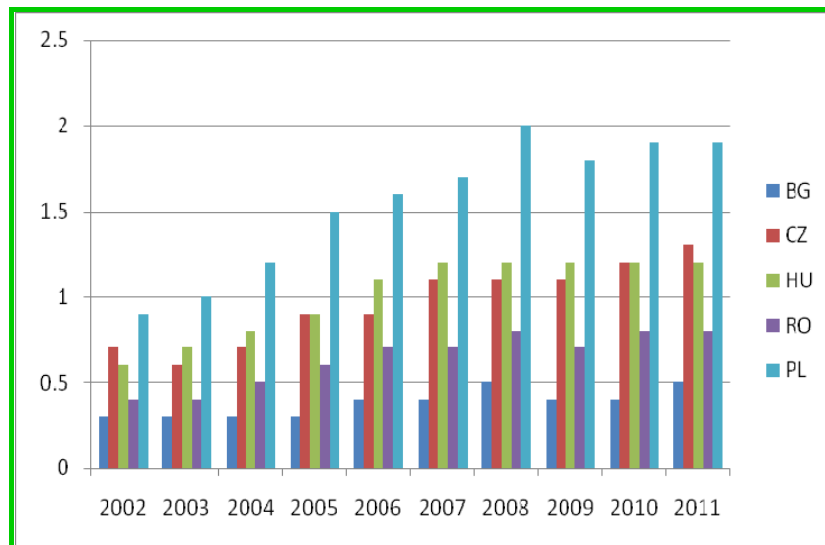
Figure 4. The share of exports by member state of non-EMU Countries from Central and Eastern Europe, 2002-2011

We consider that another sign of real convergence have to be the similar behaviour of the state in the international trade domain. We studied only one indicator of this area - the share of exports of the states and we observed that all the countries present the scanty percents, fewer than 2%. This suggests the similar behaviour between the analyzed countries, even Poland, Czech Republic and Hungary detach through higher values than Romania and Bulgaria.

4. CONCLUSIONS

The paper mentions some specialized studies regarding to real convergence European process and analyses some real convergence criteria, without comprehensive pretensions, based on the lack of the official European real convergence criteria. We recognize that a complex analysis of real convergence cannot be based on only few disparate criteria, considering that the numerous and complex potential indicators can characterize the real convergence process. Our analyses join to simple measures to comment upon the convergence real process. GDP (Gross Domestic Product) per capita, the Gini coefficient GDP per capita, the unemployment rate and intra and extra-EU trade for the group of mentioned countries were used for examining disparities

among non-ERM II countries from Central and Eastern Europe - Czech Republic, Hungary, Poland, Bulgaria and Romania. The results suggest the regional disparities between the analyzed countries and the gaps of the two countries that adhered to European Union in 2007 - Bulgaria and Romania, especially in terms of GDP per capita.

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Annexes

Table 2. GDP per capita of non-EMU Countries from Central and Eastern Europe, 2004-2010

GDP per capita (Euro per inhabitant)					
Year	Romania	Czech Republic	Hungary	Poland	Bulgaria
2004	2800	9000	8100	5300	2600
2005	3700	10200	8800	6400	3000
2006	4500	11500	8900	7100	3400
2007	5800	12800	9900	8200	4000
2008	6500	14800	10500	9500	4600
2009	5500	13500	9100	8100	4600
2010	5800	14200	9700	9300	4800

Source: European Commission EUROSTAT 2004-2010

Table 3. The Gini coefficient GDP per capita of non-EMU Countries from Central and Eastern Europe, 2005-2009

The Gini coefficient GDP per capita (%)					
Year	Romania	Czech Republic	Hungary	Poland	Bulgaria
2005	31	26^{b}	27.6^{b}	35.6^{b}	25
2006	33	25.3	33.3	33.3	31.2
2007	37.8^{b}	25.3	25.6	32.2	35.3
2008	36	24.7	25.2	32	35.9
2009	34.9	25.1	24.7	31.4	33.4

