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## EUROPEAN STANDARDIZATION OF AUDIT

OANA RALUCA IVAN \*

**ABSTRACT:** *The article reviews the evolution of external audit in some European countries and considers how this is likely to affect auditing in the future. The analysis shows how the European Commission has recently concentrated its harmonization focus on the consolidated accounts of listed companies and the use of International Accounting Standards. It is probable that this trend will continue and in the short term will cause changes in the arrangements for external overview of the audit and in national auditor rules.*

**KEY WORDS:** *EU, external auditing, IASs, audit mandate*  
*Jel: M42, N40*

### 1. INTRODUCTION

The utility of a scientific research resides in the necessity of giving answers to some current, very concrete, questions that may contribute to a better understanding of the phenomenon. The present paper, proposes itself to demarcate the most important concepts in the field of financial audit, contributing to the organic and functional analysis of the auditing process with its most significant elements, techniques and work tools. At the beginning of this research materialized in this study, the knowledge of different types of research allowed us to approach both the theoretical and methodological aspects in the most suitable manner. We have used mostly *a descriptive type of research*, objectively portraying the social phenomena in the attempt of formulating some hypotheses, or in judging the existing ones as suitable or not suitable for a certain social context. As for the practical study we have chosen an explicative type of research, having as a purpose the putting to value of the relationships between the phenomena: the way certain parameters (e.g. turnover, total assets, the number of employees), influences the auditor mandate. In the explicative part we notice the appearance of the possibility of making predictions.

In the whole extent of the study we did not use the application of the two approaches as extreme typologies of a sociologic research; in fact we might say that

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both parts of the research contain, to a certain extent, descriptive elements. The explicative part contains a description of the situation while the descriptive part withholds explicative elements through the classification it introduces. For the first part we consider that the research has a descriptive tone, with an evident qualitative character, but still holding quantitative elements, while in the last chapter the research is clearly explicative and with a strong quantitative character but holding qualitative elements. Kuhn's [4] series of paradigms (1970, 85) regarding the differences between the qualitative and quantitative types of research can be easily approached permitting to underline the difficulties in the strictly delimiting of the research periods: *the qualitative research is subjective while the quantitative one is objective; the qualitative approach attempts a detailed description, while the quantitative approach searches for laws that could explain the phenomenon; the qualitative study is an exploration of that which seems to be a dynamic reality, while the quantitative study, that what seems to be a statistical reality in the purpose of developing universal laws.*

In this final moment of the scientific road we have undertaken for the present paper we cannot afford to give a generally valid classification to the type of research we used, because we are unable to portray a unique characterization. And it seems that this is not a dilemma that concerns only our research. The nowadays problem is that many authors face the same difficulty in circumscribing their works to a single well determined method of research, most of the recent literature in the field allowing and even promoting an interdependence of the different types of research, shifting and mixing in accordance with the needs required by the element taken under observation.

In the context of overall scientific knowledge, accounting, and by this implicitly the audit, together with the finances finds itself included in the sphere of administrative sciences. It is considered to be the most exact of all the social sciences. Its collocation derives both from the practical role accounting, audit have and from the ways of tackling with the audit problems of the great American business schools (e.g. Stanford, Harvard, Massachusetts Institute of Technologies, Cornell, Wharton) and of some of the countries of Western Europe, especially France, The United Kingdom, Germany. The above mentioned motivate the opinion according to which the *relationship between accounting, audit, finances and psychology is implicit* because they all find their object of research in the study of the human behaviour. The investigation of the psychological variables in the financial – accounting domain highlights a certain attention to the analysis of each component that might create the possibility of obtaining a clear and correct image of a determined studied field. The present scientific investigation modestly subscribes to the attempts for formulating conclusions: first of all, to the auditors' mandate and their attitude in respecting the standards, by studying an audit quality report.

## **2. AUDIT – EMERGENCE, EVOLUTION AND NEED**

Firstly we attempt to outline objectively the social phenomena which brought about the advent of the financial audit phenomenon and, given the circumstances, the methodology of study employed by me is specific to descriptive research with elements of explanatory research by delineating some new classifications. Concerning *the*

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*evolution in time of the audit process I thought it would be appropriate to make a demarcation on three time segments.*

The first segment covers the period from *The Ancient Times up to the 18<sup>th</sup> century*. We may say that during this time range, there were only incipient forms of financial audit as it was not delimited yet from the accounting and control activities and the individual carrying out this activity would be generically called the accountant. The works required were mainly meant to prevent frauds or to discover these frauds and punish the thieves. The main beneficiaries of these works were various kings and emperors, the church and the state, and the accountants had a certain social status in that respective epoch as they generally were priests or specialists in the field who were acknowledged as having high moral standards.

*The second time segment* is the period ranging in between *1850-1900* when *the first forms of audit emerged as a professional activity*. The practice of audit itself dates back to more than one thousand years ago but it is only in the second half of the 19<sup>th</sup> century that trading companies would *check their accounts* by resorting to the help of accounting experts *from outside* the company. In America, the first signs of accountancy conceptualization appear after 1887 when the American Institute of Chartered Accounting Experts is set up. As compared to the previous period of time, we can state the change of the group of users of the results brought about by the financial audit activity, as they were, in the 18<sup>th</sup> century, the state, the shareholders and the banks. These would require the best accountants of the time to make audit works that would provide the best solutions for safeguarding the integrity of patrimony and provide the public with the most accurate form of financial statements and activity results. By the end of the 19<sup>th</sup> century, the profession of financial auditor already begins to take shape and the group of users of audit works are still the same: the state, the banks and the shareholders whose main purpose was to prevent frauds and mistakes, to certify the observance of accounting rules as well as to have a financial audit report outlining the degree of compliance with the true image of patrimony // assets. In conclusion, financial audit was known as a distinct specialization of accountancy about the 19<sup>th</sup> century though we do not know a precise date or place.

The third segment covers the time range between *1900 - to the current day*. In the period 1900-1920, the profession of auditor sets apart from that of accountant. In the United States of America, there emerges a nucleus of the profession of financial auditor as a liberal profession which becomes an opinion leader by setting up, in 1905, a special department within AICPA (American Institute of Certified Public Accountants). In the USA there emerges also the need to establish some audit practices specific to the American economy as taking over *ad literam* the British audit practices no longer match the specific of business in the USA [5]. Therefore, the first attempts of conceptualization emerge by means of the first recommendations concerning audit missions: in 1910, the first manual of audit was published [2] and in 1917 a professional guidebook was issued in which it was clearly depicted what economic grounds an audit mission [1] was supposed to cover. The time-line determination in the evolution of the profession of auditor as a liberal one, does not exclude, in fact it requires a demarcation on levels of development/initiation of *de facto* objectives of audit. This demarcation of the evolution of the liberal profession of an auditor by tracing it back in the course of

time does not exclude but it even requires a demarcation by levels of development / initiation of the *de facto* objectives of audit. Similarly to the worldwide context, the audit activities in Romania have emerged and evolved in harmony with the record-keeping, accounting and control activities. From the study of bibliographical resources we notice that the informational sources concerning the evolution of financial audit in Romania specify mainly aspects concerning the public sector. In fact we were able to find little reference to the private sector.

*The time range 1831-1858* is marked by the emergence of financial control, in a period of time when there was still confusion between the revenues and the expenses of the country and *the budget* of the ruler as there was not an evolved form of state control. In the Romanian Principalities, *The Organic Rules and Regulations* - of Muntenia and Moldavia - were issued, comprising some incipient forms of organization of public finances. The modernization of public finances as well as that of the financial control occurred after the administrative Union of the two principalities, especially after the ruler of the principalities Alexandru Ioan Cuza promulgated the Law on Setting Up the High Court of Accounts on January 24<sup>th</sup> 1864.

*In the inter-war period*, the law of 1929 on Public Accounting introduces the double entry bookkeeping system as a type of bookkeeping which is used to the present day. From now on, accounting records, the statements and the accounts concerning budget operation and public money handling make possible the control and the knowledge of the financial state of the country. The political evolution taking place in our country in *the post-war period (1945-1989)* had a great impact on public finances especially in what the financial control is regarded, in the sense that institutions of a deep democratic nature were dissolved and replaced with institutions subservient to state-control dictatorial policy. These regulations concerning the organization and the execution of preventive control in institutions, enterprises and state-owned economic organizations were approved in 1959 and the head of the accounting-financial department is assigned the preventive control of the unit.

After 1990, *the contemporary period* of financial audit organization emerges. Romania, passing to an economy based on the concept of competition, returned, implicitly, as far as the public sector is concerned, to the former financial institutions of the inter-war period, adapted to the actual conditions of transition period for the public sector. At the same time, in the private sector, professional bodies come into being. Though financial audit existed in the Anglo-Saxon and French - speaking countries in the European area, being subject to a permanent improvement for almost four decades, in Romania, it emerged only after 1990, as a necessity for further specialisation in the field of accountancy. Year 1993 marks, in our country, the advent of financial audit offices and in 2004 there were already 477 financial audit offices registered with the Chamber of Financial Auditors of Romania. The year 1993 marks, in our country, the advent of financial audit offices and in 2004 there were already 477 financial audit offices registered with the Chamber of Financial Auditors of Romania. The body regulating this profession in our country, the Chamber of Financial Auditors of Romania was set up in 2000 and its mission was to build, on a solid base, the identity and the public recognition of the profession of financial auditor in Romania having as a main purpose the constant development of this profession and to strengthen it by



means of Audit Standards and the Code of Ethical and Professional Conduct in the field of financial audit, through the complete assimilation of the International Standards and of the IFAC (International Federation of Accountants) Code of Ethics in order to allow the financial auditors, members of CAFR (Chamber of Financial Auditors of Romania), to supply high quality services of financial audit, serving the interests of the public, in general, and that of the community, in particular.

### 3. AUDITING IN EUROPEAN UNION

We consider that in order to serve the public interest, IFAC takes actions in order to consolidate the position of the profession of accountant at a world level and contributes to the development of some strong economies by establishing and promoting the acceptance of high quality professional standards aiming at the international convergence of such standards, taking public positions in the issues in which the state or the importance of the liberal accounting profession is the most relevant. *In conclusion*, the International Standards of Financial Audit can be applied in several ways: by their use in the original form, being turned into national standards; as a source of national standards of financial audit or as a reference system for the harmonization of national regulations with the community acquis.

Within the *European Union*, legal audit has been approached in the course of time in four Directives of the European Community: the Fourth Directive 78/660, of 25<sup>th</sup> July 1983 (modified by Directive 90/64 and 90/605 of 8 november 1990); the Seventh Directive 83/349 of 13<sup>th</sup> June 1983 (modified by Directive 90/64 and 90/605 of 8 november 1990); Directive no. 86/635 of 8<sup>th</sup> December 1986 annual accounts and consolidated accounts of banks and other financial institutions; the Eighth Directive 84/253 of 10<sup>th</sup> April 1984 (modified in 2005). The Fourth Directive (Fourth Directive, art.51, alin.1, a) lays down explicitly which economic entities must audit their financial statements for each country which is member of the European Union, this obligation extended automatically over the entities having the same consolidated accounts (Seventh Directive, art. 37).

Concerning *the field of application of compulsory financial audit* (or legal) we could note an explicit (negativist) delimitation with the following common elements for each country member of the European Union: Total balance – varies from 1.55 million euros in France - 3.65 millions euros in Holland (in absolute minimal values); Turnover - varies from 1.5 millions in Ireland to 6,875 million euros in Germany (in absolute minimal values); *Number of employees* - 50 employees for any country of the European Union less Sweden - 200 employees, as in table 1.

Concerning *the main features of the mandate of auditors* as compared to the level of some states of the European Union, these are outlined in table 2.

### 4. AUDITING IN ROMANIA

The ideological delineations from the field of auditing in Romania greatly absorb the contemporary international general conceptual frame. The *ad-literam* assumption of the General Frame, of the Ethical Code, of the International Audit

Standards, by the Romanian legal system, determined an approach with a high degree of uniformity with respect to the ongoing research at a national level from the part of the researcher.

**Table 1. Financial audit within European Union**

The exception required by law for financial audit *	Total Assets	Turnover	No of employees **
The Fourth Directive of EU	3,125	6,25	50
Germany ***	3,438	6,875	50
Belgium	3,125	6,25	50
Spain	2,37	4,75	50
France	1,55	3,10	50
Irlande ****	1,90	1,5	50
The Netherlands	3,65	7,7	50
Great Britain	2,8	5,6	50
Sweden			200

\* Amounts in milions euros for EU countries and in milion pound for Great Britain; \*\* The average number of employees during the financial exercise; \*\*\* Only to capital companies; \*\*\*\* Exemptions introduced only in 1999.

**Table 2. Main features of auditors' mandate in UE**

Country	Nomina- lization	No of auditors	The period of the mandate *	The possibility of revocation	Renewal of contract	Deputy auditor	Fee
France	SGA**	1 or 2	6	Yes, by court	Yes	Yes	Limitless , Not public
Germany	SGA	1	1	Yes, but through Justice means	Yes ***	Unforeseen explicit but possibly	Limitless , Not public
Belgium	SGA	1	3	Yes, with SGA compliance, for just motivations	Yes	Unforeseen explicit but possibly	Set by SAG, mentioned in the sessions minutes
Spain	SGA	1	Variable (3 to 9 years)	Yes, with SGA compliance, for just motivations, and with Court of Laws' accord	Yes, but at least 3 years have to past after the end of the previous mandate	Yes, for individual auditors	Set by SAG, published in Commerce Register
Irlande	SGA	1	1		Yes	Unforeseen explicit but possibly	Mentioned in the Financial Statements, approved by SAG
The Netherlands	SGA	1	Undeterm- ed	Yes, with SGA accord	Yes	Unforeseen explicit but possibly	Limitless
Marea Britanie	SGA	1	1		Yes	Unforeseen explicit but possibly	Mentioned in the financial Statements
Suedia	SGA	One or more	Precised in the statuf of compay	Yes	Yes	Unforeseen explicit but possibly	

\* numbered in financial exercises; \*\* SGA-Shareholders' General Assembly; \*\*\* To anonymous companies listed to Stock Exchange the Commerce Code precise a rotation of Wirtschaftsprufer - signatory auditor within the audit company.

A society having an audit culture represents a real challenge for the scholar intending to underline the most important steps in the evolution of the auditing process, as well as its determinant factors, in a study of strong documentary character. As we have previously suggested, this is not the case of Romania.

According to the Last Report concerning the activity carried out in 2006 by the Monitoring and Professional Competence Department within CAFR concerning the activity of Audit Planning, the attention is drawn to some specific tests and objectives which were documented and carried out by the auditors involved in the review in a non-satisfying ratio. The analysis of the data within the Report concerning the activity carried out in 2006 by the Monitoring and Professional Competence Department within CAFR, respectively the statistical data of the accomplished quality audit is outlined in the table below for the auditing activity (table 3).

The situation of quality audit at the closing of closing of auditing process is *the best* of the three stages of the process. The problems encountered by auditors – natural persons who failed to comply, in their work, with the objectives concerning the principle of activity continuity but in a ratio of 48%, a lower percentage that the one obtained in the quality audit of planning activity for the same parameter (54%). This also indicates that the discussions with the management of the entity audited and performance of adjustments are deficient.

We can express our opinion that in the current situation, the percentage to follow up audit standards is so low as the problems raised by any possible adjustments represent an aspect of strong conflict between the entity's management and the auditor. Therefore, not even objective 31, *Comparison of the amount of differences non-adjusted with the significance threshold* cannot present a better percentage of accomplishment as the previous failure to perform the adjustments brought about, absolutely logically, to the impossibility to compare them with the significance threshold. The auditor - as individual tries to comply with the structure of working sheets, but even the compliance from the form point of view exists only in a percentage of 42% of cases. We can note instead a greater compliance, yet non-satisfactory for the auditors - legal persons (56%). The participation in the inventorying process is an objective which is reached in 67% of cases for natural persons and 72% for legal persons as this objective is best accomplished.

Taking into consideration the importance given to the inventory of reference books in the special literature and the analytical curricula of the universities in this special field is one of the relevant factors in obtaining this percentage. The verification of the depreciation method and the calculation of depreciation is also one of the five objectives with the *passing note* accomplished by the auditors' natural persons. The percentage of more than 50% obtained in 2006 for the objectives: contracts with banks and the contracts of leasing can be justified, *in the opinion of the author*, by their high standardization degree which facilitates the examination of the data to be checked.

This report indicates *three major deficiencies of the auditing activity* in Romania: a little assumption of the new, by failing to check the existence of the affiliated parties both of natural persons (21%), and legal persons (35%); little interest in checking the net achievable value; verification to a less extent than the significant

sampling threshold of the useful life time according to IAS 16, respectively 18% - legal persons and 14% natural persons.

**Table 3. Report concerning the activity carried out in 2006 by the Monitoring and Professional Competence Department within CAFR**

No.	Objective name	Percentage (%)	
		Legal persons	Natural persons
<b>AUDITING ACTIVITY</b>			
11	Existence and filling in entirely the sections in the Minimum Auditing Standards	60%	42%
12	Existence of main tables and of work sheets for all of the sections and the verification of their compliance with the accounts	56%	35%
13	Existence of a reference system	67%	42%
14	Verification of mathematical calculations and the existence of a checking system	56%	44%
15	Compliance with the structure of sheet work (objective,, activity carried out, result, conclusion, name of client, related period, reference, date and signature)	69%	50%
16	Existence of confirmation letters from debtors, creditors, banks	72%	48%
17	Existence of confirmation letters from the attorney-at-law / legal advisors	65%	46%
18	Verification of existence of transactions with the affiliated parties (ISA 550, O 22-26)	35%	21%
19	Compliance with the principle of separation of financial exercises	53%	38%
20	Participation in the inventory/ existence of the file and the inventory report, contrary, the expression of an adequate opinion in the audit report	72%	67%
21	Testing the net achievable value (AS 2)	35%	37%
22	Reconciliation with the registers of sales and purchases with the VAT discounts	75%	49%
23	Verification of the consistency of the depreciation method used and the calculation of depreciation for a sample of fixed assets	68%	52%
24	Determination of useful lifetime according to IAS 16	18%	14%
25	Write-down provisions and provisions for risks and expenses presentation and determination mode	62%	49%
26	Long-term loan contracts with banks – presentation and degree of compliance with contract clauses (K point 6)	65%	55%
27	Contracts of leasing – presentation and correct registration	63%	65%
28	Comparison between a sample of invoice of purchase / sale and sale/purchase journal and the Ledger Register (O point 3 of point 12)	61%	46%

[www.caf.ro/servlet/DownloadForm?file=rap\\_Mon\\_2006.pdf](http://www.caf.ro/servlet/DownloadForm?file=rap_Mon_2006.pdf), 20 September 2008;

## 5. SUMMARY AND CONCLUSIONS

As far as the conclusions regarding the evolution in time of the audit phenomenon we can make a demarcation on three large segments of time:

1. *Ancient Times to the 18<sup>th</sup> century*, we may conclude that: there were only *incipient forms of financial audit* as it was not clearly delimited from the activities of accounting and control and the works required aimed to prevent and discover frauds and punish the thieves. *The individual* conducting the work was generally called the accountant. Accountants enjoyed a certain social status in that respective epoch; they would usually be priests or specialists in this field whose moral standards were generally acknowledged. *The main beneficiaries* of these works would be various kings and emperors, the church and the state.

2. *The second time segment* we identified is 1850-1900, *when the first forms of audit emerge as a professional activity*. The emergence of audit overlaps in the course of time and at this moment the need arose to separate the competences and the responsibilities of unit heads (*the managers*) from those of the owners. *The individual* performing the audit, respectively *controlling the accounts* is a *chartered accountant not working within the company*. *The beneficiaries* – there's a change in the group of users as they are now the state, the shareholders and the banks. *The Objective* – audit emerges with the purpose to avoid frauds and mistakes, to certify the observance of accounting rules as well as to have a financial audit report specifying the degree of compliance with the faithful image of the patrimony. Financial audit came to be known as a *distinct specialization* of accountancy about the 18<sup>th</sup> century, though a precise date and place is yet unknown.

3. The third segment starts from 1900 - *to the present day*, 1900-1920 *separation of the profession of auditor from that of accountant*. In the United States of America, there emerges a nucleus of the profession of financial auditor as a liberal profession which becomes an opinion leader by the setting up, in 1905, of a special department within the AICPA (American Institute of Certified Public Accountants). *The individual* performing the audit is an *external auditor*; *The beneficiaries* – the group of users changed; as they are now: the state, the shareholders or the banks and a new category emerges: the user of information with sound knowledge in the field and with no financial interest. *The Objective* – This is how the first attempts of conceptualization emerge: by the advent of the first recommendations concerning audit missions: 1910 – the first audit manual was published [2]; 1917 – the issuance of a professional guide specifying what an audit mission had to cover [1]. Concerning the Romanian economic area we may conclude that for the first time segment we have several elements we can identify which are common to the trends at the world level; as far as the second large time segment is concerned, we could notice a major delay in the evolution of accountancy and in relation to the audit phenomenon, we cannot point out common aspects but after 1990.

As a result of the study of auditing in EU countries, we can conclude that auditors' mandate varies from one country to another despite the constant attempts for harmonization at the level of the European Union. We want to underline that the only exiting uniformity relating the appointment of auditors by the General Assembly of the

entity, which is also the least harmonized segment. The activity of financial audit in Romania went through a period of development as it was normalized and standardized by taking over *ad literam* the international standards in the field, and the extent to which it complies with the European standards is very high as this profession is put in line with the international rules and regulations.

We consider the possibility of identifying two great directions of research in this area: a retrospective one and a prospective one. The retrospective direction of research, represents a study outlining the interrelation and the interdependence of the evolution of financial audit and financial control in the Romanian area, with their evolution in the European area in the period 1750-1900. The prospective direction of research refers to the making of a study pointing out the interdependencies within the European Union in establishing quality factors that influence the mode to appoint and to perform the mandate of a financial auditor. As a result of the study performed, I think that the directions of research which can be outlined are: one of a prospective nature, as a possible direction of study and the second one, as a possible way to improve the auditing activity of financial statements. The first proposal of the direction of research which is *prospective* refers to the carrying out a study outlining the motivations, on the one hand the interdependencies between the auditors supplying also related services to an entity and the degree of independence during the financial auditing process according to a number of quality factors influencing the way to carry out the mandate of a financial auditor.

The second direction of research which is also *prospective* relates to the possibility to carry out a study concerning the civil, criminal and professional liability of the Romanian auditor and its evolution in the Romanian area, in interdependency with civil liabilities, respectively the criminal liabilities of the other categories of free lancers in Romania.

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## **INFRASTRUCTURAL DEVELOPMENT IN INDIA: PRE AND POST- REFORM INTER-STATE DISPARITIES**

**GAGANPREET KAUR, RANJIT SINGH GHUMAN \***

**ABSTRACT:** *The present paper attempts to investigate the extent and determinants of inter-state disparities in socio-economic infrastructure in India during the pre and post-reform period, based on 22 indicators of infrastructural development, across 15 major states of India. The state level composite indices of infrastructural development have been constructed using the correlation weights. On the basis of this analysis, the states have been classified into three different groups according to their level of infrastructural development. The study shows that relative ranking of the states in terms of infrastructural development remained, more or less, the same at all the three reference points (1981-82, 1991-92 and 2001-02). It has also been found that the states in India converged in terms of infrastructural facilities during 1980s whereas a trend of divergence could be seen during 1990s.*

**Keywords:** *Infrastructure; reforms; divergence; convergence; disparities; correlation weights; PQLI; indicators of development; determinants of development; regression; composite indices*

### **1. INTRODUCTION**

Vasudeva (1980) suggested that adequate availability of infrastructure stimulates more economic growth in agriculture and industry. During the same year, Sakhalkar, in his study on Maharashtra, also identified the role of infrastructure in economic development and found that infrastructure is one of the key inputs and without it other inputs and even the natural resources become ineffective in ensuring rapid economic development. Growth enhancing nature of infrastructure sector warrants a close scrutiny of infrastructural disparities amongst different regions in a nation.

Disparities in infrastructure tend to increase the disparities in the aggregate level of development as lack of these basic facilities reduces the efficiency of resource use in the backward regions. India also faces the identical problem. Rao (1977) found huge infrastructural disparities across Indian states but held that inter-state disparities

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in banking and education reduced during the first fifteen years of planning in India. Kar and Sakthivel (2007), however, found the rising level of disparity in industrial and service sectors to be the major cause of rising aggregate inequality across states during 1990s.

Here it needs to be mentioned that India does not fulfill the neo-classical assumption of 'other things being equal' as natural resources, demographic characteristics and infrastructural facilities differ widely across Indian states resulting into concentration of poverty and prosperity into a few states only. Indian states differ widely in terms of per capita income with the income of the richest state being approximately five times higher than that of the poorest state. A close association has been observed between the level of infrastructural facilities and GDP growth. Dhingra (2001) indicated that 1% growth in the infrastructure stock is associated with 1% growth in per capita GDP.

Given this linkage, it becomes highly important to estimate the relative levels of infrastructural development across Indian states and to examine the extent and nature of disparities therein.

## 2. SCOPE AND METHODOLOGY

The study covers the period from 1981-82 to 2001-02. The period 1981-82 to 1991-92 is the pre-reform decade whereas the period 1991-92 to 2001-02 is the post-reform decade. The paper, thus, presents a comparative analysis of inter-state disparities in infrastructural development during the two contrasting policy paradigms in India i.e., pre and post-reform period.

The study uses the data for 15 major states of India<sup>1</sup> viz., Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal. These 15 states together represent 90 per cent of the total population of the country and 79 per cent of the total geographical area.

With a view to study overall trend in the level of infrastructural development and disparities across states, composite indices of infrastructural development have been constructed for all the fifteen states during all the reference years by using an indexing scheme<sup>2</sup> similar to that of PQLI indexing. The indicators have been weighed by using the correlation weights<sup>3</sup> which are given in Appendix 1 and are based on the average correlation of the respective indicators with all other indicators.

The analysis is based on 22 indicators of infrastructural development. The list of selected indicators is as follows:

- Z<sub>1</sub> Road length per thousand sq. km. of area (RDLPSQ)
- Z<sub>2</sub> Length of Railways per thousand sq. km. of area (LRWPSQ)
- Z<sub>3</sub> Registered motor vehicles per lakh of Population (RMVPLP)
- Z<sub>4</sub> Number of Post and telegraph offices per lakh of population (PTOPLP)
- Z<sub>5</sub> Number of post and telegraph offices per thousand sq. km. of area (PTOPSQ)
- Z<sub>6</sub> Number of telephone connections per lakh of population (TLCPLP)<sup>4</sup>
- Z<sub>7</sub> Number of bank branches per lakh of population (BOPLP)
- Z<sub>8</sub> Number of bank branches per thousand sq. km. of area (BOPSQ)



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Z <sub>9</sub>	Credit per capita (CPC) <sup>5</sup>
Z <sub>10</sub>	Deposits per capita (DPC) <sup>6</sup>
Z <sub>11</sub>	Per capita consumption of electricity (PCCE)
Z <sub>12</sub>	Percentage of households having electricity (PHHE)
Z <sub>13</sub>	Number of primary schools per lakh of population (PSPLP)
Z <sub>14</sub>	Number of primary schools per thousand sq. km. of area (PSPSQ)
Z <sub>15</sub>	Teacher-Pupil ratio at primary school level (TPRPS)
Z <sub>16</sub>	Ratio of trained primary teachers to the total number of primary school teachers (RTPST)
Z <sub>17</sub>	Number of hospitals and dispensaries per lakh of population (HDPLP) <sup>7</sup>
Z <sub>18</sub>	Number of hospitals and dispensaries per thousand sq. km. of area (HDPSQ)
Z <sub>19</sub>	Number of hospital beds per lakh of population (HBPLP)
Z <sub>20</sub>	Number of registered medical practitioners per lakh of population (RMPLP)
Z <sub>21</sub>	Percentage of households having safe drinking water facility (PHSDW)
Z <sub>22</sub>	Percentage of households living in pucca houses (PHLPH)

An important point that needs to be mentioned here is that the indicators relating to education, used in the present study, pertain to primary schooling only. The reason thereby is that the social rate of return is considered to be the highest in case of primary education than secondary and higher education (Pracharopoulos, 1993). Malhotra (1999) also argued that higher level of education may have greater direct impact on economic development but the primary education is more important because it widely distributes the conditions conducive to development.

### **3. INTER-STATE DISPARITY IN SOCIO-ECONOMIC INFRASTRUCTURE: AN ANALYSIS**

The composite indices of infrastructural development based on correlation weights, given in table 1, show that during 1981-82, only seven states viz., Gujarat, Haryana, Kerala, Maharashtra, Punjab, Tamil Nadu and West Bengal performed above the average value of the composite index of infrastructural development whereas all other states performed below the all states' average.

On the whole, Gujarat, Kerala, Maharashtra, Punjab and Tamil Nadu continued to occupy first five positions. Karnataka, that had been a below average state during 1981-82, managed to rise to the level of an above average state thereafter. Haryana lost its place among the states performing above average value of composite index in 1991-92 but managed to re-enter the fortunate list in 2001-02. West Bengal, which had above average position during 1981-82, scaled down to below average position thereafter.

It is evident from the tabulated results that Punjab topped the list in terms of infrastructural development throughout the study period, 1981-82 to 2001-02, followed by Kerala and Maharashtra respectively. During the pre-reform period i.e., 1981-82 to 1991-92, only seven states showed some movement (rise or fall) in their relative rankings whereas eight states showed absolute stability in their relative position. Things hardly changed during the post-reform period as almost six states manifested stability in their relative positions during 1991-92 to 2001-02.

**Table 1. State-Wise Composite Indices of Infrastructural Development based on Correlation Weights**

S.No.	State	1981-82	R	1991-92	R	2001-02	R
1.	Andhra Pradesh	0.5996	9	0.6162	9	0.7346	8
2.	Assam	0.2857	15	0.4859	10	0.2957	15
3.	Bihar	0.3620	13	0.3351	15	0.3759	14
4.	Gujarat	1.0049	4	0.9516	4	0.9893	5
5.	Haryana	0.7906	6	0.6681	7	0.7598	7
6.	Karnataka	0.7237	8	0.7481	6	0.8922	6
7.	Kerala	1.1927	2	1.2603	2	1.3161	2
8.	Madhya Pradesh	0.3610	14	0.3752	14	0.4127	13
9.	Maharashtra	1.0507	3	0.9751	3	1.0780	3
10.	Orissa	0.4265	11	0.4381	13	0.4861	12
11.	Punjab	1.5208	1	1.3402	1	1.4130	1
12.	Rajasthan	0.4574	10	0.4553	11	0.4848	11
13.	Tamil Nadu	0.9078	5	0.7960	5	1.0585	4
14.	Uttar Pradesh	0.4229	12	0.4454	12	0.4944	10
15.	West Bengal	0.7689	7	0.6356	8	0.6058	9
All states' Average		0.7250		0.7017		0.7598	

Source: Computed from: Statistical Abstract of India, Government of India; Statistical Abstracts of Various States of India; CMIE, Basic Statistics Relating to Indian Economy, Vol 2: States; Banking Statistics, Quarterly Handouts; Reports of the Planning Commission, Government of India; Reserve Bank of India Bulletin (RBI), Government of India.

Note: R denotes respective rank of the state in the descending order

By and large, the composite indices of infrastructural development of states indicate the same ranking pattern of the states during all the reference years, as is evident from the highly significant coefficients of rank correlation between the states' rankings in terms of composite indices of infrastructural development between the three subsequent periods i.e., 1981-82 and 1991-92; 1991-92 and 2001-02; and the entire study period, 1981-82 and 2001-02 (table 2).

**Table 2. Inter-Correlation between the Rankings of States by Composite Indices of Infrastructural Development during the Different Years**

Years	Coefficient of Rank Correlation	T-value
Between 1981-82 and 1991-92	0.929*	9.062
Between 1991-92 and 2001-02	0.934*	9.437
Between 1981-82 and 2001-02	0.964*	13.088

Source: Computed from table 1

\*significant at 1% level of significance

With a view to measure inter-state disparities in the level of socio-economic infrastructure, two inequality measures, R and C.V., have been calculated for composite indices of infrastructural development during all the reference years. The values of these inequality measures are given in table 3.

**Table 3. Inequality Measures of Composite Indices of Infrastructural Development (Major States of India)**

Composite indices of infrastructural development		1981-82	1991-92	2001-02
Coefficient of range	R	0.6837	0.5999	0.6539
Coefficient of variation	C.V.	0.4946	0.4449	0.4624

Source: Computed from table 1

The table projects a clear cut tendency of convergence across Indian states in terms of infrastructural development during the pre-reform period as evident from the decline in the value of both the inequality measures i.e., coefficient of range (R) and coefficient of variation (C.V.) during the pre-reform period, 1981-82 to 1991-92.

The nation, however, failed to sustain this catching-up tendency during the post-reform period, 1991-92 to 2001-02 as manifested by the rise in the value of both the inequality measures during the post-reform period. This shows that the principle of providing level playing field to all the federating units in a federation is being grossly overlooked by the Indian planners and policy masters.

#### 4. CLASSIFICATION OF STATES

On the basis of the values of composite indices of infrastructural development, the states have been classified into three different clusters by applying the following formula:

$$\text{Range} = \frac{\text{Max } Y_s - \text{Min } Y_s}{\text{Number of clusters}} \tag{1}$$

where, Max  $Y_s$  is the maximum value of the composite index

Min  $Y_s$  is the minimum value of the composite index

By deducting this range value from the maximum and adding this in the minimum, first and the last clusters have been extracted. For constructing the second cluster, again this range value is added in the upper limit of the last cluster and likewise all the three clusters have been computed. Separate classifications have been done for all the reference years i.e., 1981-82, 1991-92 and 2001-02 as given in table 4.

With a view to measure infrastructural disparities within the different clusters, two inequality measures - coefficient of range (R) and coefficient of variation (C.V.) - have been calculated for all the three clusters, as shown in table 5. An important point that has emerged from this analysis is that infrastructural disparities are highest within

the less developed states as compared to the other two groups of states during all the reference years. This suggests that addressing the problem of inter-state disparities within the less developed states can help to reduce disparities at the national level as well.

**Table 4. Classification of States by Composite Indices of Infrastructural Development**

Cluster	1981-82	1991-92	2001-02
Highly Developed States (Cluster-I)	Kerala (2) Punjab (1)	Kerala (2) Punjab (1)	Kerala (2) Maharashtra (3) Punjab (1) Tamil Nadu (4)
	[ 1.3570]	[ 1.3003]	[ 1.2164]
Moderately Developed States (Cluster –II)	Gujarat (4) Haryana(6) Karnataka(8) Maharashtra (3) Tamil Nadu (5) West Bengal (7)	Gujarat (4) Karnataka(6) Maharashtra (3) Tamil Nadu (5)	Andhra Pradesh(8) Gujarat (5) Haryana (7) Karnataka (6)
	[ 0.8744]	[ 0.8677]	[ 0.8439]
Less Developed States (Cluster –III)	Andhra Pradesh(9) Assam (15) Bihar (13) Madhya Pradesh(14) Orissa (11) Rajasthan (10) Uttar Pradesh (12)	Andhra Pradesh (9) Assam (10) Bihar (15) Haryana (7) Madhya Pradesh(14) Orissa (13) Rajasthan (11) Uttar Pradesh (12) West Bengal (8)	Assam (15) Bihar (14) Madhya Pradesh(13) Orissa (12) Rajasthan (11) Uttar Pradesh (10) West Bengal (9)
	[ 0.4164]	[ 0.4949]	[ 0.4508]

Source: Based on table 1

Note:1. Figures in the round brackets show respective rank of the state whereas figures in square brackets show the average value of composite index of states in different clusters.

2. Cluster-I represents 13.33% of the states during 1981-82, 1991-92 and 26.67% of the states during 2001-02, Cluster-II constitutes 40% of the states during 1981-82 and 26.67% of the states during 1991-92 and 2001-02 and Cluster-III represents 46.67%, 60% and 46.67% of the states during 1981-82, 1991-92 and 2001-02, respectively.

With a view to find out the extent of infrastructural disparities within the different clusters of states, coefficient of range (R) and coefficient of variation (C.V.) have also been calculated for different clusters. The results show that least developed states witnessed highest level of infrastructural disparities across them as compared to the two other groups of states. The results have been reported in table 5.

**Table 5. Intra-Cluster Inequality Measures of Composite Indices of Infrastructural Development during the Different Years**

Categories of States	1981-82		1991-92		2001-02	
	R	C.V.	R	C.V.	R	C.V.
HDS	0.1209	0.1709	0.0307	0.0434	0.1439	0.1445
MDS	0.1843	0.1535	0.1317	0.1298	0.1477	0.1410
LDS	0.3546	0.2371	0.3319	0.2387	0.3439	0.2208

Source: Computed from tables 1 and 4.

Note: 1. R and C.V. denote coefficient of range and coefficient of variation, respectively.

2. HDS, MDS and LDS denote highly developed states, moderately developed states and less developed states, respectively.

## 5. DETERMINANTS OF INFRASTRUCTURAL DEVELOPMENT AND DISPARITIES ACROSS STATES (1981-82 TO 2001-02)

The preceding analysis reveals the presence of considerable disparities across states in terms of socio-economic infrastructure during all the reference years. In view of this, an attempt has been made in the present study to analyze the possible determinants of infrastructural variations across Indian states and to examine their role and relative significance in determining the inter-state pattern of infrastructural development in India.

However, this exercise has been carried out for the year 2001-02 only. This has been done to identify the important determinants after the economic reforms in India started showing their effects at the regional level. In order to meet the said objective, the techniques of simple regression analysis and multiple (step-wise) regression analysis have been used.

However, while carrying out multiple (step-wise) regression analysis, only those variables have been included into the model which was found to be individually significant, as revealed by the results of simple regression analysis. The variables in the multiple regression model have been introduced at different steps in the descending order of their 't' values. The predictors which reduce the value of adjusted R<sup>2</sup>, when entered into the multiple regression model, have been dropped from the regression model at that very step. The analysis has been carried out at six possible determinants of infrastructural development and disparities across states.

The possible determinants included into the model are:

- Density of population (DENP)
- Percentage of urban population to total population (URBP)
- Percentage share of manufacturing in net state domestic product (PMNSDP)<sup>8</sup>
- General Literacy rate (GLR)
- Votes casted in proportion to the total voting age population during the last general elections to Lok Sabha (VCVP)<sup>9</sup>
- Per capita public expenditure on development (PCPED)<sup>10</sup>

## 6. RESULTS OF REGRESSION ANALYSIS

To work out the nature and magnitude of relationship between composite indices of infrastructural development and its various determinants, the simple regression analysis, with composite indices of infrastructural development as dependent variable and possible determinants as independent variable, has been carried out. The results are given in table 6.

**Table 6. Results of Simple Regression Analysis with Composite Indices of Infrastructural Development as Dependent Variable (2001-02)**

Variable	Constant	Reg. cuff (T-value)	r <sup>2</sup>	F (D f. 1, 13)
DENP	0.7068	0.1171 (0.3071)	0.0072	0.09
URBP	0.5625	0.2570* (3.885)	0.5373*	15.09
PMNSDP	0.3858	0.6172* (5.680)	0.7128*	32.26
GLR	0.6668	0.9922 (1.142)	0.0912	1.30
VCVP	0.8331	-0.1197 (-0.990)	0.00075	0.01
PCPED	-0.3490	0.9293* (3.787)	0.5245*	14.34

Source: As that in Table 1

Note: 1. \*significant at 1 percent level of significance, \*\* significant at 5 percent level of significance

2. r<sup>2</sup> denotes coefficient of determination

3. The data for VCVP pertains to thirteenth Lok Sabha elections held in Oct 1999

The results highlight that only three variables viz., level of industrialization, level of urbanization and per capita public expenditure on development played significant role in determining the level of inter-state variations in socio-economic infrastructure during 2001-02. Multiple regression analysis has also been carried out to analyse the joint effect of these individually significant determinants of infrastructural development during 2001-02. The results have been given in table 7.

**Table 7. Results of Multiple (Step-Wise) Regression Analysis with Composite Indices of Infrastructural Development as Dependent Variable (2001-02)**

Constant	PMNSDP	PCPED	R <sup>2</sup>	$\bar{R}^2$	F (D.f.= 1,13)
0.3858	0.6172* (5.680)		0.7128*	0.6907	32.26 (1, 13)
-0.5713	0.4587* (4.064)	0.4569** (2.306)	0.8004*	0.7672	24.07 (2, 12)

Note: 1. \*significant at 1 percent level of significance, \*\* significant at 5 percent level of significance

2. R<sup>2</sup> denotes coefficient of determination and  $\bar{R}^2$  denotes adjusted coefficient of determination

The results show that during 2001-02, level of industrialisation, as measured by PMNSDP, explained about 71 per cent of infrastructural variations across states. Inclusion of per capita public expenditure on development (PCPED) into the model further raised the explanatory power of the model to 0.8004. The regression coefficient of per capita public expenditure on development (PCPED) is found to be significantly positive. The inclusion of URBP into the regression model, however, reduced the value of adjusted  $R^2$  and therefore the variable URBP has been dropped from the regression model.

To sum up, the level of industrialisation and per capita public expenditure on development accounted for about 80 per cent of the observed variations in socio-economic infrastructure across states during the year 2001-02.

## **7. SUMMING UP**

The infrastructural disparities across 15 major states of India reduced during the decade of 1980s whereas the decade of 1990s witnessed increased disparities across states in terms of socio-economic infrastructure. In other words, the infrastructural disparities across states increased during the post-reform period. This has been indicated by the rise in the value of inequality measures of composite indices of infrastructural development during the post-reform period.

The study highlights that the relative position of the states in terms of socio-economic infrastructure also stood, more or less, frozen at all three reference points, at least at the upper and the lower level if not at the middle level. Punjab continued to occupy the top most position in terms of infrastructural development throughout the study period followed by Kerala and Maharashtra. Further, infrastructural disparities are found to be highest within the less developed states as compared to the highly developed and moderately developed states.

The level of industrial development and per capita public expenditure on development emerged to be the significant explanatory variables for inter-state disparities in socio-economic infrastructure. These variables, together, explained 80.04 per cent of the observed variations in infrastructure during the year 2001-02.

It is, thus, clear that in order to sort out the problem of inter-state disparities in infrastructure, industrialization process of the backward states should be given due consideration. Public expenditure can also play a significant role in providing the requisite finance for this purpose which can finally help the lagging states to move upward in terms of development.

In the wake of negative employment elasticity in agriculture in India, the development of non-primary sectors becomes all the more important and the infrastructure sector is the most promising sector amongst all other non-primary sectors. Deep inter-linkage between infrastructure and aggregate development also lends credentials to the policy of developing socio-economic infrastructure in the lagging states of India.

## 8. NOTES

1. The criterion used for the purpose of including a particular state is that the population of the state must exceed at least one per cent of the total population of the country. Bihar, Madhya Pradesh and Uttar Pradesh have been reorganized to form three new states viz., Jharkhand, Chhattisgarh and Uttaranchal, respectively in Nov. 2000. Separate data for these newly created states is not available for 1981-82 and 1991-92. As such these states have not been included into the study. Further, because of reorganisation of Bihar, Madhya Pradesh and Uttar Pradesh, data for these states is also not separately available for 1981-82 and 1991-92.

2. The index method, as used in the study, runs as under:

$$Y_{is} = \frac{X_{is} - \text{Min } X_{is}}{\text{Max } X_{is} - \text{Min } X_{is}} ; \quad \begin{matrix} i = 1, 2, 3, \dots, m \\ s = 1, 2, 3, \dots, n \end{matrix} \quad (2)$$

where:

$i$  stands for the  $i$ th indicator of development

$s$  stands for the  $s$ th state

$X_{is}$  is the value of the  $i$ th indicator of development for the  $s$ th state.

$Y_{is}$  stands for the scaled value of  $X_{is}$

$\text{Min } X_{is}$  stands for the minimum value of  $X_{is}$

$\text{Max } X_{is}$  stands for the maximum value of  $X_{is}$

From the scaled values ( $Y_{is}$ ), a composite index of the level of development for any state has been calculated as follows.

$$Y_s = \sum_{i=1}^m W_i Y_{is} \quad (3)$$

$$Y_s = W_1 Y_{1s} + W_2 Y_{2s} + W_3 Y_{3s} + \dots + W_m Y_{ms} \quad (4)$$

where:

$W_1, W_2, W_3, \dots, W_m$  are the weights assigned to the respective indicators of development.

$Y_s$  is the composite index of development of the concerned state.

3. Correlation weights are calculated as follows:

$$CW_i = \frac{C_i}{\sum C_i} \quad (5)$$

where:

$C_i$  is the value of inter-correlation coefficient of  $i$ th indicator summed over  $m$  indicators.

$\sum C_i$  stands for the sum of values of inter-correlation coefficients of all the  $m$  indicators.

$CW_i$  is the correlation weight assigned to the  $i$ th indicator of development.



4. Includes basic telephone connections only. Owing to differences in source material used, the figures for different states are not strictly comparable.

5. Pertains to credit given by the scheduled commercial banks as on the last reporting day of March.

6. Pertains to deposits lying with scheduled commercial banks as on the last reporting day of March.

7. Includes Primary Health Centres as well.

8. Used as a proxy for the level of industrialisation.

9. Used as a proxy for level of political consciousness among people.

10. Includes total budgetary expenditure by the respective state governments on both the revenue and capital account.

### Appendix

#### Correlation Weights of Various Indicators of Development in Socio-Economic Infrastructure

Indicator		1981-82	1991-92	2001-02
RDLPSQ	Z <sub>1</sub>	0.06	0.089	0.08
LRWPSQ	Z <sub>2</sub>	0.07	0.044	0.02
RMVPLP	Z <sub>3</sub>	0.12	0.022	0.12
PTOPLP	Z <sub>4</sub>	0.01	0.019	0.03
PTOPSQ	Z <sub>5</sub>	0.08	0.081	0.08
TLCPLP	Z <sub>6</sub>	0.11	0.133	0.147
BOPLP	Z <sub>7</sub>	0.12	0.141	0.132
BOPSQ	Z <sub>8</sub>	0.10	0.095	0.081
CPC	Z <sub>9</sub>	0.10	0.109	0.112
DPC	Z <sub>10</sub>	0.12	0.157	0.129
PCCE	Z <sub>11</sub>	0.07	0.089	0.099
PHHE	Z <sub>12</sub>	0.12	0.125	0.112
PSPLP	Z <sub>13</sub>	0.09	0.079	0.002
PSPSQ	Z <sub>14</sub>	0.01	0.059	0.068
TPRPS	Z <sub>15</sub>	0.05	0.049	0.043
RTPST	Z <sub>16</sub>	0.05	0.068	0.086
HDPLP	Z <sub>17</sub>	0.10	0.097	0.096
HDPSQ	Z <sub>18</sub>	0.08	0.091	0.085
HBPLP	Z <sub>19</sub>	0.12	0.126	0.117
RMPLP	Z <sub>20</sub>	0.11	0.119	0.106
PHSDW	Z <sub>21</sub>	0.08	0.027	0.008
PHLPH	Z <sub>22</sub>	0.11	0.124	0.114

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## **WHY WORK? A CULTURALLY INFORMED CRITIQUE OF PAST AND PRESENT SHOP FLOOR INTERPRETATIONS OF WORK**

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**ABSTRACT:** *This paper provides a cultural critique of the meanings of work as they transcend different modes of production. Twenty years on from the collapse of state socialism, Western experts are still called upon to prescribe 'the best way' for how productive work should be conducted/managed across the non-Western world (Jankowicz, 1993; 1994; Kostera, 1995, Kelemen, 1999). This 'one best way' usually assumes that the basic unit of analysis is the rational, utility-maximising individual; a species, bred inside Westernized secondary and tertiary educational institutions, business schools, or (vocational) training courses, all of these producing their special form of 'learning to labour' (Willis, 1977). Thus equipped, this species – what we might call, for the time being, the 'model-worker' - is bound to inhabit a rather inhabitable place, an arena of in increasingly global capitalism: the market.*

**KEY WORDS:** *work; cultural critique; workplace cultures; working cultures; neo-liberal context of work; socialist context of work*

### **1. INTRODUCTION**

Significantly, the contemporary model-worker is often portrayed as void of any extra-economic sentiments, social bondages, or emotional affections. Bound to survive on the market, s/he pursues individualized life-styles, identifies with an entrepreneurial self, aspires to lateral or portfolio careers, or is driven by a passion for excellence (e.g. du Gay, 1996).

Some might herald this development as apt response to the 'end of work' (Rifkin, 1995); others may lament a 'corrosion of character' on that account (Sennett, 1998). At any rate, we shall argue that - regardless of one's denomination - the contemporary model-worker cannot dispense of language, meaning, and, more

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generally, a symbolic universe in order to work. In other words, without embedding both production and consumption within a corresponding (working) *culture*, neither socio-economic systems nor workers – be they model exemplars or not - can endure. We compare contemporary forms of work with previous - most notably, state-socialist - working cultures. As we shall demonstrate the emerging differences and correspondences might not be coincidental.

## 2. LEARNING (HOW) TO LABOUR – OR WHY CULTURE MATTERS

Marx's seminal arguments on labour power and the generational reproduction of labour power are seminal. But there is a sleight of hand in Marx's argument and in many others which follow him. A whole series of cultural and social assumptions are smuggled into the apparently economic argument concerning generational reproduction. To the one side are the well aired issues concerning the gendered relations and material productions of the domestic sphere which biologically 'reproduce' labour power.

Equally important, though, is the cultural reproduction and formation of labour power which takes in a wide field of spiritual, symbolic and aesthetic resources and practices of understanding, specific educational forms and, not least, the actions and creativities of the self-formation of individual identity and the willingness to work in specific historical contexts. These processes require their own kinds of *sui generis* understandings. To understand economic development, one must be cognisant of the cultural factors that are contributing to it.

A cursory look at the history of the meanings of work suggests that the drive to work is culturally and ideologically conditioned, being central to the inception and development of both capitalist and socialist forms of production (Grint, 2005). Investments in work surpass economic reasoning and calculation and involve a cultural element. We conceive of work as deeply intertwined with other cultural discourses and cultural forms in society rather than as pure economic necessity or anthropological datum.

So we are arguing that working cultures develop through human creativities. Echoing the famous quotation from Marx, we argue that human beings are not like bees, automatic in their work, but utilise planning and imagination in what they produce. These faculties are also exercised in general processes of meaning-making and identity formation, so work routines and objectives are themselves enacted in ways that reflect values, norms, and sentiments developed and sustained through lived experience in and outside the workplace. While there are obvious economic motives both in managing and undertaking labour in productive activities, equally important are the meanings with which work is imbued, the struggles over the definitions of what it is to be human, what kinds of values and aspirations are in play and which kinds of human future are implicated in productive working relations and human relations more generally.

Contemporary forms of capitalism, be they neo-liberal, corporatist or post-socialist have seen traditional meanings of work thrown into confusion. The demise of manual labour in Western countries has led to the decline of working class culture

while autonomous forms of masculinity and craft pride are under threat (Savage, 2001). Coupled with the well documented tendency for wages to decline or stagnate for semi and unskilled workers and competition from (and often racist responses towards) migrant workers (see the 'Polish plumber' and the 'Asian nurse'), the kudos of the working class hero has eroded markedly. Moreover, the rise of individualism and the risk society (Beck, 2004) in both Western and Eastern Europe has eroded collectivist forms of social engagement, with top down control seeking to replace established regimes of collective representation and bargaining, thus putting into jeopardy (male) working class culture and corresponding form of organising.

At the corporate level, struggles over the legitimacy of capitalist production take place with multinationals leading the way in arguing that specific late capitalist methods of meeting and creating human wants and needs are for the social benefit of all. To communicate outside, with its important stakeholders, and inside with the workers and managers, the corporation relies on the ever more bizarre inventions of management theory and motivational concoctions and nostrums to establish what counts as valid and legitimate with respect to work. Indeed, the rise of 'management' as a credible academic discipline has armed corporate players with the cultural resources to affect the ways in which work conceived of, performed, and at times resisted. From its beginnings, the corporation is deeply implicated in economic, political and cultural transformations which affect European societies in broadest sense, as well as expectations and aspirations about work, and forms of self-knowledge and self-governance.

Against the mantra of 'Work is Good' and its intrinsic answer to the 'Why work?' question, the issue of 'Good Work' is gaining new significance. For once, business has embarked on reformulating - albeit in predominantly productivist terms that stress parameters such efficiency, innovation, and marketability - the work agenda, as an increasing number of employees have become disenfranchised from the 'corporate dream' or, more seriously, have suffer from burnout.

Thus, there is another image of 'Good Work' that is negatively defined at the background of the pervasive evidence for stress and burnout in the workplace, reports about 'mobbing' and 'harassment', and common fears about unemployment and social degradation that, occasionally at least, translate into anxiety, disorientation and/or xenophobia. Significantly, such sentiments also transcend organizational and social hierarchies, as does the ideal of 'Good Work' that they invoke. 'Good Work', in this version, implies security, self-actualization, and cooperation, echoing concerns of the Human Relations Movement. Consequently, the benevolence ascribed to work is highly ambivalent, stemming from its status as being both a social obligation and an individual aspiration.

Of particular interest then is the way in which justifications and legitimations may be changing in 'real politick' light of global change and the unprecedented public commentary on potentially negative aspects of current change for wage labourers in the west.

Top down views on the 'why work' question are meeting new challenges. At the middle management and operational level, managers adapt corporate and general managerial strategies to the practical business of directing labour, developing their own

common sense and often cynical assumptions about 'good work' or its impossibility and in-appropriateness. At the bottom strata of the corporate space, varieties of traditional and emergent shop floor cultures have been revived in an attempt to cope with the materiality and sensuous wearings down of labour. Some of these seem to echo past strategies of 'distancing' or 'making out' reminiscence of 'Banana time' or 'normal clay' where workers subvert the organizationally warranted meaning of work through a mixture of creativity, humour, and cynicism (Roy, 1959:., Clegg 1975). Today's call centres, for example, have become notorious for their rigid taylorized working conditions and for that matter have been dubbed 'electronic sweatshops'. Here, both managers and workers resort to 'fun days' or 'themed entertainment' to balance monotony and work intensification, with humour becoming, once again, a form of subversion of the (electronic) factory regime (e.g. Taylor and Bain, 2003).

It is our core belief that these levels of emergent work adaptations are not inevitable, natural or programmed in some external and ungovernable fashion to unfold in similar ways across the capitalist world. We believe that there are different forms and relationships of the elements and layers within different economic/ political types.

Loosely drawing on Esping-Anderson (1990) we contrast two economic/political types. First, the neo-liberal model. Here, the principles of market efficiency and commodification are elevated to a supreme status, governing the role of the corporation in the society. The individual is a sovereign consumer whose best strategy at work is to align his needs to the needs of the corporation on a short term basis in order to acquire 'skills' in demand. Rather than developing long-term relationships with the corporation, one's aim is to become a more marketable individual: a so-called entrepreneurial self (du Gay, 1996) who will use corporate culture to advance his own interests.

At least theoretically, managers and workers may assume equal status/power in this model. The other pole of this politic-economic spectrum constitutes the state-socialist mode of organizing production. In this model, economic activity in corporations is subordinated to political imperatives rather than to market efficiency and commodification. With the collapse of communism in Europe, this model is rather historical but absolutely crucial because it gives real dimensionality to our scale: here the individual (be him/her manager or worker) is obliged to work by law in exchange for all his/her needs being met by the State. This is a highly illuminating pole in the continuum of possible answers to the question, 'Why work?'

Albeit the collapse of state-socialism in Eastern Europe seems to fuel the neo-liberal fantasy of an 'end of history', some critics, however, warn that:

"As socialism retreats into the past, the danger is that we will become even more enthralled with a single model, a typification of liberal capitalism against which to compare reality...we will lose sight of alternatives, whether alternative capitalisms, alternative socialisms or other utopias that offer novel lenses through which to interpret the present and the past as well as the future" (Burawoy, 1999: 309).

Therefore, it is important to let history teach us lessons that don't need repeating as well as those lessons that one should repeat.

### 3. THE NEO-LIBERAL CONTEXT OF WORK

In neo-liberal economies, the global restructuring of the labour and product markets brings new threats to the security of all who depend on selling their labour but particularly to the un- and semi skilled. The increased uncertainty and fragility of employment within a Western neo-liberal society affects the individual's sense of the self in and outside localities of work. The enticements of leisure and consumption supposedly offer new kinds of identities and non-work affiliations apparently untrammelled by restraints of income, education and class background even as workers continue to toil for most of their lives in the realms of necessity strictly determined precisely by these latter things. Against the mantra of high work place expectations and what is actually verbalised to the workers, their motivation is often assumed to have eroded with ever more bizarre management regimes, ideologies and nostrums vying with each other in attempts to remedy the situation.

The features of neo-liberalism have been endlessly debated in the literature. Some commentators have taken an optimistic view arguing that globalisation, time-space compression, consumerism, and the marketization of private life in the West are positive and inevitable developments which demonstrate the superiority of capitalism over any other form of production/social organisation for productive purposes. The result of such advances is a flexible, multi-skilled, empowered, albeit highly fragmented, workforce which is the driving engine for further economic and technological developments (Ohmae, 1990). A permanent quest for improvement of personal human capital and polishing the skills required to sell one's capacities to the highest bidder seem to stand in the place of internal, spiritual and cultural motivations to work.

Other commentators suggest that while being accorded the primordial status of consumer, the individual faces an identity crisis which cannot be managed successfully within the sphere of production for he/she no longer derives his/her identity and sense of achievement by engaging in productive work (Bauman, 1991). With the end of 'the internal contract' (Capelli et al, 1997), trajectorial career paths have given way to discontinuous and precarious employment biographies, and the mantra of modernity and industrialism – 'working for a living' – has lost much of its charm and rendered an implausible promise (Grey, 1994). Thus, the individual seems in fact disenchanted with work and disempowered at work, and any attempt to reconnect the individual to the society via productive activities is at best spurious (Knights and Willmott, 1989).

While thirty years ago, during the era of mass production and mass consumption, the corporate system/culture still depended on the existence of a genuine working class system/culture, the 21<sup>st</sup> century corporation rarely knows who its workers are (for example, the call centers in India operating on behalf of British Corporation/ manufacturing operations relocated in China or Eastern Europe) and spends large amounts of time on communicating with its external audiences rather than attending to its employees (Taylor and Bain, 2005).

On other occasions, the organizationally proclaimed 'passion for excellence', which has got hold of Western factory regimes via *disciplinary discourses* such as Total Quality Management or Business Process Reengineering that serve, at once, as

vessel for management prerogatives and corresponding workplace resistance. Often, such discourses seek to establish a model identity, one that is designed to constitute a benchmark for those aiming to comply with the demands of the disciplinary regime (Jackson and Carter, 1998). As Doray (1988) has shown, attributes and behaviour of such a *model worker* can acquire the status of an internal law. In fact, managing identities has been an important aspect of disciplinary factory regimes for some time. Yet, with the retreat of direct forms of supervision (be it front-line managers or assembly lines), attempts to create with the help of a role model a form of self-policing identity have become more pronounced (Hopper and Macintosh, 1998).

Significantly, such disciplinary regimes show considerable strengths but also limitations. The implicit dictum of the discourse of excellence – i.e.: It's never enough! - drives aspirations of both managers and workers to live up to the model identity provided *ad absurdum* (Bunzel et al., 2002). Whatever their attempts to please the customer, there will be new wants and needs to be met in an escalating spiral of self-subordination the market ideology (Bunzel, 2001). Commonly, the result is a workplace culture that constitutes an “*amalgam of fear, commitment, and self-subordination*” (Deetz, 1998). Resistance, here, often amounts to ‘inner immigration’ on behalf of those governed by the disciplinary discourse.

In an unexplored territory between neo liberal and socialist, we are intrigued as to why people continue to invest in work at a time when the physiological, intellectual, and emotional stakes are rising yet the return on such investment is evermore insecure. As the traditional forms of mechanical solidarity associated with hundreds of years of industrialisation and urbanisation decline, there may be new meanings of work taking their place, some being orchestrated from the top, others arising sporadically from below. Such meanings are by no means controllable and manageable in a traditional way: they are rather fragmented, slippery, on their way to be constituted but not quite there yet.

#### 4. THE STATE SOCIALIST CONTEXT OF WORK

Whereas capitalist firms operate under stringent profit constraints, the limits imposed upon monetary mechanisms and politically motivated price regulation allowed state-socialist organizations to operate under *soft budget constraints* (Kornai, 1990). Instead of private appropriation of surplus and price setting through markets, the state-socialist enterprise faced central appropriation and allocation of goods and services (Burawoy, 1985). This and the doctrine of central planning made it impossible for enterprises to accumulate profits. Instead, they were nodes in a microcosm in which all economic activities were subordinated to the general interests of the state-socialist society - or what the Communist party defined as such (Constantinescu et al., 1983).

Arguably, most significant for understanding the socio-economic context of state-socialist enterprises is the paradigmatic shift from an “extension of the product base” to “intensively extended reproduction” conducted within most East-European countries within the 1970s (Deppe and Hoß, 1988). This trend, which temporally corresponded to the crisis of Fordism in the most advanced capitalist economies, meant that the mode of extensive economic growth that was characteristic for the years



following World War II and during which the “infrastructural base” of the economy (mainly heavy industries and the production of mass consumption articles) was developed, had met its limits. Shortages in both financial and qualified human resources - caused by inefficient allocation in conjunction with low rates of productivity and innovation - led political and economic leaders to demand a more effective and efficient use of resources and to focus on substantial gains in productivity (Spalatelu, 1981).

Translated into the context of state-socialist workplaces, this meant that managers and workers were asked to work harder and to intensify their efforts. This way, official Party directive declared, more wealth would be generated that could be used to improve working and living conditions for all the people.

Contrary to the severe restrictions that prevailed within the state-socialist political sphere (no democratically legitimised Parliament based on free elections was existent; the supreme role of the Communist Party was constitutionally stipulated; no general freedom of speech and publication was guaranteed; and restrictions on travel to countries that were not part of the Eastern Block were imposed, to name only the most notorious restrictions), people enjoyed a considerable amount of discretion in the context of work organizations. Not least the vibrant state-socialist ‘shadow economy’, where manual labour and (handi) craftsmanship found ready markets outside of the formal work context, and where a developed barter trade partially replaced the sheer economic necessity to work hard and diligently, provided plenty of opportunity for both workplace resistance and ‘free-riding’. Put it in rather negative terms, one could talk of a lack of *sanction power* on the part of state authorities and business leaders (Voskamp and Wittke, 1990).

While it was possible to bring people into line when it came to silencing political dissent by threatening with oppressive measures, it was not that easy to raise production by fear; let alone to hope that that fear might stimulate individuals’ commitment to the state-socialist cause. For once, there was no real ‘threat’ imposed by the external labour market, as workers in state-socialist societies had the constitutional right – and the duty – to work. In addition, the chronic shortage of labour within the state-socialist economy led organizations to ‘stockpile’ workers – even those known to be less than efficient and/or unreliable – to uphold their numerical flexibility. Practically, this meant that each individual had a secure job and that even in cases of severe misbehaviour (habitual absenteeism, drunkenness at work, etc.) factory leaders or supervisors had neither the means nor the motivation to ‘sack’ unreliable workers. As long as the latter did not express any political dissent, they were safe from reprisals (Kelemen and Bunzel, 2005).

Under these conditions, workers’ rationale to work for and cooperate within the state-socialist production process were anything but evident. Smith and Thompson (1992) point towards an informal contract with the workforce whereby employment security and other rewards such as subsidised goods and housing were provided in exchange for cooperation in the workplace. On other occasions, first-line managers conspired with their subordinated workers to ‘fake’ the meeting of planning figures in the face of sheer irresolvable shortages of resources within the centrally planned economic machinery (Voskamp and Wittke, 1990). Haraszti (1978) illustrates the

mechanisms by which piece rate workers in a Hungarian factory were drawn into their own subjugation: once workers were convinced that the plan was achievable and therefore legitimate, they worked hard to achieve the targets and were prepared to endure sacrifices to get their wages at the end of the month. However, as soon as targets had proven attainable, they were usually increased. Thus, striving to meet targets proved a self-defeating strategy and – over time – frustration and cynicism prevailed among workers.

While during the early stages of state-socialist rule, extrinsic motivation worked to some degree, during the 1980s, most workers lost interest in the economic success of the organization. With economic planning becoming increasingly fictitious, targets became unrealistic and faking economic reports became institutionalised (Bunzel and Kelemen, 2008). In an economy marked by scarcity of consumption goods and services and, thus, by a developed barter trade, monetary incentives (or penalties) did not carry very far. Moreover, various attempts to create a “socialist competition” – a form of competition that showed striking similarities to contemporary Western management strategies – did not produce the desired results either. When they were asked to compete for the best or highest work performances to be granted awards such as ‘Employee of the Months’ or ‘Activist of socialist work’, most workers soon figured out that any such record performance would inevitably bring about a rise of the general working targets. Not surprisingly, those striving to become ‘model workers’ were stigmatized as ‘believers’ in the state-socialist ideology and were usually quickly brought into line by peer pressure (Kelemen and Bunzel, 2008). Consequently, submission to the state-socialist work ethos – or striving for excellence, as contemporary corporate Newspeak would call it – carried little prestige; and, instead of earning admiration from peers, it commonly provoked isolation.

What prevailed in Easter European enterprises then, was a culture of cynicism towards Party rhetoric, fictitious economic targets, and the officially proclaimed work ethos. While most manual workers engaged in some sort of ‘surface acting’ (Hochschild, 1983), the professional class, the so-called intellectual elite, which was highly educated and motivated by a vocational ethos, appeared to find more meaning in work.

## **5. AN ATTEMPT TO CONCLUDE: PROVOKING NEW FORMS OF RESISTANCE?**

Workplace cultures across different societal systems show surprising similarities. While the organizationally chanted meanings of work receive partial avowal, shopfloor subcultures emerge that subvert the official dictums. In the context of pressure from the external labour market, as in market economies, the economically established rationale for working – earning a living – provides both limitations to and discretions for workplace forms of resistance. Whilst disciplinary factory regimes in neo-liberal economies seek, to some extent successfully, to conquer employees’ hearts and souls (Knights and Willmott, 1989), subtle forms of resistance emerge. In the hegemonic battle for the meaning of work, it is the very indexicality of any sense-making process that allows workers to undermine the organizational agenda. Surface

acting here renders an apt response to the totalitarian claims of a corporately avowed identity. As in the totalitarian context of former state-socialist countries, the model worker is at once both an image that provides a reference for workers' search for meaning and a meaningless Phantom to eschew the disciplinary factory regime. Thus in an ironic twist to the lads that once 'learned to labour', here it is the organization that provokes new forms of resistance in its attempt to bypass it. The question, 'Why Work' is anything but trivial in this respect. Cultural framings of work force their way onto the economic agenda.

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## **ECONOMIC LACKS OF BALANCE AND THE POLICIES OF ADJUSTING TO THE SHOCKS OF AGGREGATED DEMAND AND OFFER**

**MARIA MĂCRIȘ, ANA PETRINA STANCIU \***

**ABSTRACT:** *The paper draws out an analysis of the manners of adjusting economy to a shock that affects aggregated demand and offer. The adjusting manner is implemented according to specialized works on the basis of classical monetarist conceptions and Keynes's conception. At the same time, in order to influence aggregated demand and offer monetary, fiscal, and budget policies are employed.*

**KEY WORDS:** *aggregated demand, aggregated offer, labour market and goods and services market balance, adjustment to the values of demand and offer, unfavourable shock upon offer*

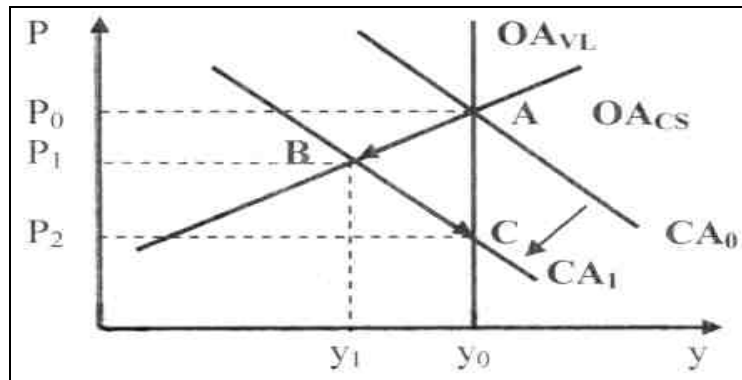
In order to analyze certain significant aspects of *adjusting to the values of aggregated demand*, we have started from the graphic representation in figure 1. We can notice that there is an ascending short term aggregated offer ( $OA_{CS}$ ) as well as a vertical long term offer ( $OA_{VL}$ ). We start from the hypothesis that economy which witnesses a general balance of a complete use of labour is located in point A; it suddenly faces a decrease of aggregated demand, from  $CA_0$  to  $CA_1$ ; as a result production decreases from  $y_0$  to  $y_1$ , and prices from  $P_0$  to  $P_1$ ; in point B we witness an under-using of labour that determines the decrease of jobs, and, consequently, unemployment.

Specialized economic works display several manners of adjusting to the values of aggregated demand, according to the classical, monetarist, and Keynes's conceptions. *According to the classical conception*, the coming back to economic balance is automated and instant. Relying again on figure 1, we consider that the movement is done along the vertical long term aggregated offer. Accordingly, the excess of offer on the goods and services markets has as a result the decrease of prices until demand is in balance with production, a fact that corresponds to a complete use of labour. As a result, in case prices decrease to  $P_2$ , the new balance settles in point C.

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**Figure 1. Representation of adjusting to the shocks of aggregated demand**

During the adjustment process the diminishing of production and jobs are not stimulated. *According to the monetarist conception*, on a short term, offer increases, and the decrease of aggregated demand moves economy from point A to point B; the fact is explained by the poor flexibility of prices and salaries. Taking into account the new aggregated demand, a constant amount  $y_0$  can be retained only in case price drops in  $P_2$  that is in point C.

Nevertheless, on a short term, prices cannot decrease to such an extent. Producers do not agree to offer the same amount as in the past to a lower price as the decrease of selling prices increases the real production cost. In case producers could compensate price decrease owing to a decrease of nominal salaries, the real production cost would be constant and they would accept to manufacture  $y_0$  at price  $P_2$ .

Yet, it is known that nominal salaries are not entirely flexible as regards their diminishing, and, on a short term, the workers do not correctly anticipate the diminishing of existing prices. As a conclusion, we consider that *each diminishing of the salary reflects, for the workers, a diminishing of their buying capacity; as a result, they refuse to accept a diminution of salaries, the employers being obliged to reduce jobs and production as a result of the increase of labour real cost.*

In figure 1, point B is not a long term balance point; owing to the free action of adjustments, economy is going to direct towards the complete use of labour. In point B here is unemployment, yet, the competition among workers results in the pressure exerted upon nominal salaries regarding their diminution, and they adapt their anticipations to the new data regarding the prices. To the extent they acknowledge the diminution of existing prices and more accurately anticipate the effective level of prices, the employees more easily accept the diminution of nominal salaries in order to maintain their jobs or to find a job in case they are unemployed.

The gradual diminution of nominal salaries allows the increase of the number of jobs and of production as well as the decrease of prices in order to retail increasing offer. Accordingly, the curve of short term aggregated offer moves towards right. The diminution of salaries and prices continues as long as there is an under-use of labour, the economy moving to point C where it is going to reach the complete use of labour. In this point, salaries and prices have equally decreased, labour real cost being identical

with that in point A, and the degree of labour employment returns to its initial level. As a conclusion, we consider that unemployment is especially due to the stiffness that intervenes in negotiating salaries; it is only temporary associated with data asymmetry and anticipations.

Classical and monetarist logic differ regarding the length of the adjusting process; nevertheless they have the same vision regarding its nature. We deal with the following mechanism: *prices' diminution brings demand to its initial level, a fact that allows the retail of a production that corresponds to a complete use of labour; the unemployment that accompanies recession determines the decrease of nominal salaries; the decrease of nominal salaries allows the producers to diminish prices and re-establish the degree of labour employing and the level of production.* Keynes's conception contests the efficacy of these mechanisms, stating that the balances on labour market and on the goods and services market cannot be restored automatically. On the one hand, salaries diminishing do not necessarily occur, and when they occur they are not enough in order to make unemployment disappear.

On the other hand, salaries diminishing do not always allow a sufficient diminution of prices in order to restore an insufficient aggregated demand. Keynes states that it is normal for the workers to resist productivity decrease as long as they consider that the individuals who do the same work have an unchanged salary. The modern theories of labour contract show that producers maximize their profit offering labour contracts in order to settle salaries depending on productivity variations. By acting like this, producers protect their past investments in forming human capital, and can, at the same time, attract the workers owing to a lower average salary only in case they offer contracts according to which salaries permanently adjust with productivity.

Finally, in an uncertain environment, adjusting costs and error risks associated with the changes of prices and salaries are generally higher than those connected with the changes of the amounts. According to such a vision, the normal functioning of the labour market faces a recession that has as a result salaries rigidity when diminishing. According to the classical and monetarist adjusting process, the first link is based upon the idea that unemployed persons compete with employed persons in order to get a job and that such a competition is going to force the last ones to accept salaries diminishing. This idea has been contradicted by the 1970 – 1980s' European unemployment that allowed the emphasizing of two aspects.

*The first aspect* regards the fact that unemployment is due to a change of the structures of demand and production. As a result, the unemployed persons that come from declining fields possess neither the training nor the experience needed in order to work in expanding fields; consequently, from this point of view, they are not in competition with the employees working in such fields.

*The second aspect* shows that the prolonging of unemployment's length has an uncertain effect upon employing unemployed persons. The facts are as follows: the longest an individual's unemployment period the less his/her capacity of finding a job.

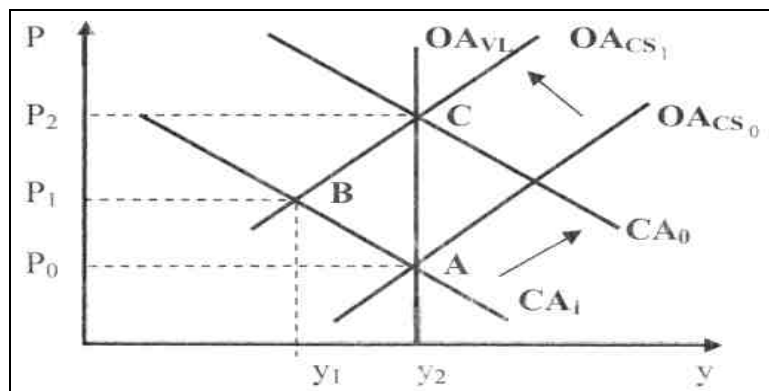
As a conclusion, the longest the adjusting process, the longest unemployment duration and the least unemployed persons are real competitors of employed persons on labour market. Keynes's conception does not entirely reject the theoretical pertinence of the classical adjusting process that emphasizes real tensions in economy.

Such a process is considered by Keynes's conception as being too uncertain and too long in order to expect an automatic returning to the balance of labour complete use. As a result, the short term is too long and too expensive as regards unemployment demanding the intervening of economic policy.

Finally, the objective of Keynes's strategy is similar with that of the classical strategy of restoring demand at its initial level. This objective of Keynes's theory is more directly and rapidly reached by pushing aggregated demand up owing to a budget and/or expansionist monetary policy. One can notice that such a policy pushed  $CA$  towards  $CA_0$  and restores economy in point A, considering that such a policy is not quite inflationist, restoring the prices only to their previous level.

A recent specialized work considers that the political success of the 80s represents the general success of the control upon public debts, most of the governments considering their inter-temporal budget constraints as an impediment in employing no matter what decisive fiscal policy in order to counteract the deterioration of aggregated demand.

In order to analyze *the adjustment of economy to a shock that affects aggregated offer* we use the graphical representation of figure 2. We start from point A and assume that a shock occurs manifesting through an important increase of the price of certain natural resources in an economy where they are totally imported and represent, at the same time, an energetic need. The immediate consequence of the shock is the obvious increase of real production cost and profits diminishing.



**Figure 2. Representation of adjusting to the shocks of aggregated offer**

Under such circumstances, for a given price, producers are stimulated to diminish their production; offer curve moves towards left; a new balance is reached in point B, being characterized by a higher general level of the prices and a decreased production situated under the level of labour complete use.

The adjustments to the values of the offer, as in the case of aggregated demand, are analyzed according to the three conceptions. According to the *classical conception* point B in figure 2 is not considered to be a balance point as it only shows the direction economy tends to in case prices are not perfectly flexible. In this point  $y_1$  is smaller than  $y_2$ . Unemployment appears on labour market and instantly exerts a pressure



regarding the diminution of nominal salaries. Accordingly, salaries diminution compensates the increase of energetic supplies costs, and producers can maintain their offer at its initial level. Consequently, in case the speed of prices adjustment is unlimited and anticipations are rational, on a short term, offer does not move towards left. The shock once appeared, producers, as well as workers, know the extent of the increase of production real costs as well as to what extent nominal salaries should be diminished in order to entirely use labour. According to the *monetarist conception* the anticipations and the flexibility of salaries are not perfect on a short term.

The movement first occurs towards point B. The shock upon offer determines *stagflation* that is the combining of inflation with production decrease. Yet, this effect occurs only temporary. As a matter of fact, in point B there is an unemployment that exerts a pressure in order to decrease nominal salaries; the decrease compensates the increase of energetic supplies costs, and producers increase again the offer of goods and services. Accordingly, the offer moves again towards right, and the general level of prices decreases. As long as production does not allow the complete use of labour, unemployment occurs, salaries diminution takes place, stimulating offer and diminishing prices.

The movement continues until the offer returns to  $OA_{cs}$  where complete use is restored. After adjustment, workers' buying capacity decreases, nominal salaries diminish, and the general level of prices returns to the initial one. Under such circumstances, the workers are those who are going to totally bear adjusting cost. They will accept this transitory cost in exchange of maintaining their jobs and their future incomes. *As a conclusion, we can state that the shocks upon offer do not have short term direct effects as economy returns to a general balance of the complete use of labour, the intervening of economic policy not being necessary.*

According to *Keynes's conception* (figure 2), a re-launching policy can move aggregated demand  $CA_0$  to  $CA_1$  in order to reach point C. Although it stresses inflation, production recession and unemployment increase are avoided. One can also notice that in point C and in point A real salaries diminished; the diminishing of the real labour cost occurring owing to increasing the prices accompanied by an unchanged nominal salary. Accordingly, the direct confrontation between producers and employees is avoided through the re-negotiation of nominal salaries with a view of diminishing them; at the same time, the workers will avoid the adjusting period through unemployment. Consequently, the longer the terms associated with the process of classical adjustment, the more advantageous the strategy of re-launching demand.

They accordingly admit the hypothesis that the government adopts the strategy of re-launching the demand in order to compensate the depressive effect of energetic shock, the new balance being situated in point C; yet, this balance tends to be unstable. Such an approach is nor specific to Keynes's theory. Consequently, no matter the initial political reaction to the energetic shock would be, the cost determined by it should be paid in one manner or another, a series of confrontations between producers and employees taking place and accordingly restoring a balance owing to the distribution of cost between the two parties concerned.

A re-distributing strategy of real costs consists in stimulating demand and stopping offer's regress so that a point situated between A and C should be reached, re-

launching being compulsorily the responsibility of the government. The mastering of the regress of aggregated offer can determine the diminution of the profit rate envisaged by the producers. Profits and buying capacity regress so each party bears a part of the adjusting cost.

A specific character can be encountered, in the case of offer's shocks, the system of exchange rates, especially of those flexible ones. Such circumstances express the fact that when dealing with a severe shock of the offer, a system with fixed exchange rates can be maintained only in those countries that similarly approach the matter and have compatible points of view regarding the manner they are going to react.

We consider that an *unfavourable shock upon offer* negatively affects the increase, unemployment, and inflation, in contrast with the arbitration of Phillips curve, the instruments of administrating demand not being capable of preventing an offer's shock. Accordingly, when the curve of aggregated offer moves upwards and towards left, the management of demand is not able to intervene neither upon inflation nor upon production. Subsequently, the policies of demand should express a difficult option between letting the shock materialize in an increase of inflation or in a decrease of production and an increase of unemployment.

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## **ROMANIAN'S SPORT - FROM THE SPONTANEOUS ACTIONS TO THE SCIENTIFIC MANAGEMENT**

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**ABSTRACT:** *In this work, we show the fact that, by the policy of decentralization applied after 1989, at sport level, takes place a social and political organization counted upon/relied on a certain concepts: the increase of the general interest in sport, the non-lucrative aspect of its administration, the members voluntary. These concepts imply a public service of sport and an equalization of the sports, a social engagement/involvement and a disinterested administration. The voluntary in sport represents the link between the officials of the sportive clubs by promoting the same rules and principles, becoming integration means that exist a general interest's behalf and also, represents an adhesion to sportive solidarity and harmony between the members of a sports organization.*

**KEY WORDS:** *benevolence, economy, management, system, sport*

The sports benevolence as a cultural system has first of all two essential functions: the first of them refers to the to the integration of the benevolent leaders in the sportive organization and to the participation of the benevolent to the coherence of the organization and the second one to this one's obligation to give results according to the marketing activity.

The sports benevolence is a mixt system. As a social-cultural system it has at its basis complying with certain rules: the skilfulness, the humanism, the solidarity and the share of profits, the general interests. As an administration system it supposes mutuality and the socialization of risks. The benevolence constitutes the link between the clubs officials that share the same principles and follow the same norms. What connects them is the love for sports irrespective of the political or cultural orientation and the social-professional situation of the benevolent ones and the club leaders. The benevolence has always been an integration instrument; it existed only in the name of

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the general interest and represented an adhesion to the sports solidarity principles and harmony among the members of a sports organization.

The sportive activity, the performance one as well the amateurs' one, the physical training and the recreation, extended at the whole population of the country, plays an extremely important role in the life of the modern man. This way between the health states of the population, the cultural-sportive and recreational activities on the one side and the performances of using the work force in economy and the other departments of the social life on the other side exist interdependence relations. In spite of all these, a national sports system, comprising all the sportive structures can't be successful without a substantial financial aid. The world practice in the sportive field confirmed also in our country proves that performances can't be obtained (especially in the professional sports) without a substantial annual investment.

According to Malinowski [10] who elaborated a scientific theory of the culture and Badie [1] who identified culture as a way of specific communication, it would be interesting to notice if the social-cultural and social-political functions of the benevolence are not stronger than the administration functions. It would be a utopia to wish to transform a benevolent leader in a businessman or to be changed in an element of the strategic planning.

Facing the development of the managerial culture it arises the problem whether knowing that the benevolence that represents the social, economical and political institutional basis of the sports can serve as a reference.

In Romania, the benevolence ideology presented as a coherent system, a system articulated by representations, with the purpose of inoculating the trust in the social and political values in sports. In other countries it was considered that this ideology produces the image of a society where the local particularities are surpassed, according to Schemeil [12] by the big positive cause of the educational and humanist sports. Nowadays, the benevolence, as the expression of a cause serving the general interests implies the possibility of surpassing the social antagonisms and of spreading the commune interest of all the participants because the benevolence unites and organizes the diverse elements of the sportive life. The benevolence integrates the clubs activities into a participation and solidarity logic, says Hermeil [9], and not into a typically managerial logic. Most of the small clubs who are extremely important in the sportive movement do not have a real "products" policy, as opposed to the professional or semi-professional.

Until 1989, the state intervened in the administration of sports in several domains: of the sportive equipments, of the subventions for functioning, of making the sportive policy and because there was no autonomy in administration the clubs were only a sort of link between the local and national level, this latter one represented by federations.

By the decentralization policy applied after 1989 at the local sports level, it is produced a social-political organization based on three concepts: the affirmation of the general interest for sports, the non-workable aspect of the administration and member benevolence. These concepts suppose a public service of sports and an equalization of all sports, a social engagement and a disinterested administration.

The theme of the general interest for sports used by the state influenced the social-cultural organization. The juridical support of the sportive association has been used by state not only as an institutional connection but also as an ideological support. It is known that the state trusted to the sportive federations the prerogatives of the public power in the purpose of organizing the championships, teams' selection, sports titles granting and the state-federation co-administration continues to exist.

If the numerous clubs would also offer other services, more diversified, more studied, better positioned, then their activity would become significant in economical terms on a given market.

A benevolent organization of the sports founded on the munificence is by its nature more sensitive to the logic of the offer than to the one of the demand, or, in other words, the clubs propose certain services (trainings, competitions, sport schools) approved by the federation they are part of, without taking into consideration the local demand or the market.

It is of course a situation that is nonconforming with the reality that of modifying the goals of most clubs that generate especially sportive competitions and even sportive installations even if the financial intervention capacities remain very limited. The clubs have to take into consideration the needs of their own adherents, to make micro market studies and to ensure the development of the structures by a certain strategy.

The sports associations are services performers and don't have profit as a goal.

According to Chazaud [7], the benevolent administration of the sports has to propose certain services and products in departments like education, health, spare time spending. If the competitions are the only ones who develop in a micro-market this doesn't generate profits and a small club has to diversify its strategies in order to survive in XXI century.

The financial intervention capacities of the numerous clubs presently remain very limited. They use sportive equipments that are not in their property, do not manage to conveniently remunerate one or two professionals and equilibrate their budget only through exterior contribution that is through subventions, through the organization of commercial shows, or by the free contribution of some benevolent persons.

The benevolent person's utilization, the use of the public subventions, of sponsors, or of the public generosity allows them to propose performances that do not correspond to the real costs of the market. The successive crises of the several federations arise the problem if the sportive institutions should remain in the strict field of the public power prerogatives or if it should orientate toward certain forms of commercialization, whether sports should remain a public state service focused on competition, ambassador of some country at an international level or oriented toward the market and the consumer's needs.

In order to surpass the difficulties and to ensure a precarious equilibrium, Nys [11] proposes that in such case, even if the investments in sports materials and equipments are ensured from other sources, the clubs to ensure a total financial independence. Presently the benevolent administration system is based on humanism

more than on skilfulness and on a management methodology and suffers from penury of ways of orienting for new administration models.

The benevolent administration of sports remaining dependent on the exterior elements of logic of the market economy has to orientate, to be opened to the modern techniques of the management [4] that supposes:

- an evolution toward the market logic that is going from the logic of the pure offer to the market logic; in this context the club activities become products and services, the adherents become clients and it is this way applied a policy of the product and a commercialization policy;
- a second evolution toward the enterprise type organization that supposes going from an aggregative structure to a functional specialization, implying the apparition of a techno-structure that is able to impel the development of the club;
- the strategic management implementation that generates a new organization and leadership vision of the sports activities and a spectrum that stimulates the managerial performance.

Under the circumstances where certain habits change because the local collectivities are preoccupied with the rationalization of the investment budgets and suggests appealing to the public help for the functioning of some sportive equipments, the benevolence remains superannuated in its desire to accentuate the solidarity of the sports fans.

The non-commercial sports organizations (clubs, association, leagues, federations) do not have to be analyzed independently neither from the social system in which they are integrated, nor by the associative system that founds their legitimacy and that constitutes the reference term.

In the evolution of the sportive associations there were transformations, suffering from the influence of the entrepreneurial model or the functioning model of an enterprise.

The sports associations appeared from the benevolent desire of the individuals to bring together knowledge or activities without obtaining profits.

After a period of massive intervention of the state, a new conjuncture appears by decentralization and by going back to the literal-economical discourse in numerous sectors of the public life in a competitiveness climate between the associations and private and public organisms. Certain associations became true enterprises, with numerous employees and performing economic activities in concurrence with the commercial enterprises. It is the case of the social tourism, of the show, of the culture, of the professional sports. The association goes from the economic status of consume group to the status of added-value production enterprise.

The sports clubs can only survive if they change their optic by a managerial tendency that stimulates the efficacy, the change, to develop techno structures and to accentuate less the symbols, beliefs and myths within the sports organization.

A sports club is an educational enterprise whose leader has to be a teacher doubled by a good administrator able of setting clear goals and knowing to use the tools he has.

The educational enterprise that animates the Romanian sport has the duty to answer to the technological and operational exigencies of a proper enterprise, even if its objective is centered only on the development of the man and not on the financial profitableness of the operations he manages.

There is a risk that a sportive association that is under the management of a benevolent entrepreneur to be transformed into an associative competition enterprise if this one will apply the management directions: performance, flexibility, total quality, efficiency, and human resources administration.

A sports club that has financial resources has to manage it rationally, according to the social, fiscal and salary duties that suppose that this one can have the status of mixt or sportive objective economic company. At this financial administration is added the human resources administration policy, the investment policy and the marketing policy whereas in the sportive practice there is something that opposes to the dominant representations of the economy.

Neither the money's cult nor the lucrative spirit can enliven a sports association which aims at the circulating of the human values. If the object is the conventional financial profit, a sporting enterprise has no chance before its commercial rival and which is, also, much more profitable. As the object is to get another kind of profit, the aesthetical one, it is question able if such an enterprise could resist in a commercial society.

The commercial enterprise which produces a sports service has to be efficient and competitive by promoting the image only with the intention of selling. A sports club is not constrained by an economic competition. If it offers a service at a low price, it will not make this as a competing means or as a method of selling, since the beneficiary pretends a sporting ethics which an enterprise does not prove.

A sports association, even if it borrows marketing techniques from a store, it is perceived by its adherents as a keeper of sports values; the team spirit, respect for the other, the desire to be strong by exercise.

The new management should be the basis of the skill, the competence, the advantageousness, the interest, namely the marks guided towards the capitalization, towards the logic of the demand and supply and the pair market – product.

A good manager is obvious by his capacity to get subventions from vary administrations, by his aptitudes to attracts sponsors and aids more or less substantial, by the facility to use the funds with a view to bring profit and in investments policy, in contrast with the voluntary whose logic relies on the principle that in sport, it is important not to win, but to participate”.

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## **FACTORS WHICH GENERATE THE PECULIARITIES OF THE MANAGEMENT IN INSURANCES**

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**ABSTRACT:** *This article presents some considerations concerning the management in insurances. There are presented peculiarities of the management in insurances, making the difference between the compulsory insurances and the optional insurances. There are pointed the organizational measures taken by insurance companies, stressing the random nature of the damages, the specific types of insurances such as goods, persons, third-party liability.*

*There are mentioned: the conditions which the manager has to fulfil, the means by which he can avoid the bankruptcy of the company, those modalities which permit to obtain profits for the company, the investment on the money market of those funds which are not immediately necessary for paying the damages towards the insured, the constitution of a solvency margin, meaning redundancy included in tangible assets which have to be maintained permanently. There are distinguished factors which generate the specific of the management in insurances, being insisted over the juridical form of the insurance thru the effect of the law or optional.*

**KEY WORDS:** *damages, insurances, insured, insurer, investments, management, risks, solvency margin*

Economical-financial operation, the insurance is prefigured by law and is represented through a contract in which the insured commits himself to pay an insurance in exchange of which the insurance company guarantees and commits itself to pay compensatory finances or insured amounts in the case of production of an event with consequences over the insured. Both the insurances and reinsurances represent a complex system which contains beside personal insurances, goods insurances, third-party liability insurances, foreign insurances and reinsurances in currency and other insurances like those regarding welfare, health, and lay-off.

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The shapes of juridical achievement and the coverage domain of the insurances had known a continuous evolution especially in the regulation system of compensation of the damages produced by casualties or accidents.

The way in which an insurance company is organized and managed is strongly related to the requests of the national and international insurances and reinsurances market.

Besides the factors which are common for all activity domains, in insurances interfere specific factors which determine the way of organization and management of the insurance activity.

The management in insurances has to provide optimal conditions for:

- the formation on time and in the predicted amount of the insurance fund;
- the operative granting of the compensations and the insured amount which is the right of the insured when the insured risks are produced;
- the continuous adjustment of the insurance forms (optional or compulsory): goods insurance, personal insurance, third-party liability insurance, at the demands which appear on the insurances, reinsurances, national and international market.

In the compulsory insurance case, the management is different to the optional insurance. In the first case there are imposed measures concerning the creation of the conditions for the collection of the insurance in legal term and the quick evaluation of the damages or for the establishment and payment of the insurances and compensations. In the second case, the management follows the realization of an optimal dispersal of the risks, the streamline of the insurance contracting activity and insurance collect, also a correct evaluation of the damages and quick establishment of the compensation. The insurance society, before contracting the insured but also after, has to have as objectives organizational measures as:

- the examination and analyze of the economical, social, and financial intern and international conditions;
- the insurance contracting has to be based on each person's situation;
- an own marketing strategy regarding the improvement of the insurance society's image;
- the correct evaluation of the risks;
- the knowledge of the economic situation of the insurable person.

The existence of *the random character of the damages*, of which volume cannot be estimated but approximately, implies the necessity of effecting some calculations presume the existence of an informational system which performs the calculation, establishes the frequency and intensity of the risk and determinates the introduction of new forms of optional goods, persona, and third-party liability insurances.

Through legislation or through insurances contracts, the insurance societies assume responsibilities for covering damages. In insurances, the risk is much more present then in other domains; the production of it influences the financial situation of the insurance company.

Besides the *technical risks* (the risk of error - the tariffs for bonuses are insufficient to cover the value of damages; the deviation risk - the evolution of

damages and assurance's costs are different from the initial calculi of the assurance bonuses; the evaluation risk - the technical reserves of bonuses do not permit the total acceptance of the obligations assumed by the mean of the contracts of assurance closed; the risk of exploitation expenses - the assurance made on long term do not cover the expenses for creating and using the assurance fund; the risk of major damages - influences the financial balance of the assurance society; the risk of excessive uncontrolled and uncoordinated growth of the activity; the risk of catastrophe - the accumulation of large damages as consequence of natural phenomena occurrence; the risk of liquidation - the society's funds value is below the level of the obligations towards third party), it can also appear *investment risks* (the risk of devaluation, the risk of liquidity, the risk of interests, the risk of over evaluation) and *other risks* (the participation risk, the managerial risk, the general business risk, the risk due to the losses of some third party person, the risks regarding the guarantees given in favor of third party persons).

In the case of *goods insurances*, the management has peculiarities based on the kind of goods, which impose themselves in the activity of finding and evaluation of the damages, but also of establishment of the compensations and the presence of specialized staff (agronomist engineer, constructor engineer, mechanic engineer), beside economists [2]. Also for the insured and for the insurer, the management of the risks is important because it has to be identified exactly the insurance paid to the insured.

The insurance can be paid off in advance and fully and in the case of goods [5] insurances, the insurance companies difference the insured goods in risk classes making distinction for example for real estates between urban and rural areas, building materials and security measures.

The computerization of the operations regarding the setting down of the data, the volume of the paid insurances, eventual redeemed amounts, reduced insured amounts or loans received from the insurer, proves its efficiency in the case of *personal insurances*. Because the evaluation of people is not a matter, it is not necessary, in the case of personal insurance, a compartment in charged with establishment and evaluation of damages. The insurance companies which take care of this sort of insurance are obligated to administer different accounts and to manage separately those funds [1].

In the case of life insurances there are followed: family protection, financial independence in children's study period, maintenance of the security in business interest, the insurance of a financial compensatory fund in case of diseases or an expense fund in case of decease. Life insurance [4] is a way of financial protection, a contract between the insurer and insured being a benefit for the client that he benefits of all the money he contributed with at which is added an interest.

Regarding the third-party *liability insurances*, these cover the prejudice produced by the insured to a third person. The insurance society commits itself to pay compensation for the prejudice for which the insured is responsible based on the law. So, third-party liability insurance, according to articles 998-1003 from Civil Code [7], allows that the affected person receives the compensation or/and the proper insurance, and the insured is not juridical followed for the prejudice in exchange of his insurance.

Territorially, the insurances are intern and extern. In the case of intern insurances, the management is conditioned by the specific of the country and the economic and financial situation of the possible insured. In the case of the extern insurances, in the realization of the insurance are taken into account the possibilities of the offers from the international insurances and reinsurances market through direct and systematic prospect. The realization of this activity presumes the existence of some particular agencies abroad or documentation of the local insurance company agents on the extern market.

The sizing of the management in extern insurances is related to a good knowledge of the economical politics of external trade of the country.

In order that the insurance and reinsurance activity evolves efficiently is necessary that between the collections and payments to be maintained a permanent balance whose realization requires that the insurer incomes from insurances allows the cover of the expenses of the compensation payments and insured amounts within intern insurances, of expenses regarding the insurances and reinsurances in currency, of expenses regarding the construction and management of the insurance fund and also the gaining of a certain profit.

The financial and currency balance of the insurances is based on insurance society's budget which is, on the one hand a prognostic, management, analyze and control tool of the insurance activity, and on the other hand a tool used in the realization of the financial-currency insurance's balance.

The sizing of the funds which an insurance society can constitute, presumes the existence of different accounts for life insurances, meaning different management of afferent funds.

The insurance of the optimal conditions for the management in insurance concerns [6]:

- the construction in time and in predicted quantum of the insurance fund;
- the quick payment of the compensations and the insurances which are the right of the insured when the insured risks produce;
- the continuous adapting of the forms of goods insurances, personal insurances and third-party liability insurances, at the requirements that appear on the insurance and reinsurance intern and international market.

So there are created the premises for the insured to be able to get over the negative effects of accidents or natural disasters.

The management in insurances implies:

- the coordination of all the activities meant to put the agents in contact with the right clients at the right time;
- the leading of all insurance agencies through all the seven functions of an agency (market research, identification of insurance necessities of the clients, preparation of the offers, presentation of the offers, contracting).

The management is fulfilled in good conditions only through the art and *intuition of the manager*. The manager [8] is either an individual or legal person which has to prove experience, professionalism, the capacity and potential of the team that he leads, team which has to define in all its activities the objectives in condition of the law.

Managers can be Romanian or a foreign person which:

- have experience officially proved;
- favourable professional references;
- do not have criminal convictions;
- do not own stock holdings at companies with similar activity.

Insurance societies own a large amount of funds which can be invested on the money market. A good manager has to know the peculiarities of the money market, its principles, the innovations and financial tools recently appeared.

The variations of the interest rate, inflation rate, the evolution of the money market and capital market can affect the available capital and the results of the insurer.

A good manager can invest on the money market the funds that are not immediately needful for the payment of the compensations or for expenses taking into account that an insurance company always needs cash.

In investments the income can be obtained from multiple sources. The most stable is the income from investment in form of interests, dividends and stock holdings, real estates and other assets owned as investments.

Other sources are represented by gaining from cession, which results from the sale of a stock holding at a higher value than the acquisition price, also higher than the gaining or losses of capital from re-evaluation, which results when the market value of a stock holding grows over the acquisition price but the stock holding is not cession.

Some insurers can invest in treasury bills that do not involve credit risk and can be easily transformed in cash with minimum losses.

In any moment the insurance companies have to be able to honour their obligations taken through insurances contracts. An insurer is solvent when his cash is higher or at least equal with his debts.

The legislation demands to each insurance company to create a solvency margin and an overflow included in cash which have to be permanently maintained.

In insurances and reinsurances is necessary the promotion of a professional code of laws based on honesty and trust between the insurer and the insured at the contracting, also on respect of the promises that the insurance products are intangible and in the case of eventual financial losses the insured is compensated.

Generally, each insurance company has to respect the three principles of the ethic behaviour: the utilitarian principle, the respect of the rights principle and the justice principle.

In conclusion, the factors that generate the specific of the management in insurances are:

- the random character of the risk;
- the juridical type of the insurance (compulsory or optional);
- types of insurances (personal, goods, third-party liability);
- territory (intern and extern);
- the quantum of the insurances funds.

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## THE POTENTIAL VALUE OF A MINING PROPERTY

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**ABSTRACT:** *Analyzing the possibilities to using the traditional assessment models (patrimonial and based on result updating) in the particular case of the mining companies in Romania, it led to conclusions that show its non-applicability at least in certain forms and in specific special situations. Thus, the special assets value in the mine patrimonies cannot be approached unless on the context of continuing exploitation activities and in a tight relationship with the mineral substances reserves to whose turn to profit the activities would take part in. Due to this usage particularity of the production factors capital and deposit the value approach through flow, as an economic value seem more opportune. In present though, the most majority of the mining companies in Romania operate with exploitation losses which are partially or totally covered by state finance subventions. This completely improper operating from an economical point of view rise insurmountable barriers for usage of assessment patterns based on updating the future cash flows. In these circumstances, it appears as a requirement the necessity of developing new assessment patterns that would be able to offer a relevant image, closer to reality, over the value of an operational enterprise or over the value of a mining perimeter that is partially developed. Such a model is developed as follows.*

**KEY WORDS:** *Mining property, assessment model, economic value, potential value*

### 1. FOREWORD

For Romania, the issue of companies assessment is one occurred recently (and imposed by structural alterations intervened in economy after 1992). The connection of the mining branch to the new economical mechanism had taken place late; the issues related to re-structuring, efficiency increase and privatization are, even at present, far from being completely solved. Thus, it could be seen as justified a certain lack of attention at a methodological and procedural level that affected the problem of mining properties assessment.

The traditional assessment models, patrimonial and based on result updating cannot be applied though in the case of new or partially developed mining perimeters [2], [10]. Mainly, these represent a particular case of assessment of mining properties due to the incertitude related to volume and quality of reserves (a deposit of useful

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mineral substances come to be known as a whole only in the moment of reserves exhausting) the world economical conjunctures (a continuous variation, sometimes unforeseeable, of the prices for the rough mineral materials), the technological developments (some imposed even by a more and more limited character of certain mineral reserves) the political stability and the government actions (a certain fiscal and social politics), evolution of ecological actions and programs [13].

The new and partially developed mining perimeters are related in an organic way, the concept of "potential usage value" [7], met, in an approximate form, in most of the resource economy related paper works, but in an inaccurately defined and incompletely explained. Any mining perimeter which is new or partially developed has a certain potential value (even for the fact that the useful mineral reserves represent a special form of capital) [6].

Technologic and economic changes imposed a continuous migration of the barrier that separates the exploitable reserves from the marginal or sub-marginal ones. The economic results of exploiting a useful mineral deposit are variable in time, but the potential value of the deposit is related to its commissioning. The deposit value exists in any moment but it can be higher or lower, according to the economic and technological conjuncture [5].

## **2. MODEL FOR DETERMINING THE POTENTIAL VALUE OF A MINING PROPERTY**

Analyzed from a financing need perspective, timetable to reaching the profitable operating rate and a foreseeable economical potential, a new or partially developed mining perimeter resembles to a company in difficulties but recoverable. A recoverable company in difficulties would continue its initial activity or starts a new one in the so-called period of recovery, period that lies along many years and when the company works under its capacity, having positive or transient results; the procedure of recovery can fail at any moment [2]. The new mining perimeter will be researched, prospected, explored and developed; the first production facilities will be commissioned, later reaching the designed production output.

Throughout all this period, similar to the recovery period of the company in difficulty, capital shall be invested, with the aim of acquiring profit in the future. Sometimes, the recovery procedure fails. Similarly, not any mining perimeter will be brought into the profitable exploitation state: if the preliminary assessments do not confirm profitability, the perimeter may enter the conservation or closure state (regardless the stage of exploitation or development workings).

For the purpose of assessing the recoverable companies in difficulty, specialty literature recommends, unanimously, using the value in due time model. Due to the feature of recoverable company in difficulty of the mining perimeter either new or in development state, it is considered as usable the value in due time model to determine its potential value [9].

On the basis of applying this assessment model are the forecasts regarding [3]:

- time interval when a profitable mining company having relatively constant results will be settled down;



- evolution of the yearly mining company results (emphasizing the yearly needs of financing);
- investments in capital needed to bring the new mining perimeter in a profitable operating state).

The potential value of a new or partially developed mining perimeter is determined with the formula [11], [12]:

$$VPT = \frac{VT}{(1+r)^n} - INVA \quad (1)$$

where:

VPT - the potential value of the mining perimeter;

VT - value on due time;

r - rate of update for the due time value;

n - number of years of the time needed to set down a profitable mining company;

INVA - the update value of the sums that need to be invested in order to bring the new or partially developed mining perimeter in a state of profitable mining company.

The value on due time represents the value of the established mining company in the first year of the profitable work period of time when it has relatively constant results. In order to determine the value on due time it is used the formula for the capitalization test, according to which:

$$VT = \frac{B_n}{r^*} \quad (2)$$

where:

$B_n$  - the net profit in the first year of the profitable operating time with relatively constant results;

$r^*$  - rate de capitalization that, basically, differs from the updating rate r.

The capitalization rate,  $r^*$ , is chosen by assimilation with the revenue rates for the invested capital shown by similar mining companies (as kind of mineral substance exploited, size, applied methods and technologies).

The rate of updating, r, comprises a base rate and a risk bonus [4] which means

$$r = a(1+p) \quad (3)$$

The base rate, a, can be the efficiency rate of obligations, either in the public or private sector, or shares of a similar companies. The risk bonus, p, expresses the specific risk of transforming the mining perimeter new or partially developed in a mining company having a profitable operation. The size of this bonus is decided taking into account the following:

- risks of unfulfilling forecasts regarding financial results;
- risks related to reliability of the volume and mineralization data (available at the assessment time);

- risks related to applicability of "recognized" exploitation methods and technologies (for which a good practice exists);
- risks related to a future development of rough mineral material markets;
- risks related to a certain future development of fiscality at the mining branch level.

The final value adopted for this rate should express a differentiated risk shown by the new established mining company in comparison with similar mining companies.

The sums that need to be invested to bring the mining perimeter in a profitable operating state having relatively constant results are disposed in time on a certain manner. As consequence, these shall be updated so as to be brought at the moment when the assessment is carried out. The updating rate used is  $r$ , the INVA term having the following form:

$$INVA = \sum_{t=1}^n \frac{I_t}{(1+r)^t} \quad (4)$$

where:

$I_t$  represents here the sum that needs to be invested for development in year  $t$  (from today into the future).

It must be noticed that applying this assessment model is not mistaken by applying the model based on results updating. The assessment model based on future results updating does not surprise the "sunk" costs character of many investments required to establish a mining company [1], [8].

The model of due time value ignores the sums invested up to the moment of assessment (confirming the "sunk" costs character, passed costs, definitively supported, regardless of options on the mining perimeter's future). It is considered that by this, the proposed assessment model brings a superior quality tone in the preliminary assessments imposed by founding of decisions on a future development of a mining perimeter, so enrolling in the new assessment concept that should be promoted at the mining branch level.

### **3. STUDY OF A CASE: DETERMINING THE POTENTIAL VALUE OF A MINING PROPERTY**

*The declared objective of the case study is represented by an exemplification of usage for assessment models in determining the potential value of a mining property.*

*The case study is developed on the basis of an apparently simple example and it resorts to considering some hypothesis specific to the economic environment in Romania.*

The geological prospecting and explorations led to shaping a new mining perimeter, so confirming existence of an industrial reserve of approx. 13,000,000 tons hard coal. Exploitation of the hard coal reserves shall be carried out in underground mode. The project of render valuable the pit coal reserves had been started 4 years ago, investing in it 8,000,000 USD (workings or prospecting and exploration, design, mine

constructions), with the following dispose in time: year 1 - 500,000 USD, year 2 - 1,500,000 USD, year 3 - 2,000,000 RON, year 4 - 4,000,000 USD. The first year of production is year 5 (100,000 tons). The production capacity designed is 600,000 tons/year, and it is estimated to be reached in year 9 (after which the mining unit will work at this production capacity, another 19 years).

During the period of the first years exploiting the reserves, production will have the following dynamics: year 6 - 200,000 tons, year 7 - 300,000 tons, year 8 - 400,000 tons.

The estimate price is 63.80 USD/ton, value of mining redevence being 4%. The capital required for investitions is the following: mining constructions - 35,750,000 RON (year 5 - 6,250,000 USD, year 6 - 9,000,000 USD, year 7 - 10,000,000 USD, year 8 - 10,500,000 USD), machinery and equipment - 21,000,000 RON (year 5 - 2,000,000 USD, year 6 - 4,000,000 USD, year 7 - 6,000,000 USD, year 8 - 9,000,000 USD), rolling fund (working capital) - 5,000,000 USD.

The exploitation expenses (direct and indirect), the general and managing expenses had been estimated by comparison with mining units in operation (which belong to the same company). The amortization of investments in mining constructions will be realized in reference with the reserves amount, and of machines and equipment related to a normal use lifetime (7 years). The income revenue tax is 16%. Assessment take place at beginning of year 5 (time of commissioning).

The potential value of a mining property expresses the proficiency of its future exploitation, taking into account the capital expenses needed to bring it into a position of a profitable exploitation.

In a previous paragraph the model of value in due time has been proposed in order to determine the potential value of a new or partially developed mining perimeter. The model will be applied, following, using the data regarding a mining property.

The value in due time represents the value of a mining company in the first year of its profitable activity with results basically constant, determined on the basis of the capitalization test formula, i.e.

$$VT = \frac{B_n}{r^*} \quad (5)$$

where:

$B_n$  - the net profit in the first year of the profitable operation with mainly constant results;

$r^*$  - capitalization rate.

Using the data in the example, it results

$$VT = \frac{13,660,440}{0,12} = 113,837,000 \text{ USD}$$

The potential value of the mining perimeter is determined with the formula

$$VPT = \frac{VT}{(1+r)^n} - INVA \quad (6)$$

where:

r - rate of updating the value in due time;

n - number of years in the period of setting up a profitable mining company;

NVA - the updated value for the sums that need to be invested in order to bring the new or partially developed mining perimeter in the position of a profitable mining company.

The rate of update, r, comprises a base rate and a risk bonus, which is

$$r = a(1 + p) \quad (7)$$

The base rate is equal to the capitalization rate, i.e.  $r = 12\%$ . For the risk bonus a value of 75% is adopted. As consequence,

$$r = 12\left(1 + \frac{75}{100}\right) = 21\%$$

The sums that need to be invested to bring the mining perimeter into a position of a profitable operating having mainly constant results shows a certain disposal in time. For the example data,

$$\begin{aligned} INVA &= (6,250,000 + 2,000,000 + 5,000,000) + \\ &+ (9,000,000 + 4,000,000)(1 + 0.21)^{-1} + \\ &+ (10,000,000 + 6,000,000)(1 + 0.21)^{-2} + \\ &+ (10,500,000 + 9,000,000)(1 + 0.21)^{-3} = \\ &= 45,929,259 \text{ USD} \end{aligned}$$

The potential value of the mining perimeter results

$$VPT = \frac{113,837,000}{(1 + 0.21)^3} - 45,929,259 = 18,328,760 \text{ USD}$$

It should be noticed the model of value in due time does not produce much different results when compared to the well known model, based on profit updating. Although, a much greater influence intervene - the influence which the way of quantifying the risks implied by the specific mining perimeter that had been assessed.

#### 4. CONCLUSIONS

The mining perimeter represents a well defined perimeter that is subject either of mineral resources exploration activities for the purpose of underground or surface exploitation of these resources, or of some exploitation and valorifying activities for deposits of useful mineral substances already known.

In assessing the mining properties it must be taken into account a fundamental aspect: their value is conditioned but not wholly determined by the quantity and the quality of useful mineral resources in their underground (which is by the characteristics of the production factor deposit). This is because rendering valuable the reserves implies material and other kind of efforts, and consuming some resources in a process with an economical dimension which is expressed mainly by expenses of capital, revenues and operating expenses.

Additionally, even if the process finality is establishing an unbiased value (fair value) of the mining property, it may appear as necessary to form concrete answers to other questions also, as for example:

- which is the total value of capital investments needed in order to bring the mining perimeter in a certain condition of efficiency?
- which is the time needed to reach efficiency?
- which is the value for the presumed yearly profit and what part of this will be used to remunerate the stock holders (distributed as dividends)?
- which is the time interval needed to assure retrieval of all initial capital expenses involved?
- which is the yearly level of expenses required to maintain the production capacity of the perimeter?
- which is the returning rate presumed in the development project for the mining perimeter?
- which are the possibilities to extend the surely known reserves at the assessment time?
- in the market context and in a certain economical conjuncture, which would be the market value for the mining perimeter?

Finding the answers to such questions amplify the difficulty of the assessment process for the mining property, adding an obvious qualitative dimension to it.

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## **ANALYSIS OF THE EMERGING DEMAND OF TELECOMMUNICATION SERVICES**

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**ABSTRACT:** *The paper concerns the mobile telecommunication services' consumption behavior of the youngsters aged between 20 and 29 years old from Craiova. The chosen sampling method is the quotation method, method which permits the construction of a sample with the same repartition as the studied population, following an already known criterion (such as sex, age, socio-professional category etc.), within which the characteristics of the individuals (geographic, socio-demographic, behavioral, economic) will be very close to those of the referred population [1]. The sampling criteria (age and sex) are chosen regarding the research objectives and the sample length (200 persons) was determined depending on the organizational decisions that this research confronts to. The chosen sampling method was the quotation method, because it is the most used for the surveys within the commercial field [3].*

**KEY WORDS:** *mobile telecommunication, market, offer, consumers' behavior, price*

### **1. INTRODUCTION**

Effective strategic management is predicated principally on the analysis of: dynamic supply and demand. The interaction of these forces defines price, outlines production schedules, spurs future innovation, and specifies the determinants of consumer preference. Armed with this information, practitioners gain a keener insight into managing strategy and enhancing competitive positioning. While the capriciousness of the Romanian consumer remains a preoccupation of strategic planners in all sectors of the economy, empirical evidence mounts which enables us to profile the nature of telecommunications consumption. There are significant variations among providers in the telephony, broadcasting, and computer industries, but recent research reveals a continuity in demand for particular services [5].

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Economists have confirmed the variables responsible for consumer demand, and describe these factors as determinants. The determinants of demand are assigned by the computation of [6]:

$$D = T + I + E + (\text{other factors}) \quad (1)$$

where D = demand; T = taste; I = income; E = expectations; and other factors include the availability and price of alternative goods or services. We refer to this expression as the "demand equation."

Thus, the three main determinants of demand include consumer taste (or preferences), prevailing income, and the expectations (or prospective satisfaction) consumers hold for that product. These causative elements are supplemented by competitive options consumers have before them at the time of transaction. The credibility of these variables as decisive in setting the pattern of consumer demand have been documented over and over again in recent decades, and are regarded as beyond methodological dispute.

## **2. EVALUATING CONSUMER PREFERENCES**

The process of judging a product's traits - price, quality, and other objective characteristics - constitutes objective criteria with respect to gauging and measuring consumer preferences. Other characteristics, such as reliability, dependability, and prestige, are more subjective in nature but nevertheless influence consumer behavior. Under such circumstances, it is common for consumers to rely on branding—or corporate image and reputation - to differentiate alternatives. How do consumers decide which product or service to adopt when inexperienced with available competitive alternatives? While this question elicits diverse reactions within the industry, strategists must contemplate its implications. The effectiveness with which a company addresses this issue will be an important factor in attaining long-term market penetration. In a world of proliferating choice in telecommunications, particularly as firms align in forming partnerships to deliver services, the identification of evaluative criteria become an immediate economic and methodological question.

Among information compiled by telecommunications firms are databases detailing the patterns of aggregate household consumption. These data are formulated in cyclical, seasonal, temporal, and other categorical descriptions. These are reliable data about which credible forecasts can be made as to regular and periodic demand for communication services. Regulation cemented a "gradualist" environment: innovation, in relative terms, was less dynamic, less radical, and less disruptive in nature. Deregulation is in the process of encouraging counterintuitive developments in consumer tastes, as new technologies bring unanticipated change to telecommunications as consumer expectations in unrelated industries compel telecommunications providers to continuously upgrade their menus. This phenomenon is even more pronounced by content providers in broadcasting, electronic commerce, and multimedia. Consumption of telecommunications services generally falls within four definable areas of adoption: consumer applications, household life-cycle, and organizational demand. With respect to household life-cycles, there exist certain influential variables which impinge on demand.



These variables include cultural and social class factors, patterns of socialization, family structure, role specialization, segmented decision-making, and the changing stages of the household life-cycle [2]. In prior periods, the decision to adopt communication products would have been relegated to a single member of the household. Deregulation promises to complicate the process of forecasting demand amid proliferating choice. Many emerging services retain unique value to each family member.

It is reasonable to anticipate that emerging wireline and wireless services, particularly in terms of interactive applications, will be customized to the need of each member of the household. Proliferating competition assures that every individual will approach the key economic decision-maker in the household for those services of greatest personal value. The household decision maker, therefore, will have to contend with multiple choices on the one hand, and the heightened demands of others to formulate a menu of services for the entire unit. For strategists, it will be vital to focus on the habits of each individual to estimate household consumption patterns [4].

Decisions regarding communication product adoption were formerly the domain of a single individual, group or committee in many firms. The convergence of the telephony, computer, and broadcasting industries, and the industries that support them have had the effect of encouraging individuals throughout an organization to investigate product alternatives. We thus note a parallel situation in contemporary organizational consumption: expanding alternatives have overwhelmed even telecommunications experts in many companies. Individuals without such expertise are nonetheless cultivating knowledge in a single technology which they find essential to their work.

### 3. METHODOLOGY

From the Romania's statistics year book for the year 2006, data regarding the population structure was extracted [7]:

**Table 1. The population structure - the sex**

Sex	The whole researched collectivity (Craiova)	Percentage (%)	The number of persons included in the sample
Men	24 086	51,2	102
Women	22 959	48,8	98
Total	47 045	100	200

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**Table 2. The population structure - the age**

Age	The whole researched collectivity (Craiova)	Percentage (%)	The number of persons included in the sample
20-24 years old	22 275	47,3	94
25-29 years old	24 770	52,7	106
Total	47 045	100	200

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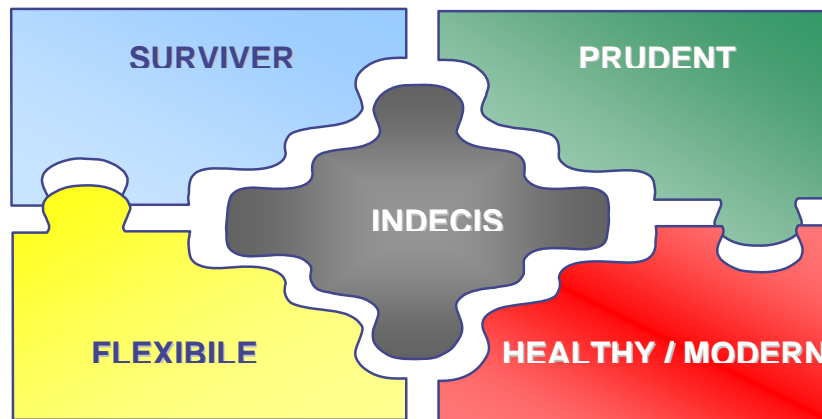
**Table 3. The structure of the sample components**

Age	The sample components	Men 51,2%	Women 48,8%	TOTAL
20-24 years old	47,3%	48	46	94
25-29 years old	52,7%	54	52	106
TOTAL		102	98	200

The marketing study regarding the Romania's mobile telecommunication companies' offer was made from 1<sup>st</sup> April to 5<sup>th</sup> May 2009, by sending via e-mail a questionnaire of 17 questions (The questionnaire was hosted by the site [www.esurveyspro.com](http://www.esurveyspro.com), having the following link: <http://www.esurveyspro.com/Survey.aspx?id=1fc1de53-fae1-4276-a1cd-2cb5d336ceda>). The questionnaire, a tool for gathering information, was made following some stages: Documentation; Data analysis and the questionnaire creation; Questionnaire checking up.