Source: European Commission EUROSTAT 2005-2009 (b- break in series)

Table 4. The unemployment rate of non-EMU Countries from Central and Eastern Europe, 2002-2011

Unemployment rate, annual average (%)					
Year	Romania	Czech Republic	Hungary	Poland	Bulgaria
2002	7.5	7.3	5.8	20	18.2
2003	6.8	7.8	5.9	19.7	13.7
2004	8	8.3	6.1	19	12.1
2005	7.2	7.9	7.2	17.8	10.1
2006	7.3	7.1	7.5	13.9	9
2007	6.4	5.3	7.4	9.6	6.9
2008	5.8	4.4	7.8	7.1	5.6
2009	6.9	6.7	10	8.2	6.8
2010	7.3	7.3	11.2	9.6	10.3
2011	7.4	6.7	10.9	9.7	11.3

Source: European Commission EUROSTAT 2002-2011

Table 5. The share of exports by member state of non-EMU Countries from Central and Eastern Europe, 2002-2011

Share of exports by member state (%)					
Year	Romania	Czech Republic	Hungary	Poland	Bulgaria
2002	0.4	0.7	0.6	0.9	0.3
2003	0.4	0.6	0.7	1	0.3
2004	0.5	0.7	0.8	1.2	0.3
2005	0.6	0.9	0.9	1.5	0.3
2006	0.7	0.9	1.1	1.6	0.4
2007	0.7	1.1	1.2	1.7	0.4
2008	0.8	1.1	1.2	2	0.5
2009	0.7	1.1	1.2	1.8	0.4
2010	0.8	1.2	1.2	1.9	0.4
2011	0.8	1.3	1.2	1.9	0.5

Source: European Commission EUROSTAT 2002-2011

CONTROVERSY REGARDING ITEMS EVALUATED IN FINANCIAL STATEMENTS

MARILENA-ROXANA ZUCA [*]

ABSTRACT: *The study follows the evaluation process of patrimony through different accounting referential. It was analyzed the basis for evaluation provided, how credible and believable are to the extent of their advantages and limitations. The differences highlighted here come to support today's concerns of accounting organisms in setting and developing elements and content for a Conceptual common framework.*

KEY WORDS: *historical cost, current cost, achievable value, actual value, true value.*

JEL CLASSIFICATION: *M41.*

One of the most complicated problems in accounting is choosing those bases for evaluation in order to measure the items in the financial statements so that it provides relevance and an accurate representation of the firm's activity.

Both **IASB and American Framework** propose the following basis for evaluation of *items in financial statements* (IASB and FASB conceptual Framework, section SFAC 5):

- **Historic cost means** the amount paid in cash, or its true value from the moment of acquiring the assets, the equivalent value obtained in change of the obligation, or in certain circumstances the value waited to be paid to settle the debts according to the normal activity of the firm. A specific trade *is that this cost is the original cost associated with the initial recognition and it reflects the true value of the item in the original moment of recognition.* So, this evaluation is objective because its value reflects faithfully the real conditions on the market at the time of acquiring the goods.

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- **Current cost** means the value to be paid if the same asset or a similar one would be purchased at a current time that is the non-actual value needed to settle an obligation at a current time. The cost is calculated as follows, we search for the value of an equivalent asset from which we subtract the amortization corresponding to a useful life consumed, associated with the good held that needs to be replaced.
- **Achievable value means** the value to be obtained in the present through normal selling of assets, the value that needs to be paid to settle debts according to a normal course of business.
- **Actual value** of future net cash inputs that will be generated in the activity of the firm, actual value of future net cash outputs that are expected to be necessary to settle debts. A practical settlement of this value implies professional reason that takes into consideration multiple variables generated by an uncertain environment.

FASB framework proposes a different base of evaluation: **current market value,** still IASB framework includes it but in a general way as **achievable value.**

Section *SFAC 5 "Recognizing and evaluating financial statements of commercial firms"* of the *American conceptual framework* defines the current market value as the value to be obtained from selling assets according to liquidity, used for evaluating financial investments that are easy to trade (negotiable titles), for financial transactions traded on a market etc. (Section 5 of SFAC).