#### 4. THE PROFILE OF THE MOBILE TELECOMMUNICATION USER

This procedure of mobile telephony services user's profile determination is composed of 4 initial circles, each of them composed of a small number of subjects, in which, by spreading, new individuals can be included, arriving to a profile standardization. Following this method, a group of subjects that is not characterized by any of the four profiles resulted, this being named *the group of undecided subjects*. They have characteristics that are common to the other profiles and, that's why, they can be characterized as undecided or uninvolved within the mobile telephony services' buying process.



**Figure 1. The mobile telephony services' user profile**

*Healthy / Modern.* The users of mobile telecommunication services from this category have the following characteristics: they have at least two subscriptions at two

different mobile telecommunication companies; they make use of their mobile phones for the following reasons: (a) to make calls; (b) to receive calls / SMS; (c) for data transmission; (d) to connect / navigate on the Internet directly on the mobile phone; (e) to send SMS / MMS; (f) to use the 3G technology – for instance for video calls; they have chosen the mobile telephony providers depending on the following criteria: (a) the quality of calls / sound; (b) the negotiable offer – they negotiated the contract; (c) the quality and availability of the customer relationship service; (d) the use of a last generation technology; (e) the company reputation; (f) the diversity of the auxiliary / supplementary services; (g) the range and prices of the available mobile phones; (h) the costs they have to pay if they make a call within this network; when they last chose their mobile services provider, they took into consideration the following: (a) the tariffs for the fixed-mobile calls; (b) the tariffs in roaming; (c) the tariffs for MMS.

*The Prudent.* These mobile telephony users have the following characteristics: they have at least two prepaid cards at two different companies of mobile telecommunication services at least; they use their mobile phones for the following reasons: (a) to make calls; (b) to receive calls / SMS; (c) for data transmission; (d) to connect / navigate on the Internet directly from the mobile phone; (e) to send SMS / MMS; (f) to use the 3G technology – for instance for video calls; they have chosen the mobile telephony providers depending on: (a) the tariffs for calls; (b) the network coverage within the territory; (c) the friends that are subscribers of the same network; (d) the promotional offers - discounts, gifts etc; when they last chose the mobile telephony services provider, they took into consideration the following criteria: (a) the price of the prepaid cards; (b) the tariffs for calls within the same network; (c) the tariffs for mobile-mobile calls outside the network; (d) the tariffs for SMS.

*The Flexible.* The characteristics of this group of mobile telephony services users are: they have at least one prepaid card and a subscription at two different mobile telephony companies; they use mobile telephones for the following reasons: (a) to make calls; (b) to receive calls / SMS; (c) for data transmission; (d) to connect / navigate on the Internet directly from the mobile phone; (e) to send SMS / MMS; (f) to use the 3G technology – for instance, for video calls; they have chosen the mobile telephony providers depending on: (a) the tariffs for calls; (b) the network coverage within the territory; (c) the friends that are subscribers of the same network; (d) the promotional offers – discounts, gifts etc; (e) the quality of calls / sound; (f) the negotiable offer - they negotiated the contract; (g) the quality and availability of the clients relationship service; (h) the use of the latest generation technology; (i) the company reputation; (j) the variety of the auxiliary / supplementary services; (k) the range and prices for the available mobile telephones; (l) the costs that those who make calls within the same network have to pay for; when they last chose the mobile telephony provider, they took into consideration the following criteria: (a) the prepaid cards / subscriptions' price; (b) the tariffs for calls within the network; (c) the tariffs for mobile-mobile calls outside the network; (d) the tariffs for SMS; (e) the tariffs for mobile-fixed calls; (f) the tariffs in roaming; (g) the tariffs for MMS.

*The Survivor.* The users of mobile telephony services from this group have the following common characteristics: they have either a prepaid card or a subscription; they use their mobile phones for the following reasons: (a) to make calls; (b) to receive

calls / SMS; (c) to send SMS / MMS; they have chosen the mobile telephony providers depending on the following criteria: (a) the tariffs for calls; (c) the friends that are subscribers within the same network; (d) the promotional offers - discounts, gifts etc; when they last chose the mobile telephony provider, they took into consideration the following things: (a) the prepaid cards / subscriptions' price; (b) the tariffs for calls within the same network; (c) the tariffs for mobile-mobile calls outside the network; (d) the tariffs for SMS.

## 5. CONCLUSION

Concluding, we can say that the youngsters from Craiova, aged between 20 and 29 years old use mainly mobile telephony services based on subscriptions, from many operators, so as that the advantages and disadvantages to have an equilibrium. The youngsters choose the subscriptions from the Orange, Vodafone and RCS&RDS operators, and less the subscriptions from the Zapp or Cosmote operators. The motivation is linked by the services' quality, Cosmote being chosen for the cheapest tariffs and the attractive offers for the prepaid cards. However, the RCS&RDS operator is preferred for the cheap tariffs and minutes included within the offer.

The youngster analyzes the offers of the mobile telephony operators, for subscriptions and prepaid cards and chooses several operators, covering the range of their communication needs. Few are those that have only a subscription or a prepaid card from a single mobile telephony operator. The competition on the telecommunication market from Craiova, on the segment of 20 and 29 years old, is very intense, the youngsters choosing in a rational way the best offer taking into consideration the quality, but especially the cheap tariffs, fact justified by the quality of student or the modest incomes from this age.

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## **DEVELOPMENT OF INFORMATION SECURITY MANAGEMENT SYSTEM AT THE MEMBERS OF SUPPLY CHAIN**

**PÁL MICHELBERGER, CSABA LÁBODI \***

**ABSTRACT:** *The paper provides an overview of the role and feasibility of information security in supply chains. After the clarification of basic notions the authors will arrive at establishing requirements postulated for supply chain member companies based on the properties of logistics information systems. The evaluative consideration of major standards connected to the topic of the article may aid the formation of an information security management system that is not necessarily a costly and third-party/advisor audited option, and may open the possibility of fitting it into an integrated logistics system.*

**KEY WORDS:** *supply chain, SCM, information security, logistics information systems, information security management system*

### **1. INTRODUCTION**

Business transaction and information management between companies is vital for long-term cooperation and strategic partnership. Corporate information systems will thus overstep company boundaries, securing cooperation between strategically linked and allied firms within the supply chain.

Specific company cultures combined with diverse roles fulfilled in the supply chain, continuously shifting corporate business interests and divergent information technologies may cause difficulties for efficient integration; at the same time, information security is of fundamental importance in the creation and maintenance of connections between supply chain members.

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## 2. INFORMATION SECURITY

Information is value for the business company, being a basis for decisions and business success. It may be relevant with respect to products, services, technological know-how and available resources as well as business partners – i.e. all the components determining the successful operation of the supply chain. If information is incomplete or missing, inaccurate or dated and if it happens to land in unauthorised hands, major damage may be caused to the company. This means that information must be protected.

Currently this means [7];

- confidentiality (information must be exclusively available to authorised persons),
- integrity (preserving information intact and accurate),
- and availability (authorised users may gain access to the information when necessary).

Information security is a far more complicated domain than IT security. In 1995 John Ward only considered recoverability and backup as the fundamental elements of information security [6]. Today it is not enough to think in terms of firewalls, reliable hardware and well-defined identification systems. A conscious build up of technological background is no longer sufficient. An information security management system will primarily prescribe the management and handling of data storage devices, regardless of the manner in which the information is presented.

Protection functions appropriately if the following are clearly defined: information to be protected, external and internal threats and their risk levels, and finally the necessary instruments and control systems [8].

Information security is especially important for companies that:

- base their operation on information/data, or that are fundamentally determined by information/data in their operation,
- maintain IT links with partners and electronic links determine their external contacts (e.g. logistics organisations),
- are involved in receiving, processing, storing and forwarding data of other (partner, client, etc.) organisations or persons (e.g. banks, insurance firms, data management and storage organisations),
- are involved in the development, setup, launching or implementation of information technology systems (e.g. IT companies),
- conduct research and development activities where the output basically takes the form of information (e.g. research institutes),
- possess, produce and handle confidential personal information (e.g. healthcare institutions).

The aim of information security then is to ensure uninterrupted and undisturbed business handling and reduce damage caused by security events through the regulation of operations. Information security may be reached by introducing safety measures based on the assessment of potential risks. These consist of regulations describing company processes, a corporate structure reflecting these processes and the

regulated use of the appropriate information technology devices (hardware, software and telecommunications devices).

### **3. THE MANAGEMENT OF SUPPLY CHAINS**

The supply chain is a joint system of value added processes and of resources, which involves several companies, starting with the purchase of raw materials and finishing with the delivery of the final product to the consumer. Its various elements comprise suppliers, producers, logistics service organisations, warehouses and other participants of the distribution processes. The operation of the supply chain is primarily determined by the final consumers, which creates common interests for the participants of the chain [2].

According to the definition established by the US Supply Chain Council (SCOR model) a supply chain comprises all activities connected to manufacturing and delivery, from the suppliers' suppliers to the final consumers [14]. The five major processes determining the supply chain are

- planning (supply/demand analysis and the determination of quality, quantity and scheduling factors for products or services);
- sourcing (raw materials, spare parts and cooperational services);
- making (manufacturing of spare parts and assembly);
- delivery (stockpiling, order management, distribution, and serving the final consumers);
- returning (handling faulty or superfluous products and maintenance needs, customer service work).

The application of a sufficiently effective information management system may affect the level of customer requirement satisfaction. As a result of this, we do not see the accumulation of discrete results reached by individual organisations but synergic effects are created in various domains of production due to the allocation of resources. The management of the supply chain means conscious collaboration on behalf of the companies. Its existence is accepted by the participants as a contributing factor to the improvement of their position in competition. The members of the chain are willing to sacrifice their individual, short-term advantages to facilitate the optimal operation of the whole chain. The internal logistics and information systems of the companies are vital for the coordination of inter-company processes [4].

The formation and operation of supply chains may be effected in two possible ways [2]. In the first case a dominant company is capable of directing the activities of the whole chain. The suppliers here are forced to accept the conditions dictated to them from a power position. This is true of information systems, as well. Control of the existence and applicability of an appropriate IT infrastructure is part of the preliminary qualification/assessment of suppliers.

In the other case a real strategic alliance is formed between "equal" partners. The participants are willing to forge relatively long-term cooperation to their mutual advantage but have more difficulty in optimising the operation of the supply chain because individual interests still appear.

#### **4. INFORMATION SHARING IN SUPPLY CHAINS**

In supply chains it is essential to provide a few basic company data items to ensure a minimal level of operation (stock levels, sales data and forecasts, customer order status, production and delivery scheduling, capacity data). The other participants of the supply chain must receive clear information and documentation regarding the internal information security requirements of the company.

On a higher level of integration common and integrated information systems are introduced. The members of the supply chain may “freely” access information concerning products, customers and the market situation. In many cases they may get acquainted with partners’ internal corporate processes and data previously regarded secret. Empirical surveys show that the number of information technology incidents rises with the multiplication of companies taking part in the supply chain, the advancement of information technology integration and information sharing [5]. In such event the setup of common information security management systems may also be possible.

The effective functioning of supply chains cannot be realised without information technology. It is important for the participating companies to know through what channels (suppliers) with what conditions and costs input arrives, and also what will happen to the output and through what suppliers it will reach the final consumer. Success will come to the supply chain that is faster, more reliable, slimmer and lower-cost than its competitors.

#### **5. SUPPLY CHAIN RISKS**

Sources are unanimous concerning supply chain risks. The risk to a supply chain is the event of such potential incident within the supply chain or in its environment (even on its market) which result in danger to customer satisfaction or customer safety. Instead of, and along with, the traditional notion of risk assessment (the size of damage caused by a risk event and the probability of the risk event), the term ‘vulnerability’ has been introduced.

Risks and the vulnerability of supply chains may be classified into five groups according to their origin [3];

- disturbances in the value-added process (manufacturing, purchasing, storage, delivery, scheduling);
  - control (non-existence or failure);
  - demand (lack of information, unpredictability, unexpected events);
  - supply (unreliability, lack of capacity, vis maior);
  - environmental (economic and political events, accidents, natural disasters);
- These are complemented by two further risk sources [5].

The internal company organisation (6) is also vulnerable if it does not conform to established processes and does not use information systems well.

Disturbances in cooperation between supply chain members may also occur, in the flow of information as well as that of material. A network composed of several individual companies (7) also leaves space for risk factors (figure 1).



The issue of risk assessment of integrated information systems in supply chains may be approached from the direction of information technology.

Physical protection means creating the appropriate environment and information technology infrastructure to avoid environmental, accidentally or deliberately caused damage.

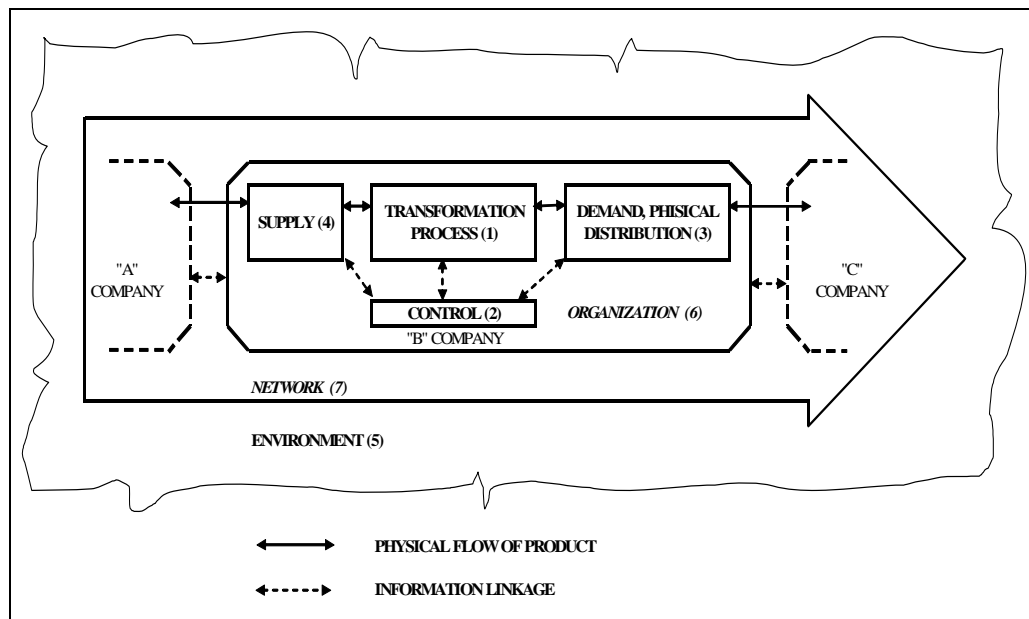


Figure 1. Supply chain risk sources [5]

Logical or "operational" protection includes linked networks, basic applied software (operational systems and database managers), applications (e.g. ERP and EAM systems), and stored data. Work processes are regulated (e.g. diary keeping rules, virus protection activities); user authorisations and competences are defined.

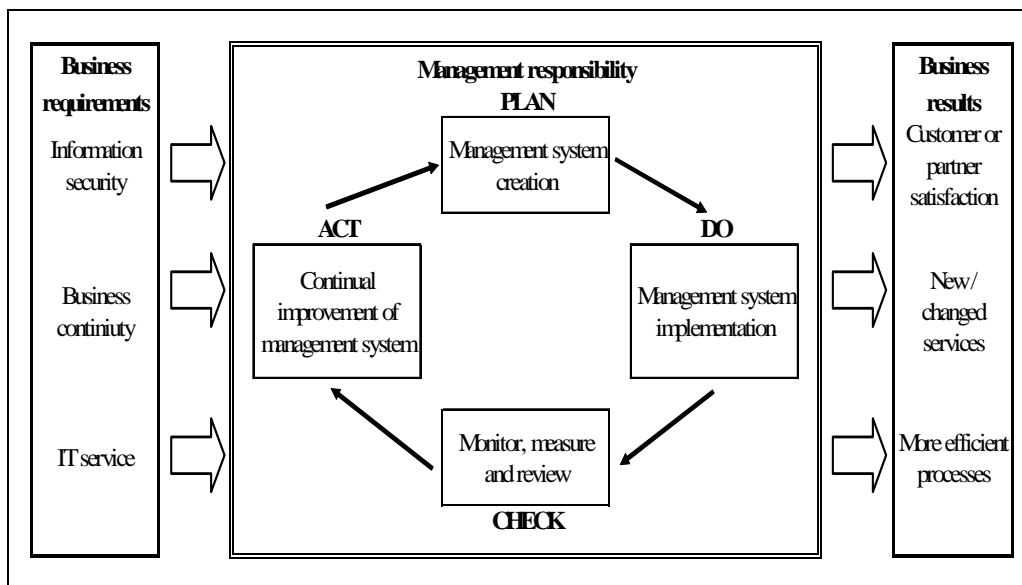
The result of the regulating process is usually a Business Continuity Plan and a Disaster Recovery Plan. The former ensures the availability of business process backup IT resources at given times and functional levels as well as the minimization of damage caused by unexpected events. The latter contains substitute solutions for the case of major damage and events resulting in the breakdown of information technology service. The aim is to facilitate the minimization of negative effects and the fast restoration of original circumstances at acceptable costs.

## 6. RECOMMENDED STANDARDS

The authors have tried to compile the set of documents sufficient for the launching of an information security management system for a company trying to enter a supply chain. All standard packages are process-focussed and apply the PDCA (plan-do-check-act) model (figure 2).

### 6.1. ISO/IEC 2700x

An information security system and standard package of British development, which provides a guide to information protection activities [15]. Security requirements and related measures are determined by companies according to business aims and objectives and corporate strategy. Information security receives a central position (integrity, confidentiality and availability), not linked to any type of information technology.



**Figure 2. PDCA model for information security processes**

The standard [7] divides the operation of the company and the related requirements into 11 security areas and within these, to 39 objectives and 133 protective measures. The built-up and documented information security management system may be approved by an independent accreditation organisation [8]. There are a few supplementary parts to the standard package (these appear as separate individual standards): e.g. prescriptions concerning information security management - ISO/IEC 27005 [9]. Development is continuous. New standards are planned to be introduced (e.g. introduction guide - ISO/IEC 27003; inter-sector communication regulations based on information security - ISO/IEC 27010; information security for telecommunications - ISO/IEC 27011).

### 6.2. ISO/IEC 20000-1, -2

The standard was created on the basis of and in harmony with the British-developed ITIL (Information Technology Infrastructure Library), dealing with the operation issues of information systems [1], [16]. The first part of the document [10] is

a set of formal requirements concerning acceptable information technology services, while the second part [11] is a guide to service management and auditing according to the first part. Service management activities are connected to the currently popular PDCA model, which is applied in several standards.

In addition to the management system, the issues of planning and implementation of information technology systems and the planning and creation of new services, there are five basic areas of complete service management;

- Service delivery (service level, service reporting, capacity, service continuity, availability, budgeting and accounting for IT services)
- Management processes (configuration and change management)
- Release (documents, operational description distribution management, release management)
- Solution processes (incident and problem management)
- Relationship (customer service, business relationship and supplier)

### **6.3. BS 25999-1, -2**

The British standard package [12], [13] concerning business continuity also facilitates the creation of a corporate process management system. It is applicable to all types of organisations. The assessment of potential threats and risk factors is the result of a complex impact analysis (Business Impact Analysis, BIA). The key products of the company and the steps of their manufacturing as well as service support processes, the maximum acceptable period of business breakdown and dependence on external business partners are examined.

Based on the impact analysis the company creates a Business Continuity Plan which helps avoid problems even in case of unexpected events (natural disaster, shortage of raw materials, utility failure, labour force shortage, breakdown of technological equipment, IT problems, customer complaints etc.). The firm retains its good reputation and is able to carry on value-added processes and maintain connections with business partners.

The company's critical material and information processes all have substitute options that facilitate operation under extraordinary circumstances and the return to the original conditions. According to the PDCA cycle, documentation, regular managerial checking, testing and continuous development of the management system is very important.

## **7. THE MANAGEMENT OF INFORMATION SECURITY FOR PARTICIPANTS OF THE SUPPLY CHAIN**

The management of information security for participants of the supply chain. Today the choice of strategic business partners depends on communication possibilities resting on a stable, reliable IT basis no less than on the price and quality of the product to be purchased or the existence of verifiable references. Systematically analysing the aims and objectives of the ISO/IEC 27001 standard and the practical guide needed for the audit, risks must be managed in several areas.

The aim of the setup of an information security management system is the creation of information security and operation according to partners' expectations and applicable domestic and international regulations; the preservation of the integrity and the confidentiality of data and information and the providing of their availability. Incidental business damage should be minimised and business continuity ensured.

### **7.1. Information security screening**

The first step in constructing the system after managerial decision and the setup of the task organisation is the information security screening and assessment.

In general it may be said that in the preliminary phase of the creation of management systems the issues tackled in various forms are the assessment of protection requirements, threat analysis, risk analysis and risk management.

Information security screening may concern environmental infrastructure, data carriers, hardware, software, documents, communication and the human factor in 'an information technology configuration'.

An important part of the information security chapter of the evaluation is a detailed and individualised "stock-taking" of hardware, software and communication systems and relations. This facilitates a concrete definition and analysis of threat/danger, and the creation of the appropriate management system.

### **7.2. Risk assessment and evaluation**

In the course of disclosure weak points and dangerous factors are revealed in the examined areas. They are evaluated, analysed and ranked. Possible damage and risks associated with these threats are also grouped. Necessary measures to avoid or reduce them to an acceptable level are also assigned.

In accordance with this, the steps of risk assessment and analysis are the following:

- disclosure of protection demands, definition of information assets, disclosure and scheduling of primary importance data for the organisation,
- threat analysis; the collection of threatening factors,
- risk analysis; the examination of the effects of threats,
- risk management and definition of protective measures; risk protection or minimization on the basis of risk analysis by defining possible options.

### **7.3. Documentation**

The next step in the creation of an information security management system is the preparation of the documentation. In the course of this we must take into consideration the size and structure of the organisation, the complexity of its processes and their interactions, external and internal regulations pertaining to its functioning as well as specifications and traditions of the trade. Beside general aims, the formulation of a documentation and regulation system calls for the completion of concrete tasks in the light of the operation and protection objectives of the organisation.

#### **7.4. Introduction**

In addition to along general considerations there are further areas to be regulated in the course of creating the management system:

- document management,
- human policy activities,
- security classification of information management devices, physical and environmental protection,
- planning and developing activities, the development of the system of information management,
- the order of supplier contract signing and supplier assessment,
- "standard" work processes,
- supervision of an integrated management system,
- control and examination of work processes,
- management of security disturbances and operational errors,
- corrective and preventive activities.

#### **7.5. Auditing as a possibility**

There is a possibility to have the information security management system audited by an independent organisation. This ensures a stronger guarantee for the appropriateness of the system and may influence the company image in a positive way. Auditing the management system comprises factors of client demand satisfaction and the examination of guarantees offered by the system. The areas listed below encompass the prescriptions considered in creating the system, together with their appropriate regulation and documentation;

- security policy,
- risk analysis and management,
- business continuity plan,
- disaster recovery plan,
- declaration of applicability,
- data protection, virus protection,
- registering and investigating incidents,
- security regulations connected to jobs and persons, applicable laws and regulations, other (external) regulations, the existence of professional recommendations, familiarity and compliance with them,
- existence of administrative – environmental (defence and security) – information technology regulations, and their simultaneous implementation in practice.

### **8. CONCLUSIONS**

An information technology management system created according to the above discussed international standards and recommendations may help companies fit into

supply chains. Informational technology and process developments are easier to complete since there exists a set of regulations complementing and fulfilling a system of demands.

Joint application of seemingly hardly related standards and recommendations is justified by the fact that the optimal running of integrated supply chain information systems is not only a question of information technology. When and how who may get access to necessary information, or when they may launch or step into an intra-company or inter-company business transaction is of vital importance for supply chain-organised companies. Risk management is not separable in material and information processes and information technology.

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## **APPROACHES ON THE PARTICULARITIES OF THE MOTIVATIONAL DOMINANTS AND PROFESSIONAL PERFORMANCES WITHIN THE PRIVATE ORGANIZATIONS**

**MARIUS MITRACHE, RADU CIORBAGIU-NAON \***

**ABSTRACT:** *The main aim of this article is the study of the particularities of motivation and professional performances within the private organizations. The purpose of our research was to observe the intensity of the motivational factors and the analysis of the performances in the work carried out at Craiova Ford Enterprise. The qualitative and quantitative methodology used, has led to the elaboration of some premises of the comparative research in the field.*

**KEY WORDS:** *Motivation, Motivational dominant, Public organization, Private organization, Professional competence*

### **1. INTRODUCTION**

The study of the complex problems of the motivation's field has led to the formulation of an important number of theories. If we make a chronological approach of these theories, we can observe, that starting with Frederick W. Taylor, all authors have tried to explain the factors which motivate people, but they haven't been concerned with the causes and the ways through which motivation is produced and fostered.

The most significant theories can be grouped in two categories: classical theories, which tackle the problems of motivation in a traditional manner, dealing with the factors that motivate people; modern theories (contemporary), which present a modern and more dynamic vision on motivation and aim at the factors directing the behaviour.

Starting with the main categories of stimuli involved in the professional life, we identify the following essential stimuli: economic, financial, pecuniary stimuli-

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economic motivation; work, professional activity- professional motivation; interaction between the members of the work group- psychosocial motivation.

The economic motivation generated by specific stimuli which represents the ways in which people satisfy most of their needs, is considered the most directly linked with the professional performances of employees. The professional motivation's stimulating source is the work itself. It emerges from the man's relation with his work, and its particularities. The psychosocial motivation derives from the fact that within the process of work the man relates not only to his work but also to his fellows, to the other colleagues or work partners, to the group that he is a part of or other close groups. The work makes possible social contacts between people, it offers the possibility for a social status, affective or communication relations, and satisfies people's needs through the group.

Starting with the studies and theories in the field of work psychology and organization management- regarding motivation and professional performance, through this research we wanted to observe the intensity of the motivational factors and the analysis of the performances in the work carried out by the employees of a private institution- Craiova Ford Enterprise. The research conducted up to the present show the necessity of approaching the performance through a process of motivation and development of the members of an organization, as well as of increasing their level of professional satisfaction.

Based on this research the following hypotheses have been formulated, and they have been the guidelines of the present paper:

- I.1. In the activity within a private firm, in the field of car building, the extrinsic motivation prevails.
- I.2. In appreciating the professional satisfaction within a private firm, the factors regarding salary have more importance than those referring to the professional performance;
- I.3. The way of organizing work and the interpersonal relations between employees influence the subjects' professional satisfaction.
- I.4. We assumed that both motivation and the job satisfaction are influenced by the professional performance.

The main investigating instruments which highlight aspects related to motivation, satisfaction and professional performance are the questionnaire, designed in order to identify the motivational dominants and job satisfaction, and the interview. The results of the research emphasize the motivating factors as well as the satisfaction ones with different prevalence according to the way satisfaction and professional motivation, as well as professional performance are appreciated.

## **2. RESEARCH METHODOLOGY**

The main research method used is the opinion survey by using the questionnaire and the interview. We have chosen these research instruments having in mind the idea that these can offer reliable information and the objective possibility of correlating the indicators, making thus possible the knowledge of motivation, attitudes, mentality, and goals of the interviewed subjects.



In elaborating the research methodology we had to take into consideration the fact that motivation is a very difficult factor to be measured, since a series of elements are of abstract and personal nature. We had to take into account the fact that favourable working environment increases the employees' motivation and job satisfaction.

Consequently, the research used the two following instruments:

1. A self-conducted poll (*The motivational dominants poll*). The poll has been conducted on 84 employees from Craiova Ford Enterprise. The structure of the poll depending on the gender: 72.6% males and 27.4% females.

The aim of the poll: identifying the motivation and the performances of employees within a private organization.

### **“Motivational dominants” Questionnaire**

#### **Questionnaire variables**

**I. Leadership** (the need for power): the desire of influencing the people around, leading them towards success or manipulating them for your self-interest, being a leader, or not, depends on the others (decision making independence)

**II. Expertise** (need for achievement). The tendency or the desire of building personal prestige, of being considered an expert, a professional, of being “the shadow man” who influences decisions (good relationship)

**III. Relationship** (need for affiliation): the desire the individual feels to establish and maintain friendly relationships; the desire of working in a pleasant team, with nice people (good relationship)

**IV. Subsistence** (existence needs): the individual has basic needs (rest, stability, money, food, security)

#### **Scoring**

We sum up the values for each of the items below and we divide it to 8.

- I. Leadership (the need for power): 1,4,8,9,17,20,24,32
- II. Expertise (need for achievement): 5,10,13,14,18,21,25,29
- III. Relationship (need for affiliation): 2,7,11,15,23,27,28,31
- IV. Subsistence (existence needs): 3,6,12,16,19,22,26,30

### **Motivational dominants Questionnaire (Adapted from T. Constantin)**

This questionnaire aims at identifying aspects related to your professional motivation. The data obtained will be used as teaching material that will help analyze the relationship motivation-professional effectiveness, as well as the relationship communication-motivation.

Please read the following statements related to your work carefully and circle the answer you agree with, taking into account the significance of each variant:

1 – never agree; 2 – rarely agree; 3 – sometimes agree; 4 – agree to a certain extent ;  
5 – often agree; 6 – frequently agree; 7 – always agree.

- |  |               |
|--|---------------|
| 1. I am the one who imposes certain dynamics in the group                | 1—2—3—4—5—6—7 |
| 2. I like to work in a united and harmonious team                        | 1—2—3—4—5—6—7 |
| 3. I believe that nowadays it is advisable to save money                 | 1—2—3—4—5—6—7 |
| 4. I obtain good results when I organize and conduct the activity myself | 1—2—3—4—5—6—7 |

- |     |   |               |
|-----|---|---------------|
| 5.  | I am interested in acquiring the latest information in the field I work in                          | 1—2—3—4—5—6—7 |
| 6.  | I prefer a job that makes me feel secure  | 1—2—3—4—5—6—7 |
| 7.  | During my professional activity I like to get involved in tasks that imply team work                | 1—2—3—4—5—6—7 |
| 8.  | In my domain I consider myself capable of deciding consciously                                      | 1—2—3—4—5—6—7 |
| 9.  | I take the initiative when certain changes are necessary in order to organize the professional work | 1—2—3—4—5—6—7 |
| 10. | I consider that what I do must be done with maximum of competence and fairness                      | 1—2—3—4—5—6—7 |
| 11. | I like to maintain a pleasant atmosphere inside the group I work with                               | 1—2—3—4—5—6—7 |
| 12. | It is important for me to have a job that could offer security                                      | 1—2—3—4—5—6—7 |
| 13. | I consider that I must have a series of responsibilities at work                                    | 1—2—3—4—5—6—7 |
| 14. | It is vital for me to know as much as possible in the domain I work                                 | 1—2—3—4—5—6—7 |
| 15. | It is important for me to work with pleasure  | 1—2—3—4—5—6—7 |
| 16. | It is important for me that my salary should cover expenses   | 1—2—3—4—5—6—7 |
| 17. | I take up responsibilities related to the organization of the professional activities               | 1—2—3—4—5—6—7 |
| 18. | It is important for me to solve any problem I deal with   | 1—2—3—4—5—6—7 |
| 19. | It is important for me to have some savings   | 1—2—3—4—5—6—7 |
| 20. | I have the courage of taking the risk that certain situations imply                                 | 1—2—3—4—5—6—7 |
| 21. | I know my duties very well and I do my best to fulfil them, as efficiently as possible              | 1—2—3—4—5—6—7 |
| 22. | I work better when there are no family problems   | 1—2—3—4—5—6—7 |
| 23. | It is important for me to have good working relationships   | 1—2—3—4—5—6—7 |
| 24. | I believe I am capable of starting and managing my own business                                     | 1—2—3—4—5—6—7 |
| 25. | In my domain, the decisions must be adopted objectively   | 1—2—3—4—5—6—7 |
| 26. | Regular meals and rest are essential to me  | 1—2—3—4—5—6—7 |
| 27. | I work better when I cooperate  | 1—2—3—4—5—6—7 |
| 28. | I like to work in a friendly environment  | 1—2—3—4—5—6—7 |
| 29. | I am capable of analysing a problem, a situation, weighting its advantages and disadvantages        | 1—2—3—4—5—6—7 |
| 30. | I thoroughly plan my money and my expenses  | 1—2—3—4—5—6—7 |
| 31. | I take part in the team work with pleasure  | 1—2—3—4—5—6—7 |
| 32. | I am capable of taking up major responsibilities to a greater extent than the others                | 1—2—3—4—5—6—7 |

Age _____ Gender _____ Education _____ Job _____
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2. An interview, with a structure which allows the identification of relevant aspects regarding the specific motivational features of a private organization.

**INTERVIEW GUIDE**

1. Why do you consider having harmonious and good relationships with your colleagues motivating?
2. Why do you feel motivated to accept such a position?
3. Why do you consider the salary and a secure job motivating for your work?
4. Why/why don't you want to be free?
5. What is the most unsatisfactory thing in your manager's activity?
6. How about your colleagues' activity and the relationship you have?
7. Are you satisfied or dissatisfied with the organization and communication in your institution?
8. Why do you consider yourself satisfied/dissatisfied with the organization and communication in your institution?
9. Which of the following aspects do you find more motivating in obtaining job satisfaction?
  - payment
  - supervising
  - interpersonal relationships
  - a secure job
  - leadership
  - working conditions
  - communication
  - professional achievement
  - professional appreciation
  - promotion

**3. CHARACTERISTICS OF MOTIVATION AND PERFORMANCE FOR THE PRIVATE INSTITUTIONS**

The hypothesis of the present study states that apart from payment there is a series of factors which can determine an employee to perform better, therefore it is very important that the employees in a company should be motivated financially and non-financially in order to reach performance.

**Table 1. Statistic values of the Motivational dominants" questionnaire**

	<b>Leadership</b>	<b>Expertise</b>	<b>Relationship</b>	<b>Subsistence</b>
Mean	5.0	6.0	6.6	6.1
Median	5.0	6.0	6.7	6.1
Sample minimum	4.2	5.7	5.8	3.9
Sample maximum	6.6	6.7	6.9	6.7

From the above table it can be noticed that the most important need in a public institution is the relationship need (6.7 - the highest level), being followed by the subsistence one(6.1 highest level) and expertise (6.0)and the lowest level is registered by the leadership item (5.0 - low level). The above stated hypothesis is confirmed by these results, enabling the statement that in a private company the motivation of the employees is related mainly to the payment policy (subsistence item). However, a factor that should be taken into consideration is the relationship/affiliation item. Therefore, payment stimulus - as an activator of economic motivation - is undoubtedly one of the most important categories of stimuli designed to maintain a high level of job satisfaction. Tables 1, 2, 3 and 4 show the frequencies and percentages with which we can find each value to the 4 dimensions of the poll, taken separately. The table presenting frequency for leadership shows that the values between 4.4 and 5.3 are dominant, meaning that there is low and medium motivation for leadership.

**Table 2. Frequency and percentage of the leadership variable**

	<b>Frequency</b>	<b>Percentage (%)</b>
4.2	11	13.1
4.4	7	8.3
4.5	10	11.9
4.6	9	10.8
5.0	10	11.9
5.1	7	8.3
5.3	12	14.3
5.4	7	8.3
6.6	11	13.1
<b>Total</b>	<b>84</b>	<b>100</b>

**Table 3. Frequency and percentage of the leadership variable**

	<b>Frequency</b>	<b>Percentage (%)</b>
5.7	29	34.5
6.0	21	25.0
6.1	11	13.1
6.4	9	10.7
6.5	6	7.1
6.6	4	4.8
6.7	4	4.8
<b>Total</b>	<b>84</b>	<b>100.0</b>

The table displaying the frequency and percentage of the expertise variable states that: most of the interviewed people (59.5%) prove low motivation to the achievement need. These findings may conclude that there is low motivation of the employees for self development and for obtaining professional performance. In conclusion, the assertion „a high level of commitment of the employees is determined by the high level of motivation and loyalty” is not valid.

**Table 4. Frequency and percentage of the relationship variant**

	<b>Frequency</b>	<b>Percentage (%)</b>
5.8	4	4.8
6.1	5	5.9
6.3	8	9.5
6.4	10	11.9
6.5	6	7.1
6.6	8	9.5
6.7	15	17.9
6.9	28	33.4
<b>Total</b>	<b>84</b>	<b>100.0</b>

For the relationship item, the values between 6.4 and 6.9 are dominant, meaning that the communication system both with their colleagues and with their leaders is very important.

**Table 5. Frequency and percentage of the subsistence variable**

Values	Frequency	Percentage (%)
3.9	2	2.4
4.9	4	4.8
5.4	9	10.7
5.7	6	7.1
5.8	5	5.9
6.1	28	32.2
6.7	30	33.3
<b>Total</b>	<b>84</b>	<b>100.0</b>

The subsistence item presents the highest values (6.1 to 6.7), leading to the conclusion that for the Ford Company employees, their job security is very important and that they find job security and the certitude that their work covers the subsistence needs very motivating.

Consequently, as a result of the administration of the "Motivational dominants" questionnaire to the 84 employees belonging to Ford Craiova Company, the following conclusions emerge:

- **C.1.** A high motivation of the employees to the subsistence and relationship items (high level), medium level for expertise and low motivation for leadership was noticed;
- **C.2.** The role that the social component plays in the organization is important, since it may influence work productivity and job satisfaction for the employees, loyalty and maintaining them in the organization;
- **C.3.** Beyond the subsistence and security needs of the individual, work has an important function in covering superior needs such as interpersonal relationships;
- **C.4.** The involvement and loyalty of the employees in the company they work for are of low level, since an important reason they continue working is related to the subsistence.

#### **4. CONCLUSIONS**

The approach of the professional performances of employees must be adopted through the process of motivation and increasing their professional satisfaction. The knowledge and analysis of the motivational dominants become within this context very important. The researches lead to good results if we take into consideration the characteristic elements existing in the private organizations, where the way of organizing work and the interpersonal relations between employees influence the subjects' professional satisfaction and implicitly their motivation. Therefore what we need is an approach based on an adequate methodological instrumentarium that will lead to dense information and offer an objective possibility of correlation between

indicators, making possible the knowledge of the motivations, attitudes, mentalities and professional interests of the interviewed subjects.

The researches regarding the knowledge and the analysis of the motivational dominants have been based on a few specific dimensions. Thus, aspects such as subsistence and security, the level of relationship, social climate, the employees' attachment and involvement, have allowed, with the help of the applied research instrumentarium, the possibility for the identification of some specific elements concerning the employees' motivation and performances within the private organizations. The conclusions drawn from such an approach are very useful for the management factors in the different exercise of the specific attribute of motivation and training of employees.

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## **DEVELOPMENTAL DIRECTIONS OF THE CLUSTERS IN HUNGARY**

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**ABSTRACT:** *Clusters are created in order for companies and institutions to exploit beneficial interrelations. This means the development of a common image, regularly organized meetings, joint planning, and the implementation of tasks. Therefore, the members of the cluster execute a contract through an Association Agreement on Co-operation that defines the rules for cooperation within the cluster. None of the members of the cluster are forced to carry out an activity that is disadvantageous for the member. Clusters can be categorized into stages according to their level of development: start-up cluster, developing cluster and accredited cluster. The paper discusses all of them in detail.*

**KEY WORDS:** *Cluster, developmental policy, SME, accreditation, Pole Programme*

### **1. GENERAL DESCRIPTION OF CLUSTERS**

Cluster as an economic conception originated in the '90's. From its beginnings it has become a concept in economic development. The development of the service sector is an example of cluster development as well. Less and less amounts of goods are consisting mainly of material-type costs while the rate of related services has increased. These services are not necessarily created within the enterprise, which requires relationships among separate companies. On the other hand the development of communication facilities contributes to more efficient relationship among the enterprises.

According to the study of Pappné Gáspár L. [1], because of the reasons mentioned, the process of production is strongly decentralized and at the same time the

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decision making and intellectual work are concentrated regionally. This process is called a global- local paradox by Porter [2]. Although the companies work out global competitive strategies, industry leaders can be found in the same region or concentrated in the same city. The sudden advance of small and medium sized companies (SME) in parallel with decentralization of economic development is also very important. Programs of economic development initiated from above were changed by the programs of economic development organized from below. The local and regional governments have an important initiative role in this process.

The local facilities, the regional specialities, and the characteristics which cannot be copied easily, are important in the development of the economy. A single company's activity is not sufficient to exploit all specialities efficiently, so external relationships are needed. These are clusters. The definition of cluster is supported by several arguments both in the international and in the Hungarian literature.

The English Language literature uses the term ambiguously. On the one hand it characterizes the organization itself as a terminal product of the process and on the other hand it characterizes the process of cluster development as well. The process itself can be examined geographically and economically. (Feser) [3] Geographically we have to examine the regional concentration and the positive local results of the process. Economically the most important aspect is division of labour. In this case enterprises compete with their interest in mind, while their results are influenced by their relationships with other enterprises which provide products or services at an even higher level.

We can examine four different types of clusters:

- Enterprises producing for local markets which are typical of low economic interlocking and low geographic concentration.
- Output industries which have low economic relationships and high geographical concentration (mainly because of the geographical facilities)
- Cluster in an industry in which the division of labour is significant, and its network consists of the members of a certain industry concentrated at a low level spatially.
- Regional cluster. Porter's classic interlocking cluster, which has a high level of concentration and division of labour.

From the four categories of cluster development, we will deal with the one developed by Porter. According to Porter [2]: „A cluster is a geographically proximate group of companies and associated institutions in a particular field, linked by commonalities and complementarities”. According to this definition, clusters are concentrated cooperative networks of economic participants, non-profit institutes and other organizations connected to each other within a value chain system in the same industry. Clusters significantly contribute to the increase of competitiveness of participants in a whole region or area.

Clusters can significantly decrease transaction costs of enterprises by lowering partner search costs, faster recognition of extent market claims, faster knowledge transfer and trust capital among partners. According to Porter, clusters have the possibility to influence the market and competition in three ways. First of all it can increase the productivity of participating enterprises. Secondly, it brings innovation



and new approaches to the given area. Finally it generates new businesses in the market. The organization of business clusters is mostly a market based activity, which is based on the concentrated attachment of enterprises, subcontractors and other non-profit organizations working in a given industry.

		Rate of economic interlocking	
		low	high
Rate of geographical concentration	high	Output industry	Regional cluster
	low	Enterprise producing to local markets	Cluster in an industry

Source: Deák 2002 (according to Feser 1998)

**Figure 1. Cluster Dimensions**

Porter introduces the connection between value-chains and clusters. They can connect to each other vertically, horizontally and transversely. In the case of horizontal clusters, enterprises of the same industry, which are located in a given geographical area and sometimes built on the same industrial or technological bases, work in a common market and use common purchase or distribution chains. The vertical networks also contain horizontal cluster members and members of purchase-chains, like the subcontractors, consumers and suppliers are connected, also. The transverse cluster refers to the concentration of complementary and symbiotic activities, where each enterprise gives value to the other one (Braun) [5].

## **2. THE MOST RELEVANT MILESTONES OF ESTABLISHMENT OF CLUSTERS**

The process of cluster establishment and development is relatively long, often decades. During this process of cluster development there are common development stages and patterns. The Observatory 8 research identified six stages. The first stage is when the spin-off enterprises are established. In the second, the special environmental background and the specific background industry connected to the industry are set. The third section establishes the organization which has the role to estimate the needs of cluster enterprises and to provide services. In the fourth stage, the cluster starts to develop the environment, and the number of enterprises is connected, or willing to connect increases. Specialized labour, which is relevant for the cluster, is developing, as well. It is followed by the establishment of non-market based contact capital, which

facilitates the circle of information flow and knowledge. The final section is the section of decreasing, when the cluster stops growing, and for further improvement influent intercase and changes are needed.

### 3. THE PHASES OF ECONOMIC DEVELOPMENT

In large measure the most significant change during economic development is the facilitation of cluster development. But this is not the first step of development.

	<b>Setting of industry or service</b>	<b>Restructuring</b>	<b>Reorganization</b>	<b>Cluster orientated development</b>
<b>Object and Strategy</b>	Attraction of premises and setting new enterprises	Workplace establishment and development of extant enterprises	Improving the efficiency of extant strategies	Global competitiveness, relieving the process of cluster development, attraction of new enterprises
<b>Focus</b>	Factors outside the enterprises	Factors inside the enterprises	Factors inside and outside the enterprises	Cooperation and interactions among enterprises
<b>Government</b>	Special support for particular companies	General services for different companies	Improving the services and extending their effects	Special services for branches and clusters
<b>Partners</b>	Multinational and transnational large companies	Sector SME	Large companies and sector SME	The cooperative groups and clusters of enterprises
<b>Based on</b>	Exploitation of cost advantages (natural resources, labour, tax credit, financial support)	labour, technology, technological infrastructure, standard of living	labour, technology, technological infrastructure, improvement of the level of living	labour, technology, technological infrastructure, and development of the level of living (according to the expectations of clusters)
<b>Monitoring</b>	The number of nested new companies	The number of preserved and established new workforces	The number of new qualitative workforces	High standard of living, income, qualitative workforces, increase of export, new companies

Supply oriented ←————→ Demand oriented

Source: Grósz András: *A klaszter alapú gazdaságpolitika külföldi tapasztalatai* [7]

**Figure 2. The most important stages of regional economic development**

Before this can happen, several earlier developmental phases must be completed. According to Lengyel [6] we can identify four different phases:

1. *Establishment of trade or service*: in general, the help of government or local government is needed by decreasing taxes, allowing exploitation of cost advantages.

For example, the efficient exploitation of natural resources and cheap labour is an important aspect.

2. *Restructuring*: the main target of this section is restructuring operations within the establishment. The main targets of governmental policy are the establishment of workplaces and qualitative labour.
3. *Reorganisation*: the aim of the government is to improve, dissociate, divide and make those services unique which are provided for the SMEs.

The main indicators are the number of workplaces established which requires qualitative and high qualification.

4. *Cluster orientated improvement*: the target is to ensure global competitiveness and to facilitate cluster development in the economic branches of the country.

The main indicators of this section are the standard of living, the increase of incomes, the extension of qualitative workplaces and exports.

#### 4. TRADITIONAL AND CLUSTER-BASED ECONOMIC POLICY

By the end of the 90's the OECD in a Focus Group examination analysed the cluster policy of its 15 member states. The principles of improvement and the results were summarized by Roelandt-den Hertog [8] in 1999. According to Roelandt-den Hertog the cluster-based policy firstly has to be an initiation caused and controlled by the market. The interest of the government doesn't answer the purpose without a powerful market claim.

Cluster development can't be forced. Governmental policy may not restrict market competition in favour of the interest of enterprises. Only indirect governmental assistance and encouragement to change will be successful. The role of government is not directional or proprietary, because these functions are supplied more successfully and efficiently by market participants.

It's not useful to focus only on successful and established clusters. The government needs to identify, support and stimulate smaller clusters, including those not yet established.

The following table contains the main aspects of examination of traditional branch and cluster-orientated approach.

**Table 1. Traditional branch and cluster-orientated approachment**

<b>Aspect</b>	<b>Departmental approach</b>	<b>Cluster orientated approach</b>
Target of prompting	Groups in similar network and subcontractor positions.	Strategy groups often are complementary to each other and are in different network position.
Industrial emphasises of stimulation)	Emphasis is on the industry which is producing the final product.	Contains consumers, subcontractors and enterprises providing services.
Role of competitors	Emphasis is on direct and indirect competitors.	The set of industries which are dependent on each other and which shares common technology, qualification, information, inputs, consumers and channels.
Willingness of competitors to cooperate	Unwillingness to cooperate with competitors.	Most of the participants are not direct contestants but they contribute to the common needs.
Role of government	The aim of the dialogue with government is often to reach support and to reach competition restrictive dispositions.	Common interest in extensive cooperation which improves productivity and contributes to the transparency of competition. More constructive and more efficient dialogue between the business sphere and the government.
Main object	The aim is searching for the diversification of already extant products.	The aim is searching for synergies and for new combinations.

Source: Authors editing based by Roelandt–den Hertog (1999) and Grósz (2000)

## 5. CLUSTERS WORLDWIDE

The clusters developed initially in areas such as information technology in Silicon Valley, media in Hollywood, finance in New York City and London, car manufacture in South Germany and Detroit, telecommunication in Stockholm and Finland and the fashion industry in North Italy.

Recently such trust-based networks are helpful for small businesses to exploit special resources by sharing knowledge and the fact that the advantages of these networks are realized at a lower cost than outside the cluster environment.

A Euro barometer survey analysed the parameters and situations of European clusters in the European Union. According to the survey, every fourth enterprise which has more than 20 employees works in cluster environment. That is to say that they are in close cooperation with other local companies. Today, however, there is a large difference among certain European countries. The new member states haven't

recognised the significance of clusters yet. In the new states only 9% of the firms are in clusters where in the 15 older states 28% of the firms are in clusters.

The results from United Kingdom are excellent. In the examined industries 84 per cent of enterprises which have more than 20 employees fulfil cluster requirements. This rate is 67 per cent in Latvia and 64 per cent in Ireland. At the bottom of the list are the following countries: Cyprus with 3%, Poland and Czech Republic also having 4%, Greece, Estonia, Lithuania with 9%.

Looking at countries individually, the data indicates that the higher amount of networking is in the Scandinavian countries. Most of the enterprises there, which are cluster members, participates in more than two business networks. The situation in Turkey is very similar to the Scandinavian one.

*Cluster policy in the member states of the European Union Sub title consistency.* The European Network for SME Research\* published Regional Clusters in Europe for the European Committee as the part of 8th Observatory of European SMEs, in 2002. This document and its summary table represents foreign cluster policies.[9]

In European countries cluster policy can differ significantly. There are two main causes of the difference. The first cause is the regional and national orientation of cluster policy and the decentralisation rate of political power that determinates the primary field of cluster policy. The other cause is to develop and apply the policies in different environmental, cultural and institutial frameworks as well as in political decision-making.

Most of the examples are of policies which support the regional innovation systems. The aims of the policies are, for example, to strengthen local business networks and to support innovation cooperation between enterprises and organisations and to facilitate the transfer of local knowledge and technology. Countries such as Denmark, France, Netherlands and Portugal, have a national cluster policy with different national and regional clusters. Federal states (like Austria or Germany) act in an opposite fashion.

In these states the development and implementation of cluster policy is mostly a regional role. The regional level, based on the intense difference in region, has an important role in Spain and in Belgium, also becomes more and more important in those states which have recently established a new decentralised institute system (for example in United Kingdom, Finland).

Some countries don't have a policy in particular to develop clusters, on neither the regional, nor on national level. At the same time the facilitation of developing clusters appears as an item in their innovation and technologic or regional policy.

## **6. DEVELOPMENTAL CLUSTERS IN HUNGARY**

*Development policy.* The Pole Programme is an economic stimulus package accepted by the Hungarian Government. The aim of the Programme, within the

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\* A European network deals with the research of SMEs. Every country attached to the European Economic Area, including Switzerland, is represented by separated institutes. From 2004 the 10 states also participate.

framework of the governmental economic development concept, is to increase international competitiveness through the support of serious clusters, which have innovation and export potential, and to increase investments which develop the business environment in pole towns.

The main aims of the Pole Programme are the followings:

- to facilitate the formation of international competitive clusters;
- the specialization of innovation activities with high added value;
- strong cooperation between enterprises and complementary institutions such as universities and governments in order to sustain long-lasting competitiveness.

A further aim is to strengthen the role of regions through the pole towns by facilitating extensive general competitiveness of poles and to improve their business environment.

The essential expectation of the Pole Programme is to reach the size which is needed for the competitiveness of enterprises at the European level through networking, clustering, and cooperation with the research and academic sphere, and to increase significantly the competitiveness of the whole Hungarian economy, through strengthening export orientated activities with high added value.

The aim is to establish 5 to 10 successful pole innovation clusters by 2013, and to have market share, which is measured on a European level, and to be connected to global trade value chains. Furthermore, the strengthening of the SME sector, its international competitiveness and the significant increase of supplier ability are important. The improvement of employment structure and strengthening of the role of regions are also very important questions.

The following operative programmes of the New Hungarian Development Plan are involved in the Pole Programme:

- Operative Programme for Economic Development
- Operative Programme for Social Infrastructure
- Operative Programme for Social Renewing
- Regional Operative Programmes

Originally the development poles were selected by the decision of Parliament (97/2005) about the National Area Development Concept. On the one hand the decree establishes a competitiveness metropolis area in Budapest by 2013 among the national regional aims. On the other hand it strengthens the development poles cities by encouraging the development of regional, and city networking systems. The parliamentary decree and the New Hungarian Development Plan based on it, also regards the development poles as real centres contributing to realistic development.

The making of development conceptions of certain poles into a formal strategy is supported with resources by the National Development Office. In 2006 pole strategies were worked out and pole offices began strategy making and to coordinate further implementation with the utilization of sources. The finished pole strategies were evaluated by the National Development Agency in 2007.

During this process it was realized that strengthening enterprise development with the development of clusters was needed. In the case of governments and academic institutes their supporting role has to be raised to facilitate cluster development.

**Horizontal economic development buttress.** The participants determining the state of development of business environment are broadly supported in the fields of horizontal economic development, general human resource development and general infrastructure development.

The grantee participants (of horizontal economic development buttress of Pole Programme) are the local governments of pole towns, higher education and research institutes, educational and research institutes financed by the governments and their participation in economic companies.

Educational, training and research institutes found in non-pole towns could be the advanced ones of Pole Programme in case of participation in accredited clusters. Cultural and health institutes of pole towns mean the further target group of horizontal economic development buttress.

The aim of horizontal economic development support is to facilitate the improvement of the business environment in pole towns and cities. With the establishment of the most possible competitiveness, pole towns can attract new enterprises, help to assist the development of established enterprises and establish new ones, not only inside the region but even on a European or global level as well.

The most important fields determining the competitiveness of business environment are the quality of human resources and infrastructure facilities. The main priority of horizontal economic development is to buttress the development of these fields.

**Enterprise development buttress.** The aim of the economic development buttress of the Pole Programme is to strengthen the Hungarian SME sector through facilitating the focus on high added value and export orientated activities.

The tools of development enterprises, which have large extension potential and international expansion facilities, are the cluster development and support for innovation. Innovation can be any new or significantly improved product, service, producing method, business model, organisation resolve which lets the market basically organised clusters to bring some advance in competition.

The program's economic developmental buttress supports the enterprises, which are participating in cluster development, mainly in the following areas:

- *acquisition of business services*: these are services facilitating cluster development, innovation, increase of added value and export;
- *direct development of human resources*: training specialists who are needed for the activity of enterprise group clusters acquisition of needed machines and arrangements for common development, production or for other common activities;
- *development of physical infrastructure*: common infrastructure hired or built for the aim of increasing competitiveness;
- *lending repayment financial sources*: micro financing and risky capital investment for enterprises which are to be clustered.

## 7. FACILITIES OF COMPETITION

**Role of accreditation.** The significant sources, which can be reached within the framework of enterprise development buttresses, need to filter the enterprise networks in advance which forms clusters and want to participate in the programme. The use of support within the frame of the programme needs to fulfil the strict requirements in advance. These criteria realise, firstly, in conditions of competition which were exposed within the frame of Operative Programme, and, secondly in accreditive aspect system made for the interest of filtering innovational clusters.

The allocation of certain supportation sources, which are serving common developments, will be reached for only clusters having passed the accreditation process. The aim of accreditation is that the supporter can filter out those potential competitors whose participation is not confirmed in the market.

There are four development phases of clusters which are the followings:

- Starting clusters
- Developing clusters
- Innovative clusters accredited
- Pole innovational clusters

In the early stages of development clusters obtain support from the regional government. When the clusters are accredited support is given by the National Development Agency.

**Competitive proposal process.** The proposal process is dependent upon the stage in the cluster life cycle.

**Emerging and developing clusters.** Emerging and developing clusters could submit competitive proposals - to Regional Operative Programmes – beginning in autumn 2008. In one of the components of the competition proposal participants submit a project for cluster management services, counselling and low valued assets needed for cluster management. In the other component they could compete for the common investment in clusters. Eighty per cent of the project costs come from the government and 20% from the cluster. For the second component of the proposal only 50% of costs can be funded. By 29 August 15 competitive proposals for emerging and developing cluster were submitted in the Central Transdanubian region. The participants applied for 484 797 307 Ft combined, which means 32 319 820 Ft for each applicant. The proposal were evaluated by the following criteria: [12]

The following are the most important categories in the table above based upon the interests of the grantor. The most important category is the participation of highest possible number of clusters and SMEs. The total revenue of cluster members, and especially the revenue of SMEs, are a very important criteria, also. The first 50 points are allocated to facilities and for clusters in the most important industries (for example in informatics, car industry, mechatronics and environmental industries).

The second 50 points evaluate the Cluster Development Plan using data from cluster members, schedule, allocating resources to tasks, a minimum 3-year strategy and budget. The goal of the project is to advance cooperation among enterprises, educational and R&D institutes, and local economic participants in the industrial cluster.



**Table 2. Aspect of rating connected to cluser facilities**

Number	Aspect of rating	Point
<b>I.</b>	<b>Connected to cluser facilities</b>	
1.	The ratio of revenue of economic companies correlated to the whole amount of the total cluster	15
2.	Number of members (mostly the number of SMEs among them)	10
3.	Representation of very important regional industries and sciences	15
4.	Economic situation of the participant	5
5.	Economic company participating together	5
<b>I. Total</b>		<b>50</b>
<b>II.</b>	<b>Indicators connected to the project</b>	
1.	Development conception and plan	25
2.	Financial situation and vocational consistence (?)	15
3.	Equality of chances	5
4.	Sustainability	5
<b>II. Total</b>		<b>50</b>
<b>Total</b>		<b>100</b>

**Accreditation.** The objective of the proposal is [13] is to identify and accredit those clusters with the greatest potential for success based upon the qualifications and requirements mentioned previously. The most important aspect of the accreditation document is the strategy and action plan which project future estimates and not financial obligations.

After the award of the title of Accredited Innovation Cluster, clusters are not provided direct financial support. The members of accredited clusters are authorized exclusively to participate in certain request for proposals from the National Development Agency. The accreditation title lasts for two years and is renewable.

## 8. CONCLUSION

In our paper we examined the circumstances of how a cluster can be created and we gave a presentation about their history. We presented clusters all over the world. After this we dealt with clusters in Hungary especially the policy of economics and the government support of clusters. We presented the Hungarian mechanism for the cluster support system in economic policy. Finally we analyzed the development of Hungarian SME competitiveness when organized into clusters.. A more important aim is the accreditation, because it opens them to financial resources that can not be reached in other ways.

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## **USAGE OF DIRECT MARKETING RESEARCH IN ESTABLISHING THE ATTRACTIVENESS OF MAMAIA RESORT AMONGST TOURISTS**

**DANIELA SIMONA NENCIU, MIRELA SECARĂ \***

**ABSTRACT:** *The entrepreneurs of the seaside Romanian tourism should display a real interest in direct marketing researches which can supply precious information in orienting them towards the choice and implementation of marketing strategies in order to win once more the lost tourist's markets. Direct research offers a more complete image onto the researched phenomena, consisting of the direct gathering of information from the tourists arrived on the Romanian seaside, in this case, Mamaia resort.*

**KEY WORDS:** *research, services, tourist's products, seaside, strategies*

### **1. INTRODUCTION**

At present, after the adhesion to the European Union, the Romanian seaside tourism enterprises are confronted with especially complex exigencies of the unique Market's mechanisms, exigencies which imply competence and availability of assuming the risk. In order to ascertain these competences and availabilities, the policy-maker of the tourism company has to dispose of pertinent information to be able to take the decisions adequate to ensure to the company the place and role they have envisaged within the market.

This information can be supplied through direct marketing researches which can be realized on the Romanian seaside. Thus, the tourism enterprises have the possibility to supervise continuously the segments and categories of catered tourists, to study their purchasing power, to select the most efficient selling methods, to detect requests, opinions and appreciations of the tourists regarding the traded products and services or about the products which are to be launched, to substantiate the establishing

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of the tourist's fees, to ensure the control of the entire activity carried out for reaching maximum efficiency.

At present, the Romanian seaside is confronted with a significant decrease of the Romanian and foreign tourists, which prefer other seaside destinations where they can find similar tourist's services and products but qualitative and for acceptable prices. The research we carried out had as purpose the identification of those elements of the tourist's offer from Mamaia resort which make tourists choose it as a tourist's destination, in view of diversification, in the future, of the tourist's products and services which should satisfy the tourist complex requests.

The general used in the present research has been represented by Romanian and foreign tourists who choose as a tourist's destination the Mamaia resort and are present in the resort during the research period. The group has been composed of tourists at least 18 year old, both sexes, who benefit from tourist's services and products offered by the resort. This group formed the sampling base and, in the same time, the crowd to which the research's results were generalized. The survey unit has been represented by the tourists from Mamaia resort housed in different tourist's housing structures, with the age over 18 years, consumers of tourist's services and products, found in different areas of the resort.

In drafting the questionnaire we gave a special attention to all tourist's characteristics contained in the survey's objectives and program and the wording of the questions which were to be addressed to tourists. In establishing the questionnaire we followed the principle of the funnel, starting with general questions and continuing with more specific ones. The typology of the questions was different, existing in the questionnaire, open, closed questions (dichotomy and polychotomy) and question with scale answers. In this research the sampling method selected has been the non-random one. We started from the premise that: the number of housing places in Mamaia resort is of approximately 31,000; the occupation percentage for the month of July 2008 has been of approximately 45.6 %;

It results that the number of tourists housed in July has been of:

$$31,000 \times 45.6\% = 14.136 \text{ tourists} \quad (1)$$

We have grouped the population according to age, considering their regular share for Mamaia resort (table 1).

**Table 1. Obtaining the sample**

Age group	The tourist' share according to age	Number of tourists	Sample 2%
18 – 29 years old	16%	2.262	45
30 – 39 years old	21%	2.968	59
40 –49 years old	25%	3.534	71
50 – 59 years old	32%	4.524	90
60 years old and over	6%	848	17
<b>TOTAL</b>	<b>100%</b>	<b>14.136</b>	<b>282</b>

In order to obtain the sample we have extracted a percentage equal to 2% of each group of tourists, as a result of which appeared a sample formed of 282 tourists who belong to the five groups. The period of the research was 15-22 July 2008, considered the middle of summer and holidays.

## **2. PRESENTATION OF THE RESEARCH'S RESULTS**

For the present research we have used the following scales: the semantic differential, the ranks arrangement method, Stapel's scale and Likert's scale. The questions were followed based on the percentage calculus of the results according to the number of respondents or number of answers. The analysis of the data is not summed up only to the separate consideration of the variables but also to measuring their degree of association under the aspect of intensity, direction and statistic significance, being realized with the help of the significance test  $X^2$ .

The questionnaire has been used for gathering information from a sample of 282 tourists, the results being presented further on. Starting from the fact that the purpose of this research was finding the elements of the tourist's offer from Mamaia resort, which determine the tourists to choose it as a tourist's destination for their holiday, it has been considered in the end that, based on the information obtained, a analysis of the possibilities of diversification the offer, both under a qualitative and quantitative aspect, should be realized. The stating point has been that of finding the notoriety degree of the resort. The research's results pointed out the fact that the result has notoriety among tourists due to successively spending their holidays in this resort as well as due to its promotion lately.

Another objective was to ascertain the tourists' fidelity towards Mamaia resort. The answer confirms that more than half of the tourists used to spend their holiday in the resort. The tourists' fidelity is not influenced by the tourists' age, what represents a premise for continuing to trade certain services with an elastic demand.

The diversification of the tourist's products and services within the offer of the 2008 summer season has been noticed by most of the tourists. They appreciated firstly the arrangements realized in the resort, the modernization of the hotels, the arrangement of the beach, the cleanliness of the resort, the good organization of points of selling different merchandises and arrangement of walking areas.

The quality of the services has been considered better by a very small number of tourists. The rest of the tourists have not noticed any change in this regard. The quality of the tourist's housing and alimentation services rendered in Mamaia resort is one of the elements for which the most dissatisfactions from tourists have been registered about. Although in the last years, in Mamaia resort have been done significant investments and the tourist's offer has been diversified, the quality of the products and the services offered does not raise to the standards imposed by the European Union. Make the clients loyal and attracting new tourists' segments can be realized only by drawing up and implementing certain measures for increasing the quality of the traded tourist's services.

The resort's elements of attractiveness are differently perceived, according to the age group the tourists are part of. The natural surroundings make the main

attraction of the resort for most of the tourists of the resort, followed by accessibility, amusement possibilities and ambiance. The resort's accessibility reflects in the increased number of tourists who travelled an acceptable distance to reach the resort (three quarters of the tourists travelled a distance smaller than 400 kilometres). This accessibility influences the choice of the holiday companions.

Most of the tourists preferred family (one of the spouses and/or children), friends and relatives. Only a small part of the tourists preferred to come to the resort alone or with an organized group. One may say that Mamaia is a family resort.

The importance the tourists give to the basic tourist's services (housing, food and amusement), is influenced by age and occupation and also by the company of the persons who come with them. From the point of view of the importance given by the tourists the amusement services are situated on the first place, followed with insignificant differences by the housing and food services.

Regarding the tourist's reception structures, the hotels are situated in the top of the tourists' preferences, followed by camping, villas and bungalows. The positioning of the hotels on the first place is due to comfort and to the large number of tourist's services which the tourists can benefit from, as well as to the large share they own in the total of the tourist's reception units from the resort.

The tourist's food structures most visited by tourists are represented by restaurants, brasseries, pubs, pizza places and day bars. The preferred are the restaurants and bars which exist in a significant number in the resort.

In what it concerns the activities the tourists have in the resort, primordial is the helio-marine cure, which covers the largest part of the tourist's time, followed by walks, practicing nautical sports or other sports. It is ascertained an increase in the number of tourists who practice sports in the resort, indifferently of age.

In the evenings the tourists prefer amusement parks, especially those accompanied by children, walking on the beach, restaurants with artistic programs, discos, shows and night bars.

The tourists proved they have information regarding the tourist's attractions found in Constanta County. But considering all this they limit to visiting tourist's attractions from Constanta City only (the Aquarium, the Casino, the Dolphinarium, Tomis Port, museums, etc). a quarter of the tourists propose to themselves to visit the other resorts of the seaside but a limited number of tourists want to visit other tourist's attractions.

If about the new image of the resort the tourists agreed that the change "in good" is visible; regarding the quality of the services rendered the average opinion recorded is not favourable. The prices of the tourist's products do not reflect the quality of the tourist's products and services offered but the prices of the raw materials, fees and taxes, their level being considered high. As the services' quality can not be separated from that of the personnel employed in tourism, the tourists' opinion about the behaviour of the tourism's workers is considered acceptable.

More than half of the tourists have arrived from the urban environment, from distances between 200 and 400 kilometres, using in order to arrive to the resort, the car and the train, as main transportation means (very few have used buses and plane).

The social-professional categories of the tourists from the resort are represented mainly by office workers and highly educated persons, the rest being foremen, workers, entrepreneurs, pupils, students and, in a very small share, pensioners, home-makers, peasants and unemployed persons.

The intention, with little exceptions, of returning to the resort, points out the fact that the tourist's offer of Mamaia resort remains attractive for tourists.

By the investments and modernizations realized in Mamaia resort has been created a diversification of the tourist's reception structures, aspect appreciated by the tourists. Their dissatisfactions are linked to the service rendering of the employed personnel. In this purpose the instruction and the organization of professional training courses are measures absolutely necessary for the increase of the qualitative level of the services rendered by the workers in tourism.

From a quantitative point of view, Mamaia resort disposes of a significant number of tourist's and food reception structures, their qualitative level being on an ascendant slope due to the investments oriented towards the modification of the housing and food units on comfort degrees and their framing within superior comfort categories of 3 stars, 4 stars and 5 stars.

One of the tourist's services absent from this resort is balneal-therapy. Setting up unit for treating such illness as: asthma, bronchitis, stress etc, would attract also another segment of tourists. Creating modern treatment centres and employing qualified medical personnel are premises of the development of a balneal-climatic tourism in the resort. Thus the tourists arrived in the resort could satisfy besides their needs for rest, relaxation and amusement, also their treatment needs.

The quality of the food tourist's services represents another reason of dissatisfaction of the tourists. Although the resort has a lot of food tourist's structures special from the point of view of the location, specific equipments and service personnel, there still exist a lot of food structures which need serious investments. This is the case of restaurants in one and two stars hotels, as well as certain bars, terraces or pizza places which exist on the seaside, where the service equipments are not either adequate or used according to the principles of serving a meal.

The diversification of the menus is another objective which must be taken into consideration by the entrepreneurs from Mamaia resort. The culinary products range should be diversified and enlarged so that it should correspond to the taste and customs of the Romanian and foreign tourists who spend their holidays in this resort.

Also the Romanian cuisine is not put to its true value by the cooks from the food tourist's structures from the seaside. A correct use of the Romanian specific receipts could make Mamaia resort a destination for food lovers, gastronomy could become a motivation for the trip. Although the resort is on the seaside, the number of fish restaurants is low.

Regarding the personnel employed in this sector it should be considered an attempt of making them loyal by wages' motivation, warranting the work place outside the season, professional training courses in the field and by means of an adequate qualification. For this purpose is imposed the establishment of recruitment, selection and perfecting criteria for all workers in the field of tourism along side with ensuring civilized working conditions both for the personnel full time employed and also for the

part time employed personnel. Thus it shall be overthrown the rigidity of the tourism's employees and their inadaptability to the behavior of different tourists (which sometimes reaches indifference or carelessness), factors which determine at present most of the customers' dissatisfactions.

As a conclusion, the behavior of the personnel employed in different structures with a tourist's function depends firstly on their professional qualification and secondly on the degree of satisfaction of the personal needs, degree offered by the employer by means of a satisfactory wage, certainty of the work place, bonuses etc.

Regarding the tourist's amusement services this offer has been diversified, putting into maximum value the natural potential of which Mamaia resort disposes of. Besides the amusement park Aqua Magic, a lot of amusement units have been modernized in the entire resort.

Worldwide is more and more evident the tourist's preference for tourist's programs of the club type, clubs which reunite all tourist's services which can be offered in the resort. Within these clubs, the tourists are housed, eat meals, benefit from a different range of possibilities of spending time, they can shop, they can take walks, can rent cars etc. Using the advantages of these new directions of development of the tourist's services, a few hotels from the resort adapted the organizational type of the Mediterranean clubs to their own possibilities.

### 3. CONCLUSIONS

In conclusion the possibilities of diversification of the tourist's offer in Mamaia resort are numerous, given the fact that the resort disposes of natural resources which have not yet been sufficiently put into value. The increase of the quality of the tourist's services and the diversification of the services' offer should represent primordial objectives for the entrepreneurs from the Romanian seaside tourism. Thus the resorts of the Romanian seaside could be included in the international tourism circuits, could satisfy an external demand exigent from the point of view of comfort, quality of tourist's services and security.

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## **ASPECTS OF AGRITOURISM MANAGEMENT IN MALOPOLSKA VOIVODESHIP**

**ARKADIUSZ NIEDZIÓŁKA, ANNA BRZOZOWSKA \***

**ABSTRACT:** *In the article the authors present some issues connected with different aspects of agritourism management in Malopolska Voivodeship. There are different institutions in this region which manage this development. Among them there are: agritourism associations, Agricultural Advisory Centre, the Agency for Restructuring and Modernization of Agriculture, local authorities in districts. Agritourism development is managed by these institutions in a different way. Implementation of union funds is managed by Regional Office of the Agency for Restructuring and Modernization of Agriculture in Cracow. Next, promotion management mainly consists of different activities of agritourism associations. Agricultural Advisory Centre organizes agritourism training courses for farmers who want to set up agritourism farm.*

**KEY WORDS:** *agritourism, management, marketing, institution, Malopolska Voivodeshi*

### **1. THE ESSENCE OF AGRITOURISM**

In Poland, agritourism is defined as the form of rural tourism which is organized by farmer within the farm limit. It is treated as an additional income for farmers, out of agricultural income. Nowadays there are almost 9000 agritourism farms here, the most function in Malopolska Voivodeship. There are many determinants of agritourism development. It is based on the qualities of the natural and cultural environment [Kot, 2005]. Next, agritourism should be based on the principles of sustainable development of rural areas. An important issue for farmers, their families and the local community, besides the incomes of the farmers, is maintaining fundamental aspects of conservation of the natural environment.

Agritourism offers basic services, as night and food services for its guests. Moreover, it offers recreational services which task is to ensure tourists spending their leisure time in an interesting way. Among such services can be: bonfire organization,

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sports equipment rental, blitzka rides, sleigh ride, playground for children, mushroom picking, and so on. One of the most essential factors of agritourism development concerns different aspects of management, which play very important role in this process. There are institutions which organize agritourism services promotion, which train farmers, and obtain union funds for undertaking of agritourism.

It is very important to use marketing in providing agritourism farm. Owner of such agritourism accommodation should be taught how to run his firm successfully. Besides, farmer ought to know all elements of marketing - mix. Rules of promotion, its different forms (fairs, catalogues, internet, public relation, additional promotion) should be obvious for him. Marketing is an enterprise related to the management of a highly customer-oriented company, where the basis for making decisions includes as follows [Sikora 1999]:

- knowledge of the market (recognizing customers' need and interests, competition, other socio-economic and cultural factor);
- active influence on the market (development of promotion and marketing);
- elaborating a consistent market strategy (including product development, prices, communication with the market, distribution).

## **2. AIM, RANGE AND METHODOLOGY**

The aim of the article is presentation different issues related to agritourism management in Malopolska Voivodeship. In the theoretical part of the article the authors present the most important institutions in this region which play important role in agritourism management. In empirical part, results of researches conducted among 365 farmers providing agritourism services are shown. These researches were conducted by means of questionnaire, and they were connected with aspects of agritourism management in respondents' opinions.

## **3. AGRITOURISM DEVELOPMENT IN POLAND**

Poland consists of sixteen voivodeship. In Malopolska Voivodeship there are absolutely the most agritourism farms in Poland – 1590. It is over 500 more than next Podkarpackie Voivodeship with 1074 agritourism farms (table 1). As Ewa Tyran [2003] says, the development of farm tourism in Poland is seen as an important factor in the on-going restructuring process of rural areas. This has also been recognized by the European Union, which has in recent years allocated substantial outlays from the Sapard fund and later, after Poland's integration with the EU - structural funds.

Agritourism services refer to providing and developing tourist services for the guests staying in agritourism farm. The agritourism is a form of holidays based on accommodation and catering in the house of a farmer. It has been already mentioned, that the guests' stay includes various entertainment activities offered by the farm-owners. Recreation is defined as sport for everyone, practising different forms of sport activity without striving to reach maximal performance; recreation is a healthy life style, fitness and health promotion [Piątczak, 2002]. The essence of recreation is not to gain profits but to provide enjoyment, which means entertainment activities. There

is a new form of agritourism, too. It has been becoming popular from some years. It's ecoagritourism. It is a kind of agritourism which is characteristic of cultivation soil and produce food by means of organic methods (in farms which possess certificate or being in the course of conversion [Zareba, 2006]. The Agriculture Advisory Centre in Brwinów made efforts to achieve to form all - Poland base of ecoagritourism farms. This base is being formed free for farmers and is provided on the Internets' side: [www.eko.radom.com.pl](http://www.eko.radom.com.pl). Nowadays their base consists of 158 ecoagritourism farms (table 2).

**Table 1. Number of agritourism farms in Poland in 2007**

Voivodeship	Number of agritourism farms	Voivodeship	Number of agritourism farms
Dolnośląskie	592	Podkarpackie	1074
Kujawsko-Pomorskie	333	Podlaskie	629
Lubelskie	408	Pomorskie	770
Lubuskie	164	Śląskie	384
Łódzkie	167	Świętokrzyskie	355
Małopolskie	1590	Warmińsko – Mazurskie	869
Mazowieckie	378	Wielkopolskie	474
Opolskie	112	Zachodniopomorskie	491
Total: 8790 agritourism farms			

Source: own study based on: <http://www.intur.com.pl/bazy/kwatery/kw1.php?zestaw=agroturystyka>

**Table 2. Number of ecoagritourism farms in individual voivodeship in Poland in 2007**

Voivodeship	Number of ecoagritourism farms
dolnośląskie	25
kujawsko – pomorskie	3
lubelskie	3
lubuskie	2
łódzkie	0
małopolskie	29
mazowieckie	7
opolskie	8
podkarpackie	10
podlaskie	11
pomorskie	0
śląskie	5
świętokrzyskie	33
warmińsko – mazurskie	20
wielkopolskie	1
zachodniopomorskie	10
Total	167

Source: own study based on: <http://www.eko.radom.com.pl/bga/index.php>

#### **4. AGRITOURISM SERVICES DEVELOPMENT IN MALOPOLSKA AND THE MOST IMPORTANT ASPECTS OF MANAGEMENT IT**

Agritourism is a popular form of rural tourism in Malopolska Voivodeship. In this region of Poland there are many factors which determine development of agritourism services. There is here interesting cultural heritage, many attractive tourism values. Among the chances favouring agritourism development in this region are the following [Żmija, 1999]: natural and landscape qualities; substantial house resources in the rural areas; cultural and historic heritage; price competitiveness; growing interest of urban population in spending free time such way.

In Malopolska Voivodeship there are different institutions which manage of agritourism development. There are some agritourism associations which support this process. Local authorities in individual districts do the same. Besides, Agency for Restructuring and Modernization and Agricultural Advisory Centres also help farmer in providing their agritouristic services by obtaining union funds.

The Agency for Restructuring and Modernisation of Agriculture was established in 1994 with the aim of supporting the agriculture and rural development. The Agency has been designated by the Government of the Republic of Poland to perform the role of an accredited paying agency. It manages the implementation of instruments co-financed from the European Union budget and provides aid from national funds. The Agency, as the performer of agricultural policy, cooperates with the Ministry of Agriculture and Rural Development. At the same time, Agency for Restructuring and Modernisation of Agriculture is under supervision of the Ministry of Finance within the scope of managing public funds.

The Agency, among others manages agritourism by obtaining union funds. The maximum level of financial assistance granted to a beneficiary may amount to 50% of qualified costs. At the same time the maximum amount of financial assistance granted within the task, during realization of the program, to one beneficiary and one farm cannot exceed 100 000 PLN. It means that [Niedziółka, 2005]: one beneficiary may obtain assistance amounting to not more than 100 000 PLN during realization of the program; Owners, co-owners and members of the household applying for co-financing of projects realized within one farm may obtain assistance in the amount not exceeding 100 000 PLN in total during realization of the programme. Before entering the European Union funds for agritourism development came from Programme Sapard. In the years 2004-2006 they came from Sectoral Operational Programme "Restructuring and modernisation of the food sector and rural development 2004-2006"

Nowadays, the Rural Development Programme for 2007-2013 enables the continuation of the modernisation and development process of Polish food and rural areas launched in the previous years. It is a programme that, according to the EU intention, complements the Common Agricultural Policy. Under EAFRD, which finances the RDP in this period, Poland received EUR 13.2 million that together with the national funds constitute a total budget in the amount of EUR 17,2 billion.

The Rural Development Programme for 2007-2013 was adopted by the European Commission at the meeting of the Rural Development Committee on 24 and 25 July 2007. In its Axis 3 Improvement of the quality of life in rural areas and

diversification of rural economy: Diversification of economic activities; Creation and development of micro-enterprises; Basic services for rural population and economy; Village renewal

In Activity 1: Diversification of economic activities there is possibility to obtain funds for agritourism. Besides of Agency for Restructuring and Modernisation of Agriculture in Malopolska Voivodeship the most important role in agritourism management play agritourism associations. The most known are: "The Galician Hospitable Farms" based in Cracow, and "The Association of Tourism and Agritourism of Mountainous Regions" in Nowy Sącz. Agritourism.

These organizations management in agritourism is seen in common promotion, especially in common tourism fairs organization. They both belong to national organization Polish Federation of Country Tourism "Hospitable Farms". It has over 600 farms which have been standardized and the three suns represent the highest standard. The mark of a stork - the Federation logo is a guarantee that the system of standardization and the services provided by farmers has been certified.

These farms in the polish countryside offer a chance of having not only a restful holiday but also an active one. Whatever you like doing, whether it is sailing or rowing, angling or hunting, skiing or sledging, sightseeing or simply walking in beautiful forests, you will find a farm suiting your needs. Most farms will have available bicycles and various types of boats for hire. Riding and sometimes playing tennis is also available. The Agricultural Advisory Centre is the next important institution in agritourism management. It's a public body with a legal personality. It was established due to the transformation of the National Advisory Centre for Agriculture and Rural Development. The mission of the Centre is to raise agricultural incomes, enhance the market competitiveness of agricultural holdings, support the sustainable development of rural areas and raise professional qualifications of agricultural advisers, agricultural school teachers and other rural inhabitants.

The Centre organizes professional trainings and an advisory service for nationwide agricultural advisory centre staff, teachers, farmers and other rural inhabitants concerning: agritourism support; local communities projects; rural cultural heritage; local product promotion; non-agricultural enterprises run by farmer.

The Agricultural Advisory Centre co-operates with agricultural advisory centres, scientific research institutions, government and local government institutions, farmers' organizations and other organizations which work for the development of the countryside and agriculture.

## **5. RESULTS OF RESEARCHES**

Researches focused on the aspects of agritourism management in Malopolska Voivodeship have been conducted among 365 farmers who provided agritourism farms in this region. To begin with, the Authors acquainted with the influence of the local self-government management of agritourism services in individual districts. The results are presented in table 3. Next, the intention of the authors was the acquaintance with the fact of number of associated agritourism farms and benefits from it. It turned out, that over half of examined agritourism farms is associated in agritourism associations.

**Table 3. Agritourism management by local authorities in examined district**

<b>The impact of local self-government on the development of agritourism</b>	<b>Number of responses</b>	<b>% of the number of districts</b>
Promotion	27	47.4
Including: Participation in fairs	10	
Internet advertising	4	
Publication of leaflets	4	
Distribution of informational materials	1	
Trips to agritourism farms	1	
Development of tourist and recreation infrastructure	11	19.3
Building technical infrastructure	7	12.3
Organization of training courses	4	7.0
Funding agritourism	2	3.5
Organization of various events	2	3.5
Funding outdoor events	1	1.7
Promotion of cultural heritage	1	1.7
Record of agritourism farmsteads	1	1.7
Maintaining the cleanliness of the natural environment	1	1.7
Total	37	100.0

Source: own study, based on own research.

The results showed that associated agritourism farms benefit from its membership in these organizations, mainly in promotion, and in courses and training, too. In the group of associated farmers there are more people thinking of making use of EU funds for agritourism in the future than in the group of examined non-associated owners of agritourism farms.

The most important advantageous coming from its membership is promotion (table 4).

**Table 4. Best aspects of agritourism management of associations in respondents' opinion**

<b>Kind of answer</b>	<b>Number of answers</b>	
	<b>Total</b>	<b>For 100 agritourism farms associated (%)</b>
Promotion	159	86.4
Courses	45	24.5
Access to information	35	19.0
Common trips to tourism fairs	34	18.5
Exchange of experience	14	7.6
Possibility of region promotion	1	0.5
Knowledge of agritourism extended	1	0.5
Common events	1	0.5
Departures to other agritourism farms	1	0.5
Lack of advantageous	8	4.3
Total	299	100.0

Source: own study, based on own research.

Examined agritourism farms' owners were asked to say which institution best supports agritourism development in their districts. More than half answers related to Agriculture Advisory Centre (table 5).

**Table 5. Institutions best manage agritourism development in respondents' opinion**

Institution	% of answers
Agriculture Advisory Centre	55.1
Agritourism association	17.4
Local authorities	14.3
Others	7.9
Chamber of Agriculture	3.8
Agency for Restructuring and Modernization of Agriculture	1.4
Total	100.0

Source: own study, based on own research.

365 examined agritourism farms' owners expect further help from different institutions in the future. Most of respondents expect it from local authorities and Agriculture Advisory Centre. There were 738 answers, all in all. They related mainly promotion in different forms and training courses (table 6).

**Table 6. Institutions, from which respondents expect further good management**

Institution	Number of answers
Local authorities	260
Agritourism Advisory Centre	214
Agritourism association	177
Agency for Restructuring and Modernization of Agriculture	69
Chamber of Agriculture	13
Others	5
Total	738

Source: own study, based on own research

## 6. CONCLUSIONS

Agritourism development in Malopolska Voivodeship is determined, among other by institutional management. There are different forms of management. Such forms depend on any institution. For example, the Agency for Restructuring and Modernisation of Agriculture manages agritourism development by union funds implementation. Agritourism management by Agricultural Advisory Centre is obviously seen in organization agritourism training courses. Next, agritourism services are managed by agritourism associations in promotion organization. Mainly, it is connected with trips organization for fairs.

Researches showed that there are many different aspects of agritourism management in Malopolska Voivodeship. Most of them concern promotion, training courses and obtaining union funds.

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## **PROSPECTS OF COAL EXPLOITATION AGAINST THE LIBERALIZATION OF EUROPEAN GAS AND ELECTRICITY MARKETS**

**DORINA NIȚĂ, IMOLA DRIGĂ \***

**ABSTRACT:** *Europe is now being held responsible for the energetic defiance demonstrated by an increase of the global energy demand against meeting this demand especially by using fossil fuels (coal), oil and natural gas. The alarming pollutant effect of coal consumption, high oil prices and the EU dependence on the import of oil are just a few of the challenges for which the setting up of a common efficient and competitive European energetic market should provide solutions. The liberalization of energetic and gas markets through which the Union's consumers would benefit by reduced and more transparent prices, by more rights, by protection against the uncertainty/instability of energetic supplies and against disloyal commercial practices stands as an example in this respect.*

*Comparing all the advantages and disadvantages generated by the use of coal as the main raw material in the combination of resources necessary to meet the energy demand at European level, it is easy we can reach the conclusion that coal will remain a future safety factor for the energy supplies, and due to its availability, negotiable prices and the implementation of technologies which reduce green gas emissions, the growing dependence on oil and gas imports from unstable third countries can be limited even though the liberalization of energy and gas markets would bring forth lower and more transparent prices for the other competitive resources like oil and natural gas.*

**KEY WORDS:** *competitiveness, private sector, entrepreneurial initiative, narrow market, mono-industrial area*

### **1. INTRODUCTION**

Europe is called upon today to stand up against energy defiance, represented by a large global energy demand, and to cover this need especially through the consumption of solid fossil fuels (coal), oil and natural gas. The polluting effect of the use of coal, the high oil prices and Europe's dependence on imports are just some of

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the challenges that need solutions through creating a common European energy market which is competitive and effective.

The liberalization of electricity and gas markets through which consumers from the Union would benefit from lower and more transparent prices, from more rights, from protection against the precariousness of energy supplies, and against unfair trade represents an example in this respect.

Balancing all the advantages and disadvantages derived from the continuous use of coal as an important raw material in the mix of resources necessary to ensure the European energy demand, leads to the determination that coal will remain a safety factor within the energy supply, and due to its availability, to negotiable prices and to the implementation of technologies that reduce greenhouse gas emissions, the growing dependence on imported oil and gas from uncertain third countries is limited, although energy and gas market liberalization will bring lower and more transparent prices to other competing resources, oil and gas.

The development and the intensive use of industrial procedures, machines and means of transportation that consume energy contributed decisively to the achievement of our current standard of living: energy released people from the burden of demanding physical labour, it multiplied their productivity, it produced light and heat, it revolutionized agricultural crops, creating an unexpected mobility and communication. Energy has become the engine of modern economies, being a requisite for any basic supplies.

The importance attached to energy on all levels (resources, production technologies, transmission and distribution, environmental impact) is summarized in the European Union's three priorities:

- increasing the security of supply
- ensuring the competitiveness of European economies and the availability of affordable energy
- promoting a sustainable environment and fighting climate change.

The existence of functioning energy markets that ensure secure energy supplies at competitive prices is a key factor for the welfare of EU consumers. In order to achieve this objective, the EU has decided to open Europe's gas and electricity markets, as well as to create a single European energy market.

## **2. WHAT DOES THE LIBERALIZATION OF EUROPEAN GAS AND ELECTRICITY MARKETS IMPLY?**

Electricity and gas are the quintessence of Europe's welfare. Without a competitive and efficient European electricity and gas market, the people of Europe will pay excessive prices for one of their daily basic needs. Moreover, the electricity and gas market is crucial for Europe's competitiveness, since energy is a major European industry.

In addition, a competitive and efficient European electricity and gas market is a prerequisite for tackling the problem of climate changes. Only a well functioning market allows the development of an efficient mechanism for trading emissions and only an industry based on renewable energy is able to reach the ambitious objective of

the European Council, which is to provide 20% of the energy mix from renewable energy sources by 2020.

In the end/in the long run, a competitive and efficient European electricity and gas market is essential to ensure the security of Europe's energy supply, whereas only a competitive European market produces appropriate investment signals and offers fair network access for all potential investors, providing real and effective incentives for both network operators and for manufacturers to invest billions of euros that will be needed in the EU in the next two decades.

Fulfilling all these features of the electricity and gas market implied the beginning of a liberalization process which had been started about 10 years ago. Initially, some legislative measures had been taken to ensure the transparency of prices for final customers and to facilitate the transit of gas and electricity through important networks within the EU area. The next step was the removal of some restrictions regarding the equal access of companies to the exploration and exploitation of hydrocarbon reserves.

In 1996 and 1998 an important step was taken due to electricity and gas directives, which gives the green light to the electricity and gas trade within the Community. The liberalization of electricity and gas markets, which were opened for major consumers in 1999, and in 2000 respectively, marked an important success due to the decision regarding their total liberalization for all consumers by the end of 2004. The decision was made in 2002 by the European Council in Barcelona.

The adoption of Common directives for gas and electricity simplifies and homogenizes market rules, marking a new step towards strengthening a unique market. The proposal for a Directive that provides access to the network for cross-border trade with electricity can remove national barriers between countries.

A decentralized market needs rules, as well as institutions that make sure that these rules are obeyed; this role of moderator is currently being awarded to the European Commission. The Commission's role is little agreed upon by national governments, who consider that this position confers political power.

Since the current electricity and gas directives entered into force in July 2003, the Commission has constantly monitored their implementation and their effects upon the market and it has maintained regular contacts with all stakeholders.

In particular, the Commission published annual comparative evaluation reports on the implementation of internal electricity and gas markets. It organized the World Forum of Energy Regulations in Florence and the World Forum of Gas Regulations in Madrid, which regularly got together ministries, national regulation authorities, the European Commission, transport system operators, providers, consumers, unions, network users and power exchanges.

At the end of 2005, the European Council from Hampton Court requested the adoption of a real European energetic policy. In response, the European Commission published on March the 8<sup>th</sup>, 2006 a green book regarding the development of a common and coherent European energetic policy. Ever since 2005, the Commission has started an inquiry about the competition on the gas and electricity markets.

This investigation within the energetic field answered the questions raised by consumers and by the new operators in the field concerned with the development of

whole-sale gas and electricity markets and with the limited options of consumers. The final reports of the inquiry was approved by the Commission together with a great set of measures which resulted in proposing a new energetic policy for Europe on January the 10<sup>th</sup>, 2007 called "An Energy Policy for Europe - the need to act"; its main objective is encouraging competition on European energy markets and the proper functioning of these markets.

While most EU countries opened their energy market to offers some time ago, in 14 countries of the EU the gas and electricity market were opened as of July 1, 2007. While in Denmark, United Kingdom and Spain, consumers are already enjoying this privilege, in countries like Romania, France, Slovakia and Lithuania, the liberalization of energy and natural gas markets represents a new development.

According to EU legislation, starting from July 1<sup>st</sup>, 2007, all households in these countries may benefit from the freedom of choosing their own electricity and gas suppliers. Other countries, which have been exempted from the immediate application of these new measures, will have to wait a little longer. For example, Latvia and Portugal are to open their gas markets in 2010.

In order to enable European consumers to choose their own energy suppliers, the European Commission decided to materialize and to finalize the internal energy market, proposing a clear separation between the energy distribution networks and the economic gas and electricity providers, stating that when a company has the monopoly over the production and the distribution networks, it carries the risk of abuse. Due to the measures imposed by the Commission, new companies are going to enter the market, which are to encourage competition and the security of supplies, especially in cases of energy crises.

In order to achieve a true European energy market, it is considered that exchanges across borders should be facilitated. Many problems are caused by the existence of different national technical standards and by the type of energy networks. To remedy this, the Commission has set up an agency to coordinate national regulators.

Moreover, it has elaborated a system to improve the collaboration between managers of distribution networks. Last but not least, the Commission plans to set up a European observatory of energy that will be in charge with gathering information on the proper functioning of the internal market.

For consumers, these measures should lead to lower and more transparent prices, more rights, protection against the precariousness of energy supplies, and against unfair trade.

### **3. THE INCIDENCE OF GAS AND ENERGY MARKET LIBERALIZATION ON THE DEVELOPMENT OF COAL CONSUMPTION**

In March 2006, the European Council drew up an alarming report regarding:

- the difficulties of gas and oil markets;
- the increasing dependence of European Union;
- the growth and volatility of the price of energy;
- the growth of global energy demand;

- the risks regarding the security of supplies;
- the threats of climate changes;
- modest progress made in the field of energetic efficiency and by the use of renewable energy sources;
- the need to increase transparency on energy markets and further integration and interconnection of national energy markets in the context of energy market liberalization;
- limited coordination of energetic actions, as long as there's the need for large investments in the energetic infrastructure.

Currently, the EU is in a situation of acute energy dependence (50% of energy is imported, estimating that this dependence will reach 70% in 2030), being largely dependent on solid fossil fuels, oil and gas (fossil fuel dependence reaches 80%, and it is estimated that EU energy imports should go up from 50% to 70% by 2030), and this dependence is expected to increase in the following years despite the acknowledged negative impact upon the quality of environment and the actions taken to promote non-pollutant "green energy".

At present, the Union emphasizes the need to develop more renewable energy; the target is very ambitious, since it must reach 20% of total energy consumed by 2020; in addition, there will be set a minimum mandatory target of at least 10% biofuel (according to the roadmap for renewable energy from January 10<sup>th</sup>, 2007).

Switching to other types of energy is inevitable, but it will be difficult. However, the world has already undergone a change of this type, especially in the nineteenth century, when it replaced biomass fuels (mainly wood) with coal and then with oil. Currently, however, we still lack sufficient means of exploiting renewable energy in order to experience a transformation comparable to the one from the nineteenth century.

The obstacles are caused by several factors:

- the density of energy, the areas needed for biofuels production (to the detriment of other activities, mainly agricultural);
- intermittent production because of its discontinuous characteristic and unpredictable flow (wind, solar energy, tide), which requires detailed planning in terms of storage capacity;
- the geographical distribution of renewable energy sources.

As far as nuclear energy is concerned, even if there will be initiated a very ambitious policy of renewing and setting up power plants, the global nuclear industry will not be able to handle the demand.

The current situation, and especially the forecasts regarding the future of energy within the EU, motivates the concerns shown by the Union towards the need to ensure an overall growth of energy demand in parallel with environmental care, requiring Member States to become copartners and to use the EU as an effective tool for developing a common energy strategy, the main objective of which is a better management of consumption and a diversification of supply sources.

The European Union has the right scale and it has the institutional tools. It is able to develop transnational policies, to coordinate national policies, to generate

greater European cohesion within the energetic field and, finally, to develop an energy policy in relation to third countries.

It is acknowledged the fact that within the framework of transnational policies and the common European strategy, the demand of energy from fossil sources will continue to be quantitatively important and to represent a vital matter. Therefore, within the field of fossil energy, it is recommended that some alternative sectors should be created, especially ones that are based on coal. The researches regarding “clean coal” (exploited through non-polluting technologies) make considerable progress and they must be accelerated if we don’t want a new expansion of the use of coal to aggravate even more the global warming.

A comprehensive European research and development plan should be developed in this area, especially since Europe remains a continent rich in coal; in several Member States, coal plays an important part in the combination of energy sources, and this resource is obviously cheaper than oil on the world market. It should also be noted that although hundreds of countries export coal, there is no coal cartel to be found and therefore price negotiation is possible.

Activities of coal mining and processing can contribute significantly to regional economic prosperity and to ensuring an important number of local jobs (the mining industry from the new Member States uses 212,100 of the 286,500 European workers in this sector)\*. By contrast, the European experience (which includes Romania) shows that the conversion of the coal sector has significant economic effects in regions with few possibilities to diversify economic activities and to create jobs.

There still remains a very delicate issue, that of how the coal is extracted. The difficult conditions are well known and sometimes the job of a miner is dangerous. Therefore, special attention will be given to working conditions, to the safety and health at work in this field. Compared with other industries, the mining industry faces specific problems related to the location of the reserves and to the mobility of the mining activity implied by the process of extracting raw materials.

Balancing all the advantages and disadvantages derived from the continuous use of coal as an important raw material in the mix of resources necessary to cover the demand of European energy, we get to the conclusion that coal will remain a safety factor in the future of energy supplies, and due to its availability, to the negotiable price and to the implementation of technologies that reduce greenhouse gas emissions, the dependence on oil and gas imports from third parties is limited, although the liberalization of energy and gas markets will bring lower and more transparent prices compared to other competing resources, oil and gas\*\*.

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\* Communication of the European Commission to the European Council and Parliament on sustainable energy production from fossil fuels: Objective after 2020 – almost zero emissions from burning coal COM (2006) 843.

\*\* The voices of specialists argue that although the liberalization of energy markets would reduce prices of these resources, without the need to promote viable alternatives to oil and gas, their price might not register notable changes (or even increase) due to increasing the global demand for these resources, but also due to their limited nature which is becoming more acute as we continue their exploitation.

#### 4. CONCLUSIONS

European energy strategies have so far been the subject of economic imperatives and / or sustainable development:

- the will to liberalize the energy market through directives and policies regarding network industries;
- the policy to encourage energetic efficiency;
- the policy of promoting and developing renewable energy;
- the fight against CO<sub>2</sub> emissions, etc.

Due to the fact that, in a sense, the EU has not had until now, competence in the energy field, it has tackled the issue in a rather indirect manner, using particular rules applicable to the internal market, to competition and the environment.

First, it wanted to use the market mechanisms to create a competitive market that would be more effective and would result in an interconnected market due to trans-European energy networks. Despite the small steps taken over a quite long period, today's progress in creating an efficient and competitive common European energy market is significant even if the process is estimated to be far from finality.

Energy and gas market liberalization is an example of the EU's efforts towards promoting the interests and welfare of citizens within this area. Ensuring lower and more transparent energy prices, more rights for consumers, protection against the precariousness of energy supply is precarious arguments redoubtable in dedicated approach liberalization of energy markets in all EU countries.

A competitive and efficient European electricity and gas market requires a completely liberalized market, characterized by transparency and stronger competition, which can help eliminate discrimination against users by increasing their freedom in the choice between different energy sources and different suppliers, thus providing them access to cheaper energy sources.

Be they natural or legal persons, the liberalization of European energy markets offers real choices to them as well as new business opportunities and more intense cross-border trade, in order to guarantee progress in terms of efficiency, competitive prices and the improvement of service quality and to contribute to the security of supply and to sustainability. Affordable energy, with all its social and cultural achievements is an indispensable driving force for the industrial society and modern services.

With all the transformations of the place occupied in the complex set of resources to produce energy at European level, effect of energy and gas market liberalization and, in this respect - according to the opinions of specialists - lower commodity prices, namely oil and natural gas, competing with coal prices, it is estimated that the latter will not change positions and it shall still remain very important in terms of quantity due to the great number of trump cards owned:

- it has the largest and most widespread deposits in the world;
- it is financially convenient as compared to oil prices;
- it limits the dependence on imported oil and gas from countries outside the Union, etc.

Its main disadvantage is represented by the high level of greenhouse gas emissions which produce climate changes. It appears that the Union has found solutions which have registered significant progress so far, represented by the “clean coal” technologies.

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## **THE ECONOMIC OF LAND ACQUISITION – USING KOTAKA’S MODEL IN LAND ACQUISITION TO PROVIDE LAND FOR INFRASTRUCTURE DEVELOPMENT IN MALAYSIA**

**ISMAIL OMAR, MAZLAN ISMAIL \***

**ABSTRACT:** *Land acquisition is a way to make land available in the market for development purposes. An adequate compensation in land acquisition is always been referred to the open market value of the land taken plus its consequences including severance, injurious affection and disturbances. It is always been referred to the value of land to the affected landowners. Kotaka (2000, 2002) models the elements of adequate compensation in land acquisition. Therefore the paper seeks to redefine the adequate amount of compensation from landowners, valuers and administrators viewpoints using Kotaka’s Model with special application in Malaysia. In doing so, data is gathered from landowners, administrators and valuers from selected cases of land acquisitions. Data gathered is analysed using qualitative descriptive analysis to identify elements of dissatisfactions by landowners upon compensation and proposed solutions by the selected respondents. In the end, findings show that there are elements of dissatisfactions of the landowners and ways out are to be more professional in dealing with them. In line with Kotaka’s Model (2000, 2002), amendments to the elements of adequate compensation had been made to further explain it for implementation.*

**KEY WORDS:** *Land acquisition - Kotaka’s Model - Malaysia*

### **1. INTRODUCTION**

In Malaysia, land acquisition is guided by the Land Acquisition Act 1960 (amended) in relations to the law and rules. However, in determining the adequate amount of compensation, the Federal Constitution 1957 under Article 13 stipulates that no land shall be taken without adequate amount of land compensation. Unfortunately, both instruments of the guidance are not sufficient in guiding exact definition of the adequate compensation. There are always been elements of dissatisfactory on the part of the affected landowners, particularly with regards to the land value, severance,

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injurious affection and disturbances. They always dissatisfied with low amount of compensation on land taken (Rowan-Robinson, 1995), improper notices and delay in making payments (Mazlan, 2008).

Moreover, valuers are using different ways altogether in valuing those claimable heads of claims. Comparing the method of valuation across the world, there are disparity and differences in the way in which valuers assessing the amount of compensation. More disastrously, land administrators are looking for deviated techniques of decision in making up the amount of compensation to the affected landowners.

Whatever it is, there is a model after Kotaka (2002) who proposed techniques of satisfying landowners by way of identifying elements of adequate compensation. The paper will look into the aspects of adequate compensation as proposed by Kotaka (2002) by undertaking a study on selected land acquisition cases in, Malaysia.

## **2. LITERATURES ON ADEQUATE COMPENSATION**

Land Acquisition Act (1960) originates from Land Acquisition (Straits Settlements) Enactments of different States in Peninsular. In 1948, Land Acquisition Ordinance (Compensation) (Special Allocation) was introduced. The land Acquisition Act (1960) upheld the Article 13 of the Federal Constitution which stipulated that any land acquired by the government for public purpose must be paid adequately. This is aimed at standardizing the payment of adequate compensation in the country.

The Land Acquisition Act (1960) laid every steps, process and procedures in taking land for public purposes. In general, failure to follow the regulations may lead to unfair or inadequate payment of compensation of the land taken from landowners. For example, once the land office was delayed in delivering notice to landowners, the implication is that time taken may reflects inefficiency and therefore contributed to the dissatisfaction to the landowners who had suffered losses.

Opinion on the true meaning of adequate compensation may be different from one person to another (Weisheit, 1989). Adequate payment to somebody wouldn't be similar to just to somebody else's. In general, there are similarities between just, fair, adequate amount of compensation. Whatever the terminology used, the amount of compensation must refer to open market value of the land taken (Usilappan, 1999).

Kotaka (2002), asserted that adequate compensation must complies three situations: the affected landowners are being paid all the losses incurred as agreed during a harmonised negotiation (or hearing) as it happened in sale transaction; payment is made considering physical factor and no sentimental value is taken into account and; the date of valuation is going to be the date of its first proposal to acquire the land and not when it has been actually acquired.

However, Table 1 shows different concepts of adequate compensation as applied in different countries.

**Table 1. Concepts of adequate compensation in selected countries**

Country	Concept of Adequate Compensation
England	Under Compulsory Purchase Act 1965, payment is base don market value of land taken and all losses borne by affected landowners
India	Just compensation refers to value to the landowners as practice in England, Australia and Canada.
Australia	Same concept of 'just term' or 'just compensation' or 'adequate compensation'. For example, Section 25 (1) Land Acquisition Act 1969 South Australia refers to adequate compensation to all payments such as severance, injurious affection and disturbances at the time of acquisition.

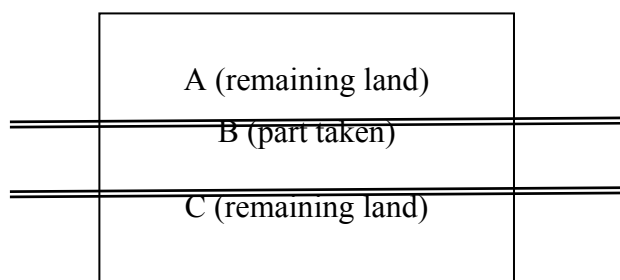
Source: Mazlan 2008

### 3. HEADS OF CLAIMS

In Peninsular Malaysia, the Land Acquisition Act 1960 explains basis of valuation for compensation under Schedule 1. Section 1 and 2 of Schedule 1 stipulated the open market value as the basis for the valuation of land for compensation purposes.

**(a) The Land Value.** Malaysian Valuation Standards (2006) defined open market as the expected price that will be achieved once the property is transacted on the date of valuation between a willing seller and a willing buyer who are acted knowledgeably, prudently and without any compulsion. The American Institute of Real Estate Appraisers (AIREA) defines open market as the highest selling price in monetary term when the property is transacted in open market within a reasonable period of time to get a knowledgeable buyer (Ismail and Mazlan, 2005).

**(b) Severance.** Severance happens when the land acquired is splitted into two or more due to partial land acquisition.

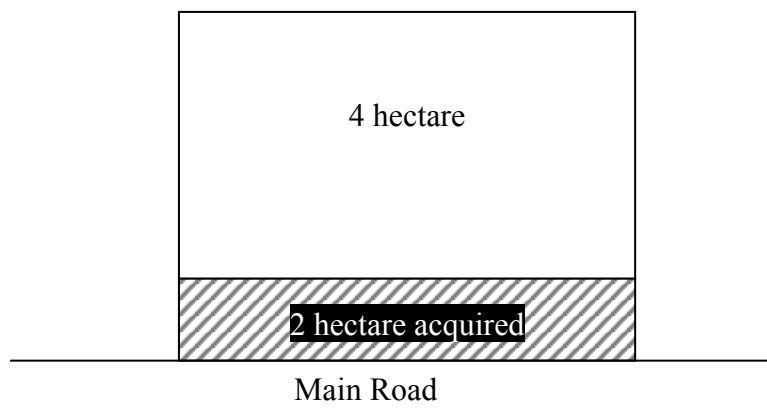


Source: Gibbard, 2001

**Figure 1. Severance**

The affected landowners are eligible and have rights under the land acquisition act to claim the losses due to the value of land acquired and the depreciated value of the remaining lands that had not been acquired. Severance had caused the value of remaining lands depreciated (Brown, 2004). The valuer will do the comparison between the before and the after valuation and the differences in value reflects the amount of compensation to be paid to the affected landowners due to severance. In case, the remaining land is no more economic, the landowners may put forward their request so that the government may acquire all the lands (Denyer-Green, 1982).

**(c) Injurious Affection.** Injurious affection happens whenever the value of remaining land depreciated due to the works of the land acquisition carried out by the acquirer or their contractors.



Source: Raja Aris, 1987

**Figure 2. Injurious Affection**

Injurious affection may be explain by ways in which the value of remaining land depreciated and the way in which damages happened to the value of land by way of haze, insecurity and other disturbances (Denyer-Green, 1982).

**(d) Disturbances.** The affected landowners may be shifted somewhere else. The costs incurred are transferring cost, estate agent costs, lawyers' fees, income losses in commercial properties. Compensation to the affected landowners due to disturbances is based on real expenditure as shown by receipts.

The expenditures must not be too remote. Under the Land Acquisition Act 1960, Section 2 (e) and 2 (f) under Schedule 1 empowered land administrators to offer compensation of disturbances. Ex-gratia payment is made by the authority to the ground leaseholder upon transfer to new sites.

**(e) Solatium.** Solatium is a payment to the affected landowners as an extra payment over the open market value of the land taken excluding the compensation for disturbances (Sarkar, 1998). According to Brown (2000), the purpose of solatium is to compensate landowners on depression factors due to land acquisition. Solatium is usually paid in India, Western Australia and New Zealand but not in Malaysia.

#### **4. METHODOLOGY, ANALYSIS AND DISCUSSION**

In completing the study, the affected 40 landowners were taken as sample for interviews. The respondents are taken from four case studies i.e prawn aquaculture, Beris Dam, higher institution and road widening Gurun-Sik Road. The interviews are meant to identify and classify factors that caused dissatisfaction amongst the affected landowners. Moreover, data on opinions of valuers and land administrators were also taken to analyse further the situation qualitatively.

The empirical study is conducted using qualitative analysis. Several land acquisition projects have been chosen for investigation. (Please refer Appendix A for locations of selected case studies).

- The Beris Dam project is located in District of Sik to supply water to surrounding areas. It worth RM186 million involving about 16,000 of paddy lands.
- Prawn Rearing Kerpan Project is involving Malay Reservation Land of about 1,000 acres owned by 800 Malays farmers.
- Construction of Yayasan Al-Bukhary for higher learning involving about 100 families
- Gurun-Sik Road widening scheme involving the acquisition of industrial, residential and commercial lands along the road stretch of about 36 kilometers.

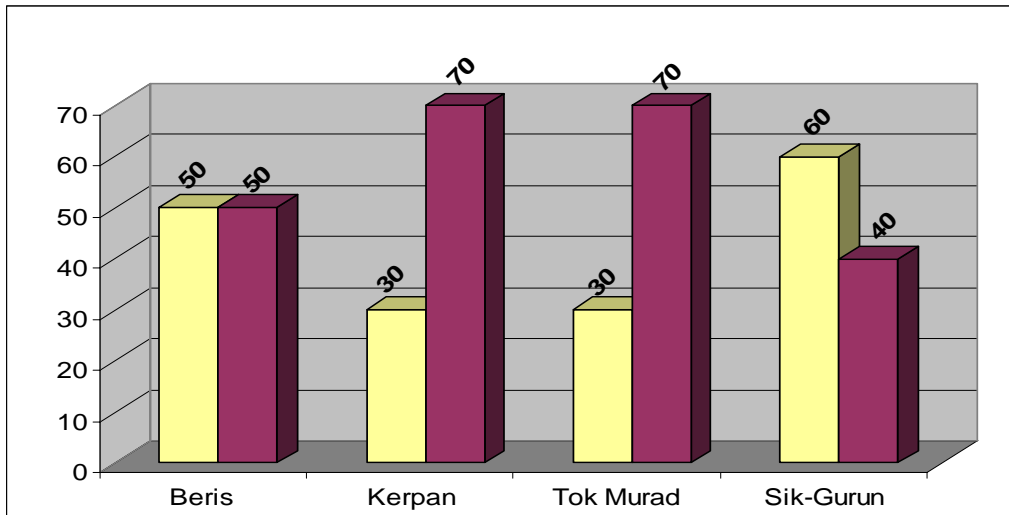
##### **4.1. Analysis on Landowners**

The main respondents interviewed were affected landowners of the above selected land acquisition projects. There are about 40 landowners interviewed to gather information on factors that make them dissatisfied with the amount of compensation. Interviews were also been conducted with private and public valuers to gather information on their perceptions about just compensation. In addition, opinions from land administrators were also gathered through interviews with them. Analyses on data gathered were shown in the form of histogram, pie-charts, and quotation to ease the explanation.

Based on the interviews, most of landowners were dissatisfied with the way hearing was conducted. Almost 60 per cent of landowners interviewed in Beris and Kerpan are not happy with the ways interviewed were being conducted without any details. Almost 80 per cent of respondents in Kampong Tok Murad were less satisfied with the hearing. In contrast, only 20 per cent of landowners in Sik-Gurun were satisfied with the hearing.

Landowners were quite happy that the government allowing them to appoint private valuers and this helps. The government paid for the services. Unfortunately, there are landowners who are not happy with the amount of compensation but accepting the figures to avoid long process of appeal and were not happy to pay deposits. Beris Dam was a good case whereby about 70 per cent were not happy but still accepting the compensation from the government. In Kerpan, the number was 80

percent, in Kampong Tok Murad it was 90 per cent. In Sik-Gurun, most of landowners were unhappy but still accepting due to small amount of compensation.



Owners	% / (person)	% / (person)	% / (person)	% / (person)
Satisfied	40 / (4)	40 / (4)	20 / (2)	80 / (8)
Dissatisfied	60 / (6)	60 / (6)	80 / (8)	20 / (2)

Figure 3. Satisfaction on Hearing Conducted

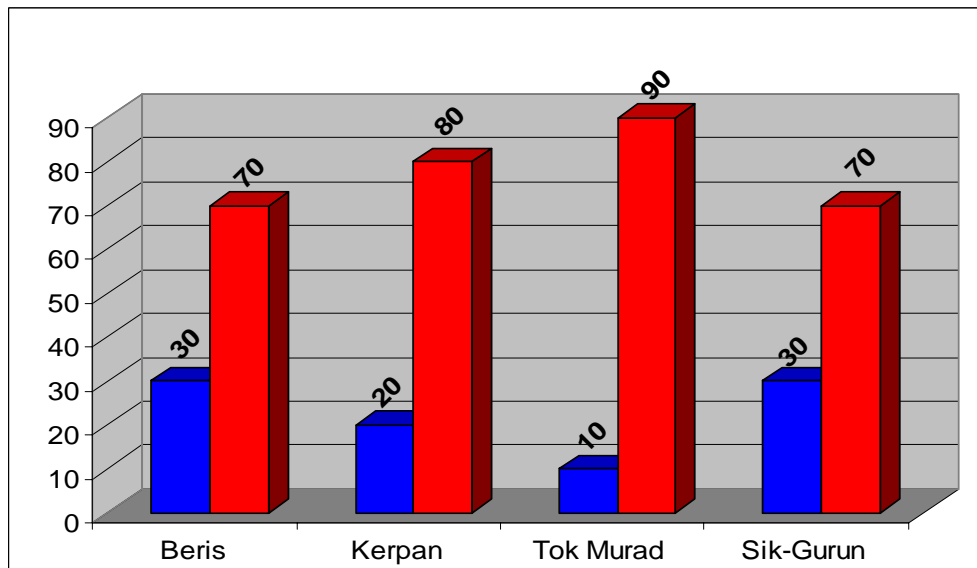


Figure 4. Satisfaction Towards Amount of Compensation

The amount of compensation must be paid as soon as available. Delays mean higher costs due to interests. Usually, 3 months period is reasonable for the payment to be made. In Kerpan and Tok Murad, almost 70 per cent of landowners were dissatisfied with the time taken to disburse the payment to them. Beris recorded 50 per cent dissatisfaction and Sik-Gurun recorded 40 per cent. The reason for Kerpan having higher percentage was due to longer time taken to solve the problem with inheritancy.

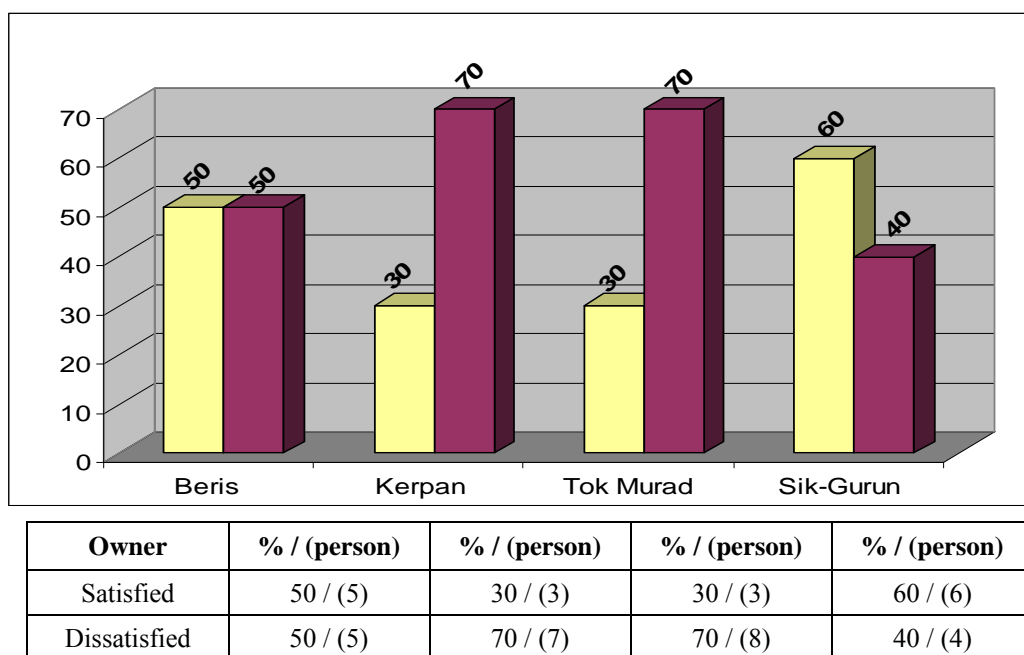


Figure 5. Satisfaction Over Time Taken to Pay The Compensation

#### 4.2. Perspective of Land Administrators

A number of land administrators have been interviewed to gauge their opinions on adequate compensation. They were asked about amount of compensation, type of payments, head of claims and solutions.

All land administrators interviewed agreed that affected landowners should be given chances to participate in the land projects. This is due to the fact that partnership would stimulate income (prawn rearing), offer opportunity for business venture (prawn rearing), accumulate capital (higher institution), gain capital appreciation (prawn rearing), sharing profit arises from development and therefore affected landowners will less tendency to appeal at high courts.

In the Beris Dam project, the affected landowners will be given land as substitution elsewhere. About 80 per cent of landowners agreed with the reinstatement and 20 per cent opposing. Compensation in the form of reinstatement is close to the principles of no less no better due to land acquisition.

**Table 2. Partnership Scheme**

<b>Partnership between owners and developers</b>	<b>Resp. A</b>	<b>Resp. B</b>	<b>Resp. C</b>	<b>Resp. D</b>	<b>Resp. E</b>
Opportunity	√				
Inject capital		√			
Capital appreciation			√		
Sharing profit				√	
Less appeal and court cases					√

Landowners are less burden to go for alternative lands. The affected landowners having recoup their harmonies with the land and less problems with human values and family ties whereas the cash is having a higher liquidity.

**Table 3. Land administrators viewpoints**

<b>Views</b>	<b>Positive</b>	<b>Negative</b>	<b>Remarks</b>
Respondent A	Easy replacement	-	60% agreed
Respondent B	Sentimental value	Illiquid	-
Respondent C	Family ties	-	-
	Neighbourhood	-	-
Respondent D	Restart life	Difficult to find suitable land	-
Respondent E	-	Not every owner want land and buildings	40% disagreed
Respondent F	-	Some want money to do other things	-

#### **4.3. Perspective Valuers On Adequate Compensation**

Valuers are the persons whose responsible to determine the amount of adequate compensation. However, land administrators are the one who will ultimately responsible to offer the final amount of adequate compensation. In this section, interviews will be conducted with the valuers involved in the simple cases. The questions asked are related to the definition of adequate compensation, methods used and approaches to valuation of compensation:

- *Respondent A* - mentioned that open market value covers adequate compensation as far as the affected landowners are no less no better than he should be compensated upon land acquisition as if no acquisition has ever happened.