Both international and American regulators allow the use of these evaluation bases presented above in financial statements, in different combinations and with different levels of use. To offer concrete evaluation solutions, they come to aid practitioners with information included in several standards.

No matter what accounting framework we use, choosing *evaluation bases* depends on the *nature of the elements*, in order to obtain accurate and relevant information.

The **historic cost** is used especially to *evaluate intangible assets* , to *most stocks categories, debts*, **the actual cost** is applicable only to some stocks categories, **net achievable value** is applied to stocks and *receivables on short term*, **the actual value** *of future treasury flow* is applied to *receivables on long term.*

An important factor that *supports diversity in evaluation*, recognizing the limitations of historical cost, is *the time factor*, because from several choses is picked the one that reflects most recent market values, as the relevant ones in making future decisions. This way of thinking led to accepting values for the present time as current cost, data important even for *achievable value*.

The actual trend of financial reporting is characterized through *presenting information in perspective,* information needed to estimate future cash flow*, reflected best in the *actual value of future cash flow.*

So, *section 7 of SFAC "Using information regarding cash flow and present value in accounting measurement",* defines a framework for the future cash flow as basis for accounting measures or in the initial recognition or future measurement.

This section specifies that only using the present value in accounting measurement we achieve the true value considered as being objective for most

measures in the context of initial recognition or future measures. It hasn't reached a consensus for using a certain evaluation basis that supports the existence of all bases presented above, but we still have to consider that these are *characterized by different levels of credibility and reliability*.

Below are synthetized the *advantages and limitations of these evaluation bases*:

- **Historical cost**

Advantages in report to other evaluation bases:
  - results from real transactions;
  - it is verifiable insuring objectivity for evaluation documents;
  - it reflects the *correct value* of the items at the *time of initial recognition*.

Limitations:
  - considering the economic parameters evolution in time (spending power, debt rate, firm profitability) the historical cost taken as an accounting input value for an item cannot paint a faithful picture in time of the value that should be reflected;
  - considering an inflation situation, the data provided according to historical cost paint a distorted picture of reality: intangible assets are under evaluated; performance isn't correctly evaluated because the profit is over evaluated, and so the entity pays taxes for inflation and distributes fictional dividends.

- **Current cost** (value to be replaced)

Advantages:
  - value with high relevance, used in evaluating provisions, on a national and international level (IAS 37 Provisions, debts and contingent assets);
  - is used in evaluating different assets (like those obtained by the entity from its own production, the assets acquired, for tangible assets with life duration consumed).

- **Achievable value**

Advantages:
  - *opportunity cost*;
  - reflects the entity's capacity to liquidate assets;
  - eliminates the need to assign accounting input value to tangible assets depreciated on useful life duration (amortization can be determined by calculating the difference between achievable value at the beginning and at the end of the period);
  - this must be used with attention because it becomes relevant for those assets that are to be sold (it is easily determined for assets that have an outlet, thus a market value).

Limitation:
  - it becomes irrelevant for those assets that are not to be sold.

- **Present value**

Advantages:
  - it is a future oriented value calculated based on net cash flows associated with the specific interval (present, future);

- is representative for tangible assets used in the process of production because these are the ones who create value for the entity and generate future cash flows;

Limitation:
- is given by the complexity of calculating this value.

It has to be determined for every asset in order for the value to be relevant; it has to have a predictable duration, a present rate, and also an increase of price.

O problem in using the evaluation bases analyzed above is the relationship between *costs and benefits* applied.

The costs of applying certain evaluation bases (present value) are superior to the benefits obtained by using them, so it is possible that we could give them up even though they contribute to reflecting a faithful image of the entity's activity.

So, using the historic cost we cannot point out a faithful economic reality for the entity, according to future changes in evaluating initial recognition.

Nowadays, accounting is going through a process of "evaluation" talking about a "future accounting" and not about an accounting reflected in historical costs (Tournier, 2002). In this context, in order to insure a faithful image in financial reports, regulators have used over time several means of correcting historical costs, a process that continues at present day.