- *Respondent B* - mentioned that adequate compensation refers to amount compensation that take into account all losses and rights of affected landowners including potential value and payment for disturbances.
- *Respondent C* - refers to adequate compensation as open market value accordance to Schedule 1 Land Acquisition Act 1960. However, since land acquisition deals with human factors, valuers must consider humanism as a factor in determining the amount of adequate compensation.
- *Respondent D* - stated about open market value based on recent sales transactions that happened in the market. It has to consider consequence costs such as loss of income, loss of goodwill, cost of transfer, transportation and storage wherever applicable.
- *Respondent E* - mentioned about open market value of land taken and any losses including sentimental values and special payment of solatium.
- *Respondent F and G* - refer to adequate compensation of open market value taken and consequences losses including transfer payment, temporary buiding rent, loss of income, loss of goodwill, professional fees such as lawyers, architect, engineer, valuer, estate agents wherever applicable.
- *Respondent H* - refers to legal and financial aspects of adequate compensation. Therefore, there are related act of parliament and circulars that need to be amended to allow for adequacy in compensation to the affected landowners.
- *Respondent I* - considers adequate compensation in relation to the before and after the land acquisition. If there is a house being acquired then a similar house must be compensated accordingly. Beside a similar house consequence costs and solatium must also be paid to the affected landowners. Solatium may off set the difficulties in offering a similar house to the landowners.
- *Respondent J* - refers to the open market value of the land taken as far as the affected landowners are satisfied with the amount of compensation paid to them.

## **5. PRINCIPLES OF DETERMINING ADEQUATE COMPENSATION**

Respondents cum valuers interviewed suggest the followings in relation to date of valuation, compensation for severance and injurious affection and rate of interests:

### **5.1. Date of valuation**

There are about 30 per cent of respondents interviewed had agreed that date of valuation must be according to the date of proposal to acquire the land under provision

Section 4 whilst another 70 per cent agreed that the date of valuation should be under Section 8 the date of endorsement of the land acquisition. The discussion is as follows:

**Table 4. Views on Adequate Compensation**

Respondent A	Respondent B	Respondent C	Respondent D	Respondent E	Respondent F, G, H
Date of proposal to avoid land speculation	Date of proposal Either Section 4 or Section 8	Date of proposal to avoid difficulty in future values	Official date of acquisition	Date on Section 8 after land transfer	Date of real acquisition to avoid loss to landowners  Date of acquisition to consider increase in value and open market

## 5.2. Determining Severance and Injurious Affection

As discussed earlier, both severance and injurious affection are adequately provided under Section 2 (c) and 2 (d) of First Schedule. However, the power to offer compensation under these head of claims is on the land administrator and not the valuer. There are 80 per cent of respondents were disagreed with the power given to land administrators due to the fact that both payments are closely related to the open market value of land and the valuers are responsible for advice on market values.

**Table 5. Valuers and land values**

Respondents	A	B	C, D, E	F	G, H, I, J
Disagreed	Valuers do valuation				
Agreed		Valuers do advise		Valuers do valuation only	Decision on land administrators
Disagreed	64	56	Land administrators have no expertise		

### 5.3. Determination of Rate of Interests

It has been a conventional decision that 8 per cent per annum payment of rate of interest will be paid to the landowners in relation to deferred payment of compensation. This has been stipulated under Section 29A (5) and Section 32 (1) of Land Acquisition Act 1960. Valuers however have the followings:

**Table 6. Valuers and Rate of Interests**

Respondent	A	B	D, H, I	C	E
Agreed	—	According to %GDP	Adequate due to fixity		
Disagreed	Current rate 3-5%	—		May be increased, too long ago	According to land characteristics

### 5.4. Valuation Method

As discussed earlier, valuation practices determined the way in which amount of adequate compensation is calculated by valuers. The followings are evidents gathered from respondent valuers interviewed in the study.

**(a) Valuation considering potential land use.** Majority of respondents (about 80 per cent) mentioned that Malay Reserved Land must be valued at open market although the amended Act had been done in 1997. It is difficult to accept differences in value based on the future use of land for Malays or non-Malays due to complexity of land users. For example, there will be European tourist visiting a mosque in later years.

Respondent A mentioned about the open market valuation on land with restriction in interests. There might be changes on the land use for the future due to degazette or change in economic climate or even the land acquired may be transferred to government agency for development into different use later (Respondents C, D, E, F, G and H). This is in accordance with provision under Section 68A, Land Acquisition Act 1960 (amended).

Respondent B said this would lead to inadequacy in the amount of compensation. Nonetheless, Respondent J mentioned about the nature of limited demand for Malay Reservation Land that contributed to limited Malays who may be able to buy the land in the market. Since the land for the Malays and from the Malays, the Malays are the one who will get the benefit at the end of the day (Respondent C).

In contrast, Respondent I mentioned about MRL in Kelantan whereby all the lands are categorised under the same category and hence, the land should be valued at open market. Whatever it is, most the Malays are financially capable of buying the land nowadays. Therefore, the land must be transacted at open market for the sake of adequacy in compensation in land acquisition.

**(b) Valuation of land with development potential.** What is the best way to value land with potential development? There are comparison, residual, cost, investment and profit method of valuation that can be used to value development lands.

## 6. CONCLUSION

From the above discussion and what has been analysed from selected respondents landowners, valuers and land administrators, an adequate compensation in land acquisition is really complicated and need further investigation. In brief, adequate compensation refers to date of valuation, method of valuation and head of claims. Other than elements stated under First Schedule Land Acquisition Act 1960, no other documents reveal the exact meaning of adequate compensation.

The First Schedule revealed the value of land taken, severance, injurious affection, consequential costs, loss of income, and related fees as can be considered as losses to the affected landowners. As such Kotaka (2000 and 2002) asserted that adequate compensation emerged when all the losses are paid to the affected landowners after they have been consulted in proper manner, and the land had been valued at open market without any special consideration based on the date of proposed land acquisition.

The study proposed amendment to Krotaka by suggesting more details elements to include payment of all genuine losses, common agreement on amount of compensation between landowners and land administrators, no special consideration on land value, date of proposed acquisition, no proposed land use taken into consideration, quick payment, value plants separately and the payment of solatium to the affected landowners.

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### APPENDIX A Location Plan



## **DISTRIBUTED DATABASES MANAGEMENT USING REPLICATION METHOD**

**MIRCEA PETRINI** \*

**ABSTRACT:** *Over the last several years, research into fully distributed database has slowly but surely found its way into commercial products. Today, many of the mainstream enterprise database products offer at least some level of transparent distributed database access. This paper studies the replication method as a component of the distributed databases management.*

**KEYWORDS:** *Distributed databases, Replication, Oracle*

### **1. DISTRIBUTED DATA**

When the foundations of relational database management and the SQL language were being laid in the 1970s, almost all commercial data processing happened on large, centralized computer systems. The company's data was stored on mass storage attached to the central system. The business programs that processed transactions and generated reports ran on the central system and accessed the data. Much of the workload of the central system was batch processing. Online users accessed the central system through "dumb" computer terminals with no processing power of their own. The central system formatted information to be displayed for the online user and accepted data typed by the user for processing.

In this environment, the roles of a relational database system and its SQL language were clear and well contained. The DBMS had responsibility for accepting, storing, and retrieving data based on requests expressed in the SQL. The business-processing logic resided outside the database and was the responsibility of the business programs developed and maintained by the information systems staff. The programs and the DBMS software executed on the same centralized system where the data was stored, so the performance of the system was not affected by external factors like network traffic or outside system failures.

Commercial data processing in a modern corporation has evolved a long way from the centralized environment of the 1970s. Figure 1 shows a portion of a computer

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network that you might find in a manufacturing company, a financial services firm, or in a distribution company today.

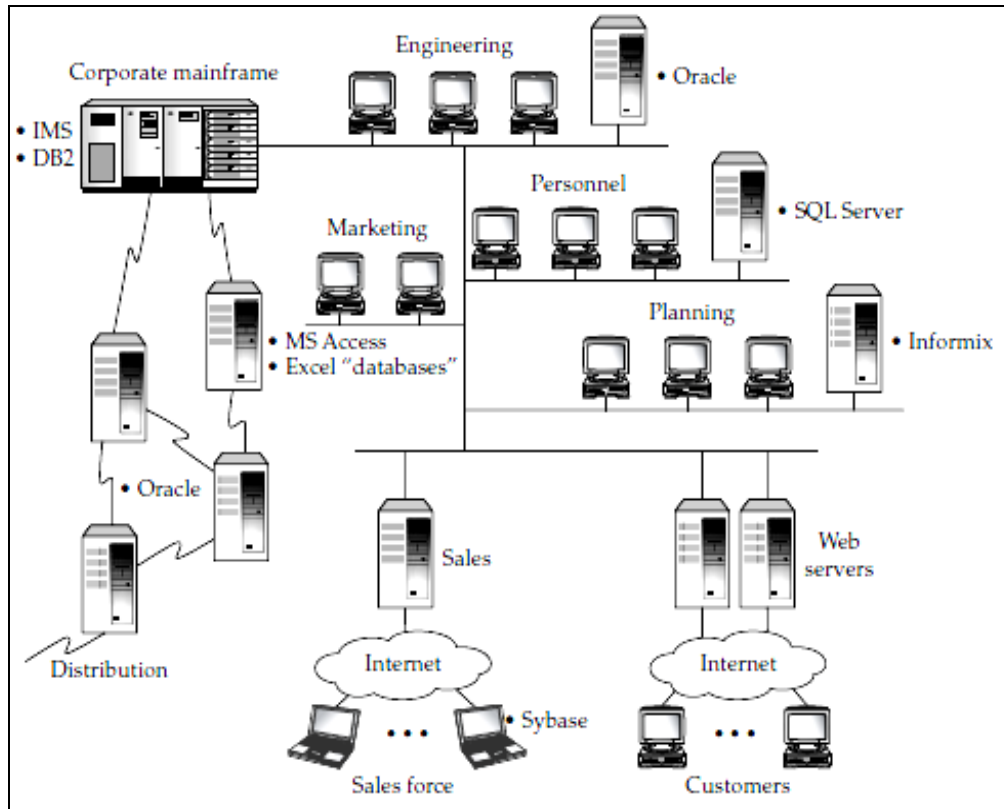


Figure 1. DBMS usage in a typical corporate network

## 2. TABLE EXTRACTS

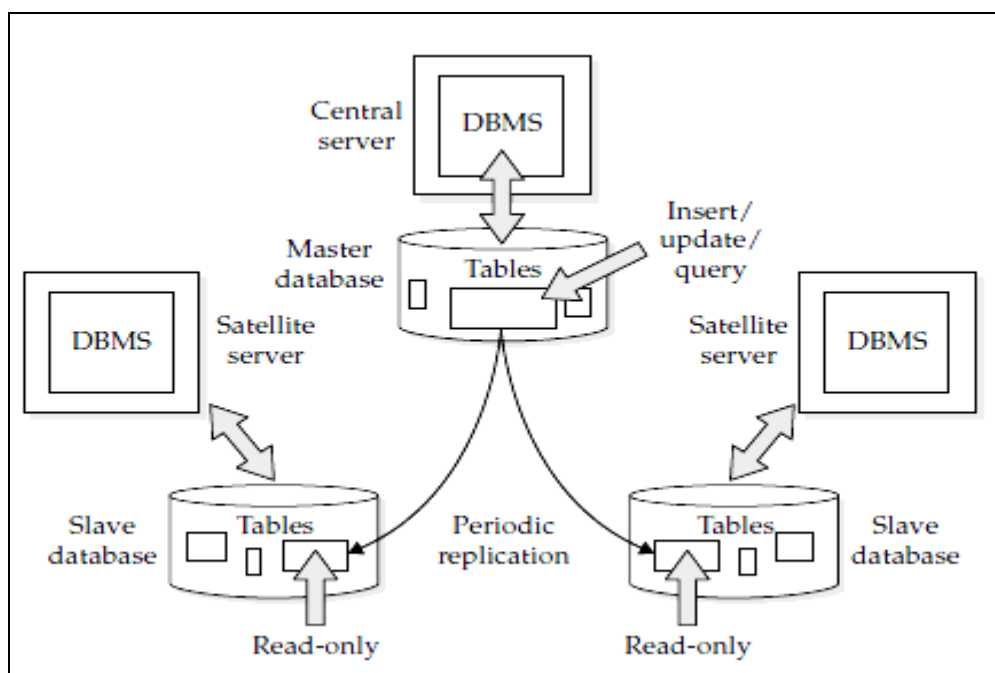
Once remote access grows beyond a certain point, it is often more efficient to maintain a local copy of the remote data in the local database. Many of the DBMS vendors provide tools to simplify the process of data extraction and distribution. In its simplest form, the process extracts the contents of a table in a master database, sends it across a network to another system, and loads it into a corresponding replica table in a slave database, as shown in figure 2. In practice, the extract is performed periodically and during off-peak times of database activity.

This approach is very appropriate when the data in the replicated table changes slowly or when changes to the table naturally occur in a batch. For example, suppose some tables of the sample database, located on a remote central computer system, are to be replicated in a local database. The contents of the OFFICES table hardly ever change. It would be an excellent candidate for replication onto distribution center or sales force automation databases. Once the initial (local) replica tables are set up and



populated, they might need to be updated only once per month, or when a new sales office is opened.

The PRODUCTS table is also a good candidate for replication. Product price changes occur more frequently than office changes, but in most companies, they happen in batches, perhaps once a week or once a day. With this natural processing cycle, it would be very effective to extract a table of product price data just after each batch of updates, and to send it to the distribution center databases and the sales force automation central database. The price data in these databases does not need to be tightly linked to the mainframe database to ensure that it is fresh. A weekly or daily extract/update cycle will make the data just as current, with a substantially smaller processing workload.



**Figure 2. A basic master/slave replicated architecture**

It's possible to implement this type of replicated-table strategy without any support from the DBMS. We could write an application program that uses SQL on the mainframe to extract the product pricing data into a file. A file transfer program could transmit the file to the distribution centers, where another application program could read its contents and generate the appropriate DROP TABLE, CREATE TABLE, and INSERT statements to populate the replicated table.

The first step toward automating this strategy was the development of high-speed data extract and data loading programs. These utility programs, offered by the DBMS vendors, typically use proprietary, lower-level database access techniques to extract the data and load the data much more rapidly than is possible through SQL SELECT and INSERT statements. More recently, software companies have targeted

this area as an opportunity for stand-alone software packages, independent of the DBMS vendors. This category of software, called extract, transform, and load (ETL) software, focuses on linking disparate database systems and file formats.

### 3. TABLE REPLICATION

Several DBMS vendors have moved beyond their extract and load utility programs to offer support for table extraction within the DBMS itself. Oracle, for example, offers a materialized view facility to automatically create a local copy of a remote table. A materialized view is a view that actually stores the rows defined by the query included in the view definition. In its simplest form, the local table is a read-only replica of the remote master table that is loaded when the view is defined. However, materialized views can be defined so they are automatically refreshed by the Oracle DBMS on a periodic basis. Here is an Oracle SQL statement to create a local copy of product pricing data, assuming that the remote master database includes a PRODUCTS table like the one in the sample database:

*Create a local replica of pricing information from the remote PRODUCTS table.*

```
CREATE MATERIALIZED VIEW PRODPRICE
  AS SELECT MFR_ID, PRODUCT_ID, PRICE
     FROM PRODUCTS@REMOTE_LINK;
```

The CREATE MATERIALIZED VIEW statement also includes rather comprehensive facilities for specifying automatic refreshes. Here are some examples:

*Create a local replica of pricing information from the remote PRODUCTS table. Refresh the data once per week, with a complete reload of the data.*

```
CREATE MATERIALIZED VIEW PRODPRICE
  REFRESH COMPLETE START WITH SYSDATE NEXT SYSDATE+7
  AS SELECT MFR_ID, PRODUCT_ID, PRICE
     FROM PRODUCTS@REMOTE_LINK;
```

*Create a local replica of pricing information from the remote PRODUCTS table. Refresh the data once per day, sending only changes from the master table.*

```
CREATE MATERIALIZED VIEW PRODPRICE
  REFRESH FAST START WITH SYSDATE NEXT SYSDATE+1
  AS SELECT MFR_ID, PRODUCT_ID, PRICE
     FROM PRODUCTS@REMOTE_LINK;
```

By default, Oracle identifies rows (to determine whether they are changed) based on their primary key. If the primary key is not part of the replicated data, this can cause confusion about which rows have been updated; in this case, Oracle uses an internal row-id number (an option that can be specified when the materialized view is created) to identify the modified rows for refreshes to the materialized view.

The SELECT statement that defines the materialized view offers a very general capability for data extraction. It can include a SELECT clause to extract only selected rows of the master table:

*Create a local replica of pricing information for high-priced products from the remote PRODUCTS table. Refresh the data once per day, sending only changes from the master table.*

```
CREATE MATERIALIZED VIEW PRODPRICE
  REFRESH FAST START WITH SYSDATE NEXT SYSDATE+1
  AS SELECT MFR_ID, PRODUCT_ID, PRICE
     FROM PRODUCTS@REMOTE_LINK
  WHERE PRICE > 1000.00;
```

Note that the WHERE predicates doesn't affect the change log. All changes to the PRODUCTS table must still be logged because multiple materialized views can be refreshed from the change log, regardless of the predicates used in their definitions. The materialized view can also be created as a joined table, extracting its data from two or more master tables in the remote database:

*Create a local replica of salesperson data, refreshed weekly.*

```
CREATE MATERIALIZED VIEW SALESTEAM
  REFRESH FAST START WITH SYSDATE NEXT SYSDATE+7
  AS SELECT NAME, QUOTA, SALES, CITY
     FROM SALESREPS@REMOTE, OFFICES@REMOTE
  WHERE REP_OFFICE = OFFICE;
```

#### 4. UPDATEABLE REPLICAS

In the simplest implementations, a table and its replicas have a strict master/slave relationship, as shown in figure 2. The central/master copy contains the real data. It is always up to date, and all updates to the table must occur on this copy of the table. The other slave copies are populated by periodic updates, managed by the DBMS. Between updates, they may become slightly out of date, but if the database is configured in this way, then it is an acceptable price to pay for the advantage of having a local copy of the data. Updates to the slave copies are not permitted. If they are attempted, the DBMS returns an error condition.

By default, the Oracle CREATE MATERIALIZED VIEW statement creates this type of slave replica of a table.

For some applications, table replication is an excellent technique without the master/slave relationship. For example, applications that demand high availability use replicated tables to maintain identical copies of data on two different computer systems. If one system fails, the other contains current data and can carry on processing. An Internet application may demand very high database access rates, and achieve this scalability by replicating a table many times on different computer systems and then spreading out the workload across the systems. A sales force automation

application will probably contain one central CUSTOMER table and hundreds of replicas on laptop systems, and individual salespeople should be able to enter new customers or change customer contact information on the laptop replicas. In these configurations (and others), the most efficient use of the computer resources is achieved if all of the replicas can accept updates to the table, as shown in figure 3.

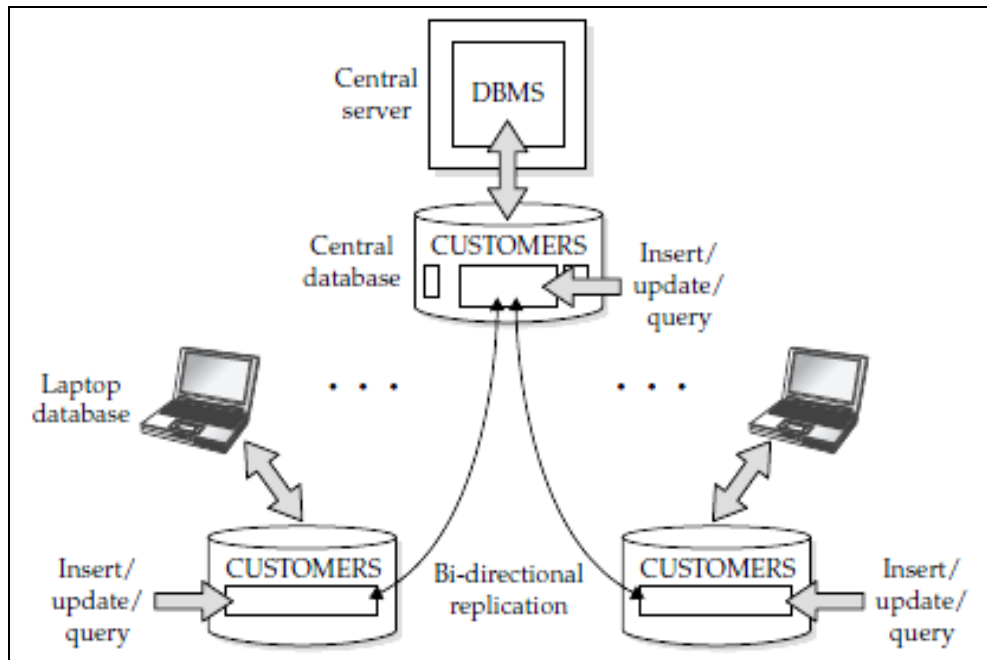


Figure 3. Replicas with multiple update sites

## 5. CONCLUSIONS

Which is the correct architecture for supporting the operation of this global business? As the example shows, it is not so much a database architecture question as a business policy question. The interdependence of computer systems architectures and business operations is one of the reasons why decisions about replication and data distribution inevitably make certain types of business operations easier and others harder.

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## **COMMON CONSOLIDATED TAX BASE SYSTEM: DIFFICULTIES IN DETERMINING A DISTRIBUTION FORMULA FOR THE COMMON CONSOLIDATED TAX BASE**

**DANIELA PÎRVU, TIBERIU AVRĂMESCU \***

**ABSTRACT:** *Recent trends towards a common European tax policy for the general corporate taxation aim at preventing the negative effects of tax competition, especially those of the national tax base “migration”, by moving corporate main offices in countries with more advantageous systems of taxation. The idea of harmonising corporate taxation constitutes one of the most important debate topics on the agenda of the European Commission for the moment, and also within specialists’ theoretical approaches. The vast range of such approaches is particularly relevant for the complexity of the problems that hindering the formula, even if it is only at a theoretical level separated from the policy feasibility issues, and from widely shared solutions.*

**KEY WORDS:** *tax harmonization, consolidated tax base, distribution formula*

### **1. FOREWORD**

Common Consolidated Tax Base (CCBT) is a system based on which multinational companies would determine their consolidated volume of taxable incomes. The actual actions dedicated to building such a system started on the occasion of the ECOFIN Council in September 2004, when the vast majority of the Member States accepted the utility of such progress au towards creating a common taxation base and decided to establish a working group made of experts representing the Member States and presided by the European Commission, in order to examine in detail the possible solutions<sup>1</sup>. According to the objectives proposed in 2004, the activity of this group (the Common Consolidated Corporate Tax Base Working Group

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<sup>1</sup> The information concerning the work of the group is available on  
[http://europa.eu.int/comm/taxation\\_customs/taxation/company\\_tax/common\\_tax\\_base/index\\_en.htm](http://europa.eu.int/comm/taxation_customs/taxation/company_tax/common_tax_base/index_en.htm)

- CCCTB WG) had to be substantiated into a law proposal at the end of 2008; however, this objective has not yet been achieved.

The regulation concerning the common consolidated corporate tax base will be applied to companies that pay corporate income taxes in the European Union Member States (that will be specified in an annex to the regulation that will be annually modified) organised into groups, but that carry out their business according to a sole group strategy. The details related to the definition of the group are not yet finalized due to the fact that the group is facing difficulties in establishing a shareholding threshold meant to prove (by ownership relations) the connections between the companies that are part of the group [7].

However, the existence of complex ownership relations between resident companies of the European Union and companies outside the Union requires that the status of the respective groups be clarified. There are a few more sensitive combinations, the treatment of which should be differentiated [4]:

- *several companies controlled by an entity outside the Community.* In this case it would be desirable that the system be applied to them because otherwise, the application of the CCCTB could be avoided by the companies in the EU by the mere transfer of the entity that controls them outside the Community;
- *a parent company residing in the Community and having a subsidiary in a third country that controls, in its turn, a company residing in the Community.* In this case, the entities having their residence in the Community should be subjected to the CCCTB if the shareholding thresholds sufficiently large as to be defined as legal property, but the consolidation of the tax base with the exclusion of the intermediary entity might create technical difficulties.

Such corporations may choose the CCCTB-based taxation system. This option will be accomplished by the notification of the competent authorities with at least three months before the beginning of the fiscal. It will be valid for 5 years and it will be automatically renewed for 3-year periods in the absence of an official notification from the corporations, and the consolidation shall be made for the incomes and costs of all the members of a group of companies [6].

## 2. DIFFICULTIES IN IMPLEMENTING THE CCCTB SYSTEM

The problems for which suitable solutions are yet to be found are related to the accounting rules that should be used for the definition of the consolidated base. The debates of the working group frequently involved the idea of using the International Financial Reporting Standards (IFRS). In addition to the fact that they are recognised at the international level, they have the advantage of allowing taxpayers to adjust to them quite easily - starting with 1 January 2005 - at the level of the Community, a Regulation is applied that requests the companies listed in the regulated capital market to draw up their consolidated balance sheets in compliance with the IFRS requests [4].

A number of studies proved the fact that these standards may offer solutions that can be taken over into the rules of drawing up the consolidated base, and can also lead to a decrease in the rates of taxation, which would increase the attractiveness of the whole European Union as location for investments [5].

In the opinion of the officials from Brussels, it may be difficult to use these standards because in many countries, in the case of the local companies, their usage is not allowed and not all the standards are compatible with the taxation requirements. For this reason, the decision was made to start from the accounting rules generally accepted in all the member countries that will undergo certain changes in order to meet the rules established for the CCCTB. Other debates held at the level of the working group, in relation to the implementation of the CCCTB, were related to:

- *Fixed assets and depreciation.* The assets that meet the requirements may be depreciated either individually, which requires an estimation of the service life of each and every asset when it is purchased (in compliance with the common norms applicable in the EU) and an individual depreciation during their service life, either in one or in several categories with a common established service life. The Commission's opinion is that the development of the grouping method within the CCCTB implies considerable advantages.
- *Deductions for provisions.* Provisions may generally be fiscally non-deductible, completed by a list of fiscally deductible exceptions, or may generally be fiscally deductible, completed by a list of fiscally non-deductible exceptions. In the Commission's opinion, the fiscally deductible provisions must be defined and completed by a list of fiscally non-deductible exceptions.
- *General methodology.* For the calculation of the taxation bases for a company, one can start from the comparison between the opening balance sheet with the ending balance sheets or from the profit and loss account of the company. In the first case it is necessary to prepare a model of "fiscal balance" according to commonly defined norms that should also include the profit and loss account. In the second case, only the profit and loss account commonly agreed in the CCCTB legislation is necessary; the information related to the balance can be checked by comparison with the financial accounts. The Commission considers that a fiscal balance is not necessary and that such a balance represents an additional administrative burden.
- *Local taxes.* In certain Member States there are local taxes on business. They may be deductible from the consolidated base and thus included into the distribution mechanism or maintained at the national level and deducted only from the respective part of the consolidated base that due to the respective Member State. In the Commission's opinion, in general, it is preferable to establish a set of norms as vast as possible, in order to avoid national "derogations" or additional taxes as much as possible. However, as additional analysis of all their consequences is necessary, because the "distribution" of the deductions for the local taxes at the EU level but the "non-distribution" of the national taxes at the level of the common base might generate inconsistency.
- *External incomes.* The external/foreign incomes of a company can be totally excluded from the consolidated tax base or can be incorporated into it. In the last situation it is necessary to have a method of including them into the consolidation and distribution mechanism. This issue has been raised due to the fact that the various methods of avoiding double taxation currently used by

the Member States according to the national legislation, as well as the bilateral agreements with third countries should be taken into account. The Commission believes that it is preferable to define a method that should incorporate external incomes into the consolidated tax base and that should be completed, where necessary, by some form of exemption in order to avoid double taxation.

- *Intra-group transactions.* Avoiding problems related to transfer prices represents an important advantage of consolidation. However, there are several methods of eliminating intra-group transactions by consolidating the base. Transfer prices can be ignored, recognised at the level of costs or recognised at the price established under full competition conditions. Each method presents advantages and disadvantages, which is why the Commission must decide which is preferable or whether each group may be allowed to choose.

But the problem that generated most of the debates is represented by the distribution formula, among the entitled Member States, of the consolidated revenue determined through the decided tax base. It is necessary that this formula be transparent and simple, and not to involve compliance costs and excessive administration, to decrease the possibility of corporations to transfer allocation factors from one site to another, and not to generate distortions at the level of the business environment in the European Union [1].

### 3. CONSOLIDATED TAX BASE DISTRIBUTION FORMULA

Starting from the practical experience provided by the countries that use de la such a formula (USA and Canada) some specialists (Hellerstein, McLure 2004: 199-220). have tested the consolidated tax base distribution formula among various tax jurisdictions, based on a series of *factors characteristic to individual company* (size of capital, employed labour, volume of sales on destinations), according to the formula:

$$BFC_i^r = BFC[\alpha (N_{s_i} \times S_{b_{m_i}} / \sum N_{s_i} \times S_{b_{m_i}}) + \beta (K_i / \sum K_i) + \gamma (V_i / \sum V_i)] \quad (1)$$

where:

$BFC_i^r$  - the tax base allotted to the tax jurisdiction in which company "i", which is part of the group constituting the object of the consolidation of incomes performs its activity;

BFC - the consolidated tax base of the company;

$N_{s_i}$  - the number of employees of company "i";

$S_{b_{m_i}}$  - the gross salary paid in company "i";

$K_i$  - the capital of company "i";

$V_i$  - the volume of sales made by company "i";

$\alpha, \beta, \gamma$  - percentages allotted to each factor, so that  $\alpha + \beta + \gamma = 1$

The usage of the above-mentioned factors allows for establishing a correlation between the actual business activity carried out by a certain company on the territory of another state and the consolidated tax base allotted distributed in the respective state. However, the correct reflection of the consolidated tax base depends on the manner in which information related to the factors that compose the distribution formula is



collected. Moreover, any selected distribution key might not affect the incentives for the taxpayer and for this reason there is a risk of manipulation by the authorities. More specifically, they may lead to non-harmonized taxes for the minimization of the level of the respective indicators in their own jurisdiction: for example, if the number of employees is used as a criterion, by decreasing social contributions we can simulate the employment. This could lead to the situation in which, even if the activity of a group is profitable as a whole, the states may try to attract activities – even non-profitable ones, on their territory – just to increase their share in the consolidated tax base [4].

In addition to these shortcomings, there are problems specific to the selection of individual factors.

Capital is a factor the inclusion of which has serious justification because due to the fact that the profits made ultimately represent, the yield of capital investments. Nevertheless, measuring this indicator may have its difficulties. First of all, there are evaluation problems, especially in the case of intangible actives (such as the intellectual property rights), for which there are no relevant market prices.

The problems of evaluation at the market price are present, however, in all the cases, but the book value could be used as a regulating and easily determined factor and, in spite of its conceptual inferiority. Another problem related to the high mobility of this factor that allows for its transfer to jurisdictions with lower rates of taxation. This problem is amplified in the case of intra-group rented assets where the access to a better fiscal treatment is possible without affecting the optimum localization, by registering them in jurisdictions with low rates of taxation and renting them to members of the group activating in other jurisdictions.

There are various implications of the labour factor (number of employees and/or wages fund). The number of employees may have a low relevance, due to the fact that there is no systematic correlation between it and the added value. At the same time, the measurement may create problems in the case of temporary employees. The wages fund has a close correlation with the added value from each site, but we should take into account that in the sites from certain states (especially in the new Member States) the levels of salaries are lower even if there are no differences in point of productivity compared to the sites situated in the countries in Western Europe.

In the case of the “sales volume” factor there are also a number of shortcomings that can be emphasized in relation to the use of sales at the place of destination or at the place of origin. The selection of sales by origin will represent an incentive for the localisation of investments in the jurisdictions with the lowest rates of taxation. The selection of sales by destination will stimulate expenditure and imports to the detriment of exports.

From the point of view of the political feasibility, the solution seems to be the selection of sales by destination that will balance the care distribution of tax revenues among the net manufacturing countries and the net consuming ones. Moreover, sales by destination are less mobile and controllable by taxpayers. Other problems may be generated by the exact identification of the place of sale in the case of certain services, of the intangible property and of the electronic commerce, as well as the method of taking into account sales of semifinished products.

The actual selection from these microeconomic factors may create serious divergences among the Member States because the use of origin-based factors (labour and capital) will generate higher budget revenues for the states with production excess as compared to the expenditure, whereas the selection of sales (measured by destination) favours the states with large consumer markets [4].

Another manner of building the consolidated tax base distribution formula takes into account the *value added by the company* by the business activities carried out on the territory of a country, according to the formula:

$$\text{BFC}_i^r = \text{BFC}(\text{VA}_i / \Sigma \text{VA}_i) \quad (2)$$

where:

$\text{VA}_i$  - the value added by company "i"

Two methods of determining the value added by the business activity were identified in the specialized literature (Hellerstein, McLure 2004: 199-220).

- *The method used for the calculation of the production-based added value* allows for measuring the total economic value generated by the company in a period of time based on the formula:

$$\text{Added value} = \text{Total value of incomings (Production)} - \text{Total value of outgoing (expenditure)}$$

The total value of incomings (Production) includes the sales value and the semi-finished product inventory balance at the end of the period of time taken into account.

The total value of outgoing (expenditure) includes the value of purchases and the unprocessed material inventory balance used in the production process.

- *The method used for the calculation of the distribution-based added value* measures the total remuneration of the production factors employed by the company, using the formula:

$$\text{Added value} = \text{Remuneration of labour} + \text{interest payment} + \text{before-tax profit}$$

In order to distribute the consolidated tax base on fiscal jurisdictions, we can also use *national aggregate (macroeconomic) factors* such as the gross domestic product, the value added tax, and others.

For example, the value added tax can represent a factor for the distribution of consolidate tax base. An argument in favour of this approach is the advantage of a very easy administration, as most of the required information already exists: the EU budgetary rules require that part of the VAT collections be deposited into the common budget, and consequently, there are comparable statements of this indicator all over the European Union. Moreover, it does not need the adoption of specific allocation formulae the business segment, because its application is the same in all the sectors. Problems may occur in relation to the manner of treating segments that are exempt from paying VAT or to which this tax is not applicable (financial segments).

On the other hand, the use of national aggregate factors may seem an unfair practice since it does not take into account, in particular, the economic value created by the group of companies subjected to the consolidation of the tax base in each country.

Table 1 presents on a point scale from 1 to 3, the manner in which the three approaches for the establishment of the consolidated tax base distribution formula meet the principles of the tax policy formulated at the level of the working group:

**Table 1. Measuring the level to which formula the consolidated tax base distribution formula meets the principles of the tax policy**

	<b>National aggregate factors</b>	<b>Factors characteristic to individual companies</b>	<b>Value added by the company</b>
The principle of fairness	1	1	2
The principle of the capacity to generate incomes in an equitable manner	1	3	2
The principle of benefits	1	3	2
The principle of neutrality	3	1	2
The principle of adequacy/ stability	3	2	1
The principle of simplicity/low administration costs	3	2	2

*Source: Agúndez-García, A., The Delineation and Apportionment of an EU Consolidated Tax Base for Multi-jurisdictional Corporate Income Taxation: a review of issues and options, Taxation Papers, 2006, p.87*

#### **4. CONCLUSIONS**

Consequently, the application of the CCCTB does not eliminate the possibility of the intensification of tax competition, because, in order to attract investments, the national authorities will keep decreasing tax rates as a fiscal incentive. On the other hand, function of the elements than can be used for the distribution of the consolidated tax base among jurisdictions, the competition of the Member States might also be transferred in this field (Negrescu, 2007: 55).

For this reason, in my opinion, in order to avoid profit allocation distortions in the localisation of corporate activities, it is necessary to use a progressive process of convergence of the tax rates used in the tax jurisdictions from the European Union.

The actual solutions selected in order to operate the implementation of the CCCTB system, and especially the methods of distributing the common base are extremely important. It is in Romania's interest to agree a distribution key that should take into account, as much as possible, the relatively abundant factors available in Romania: using the employed labour should thus be a criterion for the consolidated tax base distribution on individual states.

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## **THE BUILDING INDUSTRY- A FLOURISHING SECTOR OF THE NATIONAL ECONOMY**

**CRISTINA PLOSCARU, BOGDAN BUDICĂ \***

**ABSTRACT:** *The building industry has been one of the most dynamic fields of the Romanian economy over the last years. The increase in the number of builders, the penetration on the Romanian market of a large number of branches of the multinational companies, the major investments in large projects, they all give the coordinates of an intensely competitive construction market. In this paper we wanted to point out the fact that the building industry is a significant branch of the national economy, as it plays an important role in the development and modernization of the Romanian society. We also wanted to provide an overview of the building industry evolution on the basis of the economic financial indicators in this sector.*

**KEY WORDS:** *building industry, builders, construction GDP, economic indicators, GDP*

### **1. INTRODUCTION**

The building industry represents an important stimulus for the economic and social development and modernization process, and for this reason, we thought that a research on the building industry in the Romanian economy would be necessary and challenging, considering the higher competitiveness generated by Romania's integration into the EU. Deciding upon this research topic was due to the belief that the building activity offers a vast area of analysis in a period dominated by the builders' interest in getting on the right track in relation to the complex and dynamic environment in which they carry out their activity.

The construction branch is a domain that is always subject to perfection, both in point of using some materials and technologies in the execution process, as well as of improving the assemblage-construction standards, satisfying in this way the needs of the users. Building constructions and plants up to quality standards in accordance with the investors' needs can't be done but by the appropriate management of all specific

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activities in the field. The managerial decisions are responsible for the performances of the builders and therefore our paper gives a special attention to this aspect.

The chosen methodology is the quantitative research at the level of builders. The main advantage of this method is the adjustment to the existent resources and identified external limitations. The disadvantages relate to the loss of continuity and the loss of a relevance level given by the quantitative research.

## 2. THE POSITION OF THE BUILDING INDUSTRY IN THE NATIONAL ECONOMY

The building industry can be considered one of the most dynamic sectors of the Romanian economy between 2003 and 2007, maybe the most dynamic- because of the high level of privatization (more than 99.5% private business corporations in 2003).

It is also one of the main engines that give a stimulus to the other sectors of activity, both in point of stimulating the building materials production and other industrial, commercial etc. activities, but also in point of new goals, mechanical engineering, and last but not least residential constructions, therefore influencing directly the other sectors of activity.

In the following table we are presenting the evolution of the gross domestic product - GDP - for 2003-2007 (and the marginal years 2002/2008) as well as the contribution of the building industry to it.

**Table 1. The evolution of the GDP between 2003 and 2007**

Indicator	2002	2003	2004	2005	2006	2007	2008
TOTAL GDP, of which: (billions of lei)	151,4	189,1	238,7	287,2	342,4	404,7	503,9
Construction GDP(billions lei)	8,8	11,3	14,6	18,1	25,3	36,8	52,9
Constructions contribution to the total GDP (%)	5,8	6,0	6,1	6,3	7,4	9,1	10,5
Annual growth % of Construction GDP	-	29,2	28,3	24,3	40,0	45,3	43,7

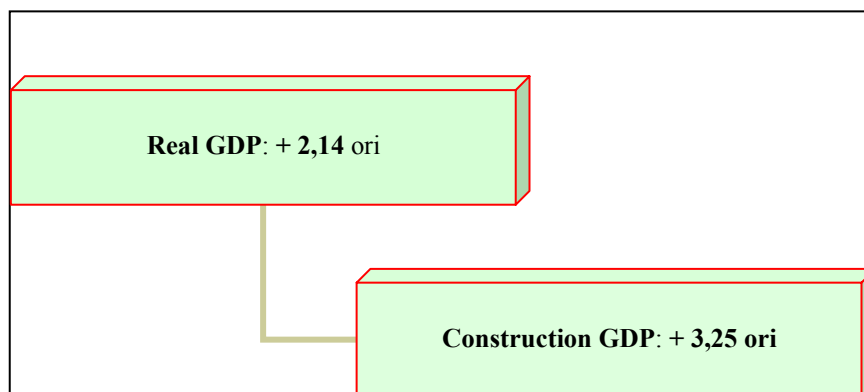
Source: INS

The evolution of the total GDP compared to the construction GDP, points out the following:

- the growth of total GDP in 2007 compared to 2003 was 2.14 times *smaller* than the growth of the construction GDP, which was 3.25, thus the contribution of the construction GDP to the total GDP increased from 6% in 2003 to 9.1% in 2007.
- the growth of total GDP, in 2008 compared to 2007, was 24.5%, while the growth of the construction GDP was 43.75%, the contribution of the construction GDP to the total GDP reaching 10.5%.

Even if, at first sight, the contribution of the building industry to the GDP doesn't seem very significant, the "motive" and qualitative impacts of the building

industry's accomplishments in comparison with the other sectors of activity strengthen its position in the national economy.



**Figure 1. The position of the building industry in the national economy**

In a study conducted by CNP it is stated: “the effect of intensifying the building activity is reflected first of all in the industry, in 4 industrial subgroups with a large contribution to the intermediate consumption, that is, *other extractive activities, the manufacture of building materials, metallic engineering and the processing of wood and wood products*” (CNP source- THE BUILDING ACTIVITY- a prop for the growth of the industrial production - May 2006).

According to the same study *the most important effect on the industrial production was the intensification of the infrastructure works.*

### **3. THE EVOLUTION OF THE NUMBER OF BUILDERS IN THE BUILDING INDUSTRY, TURNOVER AND NUMBER OF EMPLOYEES, BETWEEN 2003 AND 2007**

A synthesis of the mentioned indicators is given below, in the graphic that presents the increases in the evolution indicators compared to 2003 (figure 2):

The total increases for the three categories of analyzed indicators, recorded in 2007 compared to 2003 are:

- the increase in turnover 3.08 times
- the increase in number of builders 2.27 times
- the increase in the average number of employees 1.42 times

It can be observed that the increase in turnover has exceeded by far the increase in the number of builders and the average number of employees, and this fact in accordance with the carried analysis of these categories of indicators leads to some obvious conclusions:

- the number of builders has increased especially because of the increase in the number of “small” builders- with a small turnover and a small average number of employees;

- the average number of employees and turnover have increased for an almost the same number of large companies (which have their own “problems” because of their size), but the “burden” of the increase in turnover was placed on the small and medium sized enterprises’ shoulders, both by increasing their number and their average personnel number;
- the leap that the turnover has made, as the latter is more than two times bigger than the personnel number, shows an increase in the efficiency of the building activity through the increase in the average turnover per employee, as an effect of the rise in productivity.

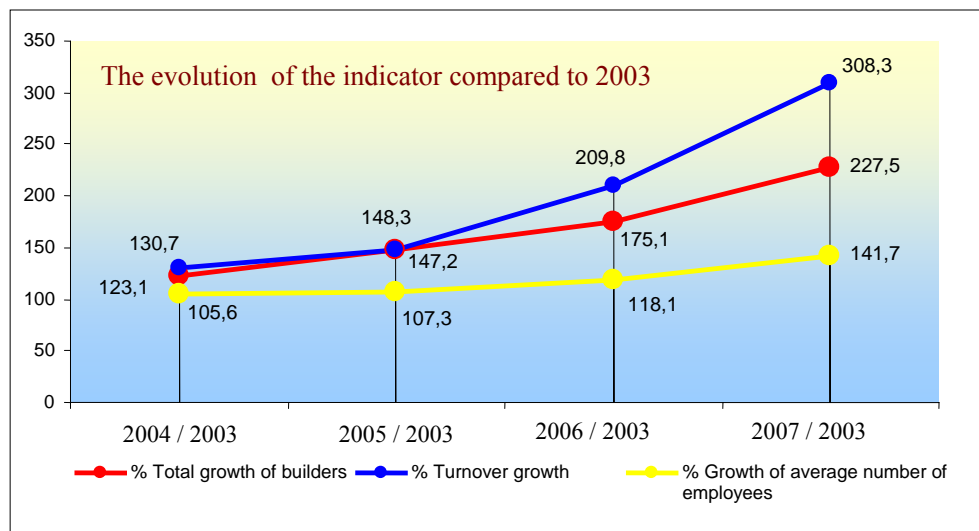


Figure 2. The evolution of the analyzed indicators (2003-2007)

#### 4. THE CONCENTRATION DEGREE OF BUILDERS IN THE BUILDING INDUSTRY

On the basis of the analyzed period (2003-2007), the concentration degree of the builders in the building industry shows a fragmented, emerging market. Below, table 2 presents the concentration degree of builders in the building industry.

As a trend, we can observe a slight increase of the concentration degree both in turnover as well as the average number of employees in the building industry between 2003 and 2005:

- The first 5/20 companies increased their degree of concentration in relation to their turnover from 6.4% in 2003 to 8.6% in 2005 and from 14.8% to 15.2% respectively.
- The same trend can be observed if we apply this indicator to the average number of employees for the first 5 companies. As it concerns the first 20 companies, we can see a flattening of the indicator at around 13%.
- In the second part of the analyzed period 2005-2007, the concentration degree marked an obvious drop:



- The aggregate market share of the first 5, and 20 companies respectively, in the building industry, dropped from 8.6% in 2003 to 4.8% in 2007 and from 15.2% to 11.9% respectively.
- This shows a strong development both of the small companies in point of their number (more than 16.200 companies with a number of employees between 1 and 49), and especially of the turnover- a consistent growth with the main relevant for analysis macroeconomic indicators: the increase in the construction GDP and its contribution to the total GDP.

**Table 2. The concentration degree of builders in the building industry**

Year	Number of builders	Average number of employees	Turnover mil. lei	Accumulated in % of the total average number of employees	Accumulated in % of the total turnover
				First 5 / First 20	First 5 / First 20
2003	20.629	356.859	21.469.555	7,9 / 13,6	6,4 / 14,8
2004	25.389	376.938	28.066.631	8,1 / 13,1	5,8 / 13,5
2005	30.372	383.094	31.846.741	8,4 / 13,1	8,6 / 15,2
2006	36.115	421.579	45.053.990	7,9 / 12,2	6,2 / 13,3
2007	46.925	505.773	66.185.254	6,3 / 10,6	4,8 / 11,9

Source: INS

One of the possible factors of influence on the different evolution of the concentration degree, applied to the turnover for the two sub periods: 2003-2005, 2005-2007, would be the political situation at the end of 2004, on the occasion of presidential and parliamentary elections, because depending on the managers' political "affiliation", the building companies modified (increased/decreased) "their market share", influencing the concentration degree.

The ascendant development of the building industry between 2003 and 2007 continued also in the first part of 2008, but afterwards the building activity was forced to slow down because of the economic crisis which affected the national economy and implicitly the building industry.

## **5. CONCLUSIONS AND THE HORIZON OF THE BUILDING INDUSTRY**

Between 2007 and 2008, the Romanian building industry was the most dynamic sector at European level.

2009 is a very hostile year for the Romanian constructions. The existence of financial difficulties, the increase in inflation, and the reduction of the economic growth, compared to previous years, are a few of the problems that the building industry is confronted with this year.

Besides the administrative measures in banking that the National Bank of Romania has already started to adopt in order to free credits, the main key factor to be used for exceeding the present difficulties is the launch of some important public or private-public partnership orders for infrastructure works. This domain is not limited

only to roads and highways (it is well known how deficient this field is in Romania and how necessary an improvement would be), but it also includes rural infrastructure which needs massive works.

The Romanian and foreign builders, as well as their associations to form consortiums for major works constitute a direction of primary action for the future. The problem of the labour force will be solved, on one hand, by the return of Romanian workers from abroad as well as by the emergence of the new generation of workers. Combining the local experience of the Romanian builders with the experience in the new technologies of the European companies and the state's participation, directly or through a public-private partnership, in the infrastructure objectives, represents the chance for progress for the Romanian constructions.

The depreciation of the Romanian currency in 2009 could amplify the difficulties of the building companies because they have modernized by taking out leases on the new types of equipments. In addition to this, we must take into account the increase in prices for the building materials, although the decrease in the number of contracts and the drop in demand, respectively, should trigger a drop in the price for these materials. The drop in the oil price, internationally, is an advantage to hold up prices for the building materials produced from internal sources.

In conclusion we appreciate that even though the conditions of the building activity are more difficult, this branch will achieve some progress also in 2009 compared to 2008, although to a lesser extent than the 30% that we have been used to. We consider that 2009 can bring a 1-2% increase in the value of the building activity, on the basis of the 10 million of Euros provided for investments, by the budget. In case the orders from public or private-public funds will increase to the level of necessities, this value will be substantially exceeded, but with the help of the European financial source.

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## THE FRENCH PENSION SYSTEM

JAROSŁAW POTERAJ \*

**ABSTRACT:** *The article presents an insight into the old age pension system in France. There are three topic paragraphs: 1 the evolution of its pension system, 2. the present situation, and 3. challenges and foreseen changes. There, the author's goal was to present both past and present solutions employed by the French pension system, in search for ideas worth consideration in international comparisons. In the summary, the author highlights as a particular French approach, on the background of other countries is existing of the gender equilibrium of the retirement age.*

**KEY WORDS:** *old age pension system, France, retirement, pension reforms*

### 1. GENERAL INFORMATION ABOUT THE COUNTRY

The French Republic [19, pp. 314 and further] (*Republique française*) is a country located in Western Europe, on the Atlantic Ocean and the Mediterranean Sea. It consists of 22 regions<sup>1</sup> (*regions*), which embrace 96 departments (*departements*). Additionally, the country contains 4 overseas departments (*departements d'outre-mer*) - French Guiana, Guadeloupe, Martinique and Reunion, 4 overseas collectivities (*collectivites d'outre-mer*) - French Polynesia, Saint Pierre and Miquelon, Wallis and Futuna, and Mayotte, 1 overseas territory (*territoire d'outre-mer*) - French Southern and Antarctic Lands, two overseas collectivities (*collectivite d'outre-mer*) - Saint Martin and Saint Barthelemy and one *sui generis* collectivity (*pays d'outre-mer*) - New Caledonia.

The official language is French. The largest ethnic group were the French, who made up 94% of population. It is estimated that 90% of the French were born in France but at least the great-grandparents of 30% were born outside metropolitan territory, especially in northern and western Africa or Indochina. The largest denomination was the Roman Catholic Church, whose adherents constituted 83-88%. The adherents of

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<sup>1</sup> Including Corsica enjoying the so-called *status specifique*

Islam amounted to 5-10% of the population. According to the Constitution of 1958, the President is the head of state and the Prime Minister is the head of government.

In 1949 France joined the NATO, and in 1957 signed the Treaty of Rome, which established the European Atomic Energy Community (EURATOM) and the European Economic Community. In 1999 France joined the Economic and Monetary Union and replaced the French franc with the euro<sup>2</sup>. The current currency of France is the euro.

The GDP *per capita* (PPP) was estimated at US\$32,700 [27] in 2008, the GDP growth at 0.7%, and the public debt was 68.1% of the GDP; current account deficit was equal to US\$52.91 billion in 2008. The unemployment rate was 7.4%. In July 2009 France had a population of 64,057,792 with the following age structure: 0-14 years of age - 18.6%, 15-64 years of age - 65.0%, 65 years of age and over - 16.4%. Life expectancy at birth for total population was 80.98 years, for men - 77.79 years and for women - 84.33 years.

## 2. THE HISTORIC DEVELOPMENT OF THE PENSION SYSTEM IN FRANCE

The beginnings of the French pension system date back to 1790, when the pension system for civil servants was established [2, p.167]. In 1898 the first law concerning accident insurance was introduced [14, p. 108] and in 1905 the first unemployment law was implemented [14, p.110]. In 1910 the first pension system based on collecting contributions was established. It was defined as a pension system for workers and farmers (*retraites ouvrières et paysannes*) [2, p.166]. In 1928 the first health insurance law was introduced. It also covered the people at the retirement age [14, p.106]. In 1932 the law concerning family allowances was implemented [14, p.112]. On 1 January 1938, the French National Railway Company (*Société nationale des chemins de fer français*, SNCF), which offered its own pension scheme, was founded [20]. In 1945 the thorough reform of the French pension system took place. Its aim was to create a common solution, which would cover the whole country, which would be based on regional pension funds but coordinated by a national pension fund [10, p.115]. The system implemented at that point was named an unfunded contributory pension system (*système de retraite par répartition*) [2, p.166]. The retirement age was 65 and those who retired at that point received a pension benefit equal to 40% of their remunerations.

However, it was possible to retire early, at the age of 60. A person who took advantage of early retirement received a pension benefit equal to 20% of the earnings [2, pp. 166-167]. In 1945 the reform of health insurance was also carried out [14, p. 106]. In 1946 the state pension system for the self-employed was formed (Rubel wrote that the system applied to non-workers and nonfarmers) [10, p. 119]. In 1946 the changes were also introduced into accident insurance [14, p. 108] and family allowances [14, p. 112]. In 1947 the system of auxiliary pensions for people in managerial positions in the private sector was founded. It was administered by the

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<sup>2</sup> French francs (FRF) were converted into the euro (EUR) at the exchange rate of FRF6.55957 per EUR1. Cf.: [24].

General Association of Executive Pension Institutions (*Association Generale des Institutions de Retraite des Cadres*, AGIRC) [1, p.111]. In 1948 the separate pension schemes for craftsmen, traders and freelancers [10, p.115], including *Caisse Autonome de Retraite des Medecins de France* (CARMF) [21], were introduced. In 1949 the Scheme for Non-Titular Employees of Public Sector (*l'Ipacte pour les cadres non titulaires du secteur public*, IPACTE) was implemented.

In 1956 the Retirement Solidarity Fund (*Fonds de solidarite vieillesse*) [2, p.167] was formed and the minimum pension regulated by acts of Parliament was introduced [10, p.116]. In 1958 the unemployment law was revised [14, p.110]. In 1960 the IPACTE was converted into the IGRANTE (*l'Igrante pour les non cadres non titulaires du secteur public*). In 1961 the auxiliary system for workers of private sector was established. It was managed by the Association of Supplementary Pension Schemes (*Association pour le regime de Retraite Complementaire des salaries*, ARRCO) [10, p.118].

In 1967 the National Retirement Pension Fund for Employees (*Caisse nationale de l'assurance vieillesse des travailleurs salaries*, CNAVTS) was set up. In the state sector there were four separate pension schemes:

- 1) for civil servants;
- 2) for the employees of local government administration (CNRACL);
- 3) for railway workers (SNCF);
- 4) for the employees of energy and gas industry (*Electricite de France – Gaz de France*, EDG-GDF).

There were also five separate pension schemes for the self-employed:

- 1) farmers (managed by the Agricultural Social Mutual Fund *Mutualite sociale agricole*, MSA);
- 2) for manufacturers and traders (managed by the Mutual Insurance Fund *de l'Organisation autonome nationale de l'industrie et du commerce*, (ORGANIC);
- 3) for artists (*Caisse Nationale d'Assurance Vieillesse des Artisans*, CANCAVA);
- 4) for health care employees (CARMF);
- 5) for other self-employed people (*Caisse Nationale d'Assurance Vieillesse des Professions Liberales*, CNAVPL) [1, p.112], including:
  - a. craftsmen (managed by the mutual insurance association *Assurances Vieillesse des Artisans*, AVA);
  - b. barristers (*Caisse national des barreaux francaise*, CNBF);
  - c. freelancers (*Caisse nationale de l'assurance*, CNA).

In 1970 the IGRANTE was converted into the Complementary Pension Fund for Non-titular Civil and Public Servants (*Institution de retraite complementaire des agents non titulaires de l'etat et des collectives*, IRCANTEC) [25]. In 1972 the auxiliary tier of the common pension system became mandatory [5, p.237] and accident insurance started applying to farmers [14, p.108]. In 1980 expenditures on pensions amounted to 9.5% of the GDP [11, p.193]. In 1982 the retirement age was decreased to 60 years [1, p.111]. The publication of *Livre Blanc sur les Retraites*, i.e. *The White Paper on Pensions*, started a national discussion on the future of pension system in France [1, p.110]. In 1991 a new fixed tax (*contribution sociale generalisee*,

CSG), whose aim was to finance pensions, was introduced. It was equal to 1.1% of any income, including pensions [11, p.260].

The discussion, inspired by *The White Paper on Pensions*, gave birth to Balladur's reform of 1993, according to which 1) the previous pension indexation based on an average remuneration replaced the pension indexation with consumer prices, 2) gradual changes were introduced into the method of pension calculation, which took into account the remuneration within the period of last 25 years instead of last 10 years<sup>3</sup>, 3) the required contribution period was gradually raised from 37.5 to 40 years<sup>4</sup> and 4) the Retirement Solidarity Fund (*Fonds de solidarite vieillesse*, FSV) was established. It was financed through the CSG tax, which was raised from 1.3% to 2.4%, and through taxes levied on drinks (including all alcoholic and some non-alcoholic drinks) [11, p.195]. In July 1993 French banks started to offer the opening of saving pension funds *fonds d'epargne retraite* [6, p.105].

In 1993 the level of a contribution within the ARRCO system was increased from 4% to 6% of remuneration [11, p.204]. In 1997 the Thomas's Law (*Loi Thomas*) introduced the opportunity to take advantage of voluntary pension funds. It was abolished in 1998, when the rules were taken over by the Left. In 1998 the Pension Reserve Fund (*Fonds de reserve des retraites*, FRR) was established [1, pp.118 and 120]. Although it was managed by the state, it invested free assets of the public system on capital markets [11, p.261]. In 1999 a very pessimistic report, Charpin's Report, was published. It did not contain any recommendations of changes but only potential development plans of the pension system until 2040. The main conclusion of the report was the necessity to increase the retirement age to 65 [1, p.121].

In 2000 the Pensions Advisory Council (*Conseil d'orientation des retraites*) was founded [23]. According to the statistics of 1 July 2000, the following pension schemes had the highest number of members: the general scheme *Regime general* (67.23% of those insured), the scheme for civil and military servants *Fonctionnaires civils et militaires* (10.50%), and the scheme for local communities *Collectivites locales* (7.08%) [22]. In 2001 the employees' pension schemes were introduced [1, p.125]. In 2002 the minimum pension was equal to €525 a month [18, p.71], the maximum pension amounted to €14,112 a year [2, p.171], and the expenditures on pensions accounted for 12% of the GDP [4, p.29].

In 2003 the contribution period required for the pension reached the intended level of 160 quarters, predicted in the reform of 1993 [5, pp.235-236]. In 2003 another reform of the French pension system took place. It introduced the chance of 'buying out' the missing quarters required for the contribution period, it gave privileges to economically active people at the retirement age, it established the common pension information system for all pension schemes and it implemented individual pension savings funds (*plan d'epargne individuelle pour la retraite*, PEIR), which constituted a part of the 3rd pillar [10, p.116].

Since 1 January 2004, it has been possible to combine earned income and pension benefits provided the incomes come from two separate schemes [10, p.127].

<sup>3</sup> The beginning of changes took place in 1994 and the final period of 25 years was to be reached in 2008.

<sup>4</sup> The changes began in 1994 and the required contribution period was raised by one contribution per a quarter until 2003.

Since 2004 there has been an opportunity to save assets for a pension in the form of company or departmental pension schemes: the PERP (*Plan d'Épargne Retraite Populaire*) and the PERCO (*Plan d'épargne pour la retraite collectif*) [15, p.44]. In 2005 the pension contribution in the primary layer of pension system was equal to 14.6%, out of which the employer paid 8.2% and the employee paid 6.4% [11, p.191].