Thus the idea of evaluating is an important part of the normalizing process.

We must state *that no conceptual framework includes as a basis* for evaluation *true value,* but different forms of manifestation like: current cost, achievable value, or present value. In return we see more and more accounting standards using the true value defined as the sum to which an asset can be traded or a debt settled willingly between two parts during a transaction that has an objective price[1].

We must differentiate between *true value and market value* because we don't always find an active market for all kinds of goods, *true value being a wider concept than market value.* If there is an active market for the goods needed to be estimated at a true value, then the market value can substitute the true value, contrary the last one will be determined considering present value of future cash flow, estimated with the help of the present rate (Mitu & Mitu, 2007).

Requirements regarding *the evaluation of the items from financial statements according to International Standards of Financial Reporting are*:

IAS 16 Tangible assets and IAS 38 Intangible assets
- the evaluation of intangible or tangible assets in the *initial moment* of recognition is made at a *historical cost*;
- after *initial recognition* they can be evaluated at *a historical cost decreased by depreciation and loss of accumulated*; or
- another alternative would be accounting them at a reevaluated value (*true value at a reevaluated date decreased by depreciation and loss of accumulated value*).

IAS 2 Stock
- *initial evaluation is made at a historical cost*;

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[1] Is the definition of true value from International Standards of Financial Reporting, American and national accounting regulations.

- after we must evaluate the lowest value between input cost and net achievable value[2];
- output evaluation (for *fungible assets* that have different input value) by: FIFO (first out) or CMP (weighted average cost)[3].

IAS 40 Real Estate investments
- *initial investment at historical cost*;
- after initial recognition *2 models are allowed*:
  - ✓ at input cost minus depreciation and provisions (according to IAS 16)
  - ✓ at true value.

Passing through model to model is allowed in order to obtain a faithful presentation, passing from cost evaluation to true value.

We notice that **true value** basis for evaluation suggested by IAS 40 is a value referring to prices on the active market undiminished with other expenses.

IFRS 5 Tangible assets held for sell and interrupted activities
- *initial evaluation at historical cost*;
- after *initial recognition*: the evaluation is made at the *lowest value between net accounting value and true value* diminished with estimated expenses from.

IFRS 6 Exploiting and evaluating mineral resources
- initial *evaluation at a historical cost*;
- after *initial recognition*: we use the cost method diminished with depreciation and loss of accumulated value; or reevaluation method (true value diminished with depreciation and loss accumulated);

IAS 41 Agriculture
- initial evaluation: *true value diminished* with estimated costs from selling;
- *post evaluations*: we maintain initial evaluation basis.

IAS 39 Financial instruments
- *initial evaluation*: at true value undiminished for assets and financial debts; *other financial instruments* evaluated at true value diminished with transactions costs;
- *post evaluations*: at **true value undiminished** for *assets and financial debts* evaluated at true value through Profit and Loss; the other *assets and financial debts* are evaluated at *depreciated cost (*example: assets owned until maturity, receivables, provided loans).

Based on information provided by International Standards of Financial Reporting presented above we can **conclude** the following:

- **Historical cost:**

We notice *that historical cost is used more carefully*. We only find it at the evaluation made in the initial recognition moment but not for all financial statements items;

- **Ulterior evaluation to initial recognition:**

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[2] Achievable net value is the estimated selling price that could be obtained during normal activity, minus estimated costs for finalizing a good and selling it.
[3] Compared to IAS 2 "Stocks", national regulations provide as well LIFO method (last in first out).

It is recommended to evaluate through several evaluation methods like *corrections of historic* cost to insure a faithful image of the entity through financial statements:

- historical cost diminished with depreciation and losses of value accumulated;
- reevaluation model (true value at the moment of reevaluation diminished with depreciation and losses of value accumulated);
- the lowest value between input and net achievable value;
- true value undiminished;
- the lowest value between the net accounting value and the true value diminished;
- true value diminished with estimated selling costs.