**3. THE PRESENT STATE OF THE PENSION SYSTEM IN FRANCE**

The French pension system consists of: 1) public mandatory pension system, which embraces the parts of the 1st and 2nd pillar, 2) voluntary pension savings schemes, which constitute the 3rd pillar. The system is supervised by the Central Social Security Agency (*Agence centrale des organismes de securite sociale*) [2, p. 169]. The present state of the pension system in France is presented in figure 1.

1 <sup>st</sup> pillar			2 <sup>nd</sup> pillar			3 <sup>rd</sup> pillar	
supervised by the Central Social Security Agency <i>Agence centrale des organismes de securité sociale</i>							
public mandatory pension system							
general scheme <i>Régime generale</i>		scheme for the self-employed		scheme for farmers			
a primary tier							
managed by the National Retirement Pension Fund for Employees (CNAVTS)			an auxiliary tier				
an auxiliary tier			managed by central fund CANCAVA	managed by 12 occupational funds			special schemes <i>régimes spéciaux</i>
managed by the Association of Supplementary Pension Schemes (ARRCO)	managed by the General Association of Executive Pension Institutions (AGIRC)	managed by the Complementary Pension Fund for Non-titular Civil and Public Servants (IRCANTEC).		the ORGANIC (traders and entrepreneurs)	the AVA (craftsmen)	the CNA (freelancers)	
			agricultural entrepreneurs			pension savings schemes	

Source: Own elaboration

**Figure 1. The present state of the pension system in France**

*Public pension system* embraces a few hundred pension schemes, which can be divided into four basic categories: a) general scheme (*Regime generale*), b) special schemes (*regimes speciaux*), c) scheme for the self-employed, and d) scheme for farmers. The public pension system covers 98% of pension spending and is financed through pension contributions and taxes [15, p. 44].

*The general scheme*, which is of unfunded character, consists of two tiers:

- a primary tier managed by the National Retirement Pension Fund for Employees (CNAVTS)
- an auxiliary tier, which is managed by three separate institutions:
  - the Association of Supplementary Pension Schemes (ARRCO);
  - the General Association of Executive Pension Institutions (AGIRC);
  - the Complementary Pension Fund for Non-titular Civil and Public Servants (IRCANTEC).

The primary fund is common for all insured people. It is based on a defined benefit (DB) rule and may be perceived as the 1st pillar in France.

The primary tier contribution amounts to 14.95%-32.70% of remunerations, out of which the employer pays from 8.30% to 16.35%, and the employee pays from 6.65% to 16.35% [2, p. 171]. The level of contribution may not be higher than the gross remuneration equal to €2,773 [14, p. 104]. The contributions paid are converted into pension points. A person has the right to the full pension if he or she is over 60 and provided the insurance period has not been shorter than 160 quarters, i.e. 40 years [10, p. 122]. The level of the benefit is calculated according to the following formula [10, p. 123]:

$$P = F \cdot R \cdot C / 160 \quad (1)$$

where:

P - annual pension benefits

F - percent rate, which fluctuates from 25% (for people aged 60) to 50% (for people aged 65)

R - an average gross remuneration

C - the contribution period expressed in quarters

160 - the number of quarters

Postponed retirement means the increase in the rate by 0.75% for each quarter, up to 15%. Each missing quarter, required to reach the number of 160 quarters, means the decrease in the level of pension by 1.25% [3, p.197]. It is possible to buy out missing quarters for the period of studies or for the employment period of low income before a certain person retires [10, p.124]. In 2008 average gross remuneration was calculated based on 25 years of employment<sup>5</sup>. The full base pension is equal to 50% of average remuneration of an insured person [14, p.105]. Pensions are subject to an income tax according to general rules. Additionally, the pensioners pay the CSG tax equal to 6% [18, p.72].

<sup>5</sup> In 2008 the period taken into account while calculating the pension has been raised to 25 years.



The auxiliary tier is mandatory within the ARRCO for all hired workers, who are obliged to join the general primary scheme, within the AGIRC for engineers and management personnel, and within the IRCANTEC for civil and public servants who are not subject to special schemes [10, pp.117-118]. The assets gathered in auxiliary funds are administered by institutions supervised by the so-called social partners, and are invested on capital markets [6, p.95]. They may be perceived as the part of the 2nd pension pillar<sup>6</sup>.

The ARRCO covers 43 pension schemes [2, p.168]. In the ARRCO the pension contribution amounts to from 6.0% to 7.5% of earnings [2, p.171]. There are 67 pension schemes in the AGIRC [2, p.168]. The pension contribution in the AGIRC is equal to 16.0%-20.0% of remuneration [2, p.171]. In the IRCANTEC the pension contribution accounts for 4.5%-17.5% [26]. The full auxiliary pension is equal to 25% of the insured person's remuneration [14, p.105]. Within the general scheme, there is a minimum pension<sup>7</sup>.

*Special schemes* were formed for workers of mining industry, railway system, gas industry, energy industry, merchant navy, opera house, Comedie-Francaise, hospitals, Paris Metro, Bank of France, and for notaries, military servants, local authorities, local government employees and some civil servants [2, p.168]. There is only one tier within special schemes [15, p.44]. According to Rubel, there were 120 special schemes, out of which only 15 accepted new members and the remaining ones only paid out pensions [10, p.119].

Every special scheme has its own regulations. For example, a pension contribution for various groups of civil and military servants does not exceed the level of 7.85% and is entirely financed from the state budget [2, p.171]. The average retirement age is 60 but for some occupational groups it is lower and may be even equal to 50. An average period taken into account while calculating the pension is equal to 25 years but within some special schemes the period of last 6 months is taken into consideration.

*Scheme for the self-employed* consists of a central fund CANCAVA and 12 occupational funds, which may be divided into three groups: the ORGANIC (traders and entrepreneurs), the AVA (craftsmen), and the CNA (freelancers) [10, p.121]. That scheme, similarly to the general scheme, consists of two tiers [15, p.44].

*Scheme for farmers* applies to two groups of people: farmers and agricultural entrepreneurs [10, p. 121]. That system consists of two tiers as well [15, p.44].

*Pension savings schemes*, which may be perceived as the equivalent of the 3rd pillar in France, operates in the form of a voluntary, auxiliary pension scheme. There is a possibility to choose the company, which would manage the assets gathered within the scheme, i.e. a state company (*Caisse Nationale de Prevoyance de la Fonction Publique*, PREFON) or an insurance company offering pension insurance contracts [2,

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<sup>6</sup> In literature, there are two terms used to define the 1st pillar: the primary tier as well as the auxiliary tier. However, according to the classification of the World Bank of 1994, it seems that the auxiliary tier may be perceived as the part of the 2nd pillar. Such a classification may be supported by the fact that that tier is connected with employers and the investment of the assets on capital markets. A similar conclusion may be drawn from the classification in the latest thesis by da Conceicao-Heldt. Cf.: [2, pp.168 and 170].

<sup>7</sup> In 2005 the minimum pension amounted to €599 a month. Cf.: [15, p.44].

p.168]. Pension savings scheme may be an auxiliary private pension scheme (*plan partenarial d'epargne salariale volontaire pour la retraite*, PPESVR) or subsidized by the state pension savings in banks or pension contracts in life insurance companies (PEIR) [2, pp.170 and 173].

There is a separate voluntary pension scheme for the hospital personnel (*Comite de Gestion des Oeuvres Sociales*, CGOS) [2, p.173]. Moreover, there may be company or departmental pension schemes in the form of the PERP or the PERCO, in which the participation is connected with tax relief [15, p.44].

#### **4. CHALLENGES AND PLANNED CHANGES IN THE PENSION SYSTEM IN FRANCE**

The main challenge France has to face is to order the fragmented pension system for particular occupations. Another problem is the demographical situation, which may lead to the crisis due to the fact that baby-boomers started retiring since 2007 [6, p.94]. From 2009 to 2012 the required insurance period will rise by one quarter every year until it reaches the level of 164 quarters in 2012. From 2013 the number of quarters required for the retirement will depend on demographical factors [10, p.123]. According to the forecasts, the level of pension contribution will have to be raised to 25.9% in 2040 [11, p.193].

#### **5. SUMMARY**

The main element of the French pension system is the mandatory public system, which is divided into four categories for various groups of occupations. Three of those categories consist of a primary tier and an auxiliary tier. Those tiers may be generally perceived as the 1st and 2nd pension pillar. The 3rd pillar, which covers voluntary pension insurances, has a marginal meaning in France. The general scheme (*Regime generale*), which underwent parametrical reforms in 1993 and 2003, plays the most important role.

The auxiliary tiers of the general scheme, the scheme for the self-employed and the scheme for farmers constitute a big mosaic of various solutions, partially based on investments on capital markets. It seems that the French spend more time on discussing the necessity of introducing changes than on executing them. Further reports, which were the subject of hot discussions, led only to parametrical reforms, leaving the changes in the system to next generations. The attempts to implement more radical changes are connected with a big resistance of the public, especially of trade unions.

Among solutions introduced in France, it is difficult to indicate those which particularly or favourably distinguish it from other countries. The only thing worth noticing is the equal retirement age for men and women. However, that solution is not unique internationally.

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## **THE EFFECTS OF THE ECONOMIC AND FINANCIAL CRISIS: STUDY CASE**

**SILVIA PUIU** \*

**ABSTRACT:** *This paper presents the effects of the crisis in Romania, as a result of a study on 200 people from Romania, men and women with age varying between 20 and 60 years old. The study was realized on a two month period from July to September 2009, through a survey composed of 22 questions, some with a single response, some with more than two. The surveys were completed on the internet, they being sent through emails and forums, in order to save time and cover people from various domains and towns from Romania. So, I have used as a research methodology the empirical research collecting the data through the survey.*

**KEY WORDS:** *crisis, economy, financial, survey, Romania*

### **1. INTRODUCTION**

Economic Depression amplifies each passing day and Romania start to feel it more and more the economic recession, which the great economists of the world fail to find an antidote. On the one hand those who have contracted loans for development work or cover other needs will be faced with the inability to repay these loans.

The crisis is a subject of great importance in the actual conditions, more and more people lose their jobs, more and more companies are in bankruptcy, the governments is in debt and the private and public sectors are facing with serious problems of liquidity. People that become unemployed, families working in the same sectors are severely affected by the economic and financial crisis. They have problems in paying their debts to the local budgets and to the banks, a lot of them losing their houses and other properties.

The study I have conducted is of small dimensions, but it reveals some of the problems which Romanians are facing with.

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## 2. THE STUDY CASE ON THE ECONOMIC CRISIS IN FIGURES AND NUMBERS

The study took place from July to September 2009, being placed as an online survey on different forums, sites, virtual communities, communication networks and also on a specialized site [www.surveypor.ro](http://www.surveypor.ro). The survey was realized on a sample of 200 respondents. They are especially young people with the age varying between 20 and 30 years old, in a percentage of almost 80%, the rest of 20% representing the ages of 31-40, 41-50 and 51-60 years old.

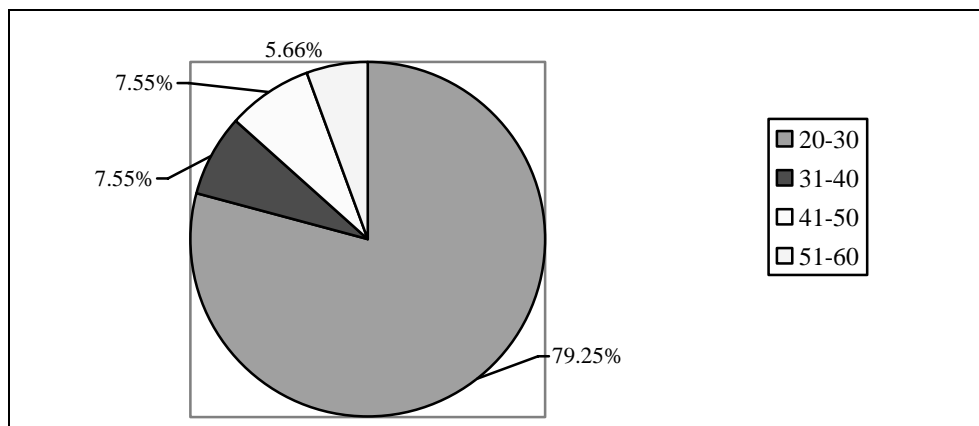


Figure 1. The age intervals of the sample

At the question if Romania is in economic crisis or it's just a psychological one, 81, 13% responded that there is a real crisis in our country, surprisingly I can say that 18, 87% of the respondents think that the crisis hasn't a real basis, being just psychological.

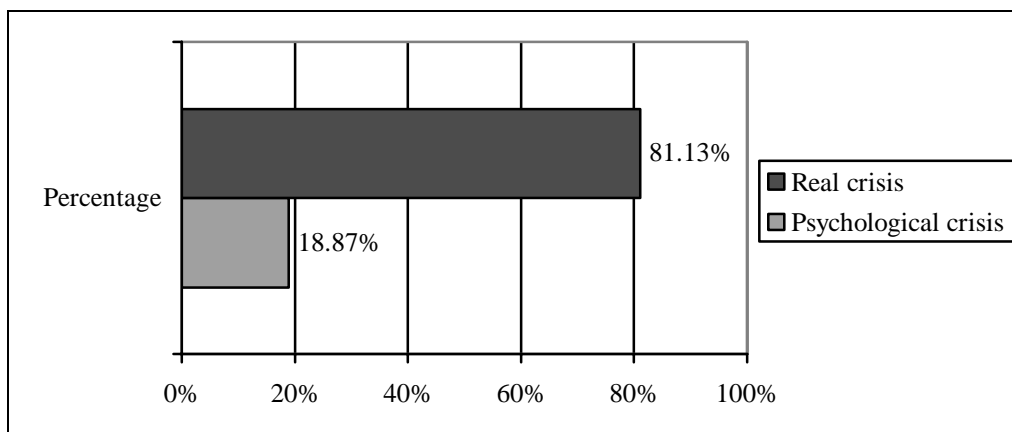


Figure 2. The basis of the crisis: real or psychological

At the next question regarding their job status, it's worrying that only 56.6% of the respondents work, the rest of 43.4% being unemployed.

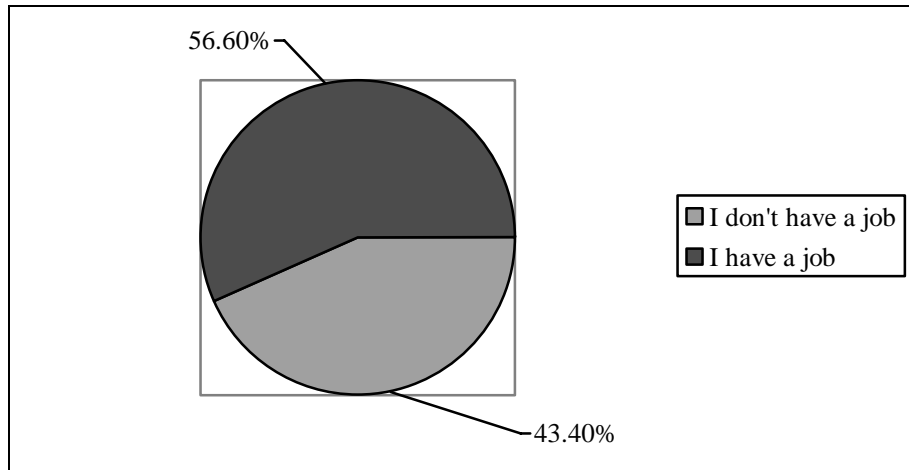


Figure 3. Having or not having a job in crisis

From those who have not a job, 60.87% of them have never worked after graduation, 26.09% have been fired before the appearance of the crisis in Romania and only 13.04% of the respondents quit their job for personal reasons.

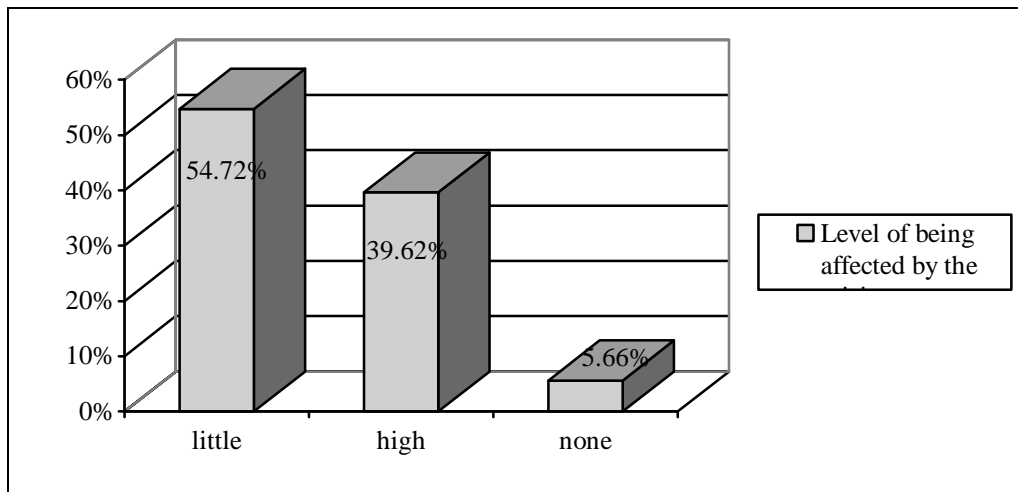


Figure 4. Level of being affected by the crisis

At the question referring to the effective consequences of the crisis on Romanian families and individuals, the respondents mentioned in a proportion of 36.46% that they had to spend less, 22.92% have difficulties in paying their debts to banks, local and central budgets (it's an important figure and this might have in the

next years some serious social consequences), 21.88% have lost some benefits at work, 17.71% don't find a job according to their qualifications.

**Table 1. Consequences of crisis on individuals and families**

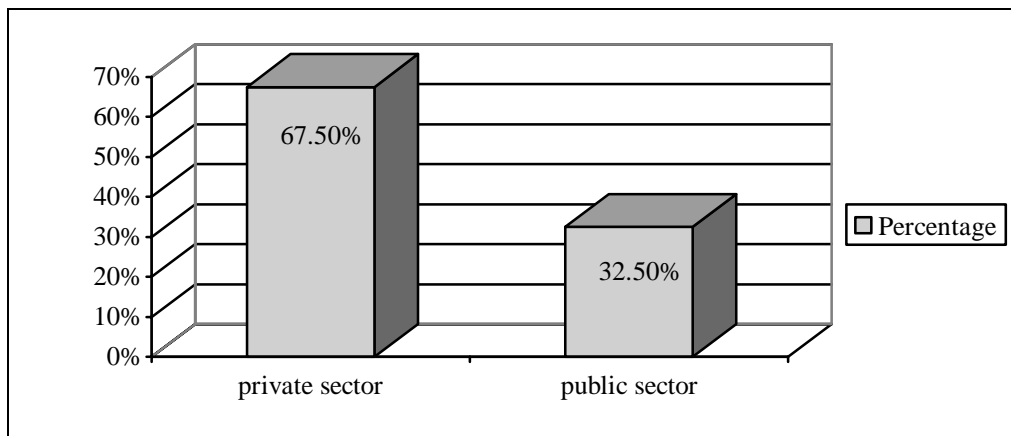
Crisis' consequences on individuals and families	Difficulties in paying their debts to banks, local and central budgets	Expenses reduction	Losing their job	Not finding a job according to qualification	Losing properties	Losing some benefits
Percentage	22.92%	36.46%	1.04%	17.71%	0%	21.88%

Referring to the measures took by the government, 69.81% of the respondents mentioned that these are totally insufficient and ineffective, 28.3% agree that these measures are partial, incomplete and having less results. Only 1.89% of them think these are well correlated and implemented.

**Table 2. The measures took by the government**

Measures took by the government in crisis	Well correlated and implemented	Well but insufficient explained	Partial, incomplete and having less results	Totally insufficient and ineffective
Percentage	1.89%	0%	28.3%	69.81%

At the next question referring to the sector in which they work, 67.50% work in the private sector and the rest of 32.50% in the public sector.



**Figure 5. The sector of their job**



When the respondents were asked about the measure took by the government regarding the ten days of holiday that are imposed to those working in the public sector, 45.28% think that this is not a good measure, the situation becoming more serious. Just 9.43% of them think this is a good but late measure.

**Table 3 The measure regarding the ten days of holiday**

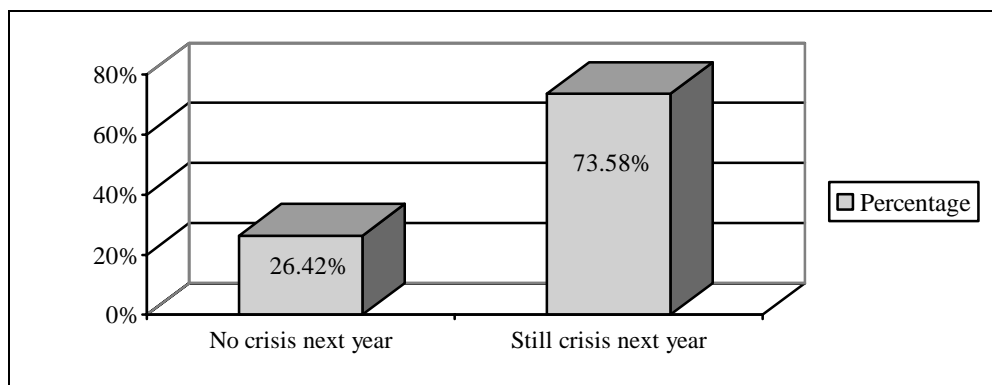
The measure regarding the ten days of holiday	Good, but late	It's not an efficient method	Good and took at the best moment	I have no opinion an it
Percentage	9.43%	45.28%	0%	45.28%

Regarding the most important measures took by the public and the private sector that affected people most; the respondent mentioned in a proportion of 36.51% that they were affected by wage reductions, 14.29% by stuff reductions, and 3.17% by technical unemployment and by daily work time reduction.

**Table 4. The most important measures took by the public and private sector that affected people most**

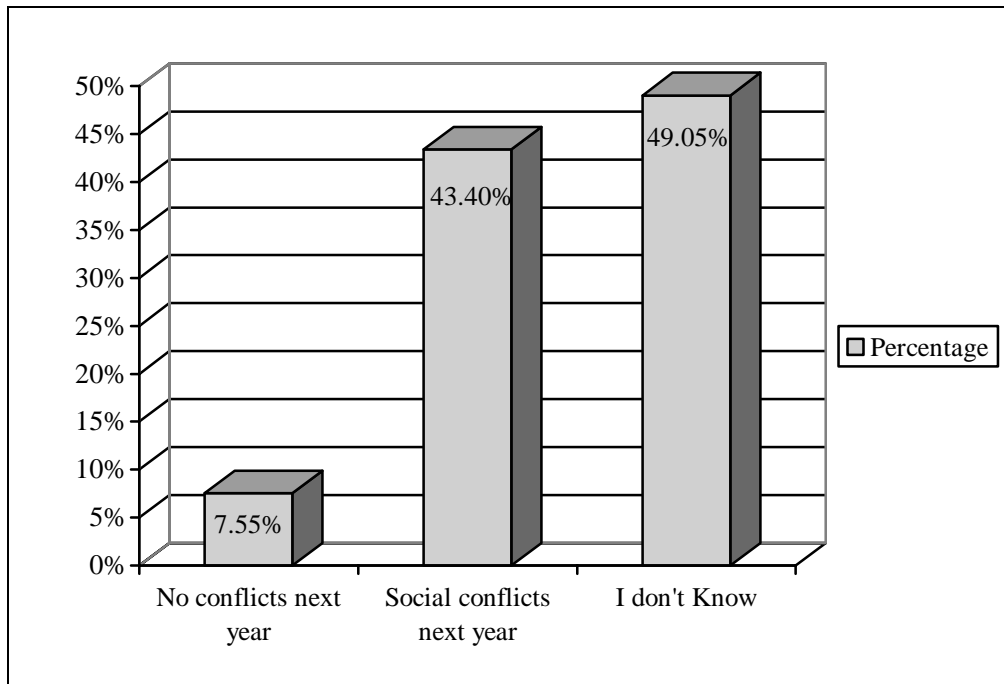
The most important measures took by the public and private sector that affected people most	Stuff reduction	Wage reduction	Daily work time reduction	Technical un-employment	Holiday without payment	Never been affected
Percentage	14.29%	36.51%	3.17%	3.17%	6.35%	36.51%

When the respondents were asked if the country will recover next year from the crisis, 73.58% of them think Romania will still be in this situation or worse and only 26.42% are more optimistic.



**Figure 6. Crisis in the next year**

At the question referring to the eventual social conflicts that can appear next year, 43.4% of the respondents think there will be social conflicts and strikes next year, only 7.55% think there won't be any conflicts.



**Figure 7. Social conflicts and strikes next year**

Referring to the expenses they have reduced the most, 64.15% of them responded that leisure expenses were affected especially, 22.64% reduced the expenses with goods for long-term usage.

**Table 5. Expenses that were reduced most**

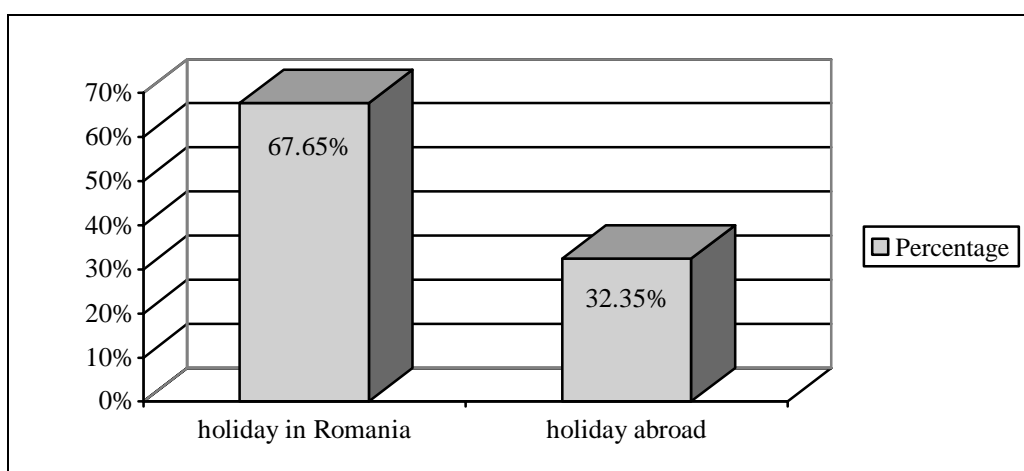
Expenses that were reduced most	Food expenses	Goods for long-term usage	Leisure expenses	Non-food but current expenses
Percentage	1.89%	22.64%	64.15%	11.32%

Related in a way with the previous question, when they were asked if they were in a holiday within the country or abroad, 28.3% said that they couldn't go because they were affected by crisis, but most of them 41.51% went in a holiday, in Romania or in other country.

**Table 6. Being in a holiday or not**

Being in a holiday or not	Yes	No, but I will	I can't go from work	No, from personal reasons	No, because of crisis
Percentage	41.51%	15.09%	5.66%	9.43%	28.3%

From those who went, 67.65% chose Romania to spend their holiday, only 32.35% chose going abroad.

**Figure 8. Holiday in Romania or abroad**

### 3. CONCLUSION

In conclusion, my study reveals some issues which Romanian are facing with this period of economic and financial crisis. It's worrying that a lot of them have no job, most of them young, with ages between 20 and 30 years old. Some of them have never worked after graduation, some work in another field than the one in which they have a diploma, some were fired and so on. A lot of them have debts at banks and have difficulties in paying them at time.

Another conclusion refers to the lack of trust in the government, most of them thinking that the measures took by the state are incomplete, uncorrelated and ineffective, making things go even worse.

As a result of these measures, Romania will be in crisis even next year, at least this is the opinion of most of the respondents, there will occur a lot of strikes and social conflicts as a consequence of unemployment and wage reductions.

The respondents reduced a lot leisure expenses and long term goods in this period, and very little food expenses or current expenses. This is correlated with the great percent of those who weren't in a holiday from various reasons, most of them because of crisis or because they couldn't go from the work.

Surprisingly, those who went in a holiday chose Romania, because in their opinion this location is cheaper, even if the opinion that generalized most in the latest years is that abroad is cheaper. The justification is that you pay less in Romania in absolute amount, but the ratio price-quality is higher than abroad.

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## **CREDIT POLICY AND THE MANAGEMENT OF THE BANKING SYSTEM IN THE EU COUNTRIES DURING THE FINANCIAL CRISIS**

**MAGDALENA RĂDULESCU \***

**ABSTRACT:** *The sharp deceleration of credit growth to the private sector in the EU, after half a decade of exuberance, will inevitably squeeze households and enterprises and can only aggravate the worsening recession. The region experienced very rapid credit growth in recent years, which was generally viewed positively as supporting rapid convergence to the but at the same time it contributed to the emergence of sizable macroeconomic and financial vulnerabilities. European Governments should use monetary and fiscal policy and not only in order to stimulate domestic non-governmental credit growth because it is crucial for the recovery of the European economies. Within emerging markets, eastern European economies have been the hardest hit. The linkages between western Europe and emerging European banking systems make the region particularly vulnerable. The paper tries to present some financial policy measures regarding banking sector for stimulating credit growth in the Europe and especially, in the Central and Eastern European Countries.*

**KEYWORDS:** *financial crisis, European emerging economies, credit policy, banking sector*

### **1. INTRODUCTION**

Within emerging markets, eastern European economies have been the hardest hit. The linkages between western Europe and emerging European banking systems make the region particularly vulnerable. Western European banks may reduce the funding of their eastern European subsidiaries and losses from emerging Europe may damage western European balance sheets. Fortunately, there are promising regional initiatives in which some western banks have agreed to keep credit flowing to the subsidiaries. The financial turmoil has undoubtedly reached Eastern Europe. As a result, currently there is extreme uncertainty in the New Member States regarding the future course of such fundamental things as financial intermediation, credit growth, the exchange rate and real convergence in general. These are all very important factors that have to be taken into account when making a decision on the euro strategy or indeed on

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ERM II entry itself. It is therefore worth waiting with setting out very specific euro adoption plans for Hungary until the dust settles at least a little bit (Debrun and Bikas, 2008). In the meantime, the Slovakian experience with the euro, starting next year but showing its implications already in the recent unfolding of the crisis, will provide a good natural experiment for the other New Member States, and will no doubt be closely watched.

The decline in bank lending activity may continue. On the demand side, there has been a fall in debtors' willingness to borrow in response to the continued deterioration in the outlook for business activity. On the supply side, banks' lower appetite to take risk has led to a decline in lending activity. In addition, the domestic financial sector has been forced to reduce its dependence on foreign funding, which may also lead to a curtailment of lending. The tightening of credit standards has been another factor contributing to a decline in lending. That, in turn, may result in reduced household consumption as well as in lower corporate investment and production.

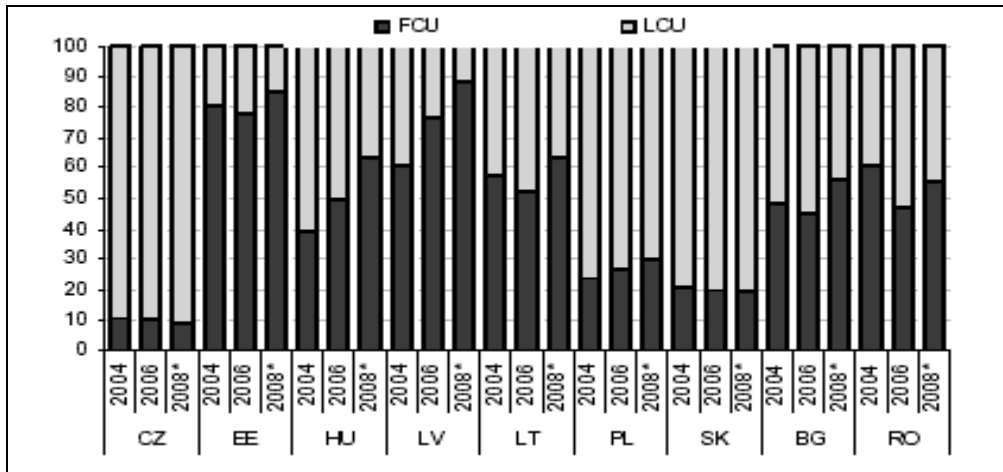
Section 2 presents the non-governmental credit developments in the Central and eastern European Countries; Section 3 shows some policy implications for European countries both developed or emerging ones; Section 4 underline the crisis management in the banking sector and Section 5 concludes the paper.

## **2. DOMESTIC CREDIT DEVELOPMENTS IN THE EU'S NEW MEMBER STATES**

The sharp deceleration of credit growth to the private sector in the EU10 new member states and Croatia - EU10+1), after half a decade of exuberance, will inevitably squeeze households and enterprises and can only aggravate the worsening recession. The region experienced very rapid credit growth in recent years, which was generally viewed positively as supporting rapid convergence to the but at the same time it contributed to the emergence of sizable macroeconomic and financial vulnerabilities. Household indebtedness has grown rapidly across the region and across income groups, accounted for by an increasing proportion of mortgages. With a large proportion mortgages denominated in foreign currency or linked to the exchange rate and at floating interest rates, households have greatly increased their vulnerability to exchange rate and interest shocks.

Lending to the corporate sector has been more subdued. By late 2008, loans in foreign currencies constituted the majority of bank loans in most countries in the region (except Czech Republic, the Slovak Republic, and Poland) (Figure 1). As highlighted in the previous stresses in domestic interbank markets have affected local banks and depressed credit supply. Sectors most reliant on bank financing - construction and durable producers - as well as creditworthy market segments - small and medium enterprises - are likely to be the most affected by the tightened credit conditions. Over the last 5 years, bank credit to the private sector had expanded rapidly in all countries in the region, with growth ranging from 14 percentage points of GDP in Croatia to 42 percentage points in Latvia. Starting from relatively low levels, it more than doubled in Lithuania, Bulgaria, and Romania. While credit expansion in the Baltic countries, Slovenia, and Croatia peaked during 2005-2006, in the remaining countries

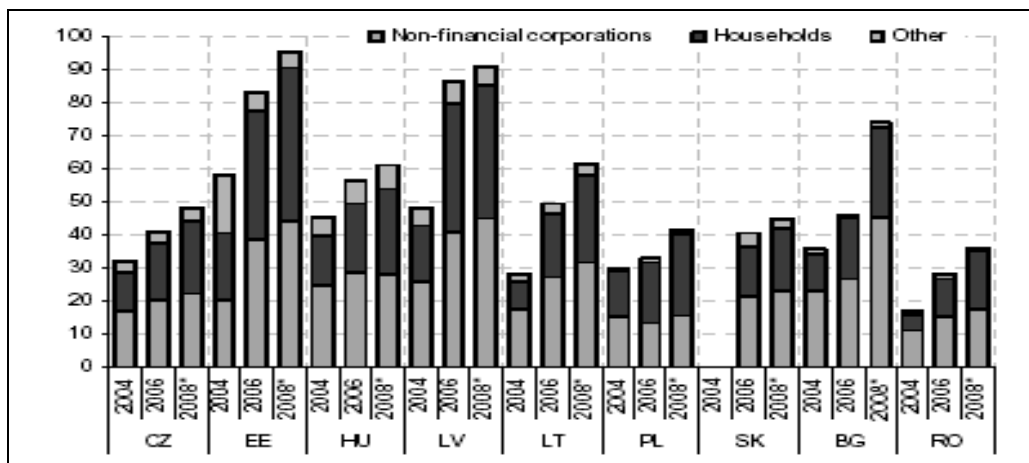
(in particular, Bulgaria and Romania), it accelerated in 2007 and through the first half of 2008 (Pauwels, 2009).



Sources: Central Banks, World Bank Staff calculations

**Figure 1. Share of FX Denominated Bank Loans in Loans to the Private Sector (% , 2004-2008)**

The credit expansion in 2004-2008 was largely a result of increased loans to households, including both consumer and mortgage loans, while growth in corporate sector loans has remained more modest in most countries. The credit expansion of 2004-2008 was driven mainly by the household sector (Figure 2), partly because this segment was underdeveloped across the region.

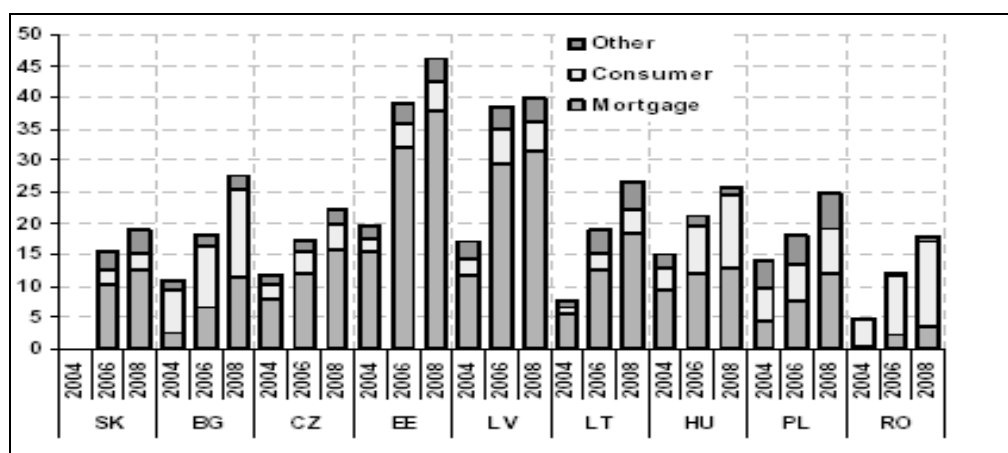


Notes: 2008\* refers to data from November 2008

Sources: Central Banks, World Bank Staff calculations

**Figure 2. Structure of Bank Loans to the Private Sector (% of GDP, 2004-2008)**

Credit to non-financial corporations expanded more slowly or remained broadly stable as a percentage of GDP with the exception of Bulgaria. As a result, the share of household loans in bank portfolios has increased significantly in all countries. Among loans to households, mortgages have been growing particularly fast, especially in 2005-2006, while consumer credit accelerated strongly in 2007-2008 (Figure 3). In late 2008, the stock of households' non-housing loans was much higher than the stock of housing loans in Bulgaria and Romania and more or less the same in Hungary and Poland. In the remaining countries, mortgage loans dominated the composition of bank loans to households (Isarescu, 2008).



Sources: Central Banks, World Bank Staff calculations

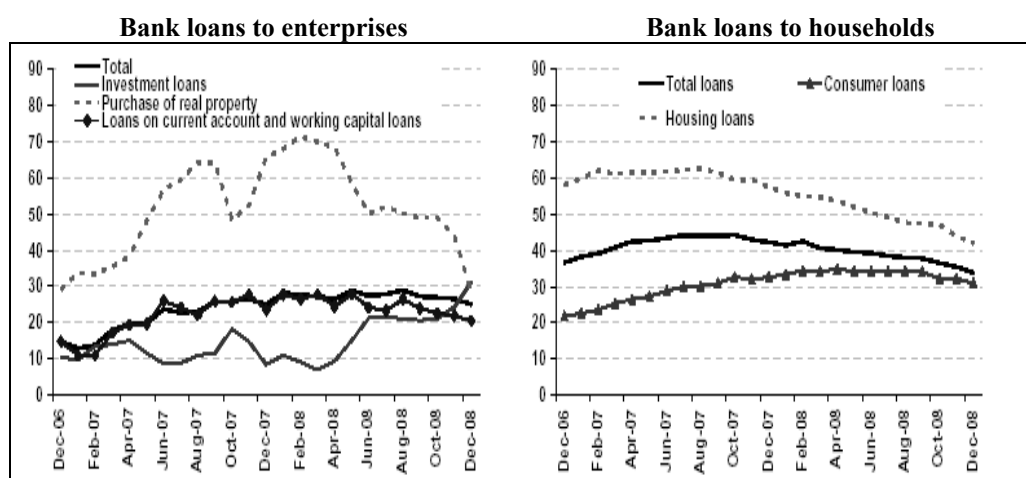
**Figure 3. Household Loans by Purpose (% of GDP, 2004-2008)**

While the timing has varied across economies, credit growth has slowed down significantly across the region. The slowdown of credit is even more pronounced than suggested by raw data if the effect of depreciation on the stock of FX denominated loans is excluded. For example, in Poland, if the effect of zloty depreciation is removed, the downward trend is reasonably clear in recent months across most types of bank loans to households and enterprises (Figure 4).

There is also evidence to suggest that the credit slowdown has caught all countries of the region, irrespective of their degree of vulnerability. In the Czech Republic (Figure 5), new flows of bank credit to households remained broadly stable in late 2008, but new loans to corporations declined in November and December. In Latvia, all major types of bank credit decelerated significantly in 2008, from around 40 percent y/y in early 2008 to around 10-15 percent in late 2008 (Figure 6).

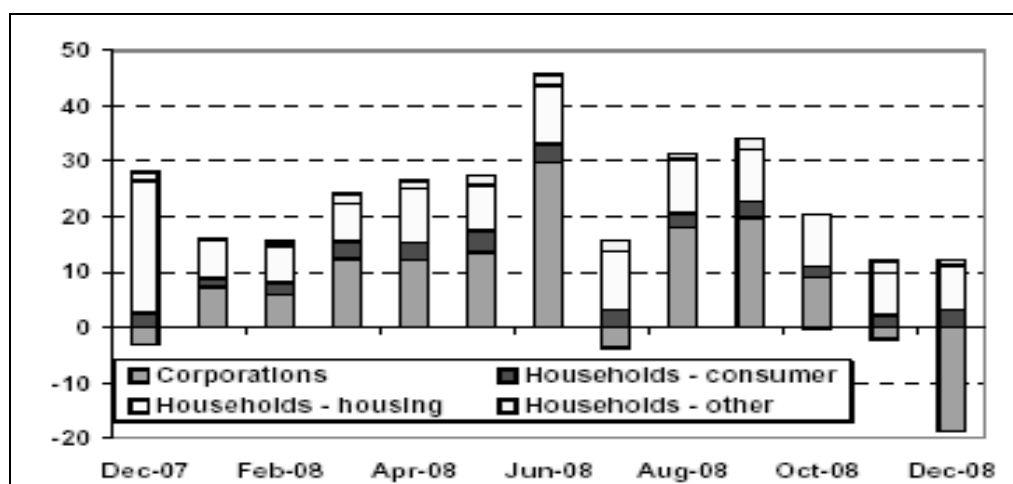
A recent NBP report (based on a survey of credit committees in banks) covering 2008 Q4 and perspectives for 2009 Q1 shows that banks in Poland have already tightened and expect further tightening of credit conditions for all borrowers (Figure 7). Debt vulnerabilities in the household sector have grown in recent years, exposing households to macroeconomic shocks and a rising risk of default. Although the share of households with a mortgage across the region is generally smaller than in the EU15 countries, it has been growing fast.





Sources: NBP staff estimations, World Bank Staff calculations

**Figure 4. Poland: Loans Excluding Exchange Rate Depreciation  
(y/y, in %, Dec 2006-Dec 2008)**



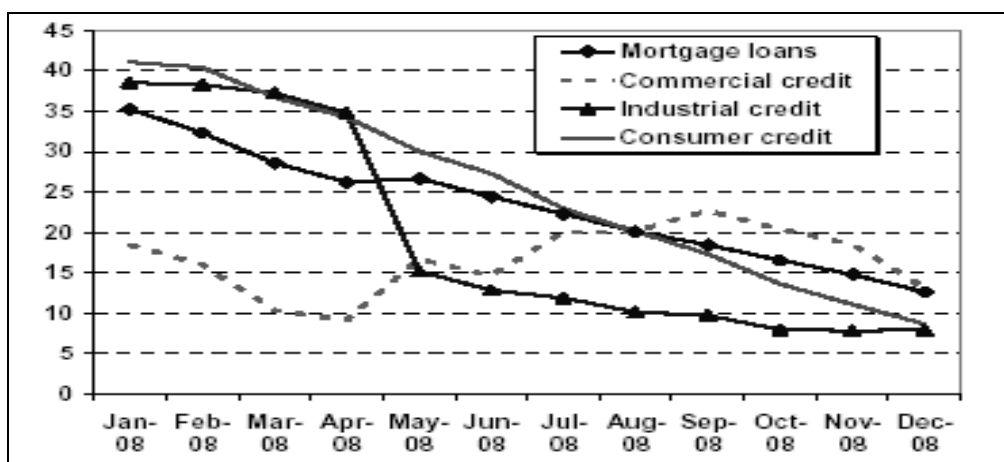
Notes: Calculated from monthly differences in levels adjusted for reclassification, other revaluation, exchange rate variations and any other changes that do not arise from transaction. As of Feb. 2: €1 = 27.87 CZK

Sources: CNB, World Bank Staff calculations

**Figure 5. Czech Republic: Loans to Non-Financial Sectors Other than Government: Flows  
(not seasonally-adjusted, in CZK billions)**

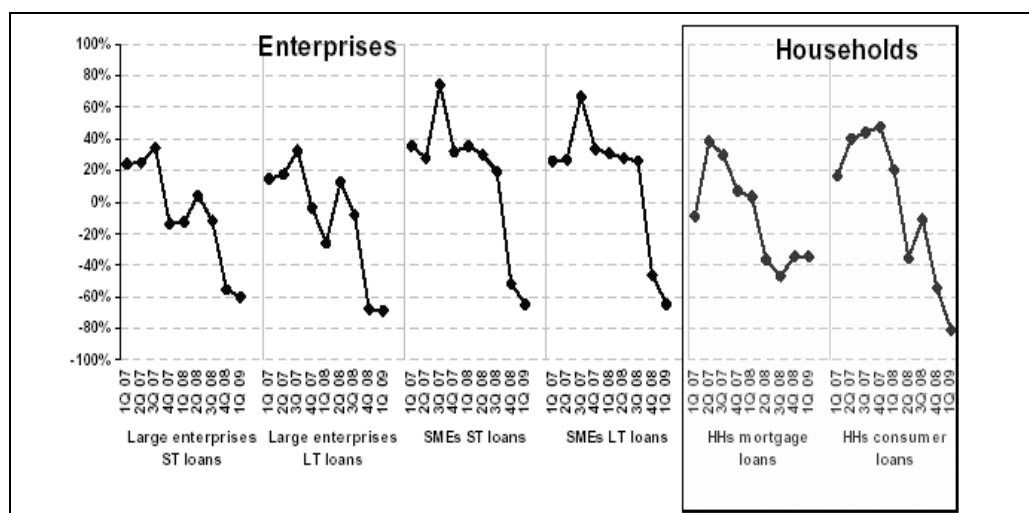
A large share of housing loans is foreign currency denominated, exposing households to exchange rate risks. Naturally, the degree of vulnerability depends on exchange rate arrangements. In addition, mortgages with variable (adjustable) interest rates account for the largest share of mortgage lending, exposing households to interest rate shocks. According to World Bank survey in Hungary and the Slovak Republic, mortgages are more common among richer households, but even in the lowest income

quintile, significant numbers of households hold mortgages. Debt service is a higher share of income for poorer households, and stress testing shows that default risk is concentrated there. Importantly, the simulations also found that unemployment shocks (rather than exchange rate or interest rate shocks) have the highest impact on probability of default.



Sources: LNB, World Bank Staff calculations

**Figure 6. Latvia: Loans to Domestic Financial Institutions, Non-Financial Corporations and Households (y/y, not seasonally-adjusted, %)**



Notes: The values are calculated as difference between positive and negative responses. ST - short-term, LT - long-term

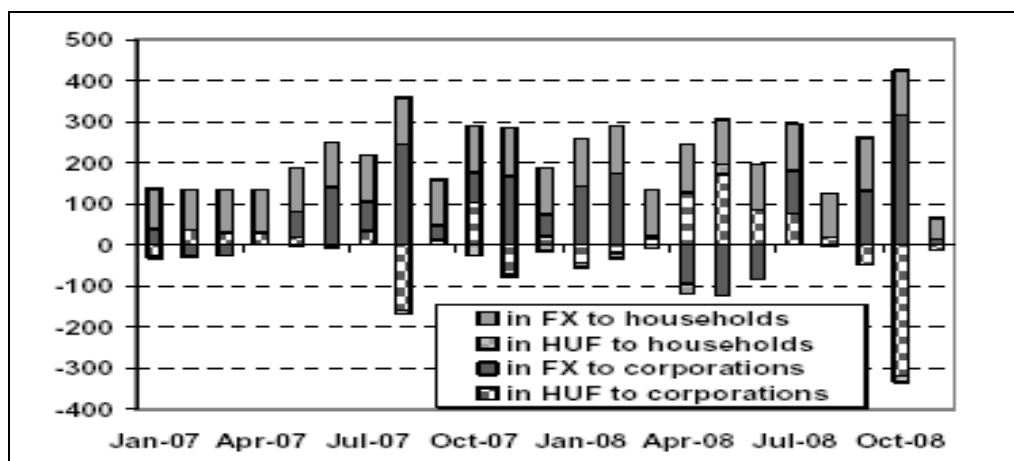
Sources: NBP survey of bank credit departments, World Bank Staff calculations

**Figure 7. Poland: Expectations for Credit Conditions to the Private Sector (decline means tightening of credit conditions, in %)**

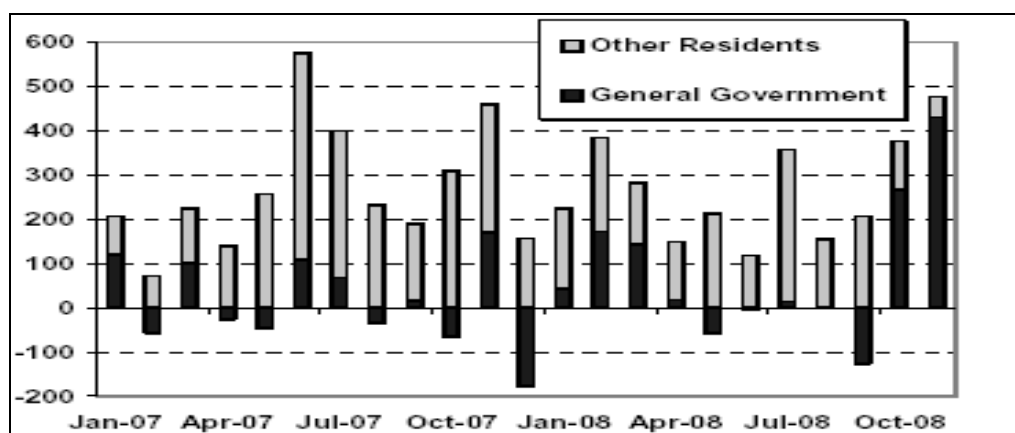
Deteriorating economic conditions may have encouraged banks to adopt more prudent lending attitudes, and businesses and households are likely to face tighter credit conditions for some time to come. Recent significant depreciations in countries with floating exchange rate regimes have translated into higher debt burdens and raise the probability of debt servicing problems. Some countries in the EU10 are already reporting increases in non-performing loan ratios in late 2008 (for example, in the Baltic countries, Romania, and Poland).

At the same time, banks' funding costs are being pushed up, due to higher spreads in FX wholesale markets and aggressive competition among banks to expand their retail deposit base. Many banks have also been drawing widely on central bank facilities. Asset price inflation has gone into reverse, reducing the value of collateral. All these factors will be reflected in weaker profitability of the banking sector and will discourage new lending, contributing to a potentially prolonged negative downward cycle. The slowdown in credit is likely to dampen activity first in those sectors most reliant on bank financing. In combination with local recession - rising unemployment and shrinking incomes - along with the collapse of export orders - in particular for cars, data on production through November 2008 show construction and production of consumer durables like cars as hard hit, but subsequent data will provide a fuller picture of how credit constraints are feeding through the EU10 economies.

With concerns about solvency on the rise, banks may also be tempted reallocate assets towards highly creditworthy borrowers. Government bonds typically top the list of desirable assets in periods of high risk aversion. This may require public intervention through state guarantees, and some countries already announced these kinds of measures (for example, Poland and Hungary). October and November data from Hungary suggests a significant decline in (net) new loans to enterprises and households, offset somewhat by loans in foreign currencies (Figure 8) and the rising role of bank claims on the public sector in new bank claims on residents (Figure 9), a reflection of the deterioration of fiscal positions described in the main report.



**Figure 8. Hungary: Loans to Non-Financial Corporations and Households (transactions, seasonally-adjusted, in HUF billions)**



Notes: The data takes into account monthly changes in stocks caused by transactions, i.e. it does not include the effects of exchange rate changes, price changes and other volume changes  
Sources: National Bank of Hungary, World Banks Staff calculations

**Figure 9. Hungary: Bank Claims on Residents  
(transactions, not seasonally-adjusted, in HUF billions)**

### 3. POLICY IMPLICATIONS FOR EUROPEAN COUNTRIES. WHICH POLICY CAN HELP THE EMERGING COUNTRIES?

A number of major banks in the *United States* and *Europe* were provided with public support in the form of new capital and guarantees against losses from holdings of problem assets. More broadly, authorities have followed multifaceted strategies involving continued provision of liquidity and extended guarantees of bank liabilities to alleviate funding pressures, making available public funds for bank recapitalization, and announcing programs to deal with distressed assets. However, policy announcements have often been short on detail and have not convinced markets; cross-border coordination of initiatives has been lacking, resulting in undesirable spillovers; and progress in alleviating uncertainty related to distressed assets has been limited.

At the same time, with inflation concerns dwindling and risks to the outlook deepening, central banks have used a range of conventional and unconventional policy tools to support the economy and ease credit market conditions. Policy rates have been cut sharply, bringing them to  $\frac{1}{2}$  percent or less in some countries (*Canada, Japan, United Kingdom, United States*) and to unprecedented lows in other cases (*including the euro area and Sweden*). However, the impact of rate cuts has been limited by credit market disruptions, and the zero bound has constrained central bankers' ability to add further stimulus. Some central banks (notably, *in Japan, United Kingdom, United States*) have therefore increased purchases of long-term government securities and provided direct support to illiquid credit markets by providing funding and guarantees to intermediaries in targeted markets, with some success in bringing down spreads in specific market segments such as the U.S. commercial paper and residential mortgage-backed securities markets. As a result, central bank balance sheets have expanded rapidly as central banks have become major intermediaries in the credit process. Nevertheless, overall credit growth to the private sector has dropped sharply, reflecting

a combination of tighter bank lending standards, securities market disruptions, and lower credit demand as economic prospects have darkened.

As concerns about the extent of the downturn and the limits to monetary policy have mounted, governments have also turned to fiscal policy to support demand. Beyond letting automatic stabilizers work, large discretionary stimulus packages have been introduced in most advanced economies, notably *Germany, Japan, Korea, the United Kingdom and the United States* (Jickling, 2009).

Although the impact of the downturn and stimulus will be felt mainly in 2009 and 2010, fiscal deficits in the major advanced economies rose by more than 2 percentage points in 2008, after several years of consolidation. Government debt levels are also being boosted by public support to the banking system, and some countries' room for fiscal action has been reduced by upward pressure on government bond yields as concerns about long-term fiscal sustainability have risen.

Facing financing difficulties, a number of countries have undertaken adjustment programs supported by financial assistance from the IMF (*Belarus, Hungary, Iceland, Latvia, Romania, Serbia, and Ukraine*, as of April, 2009) and other bilateral and multilateral sources, including the EU through its balance of payments facility for non-euro-area EU members. Poland has requested access to the IMF's new Financial Credit Line (FCL) to bolster international confidence. While the global financial crisis was a common trigger, country-specific factors proved to be a key catalyst. Thus, the design of adjustment programs had to focus on country specific circumstances. To varying degrees, measures to shore up the financial system were a crucial element of all programs. Similarly, constraints on available financing and the need to establish confidence in policies made fiscal adjustment essential. In some cases it also helped curb demand to underpin competitiveness-enhancing relative price changes. Advice on monetary and exchange rate policy differed, reflecting authorities' preferences and the need to mitigate contagion (IMF, 2009a).

Responding to pressure on capital flows, interest rates rose in most countries with fixed exchange rates. Countries with flexible exchange rates initially tightened monetary policy but with the intent to unwind such tightening as conditions improved (as, in *Hungary and Iceland*). Even so, interest rate differentials widened following the sharp reduction in policy rates in most advanced economies. Belarus devalued its currency and switched the peg to a basket of currencies to improve competitiveness and reduce its vulnerability to external shocks; Latvia, meanwhile, kept its peg in line with its preference for retaining an exchange rate anchor, while improving competitiveness through adjustments in wages and productivity instead.

However, there is also some evidence that foreign entry can help stabilize emerging economies' financial systems during home-grown crises. For example, Demirgüç-Kunt, Levine, and Min (1998) use cross-country regressions to demonstrate that foreign bank entry reduces the probability of crises in emerging markets. However, the estimates do not appear to fully control for endogeneity - in particular, the decision not to enter a foreign market can be influenced by anticipation of crisis, not only by its realization. Detragiache and Gupta (2004) show that in Malaysia during the Asian crisis, non-Asian foreign banks performed better in terms of profitability and loan quality than domestic banks or foreign banks operating mainly in Asia.

Why might foreign banks perform better in periods of generalized distress in emerging economies? First, they might be more profitable, efficient, and well capitalized, and thus better able to deal with a major shock. Second, subsidiaries of large global groups might find it easier to raise capital or liquid funds on international financial markets, by virtue of informational advantages or reputation. Third, even if external financing dries up because of increasing risk aversion, foreign bank subsidiaries might still have access to financial support from their parent bank, particularly if the latter is well diversified and only marginally affected by the difficulties in the host country.

Because it is too late to prevent the transmission of this crisis, policies should focus on limiting the risk of further escalation of financial stress through second-round effects. The rapid deleveraging of financial institutions in advanced economies and the rapidly deteriorating global economic outlook have imposed tight liquidity constraints in emerging economies. Some of these economies have benefited in dealing with these shocks from their recent strong growth performance and relatively large policy buffers. But many economies have suffered severe strain, as discussed above. As the crises in advanced economies continue to deepen, and trade and capital flows decline further, exchange rates and financial systems in emerging economies could come under more severe pressure. In turn, a broad-based economic and financial collapse in emerging economies would have a significant negative impact on the portfolios of advanced economies. This could further exacerbate financial deleveraging in mature markets (especially in economies with large exposures, such as *Austria* and *Belgium*) and lead to further stress transmission, capital outflows, and economic slumps. In light of such cross-country spillovers, there is a strong case for a coordinated approach to a range of policies.

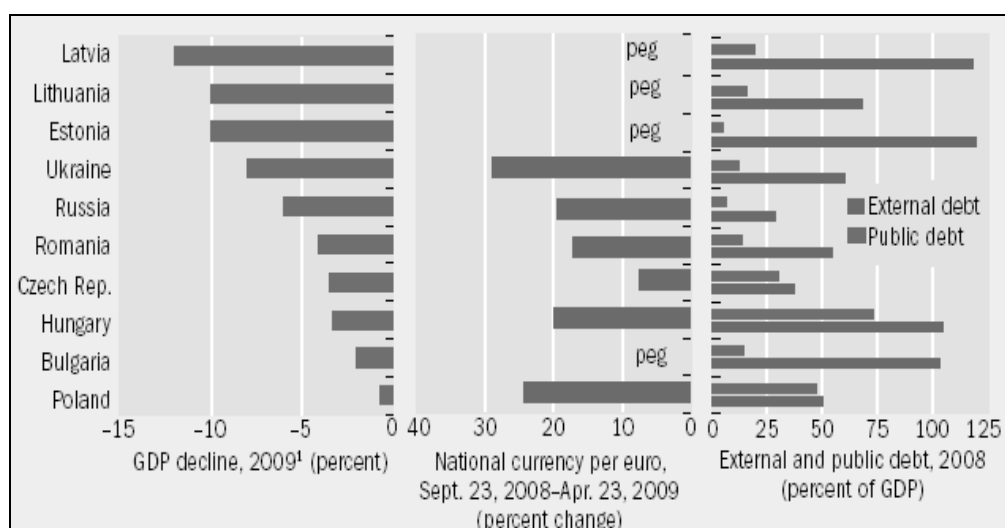
Advanced economies should recognize the adverse feedback that will come from second-round effects caused by the decline of capital flows to emerging economies. By stabilizing domestic financial systems, advanced economies can help reduce stress in emerging economies. Support for advanced economy banks, notably those with a large presence in emerging economies, should help, provided it does not come with conditions that discourage foreign lending. More generally, enhanced coordination and collaboration between home- and host-country financial supervisors will be crucial for avoiding adverse cross-border spillovers from domestic actions (UNCTAD, 2009). Moreover, as the financial crisis plays out, there is a need to strengthen official support for emerging economies' access to external funding in order to limit adverse feedback loops caused by second-round effects. Examples include the swap lines opened with various emerging economies by the U.S. Federal Reserve and the European Central Bank, the extension of the Chiang Mai initiative, and the increase in available resources of the IMF and other multilateral institutions.