- We must make the difference between evaluating at **true value**, *IAS 40 Real Estate investments, and the evaluation at **true value diminished*** with depreciation and losses of value accumulated, *IAS 16 Tangible assets and IAS38 Intangible assets.*

Evaluation made based on true value must be basis of evaluation for presenting items in the balance sheet, otherwise we must evaluate at **a corrected true value**. *The model of true value* is different from reevaluation model allowed for some nonfinancial assets. So, according to the reevaluation model, pluses of value towards accounting value are recognized directly in *Equity at "Reserves from reevaluation"*, while according to the model of evaluation at true value are recognized in the *Profit and Loss account.*

The question that arises is: is it better to recognize differences from reevaluation directly in Profit and Loss account? I think not, because recognizing gain and losses unachieved in Profit and Loss account increases the volatility and doesn't insure transparency, changes made from reevaluation obstructing the evaluation of the exploitation performance.

When talking about the evaluation of stocks *can the net achievable value mean the same thing as net true value?* From *IAS 2Stocks net* achievable values definition, this is a value specific to the entity, while net true value is the sum interchangeable between parties, minus the selling costs, thus being a value that doesn't take into consideration the environment of the entity. So the two values are different. At the national accounting standards level we notice a series of bases, most of all for ulterior evaluation to initial recognition, amongst them true value. **True value** is the result of theoretical and practical researches of different specialists to express as accurate as possible the value of an item from the financial statements, at a certain point in time, ulterior to initial recognition. Specialists say that true value was introduced as a concept under the pressure made by creating value for the stakeholders (Niculescu, 2003).

From literature and studies made by different specialists, appear pro and con arguments regarding true value as a basis for accounting evaluation:

Pro arguments for using true value:

- it induces market value, it is defined by offer and demand; in case there is no market place this value may be extended to the actual value of future cash flows (Capron, et al., 2005);

- it makes treasury flow prediction possible, the worth of the entity reflected by financial statements being closer to the market value;
- it takes into consideration profit and loss resulted from differences in price changes;
- it is a simple method of evaluation for instruments directly negotiable on an active market;
- it limits possibilities for managers to adjust results using historical costs, that allows them to make provisions and depreciation adjustments, influencing thus, the results in the wanted directions (Deaconu, 2003);
- it is the most efficient way to measure performance at a certain time towards the historical cost, because it allows recognition for differences of value between input and the value at an ulterior time, while the historic cost provides information about value differences only when the item evaluated is derecognized (Bunea, 2007);
- true value tends to depressurize the precautionary principle, because minus and plus value appear in the balance sheet improving predictions for flows generated by the entity's activities (Ioanăş & Manea, 2006);
- the use of this model allows financial statements to reflect in a more objective way the risks to which the entity is exposed to, this allows us to calculate the net asset as a sum of true values, excluding the subjectivity for management decisions (Tournier, 2002);
- it reduces the differences between accounting value and stock value.

Con arguments for true value:
- studies show that **a** true value determined by market mechanisms like offer and demand has a more credible value than based on estimative techniques (Castra & Colasse, 2001);
- the need to evaluate at true value comes from the investors, the other users of accounting information (suppliers, clients, State), they have other informational needs regarding the entity's accounting (Firescu, 2009);
- a form of value estimation that can lead to behavior like creative accounting;
- studies show that if banks would use it as an evaluation basis there might be the risk that the market will render incorrectly the increase of true value of equity, that is an increase of risks, anticipating a crisis, and on the other hand bank auditors may interpret in a wrong way a decrease of true value thus taking measures that can mislead the market and alert it (Lustman, 2002);
- studies show that evaluating at true value in insurance companies doesn't present guarantees regarding reliability and credibility, that is why it might appear the risk for major volatility in results, a situation that would create panic among employees;
- the costs determining a true value are not to be trifled with.

When there is no market place to allow setting a market value for a good, and if the entity can calculate the actual value of cash flow induced by using that good, this value may be recognized as true value, although the formula itself isn't easy.