Consistent with these efforts, emerging economies need to protect their financial systems and follow prudent macroeconomic policies that provide countercyclical support to the extent possible, but they must also uphold confidence in the sustainability of their policies. For many affected countries in emerging Europe, membership in the European Union and the anchoring role of planned euro adoption have offered some stability. But, as discussed before, such policies need to be

complemented by plans for mutual assistance to enhance a fast and targeted response to any new emerging crises (Lampe, 2009).

More broadly, growing financial integration is an essential part of a prospering world economy. However, as international financial linkages increase, they also raise the likelihood of the transmission of financial stress. It is therefore desirable to offer enhanced multilateral insurance against external crises to well-governed countries that are opening their economies to the rest of the world (IMF, 2009a).

Emerging Europe is in deep crisis. The region has evolved rapidly since the breakup of the Soviet Union, with ever closer financial and trade links with advanced Europe bringing about growth and income convergence. But this integration, especially the region's heavy reliance on capital inflows, has also made it more vulnerable (Figure 10). The apparent ability of new EU members to attract cheaper funding, the so-called halo effect (Cihák, M. and Fonteyne W, 2009b), has disappeared. Gone too is the notion that bank based external financing will guarantee more stable capital inflows. Countries with higher inflation and current account deficits or those that funded a credit boom by taking cross-border loans are suffering the most. And the recovery will depend not only on making the right policy choices at home, but also on developments and choices made in the rest of Europe.



Source: IMF, 2009, forecast as of April 2009, World Economic Outlook database

**Figure 10. Countries in central and eastern Europe have been affected very differently by the crisis**

In the short run, macroeconomic policies should reflect the fact that Europe, from east to west, increasingly acts like one economy. Sharing the benefits of integrated markets goes hand in hand with sharing the shocks that affect others and now reverberate through feedback loops of trade, financial markets, and cross-border banks. For instance, deflating credit markets in emerging Europe now affect advanced economies through the exposure of parent banks and the trade repercussions caused by

possible exchange rate volatility. This calls for coordination of macroeconomic policies, but also for more specific measures, such as extending European Central Bank support for emerging market currencies - for example, through currency swap arrangements - and a more regional approach to debt management to avoid clustering in the sovereign debt market.

Some countries may suffer further delays in returning to growth. Others, especially those that started out with sounder domestic policies, are more resilient, but remain at risk from the fallout of the global recession. The IMF is closely involved in the region, providing financial support and policy advice in cooperation with the European Union and other multilateral and regional partners. The IMF has tailored its support to meet the different needs in the region by: extending financial support to those hit hardest by the crisis, helping them ease the extent of fiscal adjustment and repair banking systems. Countries that currently have IMF supported programs in place include Belarus, Hungary, Latvia, Romania, Serbia, and Ukraine; providing insurance to “innocent bystanders” with sound economic fundamentals but still at risk of being affected by spillovers from the crisis (for example, Poland); providing advice to countries that do not need financial support.

The crisis has left emerging Europe with a vexing list of problems. Some of these are domestic, but many others are part of the European agenda of unresolved issues. Constrained by fixed exchange rates, high foreign currency debt, or both, most countries must tread carefully, keeping their deficits under control and limiting their monetary policy response. As elsewhere in Europe, the financial sector to-do list is long and includes in many cases the need to recapitalize the banking system. Given the dominance of cross-border banks owned by parent banks based in advanced European countries, this problem clearly goes beyond emerging Europe to encompass Europe as a whole. Its solution requires an update of the Europe-wide framework for financial supervision and regulation (Frank and Hesse, 2009).

### **3.1. Policy dilemmas in developed economies**

Monetary policy is complicated by conflicting economic pressures. On the one hand a rise in headline inflation because of higher oil and other commodity prices is provoking concern about a possible unmooring and rise in underlying inflation expectations. On the other, there is the deflationary pressure flowing from the housing and financial sectors and the autonomous tightening of credit conditions due to rising risk aversion and deleveraging, which will likely contribute to a substantial rise in the output gap in developed countries in the next 1-2 years. Central banks have also greatly expanded liquidity support for troubled financial institutions. In the United States the government has expanded government guarantees on the mortgage assets of Fannie Mae and Freddie Mac and regulators are also taking over failed lenders. These actions are justified by the need to maintain confidence and reduce systemic risks to the financial system as a whole. But they are also increasing concern about the burgeoning fiscal costs for taxpayers and the risk that such measures will inhibit market discipline, promote moral hazard, and foster continued excessive risk-taking by financial institutions - storing up even greater problems for future years.



In recent years developing economies have enjoyed their strongest and most sustained growth in several decades. Developing country imports have risen to become two thirds as large as those of OECD countries while their recent contribution to overall growth in world trade has exceeded that of the OECD by a wide margin (IMF, 2009b). But developing countries are now also entering a more complicated terrain, faced with declining OECD growth and increases in both headline and core inflation. Higher world food and energy prices have a bigger impact here because of their bigger share in budgets and costs. But excessive growth in aggregate demand (relative to supply potential) is also a more significant factor than in the OECD. In many cases fast growth in domestic liquidity and aggregate demand is related to exchange rate pegs to the U.S. dollar, which result in the present relaxed U.S. monetary policy stance being inappropriately imported into fast-growing emerging economies. Some economies (including several in Europe and Central Asia) are experiencing large current account deficits that have been financed by cross-border bank lending, rendering them vulnerable to a sudden reversal in global private capital flows. Balance of payments pressures have increased more generally in oil-importing economies. Fiscal pressures are rising in economies that have tried to shield consumers through increases in energy and food subsidies, or other fiscal means.

### **3.2. Policy dilemmas in developing economies**

Although from an efficiency standpoint it is best to let higher world commodity prices feed through to domestic prices, monetary policy should be on alert to prevent a rise in underlying domestic inflation expectations (while protecting the most vulnerable social groups, for example through cash transfer schemes). A number of economies have already tightened monetary policy. The fall in the U.S. dollar has also put in question the exchange rate peg in many economies and greater flexibility is clearly appropriate in a number. However, some developing countries fear the potential for a disruptive upward surge in the exchange rate just when export markets may be slowing or entering recession. Such a shock, they fear, could temporarily stall growth in economies that are, at present, among the only remaining dynamic segments of the world economy. Given that a significant determinant of poverty is limited access to finance, public banking can thereby permit financial inclusion.

In some countries, mandates for lending to underserved segments have played an important role, and have, in the long term, even proven profitable. Apart from implementing direct public banking, countries should encourage the availability of banking services to the un-banked and insurance to the un-insured. This could include a direct subsidy to offset the credit monitoring costs of dealing with small loans, or through mandating lending to certain groups such as the US Community Reinvestment Act requirements.

Lending to the real estate sector can have a number of social benefits, but it is also a common source of excessive lending and asset market bubbles. Consequently, limits to real-estate-related lending such as loan-to-value limits on mortgage lending should be instituted. These limits should be time-variant, rising in a boom and falling in a crash. Restricting lending, to the real estate sector, may also be an important

instrument in encouraging lending to other sectors. Such restrictions may both enhance stability and development. Negative and positive “priority” lending may be most effective when broad based, leaving the private sector with the strongest incentives to find the best commercial opportunities within those constraints.

Incentives may be an important part of helping direct lending to areas where social returns might exceed private returns, such as micro-credit, small and medium enterprises and rural-sector lending. Similarly, there should be measures to restrain socially damaging activity. In some banking systems, a large proportion of bank investments are in government paper. A number of reasons may be behind this, including the regulation of deposit and lending rates or crowding out of private enterprise by large government deficits rates.

Governments should be encouraged to explore various mechanisms by which the banking system could be used to facilitate productive activity. One arrangement, for example, may be to accept savings directly by the government through a network of post offices to reduce the spread between the bank deposit rate and interest charged by banks to government paper.

#### **4. CRISIS MANAGEMENT IN THE BANKING SECTOR**

##### **4.1. Deposit insurance/guarantees on new bank debt**

The *US, European and other developed country governments* have provided extensive assurances to bank depositors and creditors (and, in a few cases, non-bank financial institutions such as mutual funds) prompted by systemic stability and (in a few cases) competitive concerns. Some of these arrangements include blanket guarantees on deposits and guarantees on new debt issues. The scale of these arrangements has no historic parallel and constitutes a paradigm shift.

Some developed countries have announced that the guarantees on new debt issues will be extended for 18-36 months, but these arrangements may have to be maintained until financial stability is consolidated and credit flows resume on sustained basis, which may take longer in some cases. Some emerging countries are matching these arrangements in order to prevent capital outflows or a shift of deposits to state-owned banks, which are perceived to be safer. The state guarantee backing these arrangements may not be credible in countries where the state is already saddled with a large debt and the banking system is large.

The introduction of special arrangements by emerging countries may be inevitable, but policy-makers should be advised to proceed gradually. Thus, in addition to liquidity support, policy-makers may consider raising ceilings and eliminating co-insurance, before extending blanket guarantees on deposits and debt. For example, *Hungary* has introduced blanket guarantees, but other neighbouring countries (*Czech Republic, Poland, Slovakia*) have not yet found it necessary to do so.

In order to address moral hazard and reduce the incentives for excessive borrowing, it is important to ensure that any guarantees are properly priced. The UK approach of charging 50 basis points for the new debt guarantees merits consideration.

The guarantees should be introduced in conjunction with credible policy measures to clean up the banking system, and should be phased out as stability returns.

There is a continuum of policy measures to enhance confidence and stem the risk of bank runs and capital outflows, of which the introduction of capital controls should be considered as instruments of last resort.

Some countries have also imposed deposit freezes in crises situations, but this measure may have long lasting negative effects on the domestic banking system, if it is not removed promptly and accompanied by a credible reform package. The freezing of deposits in Argentina in 2001 was one of the factors contributing to the poor deposit mobilization in the following years (as indicated by the declining ratio of bank deposits to GDP). Some of the recent changes to the design of deposit insurance may become permanent. For example, regulators may find it hard to lower insurance ceilings to the levels prevailing before the reform.

The crisis has also shown the need for much greater international policy coordination to avoid inefficient beggar thy neighbour outcomes (excessive subsidies in one country spilling over to other countries). An example of the potential competition between jurisdictions that might unintentionally result from such measures would be the decline in business of some offshore financial centres that are unable to match blanket guarantees.

As the financial turmoil intensified after the Lehman Brothers bankruptcy, some EU member states unilaterally (without sufficient consultation with their EU partners) introduced crisis management measures, notably guarantees for deposits and other forms of bank debt. To prevent deposit outflows, other European governments then came under pressure to match the increases in deposit guarantees. Moreover, when state backing became more important, the resources and credit ratings of governments became a major factor in determining the soundness of banks.

The coordination of crisis management measures has improved as time passed and as the EU institutions sought to limit competitive distortions; however, further improvements are needed. In October 2008, European finance ministers agreed that it would be desirable to harmonize deposit protection to the €50,000–100,000 range, with a €50,000 minimum. However, a number of countries remain above this range (table 1).

These differences create incentives for potentially destabilizing outflows. Combined with the existing topping-up option, it allows banks with branches in several countries to offer better deposit guarantees in some countries than in others (or than their competitors). Improved coordination would require establishing not only a minimum, but also a clearer agreement on a maximum level of deposit guarantee coverage, defined to include both official schemes and de facto protection of creditors. A uniform coverage level might in principle be even better. However, this may not be optimal if policymakers in individual countries have different preferences regarding the profitability and stability of the banking sector. In addition, individual countries' deposit guarantee schemes are still very diverse with respect to other basic parameters, such as the type of financing and the determination of premiums, and no clear consensus is in sight.

**Table 1. Banking deposits Insurance Scheme in EU**

Country	Deposits Covered up to (Thousands of euros)		Note
	Before the crisis	After recent changes	
Austria	20	Unlimited	For private customers
Belgium	20	100	
Bulgaria	20	50	
Cyprus	20	100	
Czech Republic	25	50	
Denmark	40	Unlimited	October 2008 to September 2010
Estonia	20	50	
Finland	25	50	Until end of 2009
France	70	70	
Germany	20	Unlimited	All retail deposits in German banks
Greece	20	100	For three years; political guarantee of all bank deposits
Hungary	20	42	Ft 13 million—political guarantee of all bank deposits
Ireland	20	Unlimited	All retail and corporate deposits; valid for two years
Italy	103	103	
Latvia	20	50	
Lithuania	22	100	Valid for one year
Luxembourg	20	100	
Malta	20	100	
Netherlands	20	100	
Poland	23	50	
Portugal	25	100	Domestic nationals' deposits in domestic banks
Romania	20	50	
Slovak Rep.	20	Unlimited	Physical persons; some categories of legal persons
Slovenia	25	Unlimited	Temporary (until end of crisis)
Spain	20	100	
Sweden	28	46	SKr 500,000
Switzerland	20	66	SWF 100,000
United Kingdom	45	54	£50,000

Sources: IMF staff, based on data from the European Commission and country authorities

#### 4.2. Bank restructuring and asset resolution schemes

The *US*, *UK*, *Switzerland* and other *European countries* have initiated programs to address bank illiquidity and insolvency. These programs involve a combination of sales of distressed and illiquid assets and equity injections by the government. There has been an increasing preference for the latter measure, in many cases through the issue of preferential shares (IMF, 2009c). These measures will result in substantial state participation in many banks in these countries. The impact on incentive structures, risk profiles, and performance will vary across countries and institutions. Government exit plans are generally defined in only a handful of programs. Governments will probably try to divest their shares as soon as the conditions allow, but this may take several years in many cases.

Participation in these programs involves conditions on management compensation and profit distribution. Some countries like the *UK* and *the Netherlands* have also introduced special governance arrangements during this period, including board representation, while others like the *US* intend to remain passive investors. This reflects different responses to the dilemma of penalizing existing shareholders and management versus avoiding political interference in bank operations. These experiences will be closely scrutinized by other countries.

*Emerging countries* facing a similar situation may want to signal from the outset that state participation in private banks would be transitory, and that state shares would be divested as soon as the conditions allow. It would be important to stress the objectives of the program, which are to restore not only stability but also efficiency in financial intermediation. Policy-makers should be aware of the options for governing banks in the transitional period. Sweden created an autonomous agency operating under transparent rules (the Bank Support Authority). This is an attractive option, preferable to bank restructuring units inside the Ministry of Finance or the Central Bank, as it isolates the unit from political interference, and does not create a conflict with bank supervision. Some countries plan to use state banks to buy the shares of distressed private banks and re-sell them once the situation returns to normal. This option can be easily implemented, but may also have negative effects, as it can change significantly the structure of the banking system and distort competition.

Most large scale bank restructuring programs include two major components: asset sales/bank recapitalization and the resolution of problem assets. There are different approaches for resolving problem assets, independently of the approach adopted to restore bank solvency and liquidity. In some countries the government carved out the bad loans from balance sheets, but signed a management contract with the originating banks to recover the loans. Other countries have adopted decentralized good bank/bad bank approaches, which typically entail the transfer of bad assets to bank subsidiaries. In other countries the resolution of problem assets is handled by a central agency, which typically pools all the individual loans by type of debt, borrower, and sector, and re-sells them (or the underlying collateral) to investors.

Many emerging countries had to face large scale restructurings and workouts in the 1990s and are familiar with these issues. However, a review of the current arrangements and the experience of past crises resolutions could prove useful to several countries.

#### **4.3. Government involvement in financial systems**

There may be a fundamental reconsideration of the role and importance of the government in the financial system, not just indirectly (strengthened oversight) but also directly through state ownership, particularly in crisis countries.

The need to kick start lending to the real sector once again following the credit freeze may lead several countries to upgrade the role of development banks and the use of directed lines of credit and credit guarantee schemes, as well as to involve themselves in the resource allocation decisions of recently-nationalized banks. A lot will depend on the specific country context and 'levers' that are available to policymakers for tackling the real sector problems from this crisis. While the presence of the state in the financial sector may increase in the next few years, it will be important to keep in mind that permanent and pervasive state ownership is hardly the recipe for financial development and growth, as indicated by the experiences of Central Europe, Egypt, and other countries.

***Macro-Prudential Regulation.*** The importance of macro-prudential regulation will likely increase substantially as policymakers focus on systemic vulnerabilities

from the business cycle (time dimension) and from the increased banking system concentration and inter-linkages between different parts of the financial system (cross-sectional dimension). The time dimension could be addressed via measures to mitigate pro-cyclicality, e.g. adoption of a leverage ratio (as in the *US*), anti-cyclical loan loss provisions (as in *Spain*), or ex ante capital buffers over-and-above Basel II (as might happen in *Switzerland*).

More radical measures would include a substantial revision of Basel II's Pillar 1 to make capital charges less cyclical in nature, although (ironically) it would also reduce their intended risk sensitivity. Moreover, it will be interesting to see whether future efforts to 'lean against' potential bubbles will rely primarily on monetary or macro-prudential policy measures.

The cross-sectional dimension could be addressed indirectly via policy measures to promote competition, increase supervisory scrutiny for systemically important banks, minimize regulatory arbitrage across financial sectors (e.g. harmonization of capital rules for certain credit instruments), and reduce interconnectedness (development of clearinghouse for credit derivatives, consolidation of off-balance sheet vehicles). However, it could also be addressed more directly via, for example, greater capital adequacy requirements under Pillar 2 of Basel II for banks deemed to be 'too interconnected/big to fail'.

In a few countries, there will be a rethink of institutional arrangements for financial sector oversight, such as a move towards integrated supervisory agencies (which had already been taking place in several countries) and bringing such agencies into central banks in order to strengthen financial stability. However, recent international experience has shown that such solutions do not necessarily represent a panacea for better supervision and may actually backfire if not implemented properly.

**Micro-Prudential Regulation.** The crisis has intensified the debate on the adequacy and effectiveness of Basel II, particularly the reliance on credit rating agencies, banks' own risk management models, and the excessively mechanistic capital formulae in Pillar 1. Nevertheless, regulatory authorities in most countries still seem determined to proceed with its implementation given the enormous regulatory and political challenges of fundamentally restructuring it. There seems to be agreement on the need to strengthen specific elements of the agreement - for example, tightening capital charges for securitized exposures and trading books - but not much beyond that.

Pillar 2 has clearly emerged as the most critical component of the overall architecture since it offers supervisory discretion to go over-and-above Pillar 1 requirements by introducing, for example, some of the aforementioned macro-prudential measures as well as tighter liquidity requirements to address the negative feedback loop between deleveraging and loss of liquidity that has been observed in the financial crisis. However, it is an open question whether this Pillar can (or should) accommodate the vast majority of additional prudential measures that are under consideration.

Regarding Pillar 3, additional financial reporting and disclosure has been cited as a solution to previous crises, and will undoubtedly be mentioned once again in the present one. While the starting point is that more information is healthier for markets (whether the news is good or bad), there is concern about the ability of market

participants to process so much information (HSBC's annual report is over 1,000 pages) and to respond to it. The current crisis revealed that market discipline will depend not only on improved disclosure but also on improving the incentives and mechanisms for stakeholders to use effectively the available information.

The absorption of smaller and/or weaker banks by larger ones in this crisis, often with the explicit support of the authorities, will likely increase financial system concentration and renew concerns about the overextension of the financial safety net and the incidence of conflicts of interest within financial groups. The regulatory response will likely be stricter oversight of systemically important institutions and tougher rules regarding "Chinese walls" and other ways to mitigate such conflicts.

## **5. CONCLUSIONS**

The current recessions are also highly synchronized, further dampening prospects for a normal recovery. In particular, the rapid drop in consumption in the United States represents a large decline in external demand for many other economies.

Hence, it is unlikely that overleveraged economies will be able to bounce back quickly via strong growth in domestic private demand - fundamentally, a prolonged period of above average saving is required. In many previous cases of banking system stress, net exports led the recovery, facilitated by robust demand from the United States and by exchange rate depreciations or devaluations. But that option will not be available to all economies currently in recession, given the extent of the downturn.

Given the likely shortfalls in both domestic private demand and external demand, policy must be used to arrest the cycle of falling demand, asset prices, and credit. Monetary policy has been loosened quickly in most advanced economies, much more so than in previous recessions, and extraordinary measures have been taken to provide liquidity to markets. Further effective easing is possible, even as nominal interest rates approach zero.

However, evidence from this paper indicates that interest rate cuts are likely to have less of an impact during a financial crisis. In view of the continued distress in the financial sector, authorities should not rely solely on standard policy measures.

The analysis in this paper shows that fiscal policy can make a significant contribution to reducing the duration and effects of recessions associated with financial crises. In effect, governments can break the negative feedback between the real economy and financial conditions by acting as "spender of last resort." But this presupposes that public stimulus can be delivered quickly.

Moreover, the sustainability of the eventual debt burden constrains the scope of expansionary fiscal policy, and it will not be possible to support demand for an extended period in economies that have entered recession with weak fiscal balances and large levels of public debt. In the event of severe and prolonged recessions during which deflation is an important risk, fiscal and monetary policies should be tightly coordinated to contain downward demand pressures. Furthermore, given the globally synchronized nature of the current recession, fiscal stimulus should be provided by a broad range of countries with fiscal room to do so, so as to maximize the short-term impact on credit and so, on global economic activity (World Bank, 2008).

Restoring the health of the financial sector is an essential component of any policy package. Experiences with previous financial crises - especially those involving deleveraging, such as in Japan in the 1990s - strongly signal that coherent and comprehensive action to restore financial institutions' balance sheets, and to remove uncertainty about funding, is required before a recovery will be feasible. Even then, recovery is likely to be slow and relatively weak. So, the governments should involve in the financial sector management by granting guarantees, by applying banks capitalization schemes and by enforcing micro and macro-regulation of this sector.

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## **FINANCIAL ANALYSIS BASED ON INTERMEDIATE MANAGEMENT BALANCES**

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**ABSTRACT:** *Main content of Finance aims to maximize business value and economic means and tools to achieve this objective are the subject of financial management. The financial management in the broad sense means all actions relating to the conservation, management and disposition of a patrimonial right. The property firm is reflected script in the balance sheet, summary of the monetary expression of the activity in one year is given by results account. Synthesis of the results renders all income and expenditure of the company's overall activity, i.e. cash picture of any operation conducted by the firm and hired her heritage in any way. If stock of a company expresses patrimonial state, how they reached that state, which are streams of revenue and expenditures are expressed through your results. Account the economic flows resulting emphasises term revenue and expenditure management, resulting from operating activities, financial and exceptional. Intermediate management balances aimed at explaining the training outcome management company to review its progress. These are two categories of financial management indicators: balances interim management, capacity of self-financing. Give different levels of profitability of the firm. Characterize the financial situation of the enterprise in terms of contribution of different inputs. GIS are largely indicators "cascade".*

**KEY WORDS:** *finance, financial management, heritage, of the results, balances interim management, turnover, margin commercial, financial year, gross exploitation surplus, the current results, etc.*

Main content of Finance aims to maximize business value and economic means and tools to achieve this objective are the subject of financial management. The financial management in the broad sense means all actions relating to the conservation, management and disposition of a patrimonial right. Financial management as part of overall management means managing all of the shares of the company cash resources

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to maximize its value. In this sense we can distinguish a short-term financial management and a medium and long term.

The property firm is reflected script in the balance sheet, summary of the monetary expression of the activity in one year is given by results account. Synthesis of the results renders all income and expenditure of the company's overall activity, i.e. cash picture of any operation conducted by the firm and hired her heritage in any way. Through the eyes of targeting in relation to company cash flows that summarizes, account result is a picture of 'income' (income) - "output" (expenses), balance a company's financial results. Of the results include expenses first and second income, both classified into four classes (table 1. Summary account of results):

**Table 1. Account Summary Results**

Expenditure	Revenue
<p>(i) – supply (goods, raw materials, consumable supplies, supplies Stocked, packaging);</p> <ul style="list-style-type: none"> <li>- Changes in inventories;</li> <li>- External services (rents, repairs, insurance, fees, advertising, transportation, mail);</li> <li>- Taxes;</li> <li>- Staff (rights, daytime, education);</li> <li>- Other costs of current management (fees, chips present);</li> <li>- Depreciation and provisions;</li> </ul> <p>(ii) – (no subclass)</p> <p>(iii) – Interest and similar charges;</p> <ul style="list-style-type: none"> <li>- Loss of current foreign exchange;</li> <li>- Net expenditure transfer of securities investment;</li> <li>- Redemption and financial provisions (Debenture redemption provisions for securities);</li> </ul> <p>(iv) - operations management (fiscal or criminal fines, debts become non-refundable);</p> <ul style="list-style-type: none"> <li>- Capital from operations (non-recovery of loss by depreciation of all depreciable property);</li> <li>- Depreciation and exceptional provisions.</li> </ul>	<p>(i) - Sale of goods;</p> <ul style="list-style-type: none"> <li>- Sale of finished products;</li> <li>- Value of stored;</li> <li>- Immobilized-production (value of products used for their own equipment);</li> <li>- Net income from operations long-term (share part of the balance charged to operations extending over several years);</li> <li>- Operating grants;</li> <li>- Other income from current management (royalties received, rent received from rental of production capacity);</li> <li>- Resumes on depreciation and provisions;</li> <li>- Transfer of expenditure;</li> </ul> <p>(ii) – (no subclass )</p> <p>(iii) – of equity;</p> <ul style="list-style-type: none"> <li>- Of financial assets;</li> <li>- Replays of redemption and financial provisions;</li> <li>- Transfer of financial costs;</li> <li>- Net income from investment securities transfer;</li> </ul> <p>(iv) – operations management (penalties charged, donations, tax relief);</p> <ul style="list-style-type: none"> <li>- Capital from operations (income from disposal of assets, the share of investment subsidies for the year of assessment);</li> <li>- Resumes the exceptional depreciation and provisions</li> </ul>

Track record is one of the traditional objectives of general accounting, in all countries drafted in this effect called a summary statement of the results or profit and loss. Accounting measurement result based on a principle which is to determine a real surplus.

This principle, however, raises some difficulties in assessing the monetary surplus released by the business and financial analysis calls for the calculation of specific indicators to measure it. Traditional accounting results based on a comparison between the actual expenses incurred by an enterprise in a period of time (year) and income from work in the same period. If stock of a company expresses patrimonial state, how they reached that state, which are streams of revenue and expenditures are expressed through your results.

Account the economic flows resulting emphasises term revenue and expenditure management, resulting from operating activities, financial and exceptional. Revenues and costs are structured into three main categories according to areas of activity that generated: operating on sectors: Industrial, commercial, services etc. on financial holdings in other companies and other equity capital investment; extraordinary. Costs are all elements of costs incurred by a trader during the year following the consumption of inputs for production and sale of goods or services such as consumption of raw and auxiliary materials, energy, water, personnel costs, calculated depreciation and provisions, etc.

Revenues are the total economic operations that affect company assets by increasing the asset if the proceeds are cash or pre-recorded claims or by reducing provisions where they remain meaningless. The most important income is a turnover. The revenue includes sales invoiced to customers, increasing stocks of unfinished production and stocks of finished goods, resumes on depreciation and provisions.

Comparing the size of income expenditure is obtained size financial results or gross profit. It is also referred to as the accounting outcome is determined by the principles and accounting rules. Taxable profit is calculated as the difference between the revenues derived from any source and expenses incurred for carrying them out one year, minus taxable income and deductible expenses are added.

The following are considered taxable income the dividends received by a Romanian legal person from another Romanian legal person, the differences favour the value of fund units recorded following the incorporation of reserves, the first issue, etc. Revenue from debt cancellation were considered non-deductible expenses and the cancellation provisions for which no deduction was granted, other income deductible expressly provided for in special laws.

The calculation of taxable income is deductible expenses if they are involved in developing revenue. The categories of expenditure deductible remember: income tax expense, including the difference between the current year or previous years (and taxes imposed abroad), fines, seizures, increased the delay and penalties due to Romanian authorities, according to legal provisions other than those in economic contracts, fines, penalties and increases paid by foreign authorities or economic contracts concluded with non-residents in Romania are deductible expenses, expenses that exceed the limit of Protocol 2% applied to the difference between total revenue results and expenses, less income tax expenses and costs incurred during the year the Protocol, the amount of

travel allowance expenses paid employees, which exceeds 2.5 times the legal limit for public institutions, the amounts used for the establishment or increase of reserves over the legal limit, amounts to up reserves over the legal limits, amounts exceeding the limit considered deductible expenses of the annual budget law, expenditure on non-taxable income.

For the interpretation of accounting and financial charges and income, longer require some clarification: a sale of finished product is in terms of accounting (and thus determine the outcome and final) income even if that claim will be charged at a time following (including the following financial years), and when it will be charged will not be in income, consumption (eg electricity) is an expense for business even if the payment provider will be made following a period (financial years following), and when payment will be made, it is no longer an expense, the annual depreciation of fixed assets are recorded at cost but has no impact on net cash position than to the extent that payments are made for acquisition of property, constitute provisions to cover (the future) Impairment of assets or to cover risks and will account for expenditure, but not affecting the results for the Treasury.

If the future risks will become effective when payment will occur and will reduce or annul the provisions charged to income. Also, the cancellation provisions nugatory will affect profit or loss charged to income. Intermediate management balances aimed at explaining the training outcome management company to review its progress. These are two categories of financial management indicators: balances interim management (GIS) capacity of self-financing (CAF). Give different levels of profitability of the firm. Characterize the financial situation of the enterprise in terms of contribution of different inputs. GIS are largely indicators "cascade".

a) Turnover (CA) - is the size of "business" conducted by third parties through normal activity specific to the firm. The aggregate is calculated by adding production sold (PV) with sales of goods (V):  $AC = PV + V$  where: PV - production sold; V - sales of goods. It is a fundamental element of financial analysis, serving as a landmark or point of comparison for the size of other financial aggregates (speed of rotation, the intensity of activity, profitability, etc.). Values is used without T.V.A

b) commercial margin (CM) - is an essential management and key indicator for the enterprise engaged in commercial activity. Determination to make the difference between sales of goods (V) and the purchase cost of goods sold (CC):  $MC = W - DC = V - C - CS + DSM$  - Where: CC - purchase cost of goods, C - value purchases, CS - additional expenditure required purchase goods - changes in stocks of goods. Margin trading allows comparisons between companies and represents a step in the calculation of "margin on variable costs" on which to determine break-even.

c) Production year (EP) - is the sum of three elements: production sold, stored production and production property:  $PE = PV + PS + PI$  - Where: EP - production year, PV - production sold, PS - output stored, PI - production of property

d) Value added (VA) - is to increase the value resulting from the use of production factors, especially labour and capital factors. Is calculated as:  $VA = EP + MC - CT$  - Where: Ct - external inputs from third parties (drinks year from third parties). It is a source of accumulation of money is made direct and indirect participants pay the business of the company: personnel with salaries, allowances,

bonuses, social spending, state by taxes, fees and similar payments, the dividends paid to shareholders, company by capacity self-financing.

e) the gross operating surplus (EBE) - expressing Gross operating. Is calculated as:  $EBE = VA + SE - I - PS$ -Where: SE - operating grants; I - Taxation, PA - personnel costs. EBE is independent of financial policy and depreciation policy of the company and is not influenced by exceptional results.

f) Operating result (RE) - is appropriate normal activities of the undertaking, and expresses the absolute magnitude of the profitability of the business of operating income net of all costs of operation calculated whether charged or paid respectively. Is calculated as:  $RE = EBE + PR + AVE - AP - ACE$ -where: RP - resumes on provisions (provisions on income from operating activities); AVE - other operating income; AP - depreciation and provisions (operating expenses on depreciation and provisions), ACE - other operating expenses.

g) The result of the current year (RC) is determined as the result of operation and financial activity, the result for repetitive activities and normal. It is calculated as follows:  $RC = RE + VF - CF$ -where VF - financial income, CF - Financial

h) Result of Extraordinary (REX) - the difference between income and extraordinary expenses. Is calculated as:  $Rex = Vex - CEX$ -where Vex - extraordinary income, CEX – Extraordinary.

i) Profit for the year (RNE) - expresses the absolute magnitude of financial return to shareholders are paid. It is to be distributed as dividends or development. Is calculated as:  $RNE = CR + Rex - IP$  where IP - income tax.

II. Sample financial analysis on the basis of the results of SC X SA between 31.12.2006-31.12.2008

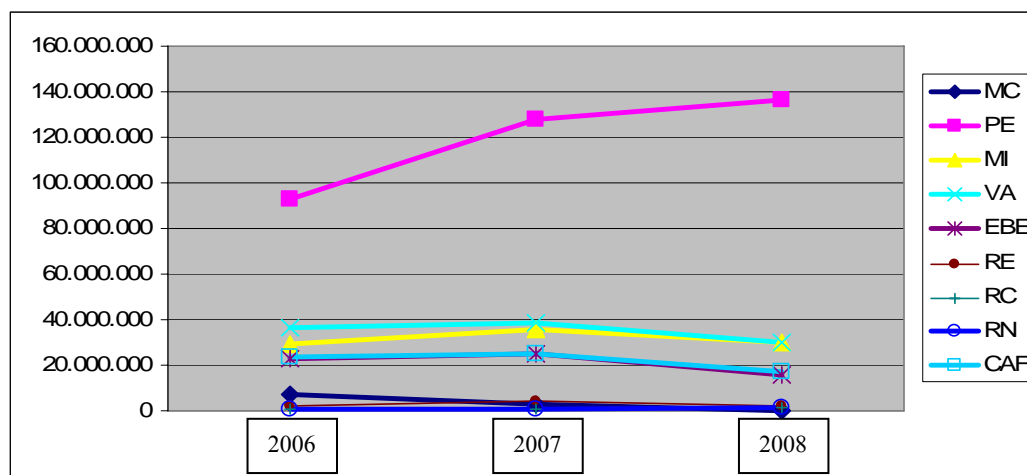
**Table 2. Results of SC X SA between 31.12.2006-31.12.2008**

No.	Indicators	31.12.2006	31.12.2007	31.12.2008
1.	Total revenue, of which	101.891.476	132.594.386	141.136.188
	Operating revenue of which:	100.346.031	130.752.971	137.632.505
	Production sold	97.739.453	131.505.824	142.903.600
	Selling goods	7.280.262	2.539.144	70.276
	Changes in inventories	-6.034.191	-6.500.206	-7.911.251
	Production immobilized	1.107.642	2.779.299	1.374.325
	Other income explain	252.865	428.910	1.195.555
	- Financial income	1.545.445	1.841.415	3.503.683
2.	Total expenditure, of which	100.922.713	131.924.987	139.365.043
	- Operating expenses, which	98.099.978	126.308.368	135.161.313
	Spend. with math. pr. and materials	49.603.746	63.703.101	82.026.437
	Spend. energy and water	13.957.822	28.158.550	27.760.121
	Spend. on goods	7.256.137	2.515.819	744.047
	Spend. staff	13.610.436	13.333.461	13.511.907
	Other spending. operating	13.671.837	18.597.437	11.118.801
	- Financial spendings	2.822.735	5.599.752	4.203.730
3.	Gross profit for the year	968.763	669.399	1.771.145

**Table 3. Account the results of SC X SA between 31.12.2006-31.12.2008**

Name index	Values obtained		
	2006	2007	2008
MC	7.280.262	2.539.144	70.276
PE	92.812.904,00	127.784.917,00	136.366.674,00
MI	29.495.976,00	35.923.266,00	29.672.884,00
VA	36.776.238,00	38.462.410,00	29.743.160,00
EBE	22.871.045,00	24.771.075,00	15.873.089,00
RE	2.246.053,00	4.444.603,00	2.471.192,00
RC	968.763,00	686.266,00	1.771.145,00
RN	433.349,00	401.585,00	1.262.547,00
CAF	23.304.394,00	25.172.660,00	17.135.636,00
Rec	0,0222	0,0464	0,0213
Rfin	0,0099	0,0089	0,0178

Table centralized specific indicators of financial performance analysis.

**Figure 1. Evolution of main indicators of financial performance**

In conclusion, marketing margin (CM) considering the scope of work of SC X SA, namely production and marketing of graphite electrodes and nipples, the marketing margin calculations only take into consideration the production sold. But the notion of MC is not enough, because in the cost of goods sold and other inputs arise from outside the enterprise (supplies, works performed by third parties etc.). Value added is a commercial margin, enlarged by this kind of expenditure.

Thus the MC calculation to consider only the sales value of goods and varying can see it, and the depreciation of the value of 99.03% in 2006 compared to 2004. Production year (EP) register an upward trend, both because of the increased production capacity, due to higher prices and sold products. High levels of this

indicator is due primarily to the fact that SC X is realized almost exclusively an activity of production.

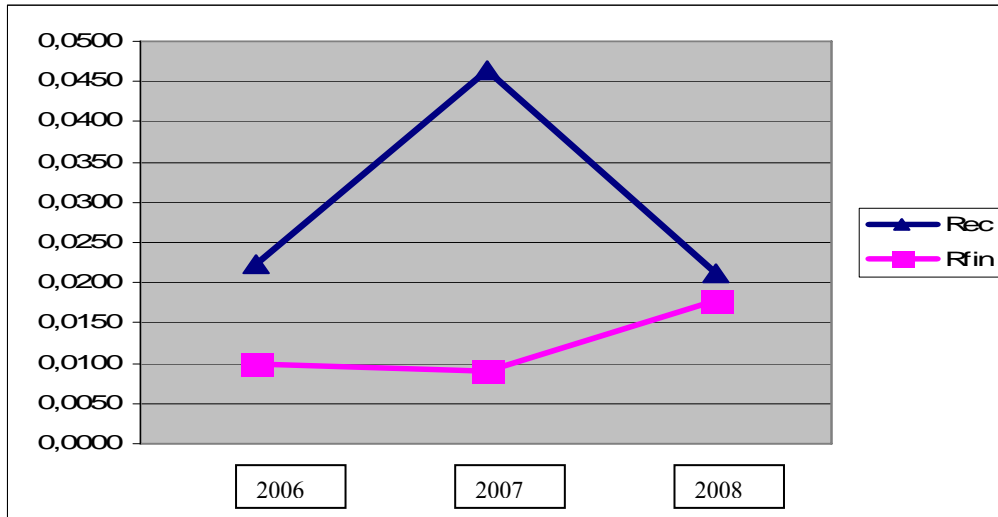


Figure 2. Evolution of  $R_{ec}$  and  $R_{fin}$

Value added (VA) is the difference between sales and production enterprise on the one hand and what was bought from third parties on the other. It measures the value created by the enterprise through its work and is an indicator of company growth. Development will in the period 2006 - 2008 is quite fluctuating, an increase in 2007 compared with 2006 followed by a decrease in 2008 compared with 2006.

Gross operating surplus (EBE) measures enterprise resource obtained from operating activities regardless of financial issues, property or business. EBE is an important financial resource for enterprise, resource to be used for maintaining increase production capacity, pays financial, tax benefits etc. EBE is also a real potential cash resource. If SC X SA, evolution EBE is fluctuating between 2006-2008, according to trend will respectively increase, followed by a decrease of 30.6% in 2008 compared to 2006.

The result of operation (RE) measures current activity of the company. This indicator registers increasing values during 2004-2005 (up 97.89% in 2007 compared with 2006) and decreasing values in 2008 compared to 2007 (down 44.40% in 2006 compared to 2007). The main cause is on the increase in operating expenses relative to income.

Current result (CR) is the result after tax resulting from operations and normal operating current and financial operations are enterprise. Size range indicator, and from a decline of 29.16% of RC in 2007 compared to 2006, following an increase of 158.08% in its 2006 compared to 2007. Evolution of the indicator is in direct relationship to the evolution of exploitation and the evolution of income Financial income (financial income-expenditure accounts). Thus, in 2007 the financial result is apparent decline, followed by an increase in its in 2008.

The net result (NR) expresses the effective exercise of the entire activities of the company and is one of the most outstanding used to calculate rates. It may be noted that the evolution of TN is fluctuating, that a decrease in 2007 of 7.33% over 2006, followed by an increase of 214.39% in 2008 compared to 2007.

The company achieve positive results both from operating activities and of financial activity. Company is solvent-which shows the ability of enterprise to pay immediate cash obligations and removed.

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## THE DYNAMIC CHARACTER OF THE PERFORMANCE IN THE TOURISM ACTIVITY

DORU-BOGDAN RĂVAȘ \*

**ABSTRACT:** *Our country benefits of great opportunities in developing tourism, and the practice of this kind of activity is necessary in the actual stage of national development. The Romanian tourism has been in a continuous resemblance with the entire touristic movement, but through its advantages it tries to cover its needs and minuses. The development of the tourism would lead to special effects regarding the connections established between owners and visitors and the appearance of new personal and professional relations.*

**KEY WORDS:** *tourism, performance, development, revenues, strategy*

The tourism in our country has been an old practice even within the early years of the 20<sup>th</sup> century when the accommodation of the incidental visitors in local settlements was very common.

A real analysis of The Romanian offer, would lead to the conclusion that in our country the touristic patrimony is not enough rented profitable although the touristic product is in a state of a continuous improvement. On the other way, in this moment the local product has taken the shape of households or settlements that offer general touristic services, turning in the same time to value the enormous possibilities of our patrimony.

The milestones of The Romanian tourism may be considered the following:

- the real value of the recreation moments offered by the natural and traditional environment;
- the aesthetical elements of the panoramic view;
- the possibility of development for many hobbies and cultural activities;
- the possibility of enriching the knowledge of nature elements and local traditional activities that surround a household;
- the enormous investment potential.

The tourism in Romania benefits as we speak in the matter of infrastructure by the national road network system that is continuously modernized, hoping that as soon as possible it would also derive advantage by the development and expansion of the

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national highway system that would allow a connection between the areas that provide tourists and areas that receive tourists creating a favourable balance.

Our country benefits of great opportunities in developing tourism, and the practice of this kind of activity is necessary in the actual stage of national development.

The revenues achieved by practicing this activity, resulting from a mutual interest showed by the offerers and demanders, materialized in the commerce with local, natural products, involving the tourists in agricultural activities, can substantially contribute to an increased living standard and the steadiness of the young human resources in this area of activity.

The geographic structure of our country offers ideal conditions also for the touristic activities and practicing winter sports, having a very important role as a natural reserve with great potential still not enough put to value, representing a possible income resource for limited and expanded periods of time.

The base of the quick launch of the Romanian tourism is the complex analysis of the multiple advantages of our tourism in comparison with other countries we compete with, some of them much more developed from the economic point of view.

The Romanian tourism has been in a continuous resemblance with the entire touristic movement, but through its advantages it tries to cover its needs and minuses.

If we have in mind the quality of the product, very important for any traveller, it is well known that the insertion of structures in the circuit, that would offer through its human resources low quality services could discredit for a long time any product or destination.

A special attention in the matter of marketing strategies must be granted to the promotion of the product by publishing informative bulletins, brochures, inclusion in the international touristic circuit by editing catalogues at European standards and developing informative offices with qualified personnel.

The immediate measures that should be taken in order to increase the efficiency of the service commerce in the area of the tourism, should aim the following: the development of a team of experts capable of lending technical assistance by organising trainings for the people directly involved in the activity, the achievement of a competitive information system and the development of high social skills in the relation with the tourists.

Also very important is the existence of strategies and policies able to emphasize: the enunciation of precise objectives, very realistic and time coordinated, the improvement of the infrastructure, the planification of settlements such as farms, pensions at international standards, the identification of all available resources that can be proper put into value and the accomplishment of the national reservation system.

As a perspective it is highly recommended a different strategy regarding the identification of the modern and traditional accommodation structures for the tourism.

The achievement of the modernized traditional accommodation structures would impose the idea of finding local or foreign investors that can be able to take care of this objectives in order to increase the number of travellers willing to spend their vacations and their money here.

The development of tourism in a series of west European countries reveals as very important the stimulation of the local enterprising to direct their capital in order to realize:

- small and medium accommodation facilities, in the areas with great unused potential;
- arrangements and modernizations of the equipments and units spaces with commercial profile, of those in charge with entertainment and all the endowments available.

It must be also noticed that until the present time, the resources of proper capital have been the support for most of the investments for the tourism units.

In connection with the European example it is highly recommended for our country authorities the grant of some financial banking facilities which may appear as long term loans with low interests useful for: the endowments of the settlements, the development of the areas with great potential for tourism, the improve of infrastructure in order to make the access easier, advertising campaigns and others.

Together with the real necessity for modern endowments the general infrastructure needs also general refreshment. For this purpose the involvement of the authorities it is highly recommended. The local and central authorities could grant financial and logistical aid to those units involved in tourism in order to stimulate a quick and qualitative development with mutual gains.

It is necessary that the local authorities, first of all, to be the main promoters of the profitable management for tourism by initiating local programs as a support for tourism by keeping the traditional and archaic spirit of the regions.

The strengths of The Romanian tourism are determined by the internal elements which are not hard to be identified because the tourism in Romania can offer a great variety of products and services.

Strengths are considered to be also the opportunities given by the existence of an environment that combines the traditional with the modern style. Very important for this area of activity are also the international routes, the access to occidental products and services, the accessible prices and the excellent quality of the traditional products offer.

The weaknesses arise from the organizatorical difficulties determined by: lack of information for tourists, the lack of airline connections, the underdeveloped infrastructure in some areas, lack of promotion and advertising, the low report between quality and prices, lack of trained human resources.

The opportunities are given by the romantic view, the traditional aspect, the continuous growth of foreign business travellers that interact with this regions, the growth of access possibilities for the occidental products and services, the intense cultural exchange, the connection to The Eurogites network, the presence of on-line advertising materials and others.

The threats are determined by the low report between quality and prices, degradation of the environment due to the lack of ecological measures, limited accommodation possibilities, weak infrastructure level, and lack of possibilities for renting vehicles.

The launch of The Romanian tourism on the world market can be associated with the measures of large opening towards the outside world, being focused on the efforts of insurance of a product offer very competitive, new and with a high personality.

The proposed measures to be achieved would effectively contribute to the increased number of foreign tourists that would visit the regions specialized in tourism. By the same time it will be noticeable an important change in the structure of the foreign tourists preoccupied by tourism by the growth of organized groups that are willing to spend their time heir.

The achievement of constant incomes from tourism is possible if there are realized: a favourable image of the regions and settlements, good quality management, quality services and products, advertising at national and international level.

The development of the tourism would have a great contribution to Romania's balance of payment, the incomes from tourism being able to reach the ones in the developed countries from this point of view.

Also the development of tourism would lead to the economical growth of the regions due to the multiplying effect of this activity with positive influences over agriculture, transportation, construction, services.

The economical efficiency of the tourism it is associated with the social evidence that results from the insurance of the conditions for developing the work facilities, the pleasant spending of the spare time, the increased level of general education and professional preparation and a great variety of services.

The development of the tourism would lead to special effects regarding the connections established between owners and visitors and the appearance of new personal and professional relations.

The promotion of the cultural values, the achievement of proper presentation areas and the entrepreneur's hospitality are the key for The Romanian tourism in the stage of a continuously development in order to line up with The European standards.

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## **ABOUT SECURING ECONOMICAL APPLICATION ON OUR SYSTEM BY PROTECTING OUR COMPUTER FROM INTRUDERS**

**SORIN MIHAIL SAV \***

**ABSTRACT:** *Computer security is one of the most important issues in the computer world. With the number of viruses and other malicious software that prey on exploits in the Windows operating system increasing, we need to take preventative measures to make sure that our computer does not become infected. The days of only having to worry about e-mail attachments and documents on a floppy disk are over. Nowadays, viruses or worms actively seek out computers to infect without the computer user even doing anything. Once a virus or worm has gained entry to a system, the invaded computer can turn into a virus distribution centre. Often, the computer sends copies of the virus to all of the people in its address book. Even worse, the infected computer may begin to scan a block of IP addresses (that is, computer addresses) to try to find more machines that it can infect.*

**KEY WORDS:** *Port, Exploit, Firewall, DCOM, Wireless Network*

### **1. INTRODUCTION**

If our computer is not protecting its connection to the Web, it is at increased risk of becoming infected. So how do you protect our Internet connection? That topic is what this whole paper is about. We'll learn how to test our computer and see how vulnerable it actually is. Then, we'll find out how we can use firewalls to build a "brick wall" around our computer. You'll also learn how to turn off some unnecessary services to lower the risk of infection even further. We'll discover how we can secure wireless network connections, as they are growing so much in popularity.

Once we have our computer locked down from the outside, some connections to our computer may still be open, which we do not want to close down. Remote connections need to have certain ports open on our computer so that we can connect remotely to our computer. If we want to share files with other computers on our local network, then we'll want to leave the Client for Microsoft Networks unblocked. However, when we have openings in our computer's security, we leave us vulnerable,

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allowing users to get in. To help combat that vulnerability, we'll learn about ways to use the various user accounts settings to assign complex passwords and permissions to users.

## 2. HOW VULNERABLE IS OUR SYSTEM?

Our computers are a vault of important information. We could have sensitive data on our computer that you do not want the whole world to see. Data such as family photos, personal documents, and financial information can be found on almost everyone's computer. If a virus or an attacker connected to our computer remotely and gained access, that intruder could wipe out years of work and memories as well as steal sensitive personal information. This paper will show us how to test our computer and find out how vulnerable it really is. To do this, we'll be using a nifty online utility to test our Internet security. Then, proper security update procedures will be examined, so we can see if we are really doing what we should to ensure a secure PC.

*Testing our internet security.* Ports are the gateways inside your computer. When a computer program wants to communicate with a remote computer, it makes a connection to the remote computer with a port, with which it can then talk to the computer. Each computer has thousands of ports - 65,535 to be exact. The different ports of a computer can be thought of as a bunch of different mailboxes. When a program wants to send data to a remote computer, it sends it to a specific port (mailbox) number. Then, provided that a program is on the remote computer that is set up to receive data at a particular port (mailbox), the remote computer can then work with the data that it was sent. Theoretically, nothing is wrong with this scenario. In the real world, however, programs don't always work this way. Programs are not perfect, nor are they always efficient. Sometimes, they are sent data that they are not programmed to receive, which causes all kinds of program errors, including errors that can allow a remote attacker to connect and run commands on our computer.

The technical name for data sent to a program that results in problems is exploit. Because of errors in programs and the exploitation of the errors, we need to protect your computer. Even though we may have all the latest security patches installed, our computer will not be protected forever. It is just a matter of time before someone figures out a new exploit and it starts to spread. Only after the fact is the patch usually developed and distributed. So how do we protect us from future attacks? It is actually a very simple concept. There are a lot of open ports (mailboxes) on our computer that just don't really need to be open to the outside world. Why not close all ports except for one or two you absolutely need so that exploits can no longer get through because they never have a chance to connect to your computer?

How do we close ports and protect our computer? We use a firewall. To give you an idea of how open our computer really is to the outside world, I recommend that we use one of the various online security screening tests that attempt to probe our computer to find weaknesses. The following is a list of sites that I feel does a good job of letting us know how open our computer really is:

- *Symantec Security Check:* <http://security.symantec.com>
- *Sygate Online Services:* <http://scan.sygate.com/>

### **3. UPDATING OUR COMPUTER**

Because programs are not perfect, they require updating. Windows XP is a great operating system; however, no operating system is perfect. In order to keep our machine secure and free of the latest exploits, we must update our computer regularly. Visiting the Windows Update Web site ([www.WindowsUpdate.com](http://www.WindowsUpdate.com)) once every few months is not going to result in a secure, up-to-date computer. Microsoft releases security updates monthly and emergency security updates whenever they are needed. The only way to stay on top of these updates is to check Windows Update daily, subscribe to the Microsoft Security Newsletter, or enable automatic updates.

#### **3.1. Windows update**

Microsoft's Windows Update Web site offers an easy way to view all of the updates that are available for our computer. Microsoft releases both critical and features updates that update various software apps and add interesting new features to Windows XP. For example, critical updates fix major security concerns, such as the widespread exploit for Windows XP known as the W32.Blaster.Worm worm. This worm spread to other computers by using a vulnerability in a component of Windows known as RPC (remote procedure call). To fix the security hole, Microsoft released a critical patch that fixed the security hole. Feature updates update bugs and add new features to common Windows applications such as Windows Movie Maker. Using the Windows Update Web site is very easy too. Just key in [www.WindowsUpdate.com](http://www.WindowsUpdate.com) in your Web browser Address window, click Go, and we'll be there in no time.

#### **3.2. Security newsletter**

The Microsoft Security Newsletter is a great way to keep informed about all of the latest security patches that Microsoft releases. Receive an e-mail in our inbox every time Microsoft releases a critical security patch. If you are a home user, visit [www.microsoft.com/security/security\\_bulletins/alerts2.asp](http://www.microsoft.com/security/security_bulletins/alerts2.asp) for more information on the newsletter. On that page, Microsoft also offers a more technical version of the Microsoft Security Newsletter that will not only notify us of a critical security patch, but will also explain the full vulnerability. If you are an IT professional and want to know exactly what the patch is for, the technical version is for you.

Microsoft TechNet also offers a monthly newsletter that offers security news and advice. This is another great newsletter to subscribe to. It was primarily intended for IT professionals, but home users may also find it useful if they are interested in a more technical approach.

Visit [www.microsoft.com/technet/security/secnews/newsletter.htm](http://www.microsoft.com/technet/security/secnews/newsletter.htm) for a copy of the latest newsletter, as well as information on how to subscribe.

### 3.3. Automatic updates

Windows XP has a great Automatic Updates service. With the release of Service Pack 3, that service is now even better. With the ability to set a specific time every day to check and install new updates, we now can schedule a time for our computer to automatically check for and apply updates so that we will not have to visit the Windows Update Web site manually. By turning on Automatic Updates is a great way to make sure our computer is up-to-date. However, it is a good idea to visit the Windows Update Web site every few months to make sure that Automatic Updates is still working. If it is, then we should not see any critical updates available when you visit the Web site.

Working with the Automatic Update settings is not a difficult task. Just right-click the My Computer icon located in the Start panel or on our desktop and select Properties. Then, click the Automatic Updates tab and specify the setting that we want, and click OK to save your changes. Users also have the ability to turn off Automatic Updates by selecting the last option on the Automatic Update tab. We should have to be crazy to do this unless we plan on checking the Windows update Web sites daily or subscribing to the Microsoft Security Newsletter. The Automatic Updates service does not consume a lot of system resources. The resources that it does consume are well worth it because of the invaluable service that Automatic Updates provides.

## 4. FIREWALLS

We now know that our computer is vulnerable to viruses and attackers from the Internet. We also know that one way to help fight those attackers is to block access to our computer on all of the different ports, which can be gateways into our computer. How exactly to block all the ports? Use a firewall. A firewall is a special application that acts like a brick wall that is protecting all of the ports on our computer. When a remote computer attempts to access a computer on which a firewall has been installed, which is blocking the port on which the remote machine is trying to connect, it will not be able to connect and the data that was sent will be ignored and discarded.

Depending on the way the firewall is configured, when data is sent to a blocked port on our computer, the firewall will either respond to where the data was sent from with a message that the port is closed or it will do nothing, giving our computer a stealth presence. Most firewall applications are set up by default to run in a stealth mode, which will provide the maximum amount of protection. Any remote computer trying to connect or send data to our computer with a firewall installed running in stealth mode will think that our computer has gone offline because it is not getting any response. Firewalls can be a very powerful security device. Windows XP benefits greatly from a firewall because it can lower, if not completely eliminate, the chance that your computer will be compromised.

*Using the windows firewall.* Windows XP has included a firewall - specifically, Internet Connection Firewall (ICF) software - since the product was first shipped. Although the firewall has not been turned on by default, it has always been there. The original firewall was a basic one-way firewall that would block incoming



traffic from the Web. One feature allowed users to open up ports so that they could still use remote applications.

This way, a user could protect all of the ports on the computer except one or two that they had set to remain open so that they could use a program such as remote desktop to connect to their computer from a different location. The new version of the firewall included as part of Service Pack 3 has a bunch of new features that makes use of a firewall even easier while the protection it provides to our computer remains the same.

## **5. DISABLING UNNEEDED SERVICES**

Windows XP includes a lot of extra services and features that most users just do not use and have no reason to have running. Now, I am going to show you some services that we should disable that will make our computer more secure.

### **5.1. Disabling remote desktop connection**

The Remote Desktop feature of Windows XP is a great way to be able to access our computer when we are away from the office or home. However, if we have poor computer security, the Remote Desktop also is a great way for anyone to be able to access and control our whole computer. Remote Desktop is a very risky application to leave exposed to the world. Its security relies solely on our account password, which for most users is easy to guess. If we do not use Remote Desktop, then it would be a good idea to disable the feature.

### **5.2. Disabling messenger service**

Microsoft has included a service in the last few versions of Windows that allows system administrators to send pop-up messages to all computers on a local network. This service can be an invaluable resource for administrators who want to get the word out about some upcoming server maintenance. For example, end users would see a message pop up on their screen that notifies them that the workgroup file server will be inaccessible for the next hour while routine maintenance is performed.

This is a great service - when it is used correctly. Unfortunately, the Messenger Service has been abused. Just because any user can send messages to the entire workgroup doesn't mean that she or he should. This capability is sometimes not a good thing. Users that are part of large local area network, such as just about every Internet user, can send out a mass message to all users in the same subnet. As you can imagine, some users that know how to use the service have started to abuse it by sending spam to all the users in their same subnet. Nowadays, we may get spam not only in our inbox but also in a pop-up window that could appear at any time.

The Messenger Service, just like any other service or program that is accessible to the outside world, increases our security risk. Although there is currently not an exploit for the Messenger Service that allows remote users to execute

commands on our computer, who knows what the future will hold? To be safe, it is best to just disable this service. We'll also be cutting down on a new type of spam.

### **5.3. Disabling universal Plug and Play**

Universal Plug and Play (UPnP) is kind of like an expanded version of the old Plug and Play hardware support. Many years ago, when we should buy a new soundcard, we should have to going to run at. Then Plug and Play technology came around and automated that whole process so that the user did not have to worry about managing interrupt and address numbers any more. Now there is Universal Plug and Play, which expands the easy install concepts of the original Plug and Play to a whole new class of devices. Universal Plug and Play can not only detect local devices such as hardware (the original version), but it can also detect external hardware such as printers across the network or other PCs' shared drives.

Universal Plug and Play, theoretically, is a great idea. It gives you the ability to easily add and control devices such as a printer across your local network, an MP3 player, a television, lighting devices, and so on. Universal Plug and Play can be thought of as a way to make all of the different electronic devices in our home, or local network, work together. However, there are very few devices, other than remote printers and file shares that take advantage of the new protocol. Universal Plug and Play will play a big role in our computing lives in the future, but not yet.

Universal Plug and Play also presents a security risk for our computer. It continuously scans our local network, which could be a network that is open to the world, for new devices and negotiates new connections. Just as with the Messenger Service, with Universal Plug and Play the surface exposure of our computer is increased, which increases the risk that our computer could become attacked and infected. Unlike with the Messenger Service, with Universal Plug and Play a flaw has been found in the service and has already been exploited. Microsoft was forced to release a critical security patch to fix Universal Plug and Play so that users' computers would no longer be vulnerable.