Another time when it needs assessment is the evaluation of the risk capital market. Thus, *Value at risk* (VaR) is a summary statistic that quantifies the exposure of an asset or portofolio to the market risk. Now, value at risk is viewed by many as indispensable ammunition in any serious corporate risk manager's arsenal.VaR certainly is not the only way a firm can systematically measure its financial risk. But, its appeal is mainly its conceptual simplicity and its consistency across financial products and activities (Ungureanu, et al., 2010).

National accounting regulations, OMFP no. 3055/2009 regarding Accounting standards according to European directives, states that evaluating items from the financial statements is frowned upon for the following evaluation moments:

At the time of entering the entity (*initial recognition*), the goods are evaluated at the acquisition price for those goods acquired for remuneration ; at the production price for goods brought for registered capital; at worth input for goods brought for registered capitals at true value for goods brought with free title or as a plus for inventory.

The definition provided by the order is the same as the one in all accounting referential. The order gives the possibility of choosing a reevaluation of tangible assets at a reevaluated value (*true value at the time of reevaluation diminished with depreciation and losses of cumulated value*), adopting the same accounting treatment as *IAS 16 Tangible assets.*

 Also*, financial instruments and derivatives* can be evaluated at true value adopting IAS 39 Financial instruments.

At the time of inventory, evaluating tangible and intangible assets is made at the inventory value set according *to the usefulness of* the good, its state and market price; stocks *are evaluated at accounting value minus adjustments for depreciation.* If accounting value of stocks is bigger than inventory value, their value is diminished until *net achievable value by* making an adjustment for depreciation.

The definition of net achievable value of stocks is the same as the one found in IAS2 Stocks *receivables and debts are evaluated at a probable cashing or paying value*.

When making the balance sheet (*evaluation made after initial recognition) the evaluation of tangible asset is made at accounting value minus depreciation and adjustments accumulated from depreciation or at reevaluated value.*

If we reevaluate tangible assets this aspect must be presented in the Explicatory notes together with the items subjected to reevaluation, the method of calculation and the item affected from the Profit and Loss account*.*

When goods exit the entity (*derecognition moment) they are evaluated and subtracted from inventory at input value* (for example: the value reevaluated for tangible reevaluated assets, true value for securities admitted for stock exchange market). Inventory is evaluated by applying one of the methods: FIFO, CMP or LIFO.

We notice that national standards choose to work with LIFO because its results are more credible, that is why IAS 2 Inventory has ruled it out.

CONCLUSIONS

The research gave me the possibility to notice that international regulators allow the use of the following bases for evaluation for the financial statements: historical cost, current cost, achievable value, actual value. These bases may be used in different combinations and levels of usefulness.

Choosing a basis for evaluation depends on the nature of items, because the information has to be relevant and trust worthy. So, the historical cost is used most of all in the evaluation of stocks and debts; actual cost is applicable to some stocks and short term claims/debts; actual value of future treasury flows is applicable to long term debts.

An important factor in evaluation, which supports the diversity of evaluation bases is time(because historical cost is limited), meaning that from multiple alternatives we have to choose the one that reflects the most recent market values as the most relevant for future decisions. This way of thinking led to accepting current cost and achievable value as values of the present time.

The actual trend of financial statement is characterized by presenting information in perspective, information needed to estimate future cash flows, reflected best by the actual value of future cash flows.

Researching on the matter of evaluating items in the financial statements entitles me to say that that this is circumscribed to developing financial statements that want to reflect a faithful image of the entity's activity.

I support this statement by the fact that historical cost is not used excessively but it's corrected using other bases of evaluation correlated with the specific of the item evaluated, both nationally and internationally.

The idea of evaluating at true value appears more and more in the process of normalization.

We must not forget that this comes from the support of investors not from other users of accounting information, the credibility of this value being specified especially where it is determined through market mechanisms, or supply and demand.

In conclusion, the aspects presented, confirm the option of most economic entities for a combo between the bases for evaluation in order to show a more faithful image of their activity.

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