### **5.4. Disabling remote registry access**

The System Registry is one of the most important parts of the operating system. It's where all of the system settings and configuration data is stored. If we do not know what we are doing and we just start editing entries found in the System Registry, we can render our computer useless. So, protecting our computer's registry is very important.

Included with Windows XP Professional (not Windows XP Home) is a service that allows users with administrative privileges to connect our computer's registry and edit it. Having this service enabled and running is just way too big a security risk. The vast majority of computer users have little or no use for this service. Why would we even want to give anyone a chance at trying to break into one of the most critical parts of the operating system? Disabling this service is a snap. Now we have knocked off yet another unneeded service from your computer.

### **5.5. Disable DCOM support**

The Distributed Component Object Model, or DCOM, is yet another feature that was built into Windows that has caused a great deal of problems. Sure, it provides an acceptable programming interface for programmers who are trying to write network apps, but there are better ways to do that than to use a DCOM.

DCOM has presented quite a few problems in terms of security. Exploits have been discovered for it that has allowed an Internet worm to spread to hundreds of thousands of Windows machines worldwide. Additionally, a very small number of applications actually use DCOM. Home and professional PC users probably will never even use an application that uses DCOM. So why is it on your computer?

DCOM was one of Microsoft's attempts to please software developers. However, this attempt has clearly failed, and yet they still include it. The only thing that it has given to operating systems such as Windows XP is headlines in the newspapers about how some worm exploited it and has now infected thousands of PCs. Disabling the Distributed Component Object Model is a good idea for most computing users.

## **6. WIRELESS NETWORKS**

Wireless networks are growing in popularity because of the ease of installation and the terrific benefits that they offer. Nothing beats the ability to take our laptop and not have to worry about plugging into the network to do our work. The added freedom of a wireless network is very pleasing. Nevertheless, many people do not realize how insecure most wireless networks actually are. To fully understand this, we must realize how exactly a wireless network works. Basically, wireless connections are made up of a base station and a client adapter. The wireless base station broadcasts all of the data to the clients in a circle around the base station, as do the client's adapters.

This creates a large area over which information is broadcast. If we care about the security of our computer and personal information such as credit card numbers, we must configure our wireless base station to encrypt the data that it sends. Otherwise, just about anyone can connect to our wireless network and gain access behind our firewall to all of our unprotected computers. Additionally, users can sniff the wireless traffic and see exactly what we are sending back and forth. It really is amazing how many people leave encryption turned off on their wireless base stations. Securing our wireless base station/access point is very important.

### **6.1. Using WEP for secure communication**

Wired Equivalent Privacy, or WEP, is the first security standard for wireless networks. The basic concept for WEP security is to encrypt the data that is sent back and forth between the access point and the client adapter. This is done using various degrees of encryption strength. A special key, known as the encryption key, is used by computers to connect to a WEP-protected wireless network. This allows the client computer's adapter to be able to decrypt and also send encrypted messages in the same

language as the base station. This standard sounds like a great way to secure a wireless network. However, it presents some flaws. The largest one is that the whole system relies on just one key. If someone's laptop is stolen that is part of a corporate network, the encryption key must be changed for the base station and for all of the other computers using the wireless connection. This change is necessary because the current encryption key could be easily extracted from the system settings. Additionally, someone can potentially derive the encryption key by carefully analyzing the data they intercepted. If you have a wireless base station, I highly recommend that you enable WEP to protect your home. Setting up WEP is different on every set of hardware. Setting up WEP will greatly increase the security of our wireless network. Even though there are some flaws, it is much better than using no protection at all. It has the same effect as a car alarm.

## **6.2. Using WPA for a more secure wireless connection**

Wi-Fi Protected Access, or WPA, is a new, improved security standard for wireless connections. WPA has addressed the weaknesses of WEP; it was developed to create a viable alternative to WEP that is more secure than that standard. The fundamentals are the same between the standards, but WPA has improved some of the various mechanisms that plagued WEP. For example, encryption keys are now dynamic and change often automatically. Additionally, the complexity of the encryption key has also been increased to help fight off users who try to derive a key from data that they capture. One of the largest improvements in WPA is the addition of authentication to the wireless connection. Now, users have to have the right encryption settings, as well as a valid username and password, to gain access to the network. This new standard is just starting to gain momentum. Microsoft has released a special patch for Windows XP that adds this new standard to Windows.

However, installing the patch will not allow us to use this new standard. Just as with WEP, WPA is programmed into the firmware of the hardware components. In order to use WPA, we must have hardware that specifically supports it. Currently, only a few companies offer base stations and wireless adapters that support this new method of security. However, that will change in time. The next time you are considering purchasing a wireless base station and adapter, do some research and pick one that supports WPA to ensure that your wireless communications will not be decrypted and your privacy is secure.

## **7. CONTROLLING ACCESS TO YOUR COMPUTER**

So far, we have spent a lot of time locking down our computer. We have closed down ports and have removed unused services from our computer. The next step to secure our computer is to reinforce the main entry point, the logon. No matter what we do to secure your computer, it all comes down to our security at the user level. If we have no password on our account and have a computer that is not protected by a firewall and other devices, then we are at huge risk of being attacked. Managing user

accounts is very important with Windows XP because the accounts are the keys into the system.

### **7.1. Managing user accounts**

Windows XP includes the same old account manager found in Windows 2000. This easy-to-use and straight forward interface can be found in the Local User and Group Management interface. There are various “good” security practices that you can follow to make your computer practically invincible to many attackers.

*Assign a password and rename the guest account.* Windows XP includes a guest account that is disabled by default. However, at some time, this account may be enabled by an application. If you have Windows XP Professional, I recommend that you disable this account using. Just in case it becomes enabled again, I recommend that you rename the guest account and also assign it a password.

*Clearing the last user logged on.* If you are using the classic logon screen, every time a user logs into your computer, its username is stored, and that name is displayed the next time the classic logon screen is displayed. This can be a nice feature, but it also can be a feature that causes a security problem. Knowing a user’s username is half the battle of breaking into a computer. If you have sensitive information on your computer, I suggest that you hide the last user logged on.

*Disable and rename the administrator account.* The Administrator account is the most important account on the computer. Users should not be using the computer under the Administrator account. That just is not a good security practice for anyone that is running Windows XP Professional and has sensitive data on their computer. I like to disable my Administrator account and rename it, so that anyone trying to get in with that account and at that privilege level will not be able to.

### **7.2. Make sure that every account on our computer has a complex password**

All of the accounts on our computer should have a complex password associated with them if our computer is ever exposed to the Internet. Passwords such as easy-to-remember words and key combinations like “asdf” just do not cut it. A complex password is a password that is at least seven characters long and consists of uppercase and lowercase letters as well as numbers or other symbols. SRm3D8&8 is an example of a complex password. Something like that is impossible to guess and will take quite some time for a brute-force technique to crack. Using complex passwords on all of our accounts might not be easy at first, but after a while they will grow on us and we’ll have no problem remembering them.

## **8. SUMMARY**

This paper has shown us how to test a how to see, how vulnerable our computer is to attacks and how to protect it by using firewalls and lowering our computer’s exposure to the world by disabling unneeded services. We have learned how to secure our wireless networks and how to strengthen our account security.

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## **THE PERCEPTION OF JIU VALLEY POPULATION REGARDING THE SOCIO-ECONOMIC REBOUND OF THE AREA**

**MIHAELA CAMELIA SCHMIDT \***

**ABSTRACT:** *The article is the result of the effort of ordering the empirical researches which I have made in the past few years in Jiu Valley. Here are presented some of the resident's opinions regarding the economic evolution of the area and the chances of socio-economic rebound of it.*

**KEY WORDS:** *economic situation, economic evolution, quality of life, socio-economic rebound, social conditions, economic alternatives*

### **1. ECONOMIC EVOLUTION OF JIU VALLEY**

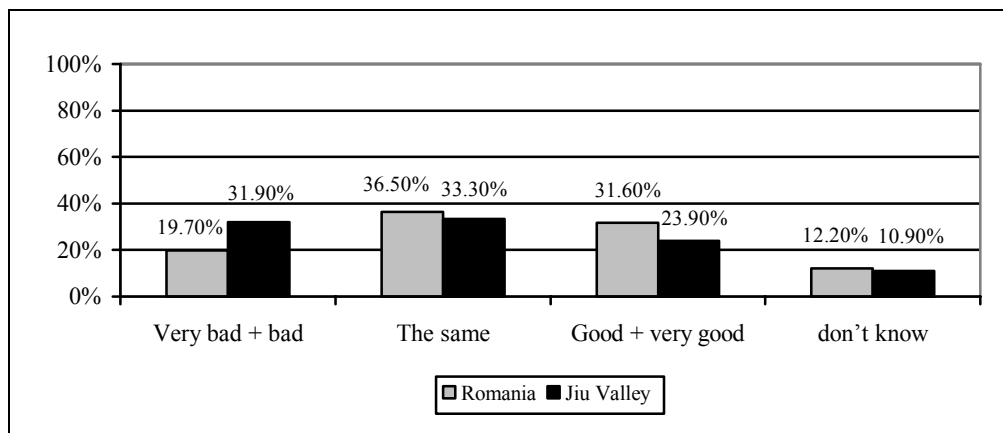
The future of carboniferous industry in Jiu Valley through the view of National Coal Company is defined by the coal production's stagnation after 2007, by the constant reducing of the average number of personnel (which will drop to 10,400 employees in 2010) and by a productivity of work in value of 620 tones/person/year.

According to the General Directorate of Mineral Resources, Ministry of Economy and Commerce, after 1991 pitcoal's production in Jiu Valley raised up almost constantly until 1997. Decreasing of pitcoal's demand from 7.1 mil. tones in 1997 to 2.5mil.Tones at the present time conducted to mining diminishing in Jiu Valley. Continuing the effort of investing in carboniferous industry from Jiu Valley is mostly justified because here there are important industrial coal deposits, under the circumstances that National Coal Company's coal demand on commodity market is over the present production capacity. Willing to find out how the people are scenting the economic situation of Jiu Valley in comparison with the rest of Romania, the results appear as follows in figure 1. It is to emphasize the fact that economic situation of Jiu Valley is considered to be worse than generally in Romania. It is to be observed the pessimistic note regarding the economic situation of the area comparing with the rest of the country. If on nationwide it is seeing a slight improvement of economic

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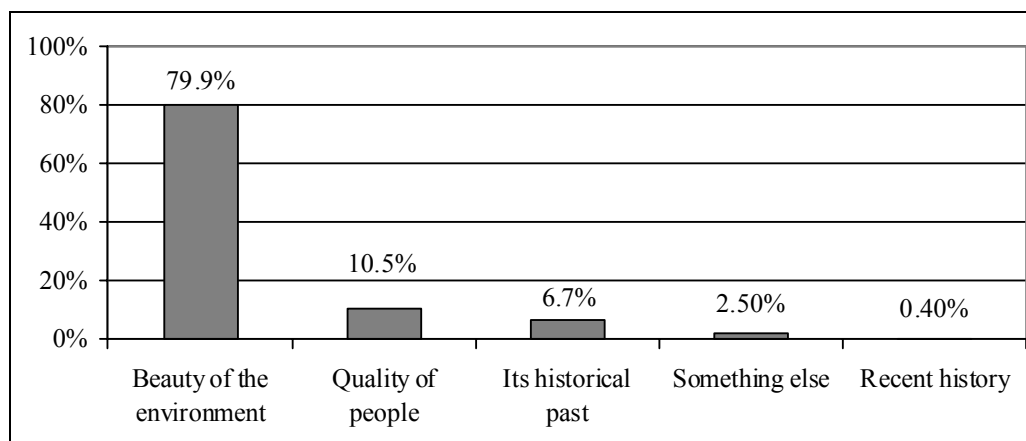
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situation (19.7% of the area's residents perceive the economic evolution of the country as bad and very bad, comparing with 31.6% - good and very good), regarding to Jiu Valley's chances people are more reserved (31.9% don't believe in any improvement, 33.3% state to be the same and only a quarter hope for better). The image of Jiu Valley, as we see, it's unconvincing for a specific group of subjects whom would wish or at least would finally try an economic and social invigorating method by giving up the traditional unity basis. Such try, it is without doubt, a success of many years of persuasion to the idea of Jiu Valley, of unity's and solidarity's dissolution which characterized until not long ago this urban mixture.



**Figure 1. Perception regarding the economic situation of Jiu Valley over 10 years**

But with all these rather centrifugal manners, Jiu Valley cannot be dispossessed of what characterizes it has, in collective mentality of the resident people. That is why we asked for the residents' opinion regarding the aspects which impose the most Jiu Valley, in counterpart to the negative terms which manifested until now:

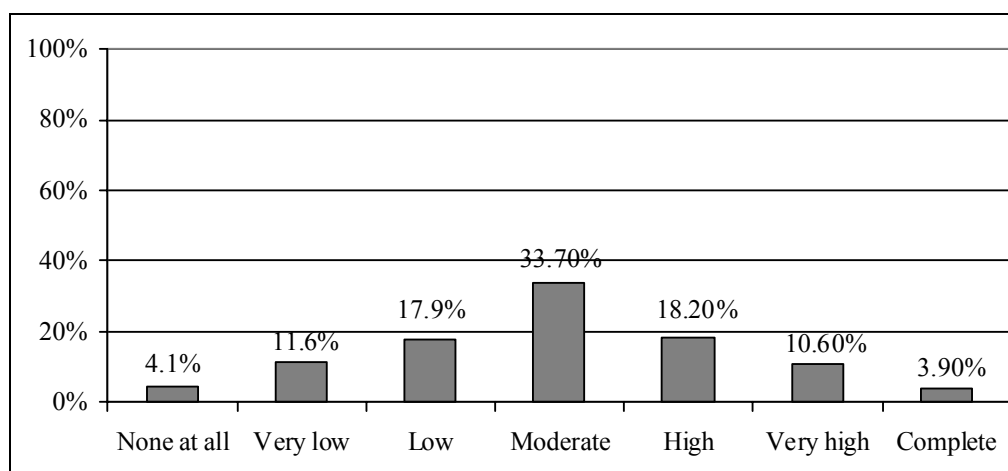


**Figure 2. Qualities of Jiu Valley**



Beauty of the environment is constituted itself in a promise for tourism development, in an economic alternative which allow employment of many people whom either work for the first time, either were made redundant, unemployed, or wish for professional reorientation. Yet, there are aspects which concern us and we are thinking about low appreciation of the people, appreciation made from the very residents of the area. Also negative is the shade upon the historical past of the area, either talking about the far past, or newer past. So there are problems from this point of view, Jiu Valley being appreciated in collective mentality only through its natural beauty. In the category “Something else” we integrated the answers with low values such as: taste of water, area protected of unfavourable meteorological events, etc.

In order to end this segment dedicated to the economic perspective in residents mentality, we surveyed their opinion regarding to what chances they give to tourism development, as main business of the resident people.



**Figure 3. Chances given to the development of tourism branch in Jiu Valley**

Resident people whom indicated to be pessimistic regarding the development of tourism branch are 33.7% of the population and those whom indicated to be optimistic are 32.6%. The rest give moderate chances to the tourism development in this area.

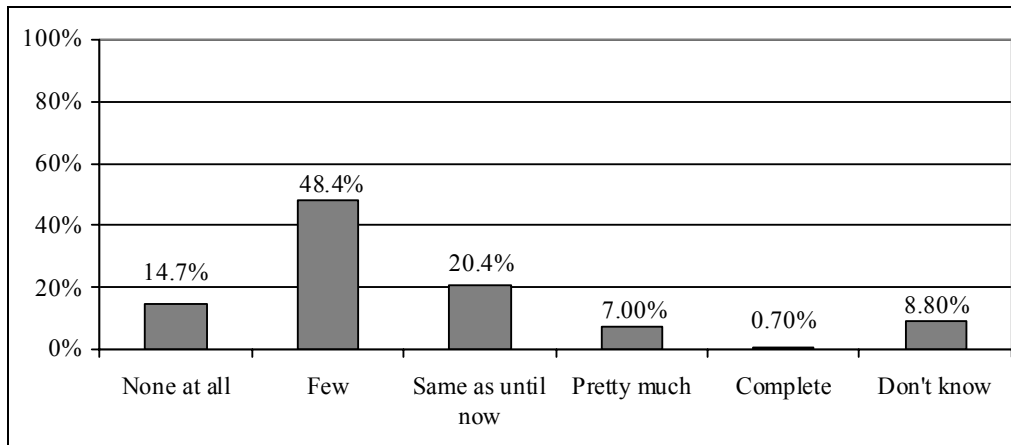
## **2. OUTLOOK FOR SOCIO-ECONOMIC REBOUND OF JIU VALLEY**

In connection with the E.U. join, starting with 2011 Romanian State won't be allowed to subsidize the mining industry in Jiu Valley. Maximum amount of subsidy for mining during 2007-2010 can be in between 1.1-1.2 milliards Lei (approximate 350 mil. Euro). Working conditions in Jiu Valley's mining are becoming worse more and more, because there was not any new investment in mining equipment, the existing one being many years old. Also the young from area are completely disinterested for this trade.

Annual coal production of National Coal Company (C.N.H.) is approximate 3mil.Tones of pitcoal, at this moment the pitcoal deposits are over 300mil.Tones, which would assure continuity of pitcoal extraction for another 80-100years. C.N.H.'s coal production is delivered to thermoelectric power plants Mintia and Paroşeni, which use pitcoal. An eventual closure of mines belonging to C.N.H. would cause either cessation of activity of both plants, or massive import of pitcoal.

In "Sustainable Development Strategy of Jiu Valley microregion" is showing that in this region in 1990 there were 50.000 employees belonging to C.N.H., but not all of them were miners, because C.N.H. was dealing with administration of blocks of flats, schools, hospitals, water supply, electric power supply, etc. In last few years, seven mining operations belonging to C.N.H. were put to conservation or ceased the activity. In correspondence with these facts, the manufacturers of mining technology and spare parts for mining industry restrained their activity. At present, in Jiu Valley, belonging to C.N.H., work approximately 11,000 miners. They and their families are depending on mining activity of the area.

Massive personnel restructuring from 1997 marked heavily this region. Unemployment at first and chronic poverty after, there were two constants which accompanied people for many years after. That is why, taking notice at all ideas that the authorities exposed during the time, we asked the resident people what chances of survival they will give to Jiu Valley if, after that big shake up in 1997, others will follow, not with the same magnitude as 1997, but with similar consequences on individual level.

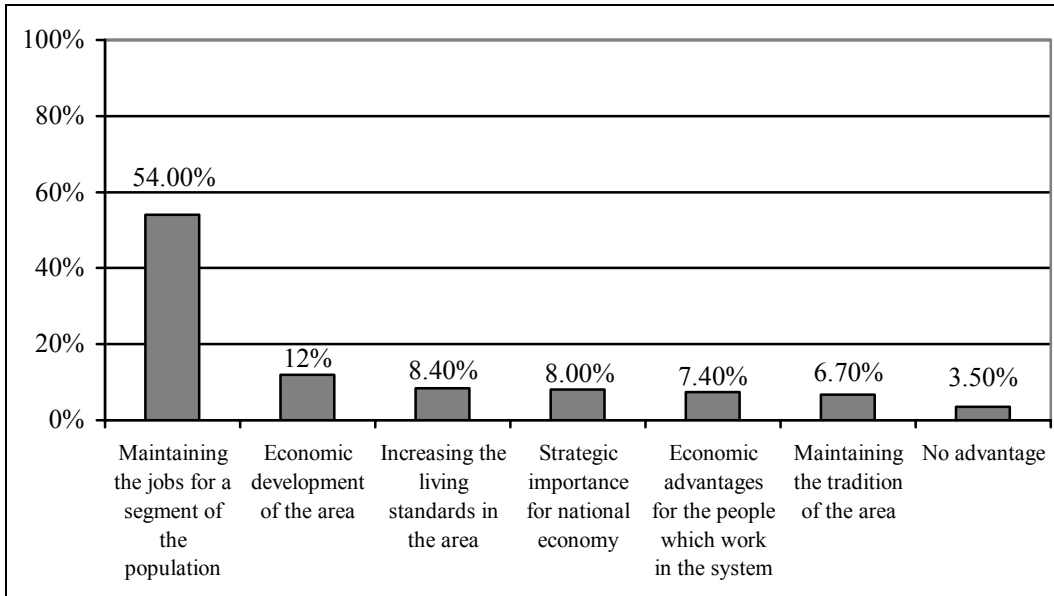


**Figure 4. Chances of Jiu Valley's survival in case of new restructure**

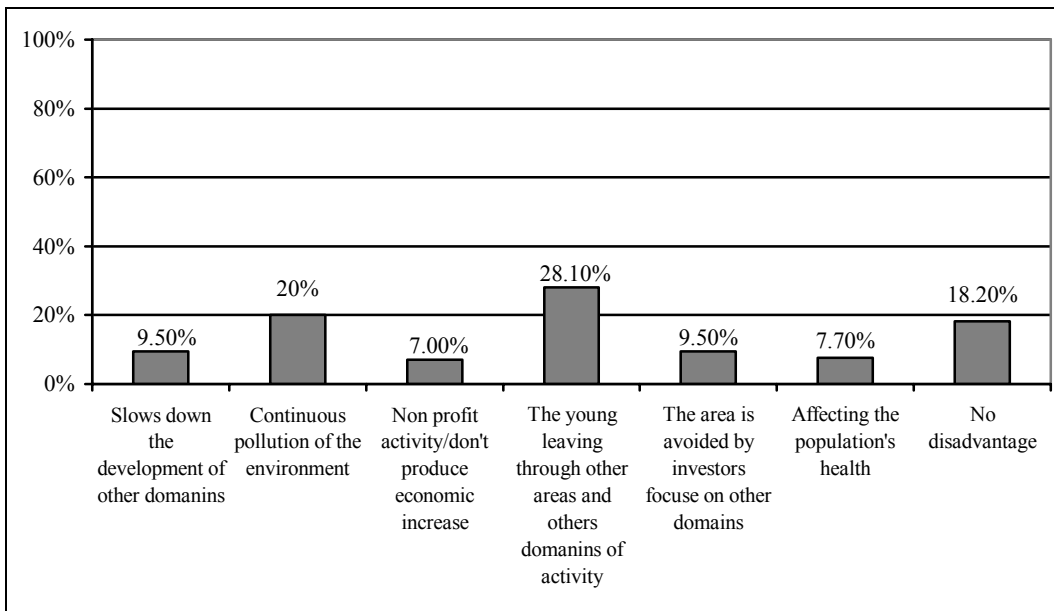
The economic survival of Jiu Valley is conceived indissoluble connected to the mining's existence. In fact, Jiu Valley is not summarized only to mining, it is also a strong urban and educational centre, but in the last decade things didn't move from an economic point of view, the regress of 1997 being felt even nowadays.

Aiming for the survival chances of Jiu Valley, in conditions that mining would pass again through a restructuring process, we wished to mention which are, in the

perception of the area's residents, the advantages and disadvantages of keeping functional the mining operations. So we will get a mirror image, gradually presenting, to each advantage the disadvantage which corresponds.



**Figure 5. Advantages of maintaining the mining operations in Jiu Valley**



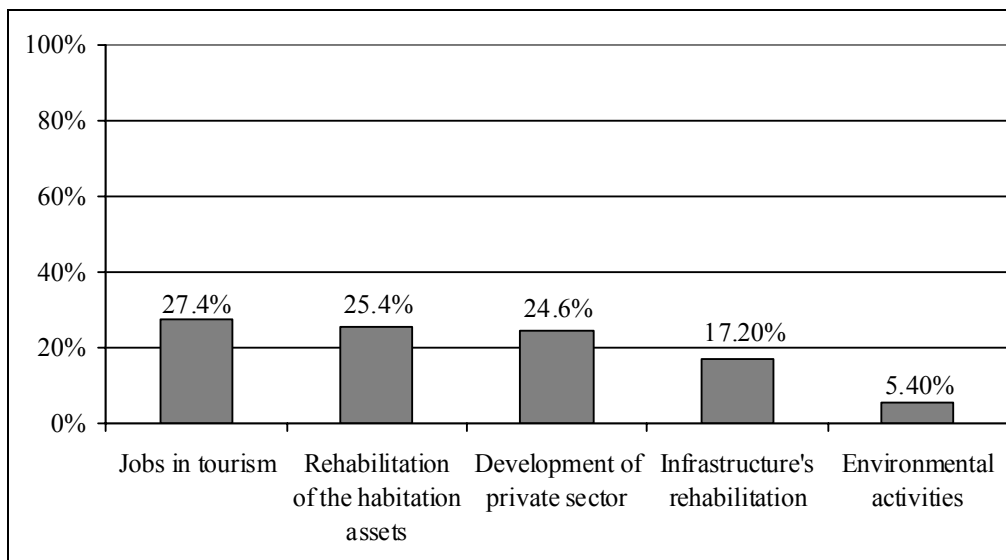
**Figure 6. Disadvantages of maintaining the mining operations in Jiu Valley**

It is a pretty clear and suggestive image regarding the thinking mechanism characteristic to Jiu Valley population. Same population admits there are advantages but also disadvantages, both generated by the same element: *mining operations*. It is to be observed higher concentration of answers on advantages (54%), comparing with the disadvantages linked to the pollution (20%). Yet, it is a step forward modelling in good people's mentality, by accepting that a thing can bring not only benefices but also expenses, which at the first view would appear to be less important or indistinguishable.

At present, in Jiu Valley, beside mining activities there are operating also other firms in different fields of activities such as:

- manufacture of extraction and construction equipment;
- metallic confections;
- works and installations;
- plastics processing;
- constructions;
- ready-made clothes;
- trading, producing and merchandising of food products;
- services, etc.

Yet, all of these are not enough to use all available manpower from the area. Without mining sector, at least kept at actual level, it will be necessary the economic development of other sectors of productive activities. What possibilities people are scenting from this point of view for reducing the unemployment and to rebound the economy of Jiu Valley?

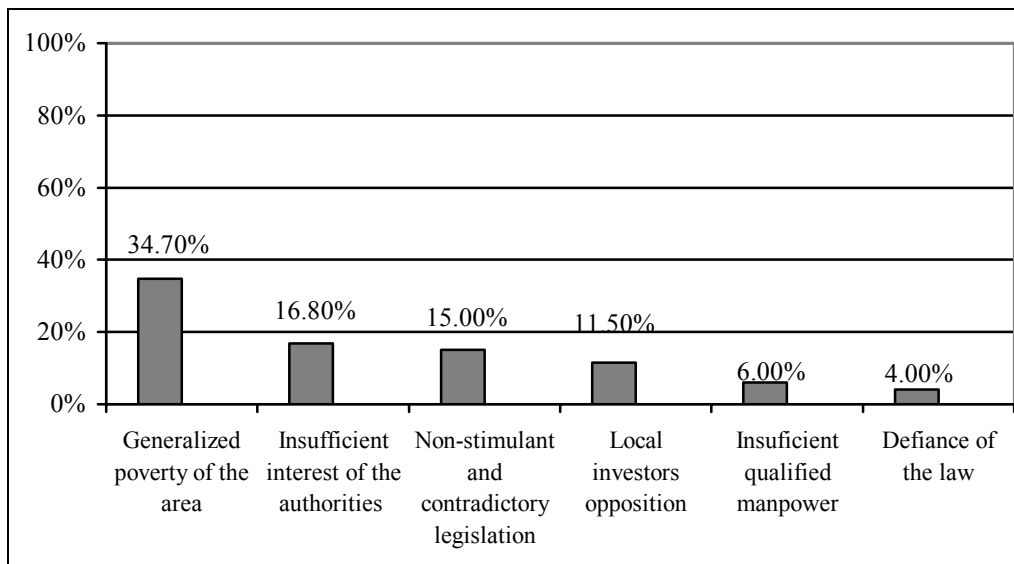


**Figure 7. Economic alternatives for Jiu Valley's rebound**

It is not us to evaluate the chances of materialization of each solution or their veracity, seen through the view of their efficiency, but selecting tourism as main

activity would be a really easy decision to take and this in spite of other sectors of activities which could, for real, absorb thousands of working people. It shouldn't be neglected the fact that there are estimations about the capacity of absorption of manpower in tourism industry and the figures are alarming: only a few hundred of people.

But over the economic alternatives it is to feel a reserve of the investors to start a business in Jiu Valley. We have already seen that at the level of collective mentality of every one of those questioned, the quality of resident people it is not perceived as a strong element which could convince any investor Romanian or foreigner. We developed this idea and we established the following hierarchy of motives which made possible the foundation and maintaining such kind of reserve:



**Figure 8. Motives of reserve in investing in Jiu Valley region**

We have above a multitude of motives, whence we are sure would be able to extract the real ones, but we don't want to deviate from our axiological neutrality, that's why we limit only to present them in the order they are perceived by the population.

Life in a certain area means not only to live on that territory, but also involve a multitude of other dimensions, which we examine through the view of satisfaction expressed by the people regarding the quality of education, of infrastructure, services, etc. That is why we tested the satisfaction's degree of the resident people regarding of many aspects such as: education, number of commercial operations, social services, number of services operations, means of transport, quality of pavements and streets, working conditions, possibilities of leisure time's spending, state of the environment, mass-media's quality, habitation's quality, family relationship, neighbours relations.

For lack of space we won't present graphical results, but we present textual the most deficient aspects, but also the most valuable ones:

a). the most deficient aspects:

- working conditions - 68.80%;
- quality of infrastructure - 53%;
- possibilities of leisure time's spending - 47.70%;
- quality of pavements and streets - 43.50%;
- social services - 39.30%.

b). the most valuable aspects:

- family relationship - 87.80%;
- neighbours relations - 73%.

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## **STATISTIC POLL - INSTRUMENT OF STUDY OF BALNEARY TOURISM ON ROMANIAN SEASIDE**

**MIRELA SECARĂ, DANIELA SIMONA NENCIU \***

**ABSTRACT:** *Investigation based on poll is the most used method of selective research of a collectivity. In the field of tourism, it can provide relevant data concerning particularities of touring demand during a certain period and area, as well as concerns a certain form of tourism. The investigation used to achieve the poll within balneary touring area of Romanian seaside, is conducted on representative fraction of statistic population, according to the number of tourists, and it is focused on the characteristics of the demand for balneary tourism present in the area of the Romanian seaside, the attitude, thoughts and needs of the tourists.*

**KEY WORDS:** *statistic poll, sample, statistic population, balneary tourism, touristic research*

### **1. INTRODUCTION**

Conducting an investigation based on poll requires a sum of specific activities, with a strongly connected, that can be evinced under the shape of the following stages as: definition of research object and setting of the research objectives, hypotheses and type of research, creation of questionnaire, setting of the methodology of research of the population taking part in the research, the sample and sampling method, gathering, procession and analysis of obtained data, drawing of conclusions. Starting from these elements we may say that this research target is the Attitude, consideration and motivation of the demand for balneary tourism on the Romanian shore of the Black Sea.” Under these circumstances, we may say that the conducted study identified with descriptive research. Poll investigation is conditioned by clear setting of objectives that are relevant to the target as: identification of the frequency of seaside visitation by tourists for balneary treatments, duration of tourists’ vacation for balneary treatment,

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identification of tourists' source of information to help them opt for balneary resorts on Romanian concerning balneary natural factors of the Romanian seaside, tourists' choice of transportation, tourist level of satisfaction of the existing conditions of accommodation, of restaurant services, evaluation of the amount of spent money during seaside vacation for balneary treatment, identification of tourists' income category, tourists' intention to come back repeatedly on Romanian seaside for balneary treatments, apprehension of their suggestions and recommendations to determine an increase in the quality of services of Romanian seaside balneary tourism.

The population that is the research object of this study is formed of all of the Romanian tourists that came on Romanian seaside to Saturn resort during the third trimester of 2008 (July – September 2008), for balneary treatments. Considering the precision level of the results of 0.8611 ( $z=1.48$ ) for an error level of 5%, the volume of the sample has been determined according to formula:

$$n = \frac{z^2 \cdot p(1-p)}{\Delta_w^2} = \frac{1,48^2 \cdot 0,54 \cdot (1-0,54)}{0,05^2} = 218 \text{ tourists} \quad (1)$$

where:

n - the size of the sample

z - the coefficient that corresponds to the precision level of the results

p - ratio of sample components that present the characteristic under research (ratio of tourists' gender)

$\Delta_w$  - maximum admitted error ( $\pm 5\%$ ).

Thus, I had distributed 218 questionnaires, of which I received 209 back that can be considered valid according to questions, and 9 questionnaires were incomplete and I eliminated them.

## 2. ANALYSIS AND INTERPRETATION OF POLL DATA

A lot of tourists that arrived on Romanian seaside for balneary tourism are constant clients of this form of tourism, that is, out of the 209 questioned tourists, 138, that is 66% of them stated that they returned to Romanian seaside for the fourth time and more and 48 tourists, that is 23% stated their third return on this seaside and 21 tourists - 10% stated that they are here for the second time. The age of the persons that took part in the poll are those between 36-45 years old of a 22.01% ratio, followed on the second place by those of 46-55 years old with a 19.62% ration and on the third place are situated the persons of 26-35 years old with a 16.75% ratio.

Close to the above-mentioned, there are tourists of 56-65 years old with a 15.31% ratio and above 65 years old with a 14.83% ratio. Seaside balneary tourism does not address necessarily to the older people, but to individuals in their mid-life an even to young people, this result can be explained owing to the particularity of the seaside balneary tourism, that is during summer season more and more young tourists and tourists in their mid-life opt for the Romanian seaside, that by its natural and balneal-climatic factors provide excellent conditions for tourism in general and are



closely connected to balneary tourism. Duration of seaside vacation for balneary tourism was of 18 days for 47% of the questioned tourists; More likely to spend more time on this seaside, around 18 days, for balneary treatments are tourists of age between 46 and over 65 years, that is 40% of all tourists, and they are usually retired individuals or about to retire from work, so that their time allocated to balneary tourism is much higher, in comparison to younger persons, among 25 and 45 years old, that register a duration of vacation of maximum 7 or 6 days, according to their holiday leave from work.

The main source of information for tourists is "recommendation from their specialist doctor", followed by "suggestion from their relatives" and on the third place, they considered the touring agencies. The main method of acquiring treatment tickets by tourists is by means of subvention from the National Fund for Pension and Social Security (CNPAS), that is a ratio of 51.19%, meaning 107 tourists, then 78 tourists bought treatment tickets by means of tourism agencies, that is a ratio of 37.32%. Only 19 tourists bought treatment tickets by means of union house, that is 9%, and 5 tourists - 2.39%, acquired their tickets by means of Health Insurance County Fund (CJAS).

As concerns the natural and balneary factors of the Romanian seaside, the mostly considered is "the marine bio-climate rich in aerosols and solar radiations", followed on the second place by "the salty water of the Black Sea", on the third place "the mineral mesothermal sulphurous waters" and on the fourth place "sapropelic mud of Techirghiol Lake".

Personal car is the most used means of transportation in the seaside balneary tourism, used by 43% of tourists. It is closely followed by railway means of transportation, so that train is used by 40% of the tourists that come on Romanian seaside and transportation by means of bus is situated on the third position with only 17%. Concerning services provided by hotels, the level of tourist satisfaction is very good considering the sample that is 45% of the tourists appreciate accommodation services as very good and good, while only 10% of them consider them as poor and slightly satisfactory.

As for the tourists accommodated in three star hotels, they are more satisfied that is 55% of them regarded the services as very good and 36% of them considered services as good. As concerns tourists accommodated in two star hotels, their level of content is not that high comparing with those in three star hotels, so that only 34% of them consider the accommodation as very good, while 57% of them consider it a good place and 8% of them see it as an average accommodation. Generally, tourists' discontent regarding accommodation is generated by some lack of comfort and ambiance of the room, malfunction of installations or cleaning and room-service.

The quality of restaurant services is influenced by the variety of served menu, its quantity and quality, followed by the prompt serving, all of these being emphasized by the ratings obtained that are good towards average as: 40% of tourists appreciated that services in restaurants are good, 28% considered them as average, 16% as poor and 8.62% of them viewed them as very poor; only 7% of the tourists appreciated that restaurant services are very good. Tourists' appreciation as concerns balneary treatments show a very high level of satisfaction. Thus, 89% of the tourists consider that seaside balneary treatments are very good and 11% of them think they are good.

The high level of satisfaction among tourists as regards balneary treatments is generated mainly by treatments of curing type and wellness, that have been appreciated as very good by 194 of tourists, meaning 93%; on the second place they appreciated the competence and professionalism of medical personnel, considered very good by 189 of tourists, that is 90%, on the third place, they consider the quality of balneary treatments, that is viewed as very good by 183 of tourists, meaning 88%, and on the fourth place, they appreciated the variety of balneary treatments, 178 tourists, that is 85%, thought they are very good.

Tourists' appreciation concerning the range of seaside leisure activities shows a high level of satisfaction. Thus 38% of them consider that seaside entertainment activities are very good, 43% of them consider them as good, 5% see them as average, 9% think of them as poor and 5% of the tourists consider seaside entertainment as very poor. 59% of the total of questioned tourists had spent relatively low amounts of money ranging from 100 RON to 500 RON. This aspect demonstrates us once again the government subvention feature of this type of tourism, supported by state budget, under the circumstances that 107 tourists, that is 52% answered that they acquired their tickets by the National Fund for Pension and Social Security (CNPAS), so that the price of the treatment tickets was of 50% state subvention; thus tourists had relatively small expenses left, since 39% of tourists arrived on the seaside for balneary treatments achieve incomes over 1000 RON, 26% achieve incomes ranging between 601-1000 RON, 21% have small incomes of only 300 RON, and 13% have an income between 301-600 RON.

### 3. CONCLUSIONS

The conducted poll has been an experimental one that shall represents a starting point to conduct polls inside the other balneary resorts of Romanian seaside that is inside balneary sanatorium in Mangalia and Techirghiol. We consider that on the entire Romanian seaside, balneary resorts present with particularities as concerns balneary treatments and that is why the questionnaire has to be adapted to them and eventually the poll has to be accordingly divided to present the variation of balneary phenomenon in the resort. At the same time, we wish that the periodicity of conducting the future polls to be trimester-like, so that we can analyze extra-season periods as well. Moreover, we want the future poll to capture international balneary tourism on Romanian seaside, so part of the questionnaire shall need adjustment.

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## **KNOWLEDGE BASED ECONOMY - THE BASIS FOR INSURING A SUSTAINABLE DEVELOPMENT**

**MIRELA ȘÎRBU, OVIDIA DOINEA,  
MĂDĂLINA GIORGIANA MANGRA \***

**ABSTRACT:** *At present, at global level, is more and more visible the fact that the information and knowledge exercise a decisive impact over the functionality and performance of organizations, assuring the sustainability of the economy on long term. Switching to economy based on knowledge is an inevitable process, particularly complex and difficult, that generates for organizations many opportunities and creates, in the same time, an ideal framework for sustainable development. Building the economy based on knowledge, ensuring premises for an accelerated and sustainable growth of the economy, simultaneously with strengthening social cohesion and increasing concerns for environmental protection, is an important strategic objective of European Union. Following, the sustainable development must be addressed as a "responsibility of present to secure the future", the knowledge-based economy forms the basis to achieve this desideratum.*

**KEY WORDS:** *sustainable development, performance, knowledge, knowledge-based economy, based on specialist knowledge, intellectual capital*

### **1. INTRODUCTION**

The major concern of organizations, under the current conditions in which information means power, is to obtain the necessary knowledge at a high quality level and using it with maxim effectiveness, by making proper managerial decisions and realizing actions and behaviours, with the purpose of insuring an accelerated and sustainable economic growth.

Information became more and more of a resource, a major active, a main product and at the same time a strategic advantage for organizations. Other than insuring human, material, informational and financial resources, high performance organizations are more and more preoccupied with the production, transmission, use,

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storage and protection of knowledge, especially that strategic knowledge so essential to firms' development.

The rapid and profound mutations that take place in the global economy under the impact of the influences exercised by the revolution of knowledge have brought to surface the need of establishing a knowledge based economy and its approach from a more pragmatic and prospective point of view. The EU's strategy [4], adopted at the Lisbon Summit in 2000, whose *strategic objective is that by the year 2010 it should become the most competitive knowledge based economy in the world, capable of a sustainable development and creator of new workforce, is consensual with the concerns had by the world's developed countries.*

## **2. SUSTAINABLE DEVELOPMENT - A PRESENT RESPONSIBILITY FOR THE FUTURE'S INSURANCE**

Sustainable development is a concept introduced and made popular in 1987 by the World Committee for Environment and Development (WCED) in the report "Our common future" also known as the Brundtland [5] report and is defined as being "*that development that satisfies the needs of the present without compromising the future generations' possibility of satisfying their own needs*". The report acknowledged that the economic development cannot be stopped but that strategies must be modified so that they match the ecological limits provided by the environment and by the planet's resources.

Only after the Conference regarding the environment and development organized by the UN at Rio De Janeiro in the summer of 1992, also known as "*The Earth's Summit*", did the term "sustainable development" become highly popular; among other things the summit elaborated a plan to maintain sustainable development. Starting with the year 1997, sustainable development became an objective of the EU, when it was included in the Maastricht Treaty.

The concept was initially connected to problems regarding the environment and the natural resources crisis, especially those concerning energy 30 or so years ago. Sustainability starts from the idea that human activities are dependent on the environment and its resources, and health, social security and the society's economical stability are essential in defining the quality of life.

Contextually, Lester Brown stated that "a sustainable society is that which molds its economical and social system in such a way that its natural resources and life support systems are maintained".

Sustainable development approaches the concept that is the quality of life, in complexity, under economic, social and environmental aspects, promoting the idea of balance between economic development, social equity, efficient use and the preservation of the environment. The key element of sustainable development is the "reconciliation" between the development process and the environment quality, promoting the integrated process of elaborating and making decisions, on a global, regional, national or local level.

Moreover, this development depends on the fair distribution of development costs and benefits among generations and nations, being based on the following *major principals*:

- a concern for equity and fairness between countries and between generations;
- a long lasting vision on development;
- systematical thinking - the interconnection between environment, economy and society.

Thus sustainable development strategies emphasizes the interdependency between the local and the global, between developed countries and those that are in the course of development, accentuating the need for cooperation within and between the economic, social and environment sectors. Sustainable development offers a means by which communities can efficiently use resources, create efficient infrastructures, protect and improve the quality of life and deploy new commercial activities that will consolidate their economy.

In an environment that evolves rapidly companies need to proactively employ themselves and answer to the economical, social and environmental opportunities and threats. They must understand and assume the responsibility of satisfying the needs of present and future stock holders. Regardless of their size, companies must consciously acknowledge the fact that investing in human wealth fare basically means, building and maintaining their future market and insuring the continuity of the natural capital, those companies depend on, which on the long run conditions the success in business.

*The purpose of the EU's sustainable development strategy* is the continuous improvement of the quality of life for present as well as future generations. However this can only attained within communities capable of rationally and efficiently using their resources and of discovering the economy's ecological potential, by insuring prosperity, environmental protection and social cohesion. The EU as well as its member states must cooperate in order to achieve a sustainable development. In other words the communitarian policy for sustainable development must be complementary to the policies deployed by member states.

### **3. SUSTAINABLE DEVELOPMENT IN KNOWLEDGE BASED ECONOMY**

The role knowledge plays in modern economy, which is the growth of the economical importance of information, technologies and human capital, has determined *the switch from a resource-based economy to one that is predominantly knowledge based*. The knowledge revolution generates profound and essential changes of all the economical activities` components, radically influencing the productiveness and competitiveness of firms and of national or global economies.

Knowledge –based economy is mainly characterized by the transformation of knowledge into raw commodities, capital, products, essential production factors of the economy and by economic processes through which the generation, sale, purchase, study, deposit, development, distribution and protection of knowledge became predominant and decisively influence profit attainment and the insurance of the economy's sustainability, on the long run [3].

Knowledge-based economy presents certain *characteristics* that differentiate it from all previously known types of economies [2]:

- The primordial nature of knowledge in all areas of the economic activity due to the decisive impact it has on the organizations` functionality and performances;
- Economic activities based on intangible resources, mainly represented by the firm`s employees, the knowledge and information they possess, which are basically a firm`s main actives;
- The high share of national patrimonies owned by the intellectual property;
- Focusing economic activities on the handling of information, the accumulation of knowledge and the production of knowledge-goods, which will ultimately be the most sought after and appreciated merchandise;
- The enhancement of equipments and symbolic products (cards, electronic trade, internet banking, computer program packages, projects, etc) along with the relative diminishment of physical products;
- The demassification of production, in the context of eliminating the need to concentrate large quantities of physical and human resources in an organization, in order to generate viable performances;
- Accentuating the creation and improvement of technologies which impose conditions on organizations` survival and performances;
- The continuous growth of the services share within the economy, to the detriment of the production sector, because services generally include a larger volume of knowledge as opposed to products;
- The development and amplification of exports, as an effect of minimizing the differences between national markets and the gradual elimination of time and space institutional barriers between countries;
- Multiplying the number of small enterprises, characterized by flexibility and a high adaptability to environmental changes;
- The proliferation and diversification of the forms of economical association between organizations (strategic alliances, firm networks, industrial parks, etc) with the purpose of capitalizing knowledge and other resources at hand.

All these characteristics determine the *structure of the knowledge based economy, nature, as well as the ways of realizing economic processes*. Thus, we observe a growth in the degree of complexity and diversity of knowledge-based economy, including new branches that consist of the creation and use of knowledge, such as: computer science, telecommunications, research-development. Moreover, the content of classic economical branches change, by including complex processes of handling and capitalizing knowledge (electronic commerce, top industries etc). The most *significant mutations that occur in economical process deployed in the branches of economy are*:

- The intellectualization and dematerialization of economical processes, particularly in sectors such as: education, computer science, communication, consultancy etc;

- Working from home is gaining terrain in all economical branches as a consequence of work intellectualization, the expansion of telecommunications and the large – scale propagation of computer science;
- The development of telework, which consists of deploying certain correlated work processes, to which people from different emplacements participate, in real time, and who together realize products, services of projects, through the use of various means of communication (oral, electronic, auditory etc.);
- The expansion of electronic economical sectors: e-commerce, e-banking, e-learning;
- The degree of the integration growth of activities within various economic branches.

Structural changes in economy involve a new occupational structure, but they also involve the surface a new social class, *of knowledge-based professionals*:

- human resources that actively participate in economic activities;
- intellectual capital owners, whom knowledge based economy is predominantly based on.

P. Drucker emphasizes their role and estimates that “the most important active of the 21st century will be represented by knowledge-based professionals and their productivity [1].

The rapid and profound mutations exerted by the knowledge revolution on the world economy, and the considerable growth of the intellectual capital in the fight over the consolidation of market vantages, have determined political factors, ever since the Lisbon Summit in 2000, to elaborate *the EU’s strategy of building a knowledge-based economy* that has four main strategic objectives:

- building inclusive and dynamic knowledge-based economies;
- producing an accelerated and sustainable economic growth;
- returning to the plenary use of human resources;
- modernizing social security systems.

In order to achieve these objectives, the main directions of actions are to continue the economical reform for the creation of a knowledge-based economy and to strengthen the European social model, which is based on investing in people.

#### **4. CONCLUSIONS**

The particular nature and high quality level of the knowledge-based economy offers new opportunities for firms, countries and local communities to create a proper environment for a sustainable development. The transformation of knowledge into the essence and main driver of development and economic performances is mirrored in the escalation of the processes that take place for their attainment, taking a more definite shape, as an essential component for creating an optimum environment for the display of the knowledge-based economy.

In the background of the knowledge revolution, firms must maintain and continuously develop their knowledge portfolio in order to deploy competitive activities, meaning they need to become *organizations that are permanently involved*

*in the process of learning.* The success of this action is conditioned: all employees must understand the need to transform knowledge into the firm's main resource and managers must also be fully involved in this process.

The accumulation of knowledge and their proper use can be realized by each employee's individual learning as well as by organizational learning realized through various methods:

- offering professional assistance and advice;
- special professional improvement programs outside the organization;
- training programs within the organization etc.

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## **CONSOLIDATION IN WORLD STEEL INDUSTRY - IMPLICATIONS FOR POLAND**

**BEATA ŚLUSARCZYK \***

**ABSTRACT:** *Consolidation of enterprises has intensified with the growth of global competition. In the nineties of the past century, these processes became a conventional way for market expansion, leading to establishment of huge international companies with biggest influence on world economy. In steel industry, processes of consolidation have also been the leading processes in management, particularly during a time of prosperity for steel products that have taken place in recent years. The global consolidation has influenced the steel industry in Poland as well.*

**KEY WORDS:** *steel industry, consolidation, globalisation*

### **1. INTRODUCTION**

Operation of steel companies under conditions of globalization requires regular changes which allow for increased competitiveness in the market.

This rise is aimed at improvement in steel companies' financial standing and comprises a response to changeable environment. Environment resulting from the processes of globalization is characterized by a variety of features, which include [1, 9]:

- structure of production and services
- technological innovation
- nature of relations in terms of suppliers and consumers
- customers' requirements and competitors' behaviour
- principles of economic policies in the countries and supranational organizations.

Each of the listed elements requires regular analysis, as a result of which some complex decisions in relation to the operational strategies are made. Taking these elements into consideration, with reference to steel companies, causes that processes of consolidation can be observed.

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Main factors which caused huge number of mergers throughout Europe and worldwide in recent years include general privatization and restructuring of companies, liberalization of regulations conducive to market competitions, steelworks' investment needs and tendencies to develop free markets in biggest world economies. As a result of restructuring and privatization processes in steel industry in EU countries which occurred in the seventies and eighties of the past century, several steelworks group appeared and dominated European steel industry with its control over the steel manufacturers' markets.

These groups were created as a result of numerous mergers and horizontal acquisitions. The goal of the processes was to take advantage of the highest share in the market and the influence on its formation, appearance of the opportunities of complementary sourcing, to adapt production capabilities to demand for steelworks products and to obtain synergy effect, mainly in terms of cost reduction. These mergers were accepted by the European Union and the European Coal and Steel Community since, in consequence, they led to rationalization of production [8].

Phenomenon of mergers and acquisitions intensified with the development of global competition. These processes became, in the nineties of the 20th century, a fundamental method of market expansion in companies, leading to appearance of huge international businesses with the strongest impact on world economy and playing significant role in politics and social life. There are several motives to undertake consolidation efforts in iron and steel industry. Undoubtedly, most significant ones include: universal nature of steel products with their demand anywhere in the world, fast development of metallurgical technologies through global learning and fast transfer of the processes and know-how implemented in steelwork companies or the need for huge capital expenses to cover new and modernization-related investment projects.

Through consolidation of the producers, consumers can have an access not only to local market but also to global ones. Moreover, integration processes are forced by the necessity to meet financial expectations of the owners of privatized steelwork companies and also the need for demonstration of financially efficient strategies to international financial organizations in the case of acquisition of capital from these entities. Weakening of commercial barriers resulting from the end of the era of local companies also comprises a stimulus to create supranational companies.

Undoubtedly strongest arguments for mergers or strategic alliances include enhanced competition caused by excessive production capabilities. Competition is bigger in the case of division of the industry. Monopolistic and oligopolistic structures limit competitiveness and allow for reaching higher profits [5].

A very important factor in consolidation processes in recent years is growth in global economy and consistent urbanization and development of the Chinese infrastructure, which contributes to growing demand for steel.

The listed factors force creation of strong economic entities which are able to compete in difficult domestic and world markets. Operation of steelwork companies is currently becoming possible for economic entities with considerably high level of capital [7]. These features are typical of the global companies that appeared in the

nineties of the past century, which had strategic position based not only on geographical premises but also on other reasons which determine competitiveness.

However, a key reason for consolidation of the sector indicated by many experts was fast progressing globalization of the customers for steel products, including, in particular, automotive industry and the industry of packages and household goods. In the case of slower, as compared to non-steel branches, rate of consolidation in steel metallurgy sector this area will be in a very difficult position. If the steel industry is to be divided, a situation is very probable where this sector will be forced to compete for procurement to e.g. strongly consolidated automotive industry.

Therefore, structural changes in steel industry are highly desirable or even necessary. They can lead to tightening partnership with other steel manufacturers as well as to limitation of susceptibility to unexpected market cycles.

Main condition which determines profitability of iron and steel production is to participate in adequately big market segment. In relation to a number of steel products, it is necessary to encompass market segments bigger than local markets, which makes the manufacturers compete in regional and world markets. This leads to market globalization while competition in global market calls for consolidation of producers. Individual manufacturers do not stand the chances with regional or global organizations of manufacturers in a longer time horizon.

Individual producers can find conditions conducive to functioning only in market segments characterized by special features, used in relatively small amounts. Another opportunity is to operate as partners supplying semi-finished goods to bigger steel consortiums. In world market of iron ore, 75% is controlled by three companies, 75% of aluminium market by five companies, however, 75% of steel market demand is satisfied by 102 businesses. Such a division leads to constant excess of poorly used production capacities, low steel prices and constant destruction of capital [11].

Big concentration of production within regional and global organizations with high-end technologies which function according to the most rational economic principles means that, under conditions of open market, their offer is becoming more and more available and competitive.

Consolidation, which adopted international tendencies in the nineties of the past centuries, known as globalization, defined by OECD as *'a process where markets and production in different countries are becoming more dependent, which results from dynamics of commerce, services and transfer of capital and technologies'*. Melting barriers in commerce in all markets, availability of capital and mobility of know-how at higher uniformity of products impact on growth in competitiveness and appearance of supranational companies which seek their opportunities in investments in different industry branches in different countries in order to create new markets [7].

## **2. CONSOLIDATION IN STEEL INDUSTRY**

Driven by globalization, future of iron and steel industry depends on: production cost reduction, strengthening of research and development, intensification of dialogue between companies that process steel and their end consumers, opening of

new areas of application for steel and self-awareness of the employees' steelwork companies.

Among biggest mergers and acquisitions in the European iron and steel industry since mid nineties of the 20th century, the following companies should be listed [5]:

- (1995) Cockerill Sambre (Belgium) - Eko Stahl (former GDR);
- (1997) Thyssen (Germany) - Krupp (Germany);
- (1997) Arbed (Luxemburg) - Accelaria (Spain);
- (1998) Usinor (France) - Cockerill Sambre (Belgium);
- (1999) British - Steel (UK) - Hoogovens (the Netherlands); Corus was established;
- (2001) Arbed SA (Luxemburg) - Usinor SA (France) - Aceralia Corporacion Siderurgica SA (Spain). Arcelor group was established in effect. At the initial moment the company employed over 110,000 employees worldwide. Steel production amounted to ca. 46 million tonnes while a consolidated turnover reached ca. 30 billion Euro [6, 16];
- (2006) merger of Mittal Steel Company with Arcelor Group;
- (2007) Indian Tata Steel took over Corus Group, which placed it seventh in the list of biggest steel producers, with annual production capacity of 23 million tonnes [3].

A shining example of consolidation in steel industry on a global scale is development of LNM Group (later Mittal Steel Company) through right investments and acquisitions [18]. Mittal Steel Company is the most dynamically developing steel consortium worldwide. It encompasses all the aspects of modern steel industry while offering a wide assortment of flat and long products in order to meet the demand among their customers. However, the most essential actions, according to the company's owner, is to find synergy between a variety of the Group's divisions and to determine the leading product [15].

As a global company, the Group has advantage over its competitors. It can make use of the experience of its steelworks located all over the world. This concerns e.g. production technologies, sales of marketing. Undoubtedly, additional asset is the staff employed for Mittal Steel - it comprises the representatives of forty five nationalities [14]. In 2006, a spectacular merger of Mittal Steel Company with another steel tycoon, Arcelor, took place. The resultant entity, Arcelor Mittal, employs 320,000 of workers in over 60 countries in the world. Its production capacity reaches over 10% of world steel production [17].

Undoubted benefits for new companies that were established after mergers and acquisition included: strengthening of position in the market of steel products, enhanced geographical range through complementary market positions of the merged companies, strengthening and improvement in the system of distribution, cost effectiveness, elimination of the conflicting programs and functions concerning administration, sales, marketing and IT systems, optimization of production and logistics, widening of the range of products.

Despite obvious benefits resulting from the processes of consolidation, the theses are formulated that mergers rarely succeed since merger of two companies

destroys share value. Despite shareholders being convinced to synergy effect and cost effectiveness, it would be good to have shares located in two separate companies. The scale and scope of risk of consolidation depends on a variety of factors: the type of the adopted strategy, position of the local currency, country of origin of the partners etc. These problems typically result from [10]:

- improperly formulated expectations, resulting from ill-considered strategy and overestimation of the synergy effect,
- overpaying due to incompetent negotiations and overestimation of the effects of transactions,
- difficulties in integration of the two organizations due to cultural and language barriers as well as styles of management.

However, despite strong arguments against the phenomenon of consolidation, the practice of European and world iron and steel industry indicates the necessity of intensification of integration processes.

The process of globalization in iron and steel industry is constantly developing. In 2005-2007 annual global production of steel production was rising (Table 1). However, as a result of the global recession, the value of the steel manufactured in 2008 decreased by nearly 2%. According to many experts, the process of globalization will be ended or nearly ended when a few biggest producers manufacture 40-50% of world steel production. During the analysed period, only six steel giants were able to produce 20% of these products. On the other hand, production capacity in twenty biggest steel producers accounted for ca. 40% (2005 - 38.5%; 2006 - 38.4%; 2007 - 40.1%; 2008 - 41.2%).

ArcelorMittal was the world biggest steel manufacturer in 2006-2008. However, its share in production of steel decreased gradually from 9.36% in 2006 to 7.65% in 2008. According to the newest ranking by World Steel Dynamics in 2009, ArcelorMittal is losing its leading position in world steel production. First place was taken by Russian Siewierstal, second one by the Korean Posco while third – by Chinese Baosteel. ArcelorMittal is located as fourth and the first five places are ended with Russian Novolipetsk Steel. This ranking, however, is not developed on the basis of current results in the companies, but also on the basis of the prognoses based on the contracts of supply and production capacities.

In early nineties of the 20th century in Polish iron and steel industry, during making decisions on restructuring of Polish steel sector, a necessity of consolidation of domestic steelwork companies was emphasised. Positive experience of world iron and steel industry in this area was a great argument for integration in steel sector. Merger of Huta Katowice and Huta Sendzimir steelworks was an integration project suggested a few times in Polish steel industry. However, no action was undertaken towards realization of these projects, neither in the beginning of steel sector restructuring nor later.

In 1999, when rapid privatization of Polish steelworks was expected, integration of two biggest Polish steelwork companies was found to be seriously delayed [13]. However, despite direct indications to the need of integration of Polish steel sector, no substantial consolidation activities were undertaken during ten years of the process of steel industry restructuring. Consolidation would also allow for concentration of the selected production capacities and the capital under uniform management in order to enhance efficiency of

restructuring process in the sector, leading to reaching competitive position in the open market (viability).

**Table 1. Production level and share in world production for twenty biggest steel manufacturers in 2005-2008**

No.	2006			2007			2008		
	Position in the ranking	Production level in million tonnes	Share in world production in %	Position in the ranking	Production level in million tonnes	Share in world production in %	Position in the ranking	Production level in million tonnes	Share in world production in %
1	Arcelor Mittal	117.2	9.36%	Arcelor Mittal	116.4	8.61%	Arcelor Mittal	101.6	7.65%
2	Nippon Steel	32.7	2.61%	Nippon Steel <sup>1</sup>	35.7	2.64%	Nippon Steel <sup>1</sup>	37.5	2.82%
3	JFE	32.0	2.55%	JFE	34.0	2.51%	Baosteel Group	35.4	2.66%
4	POSCO	30.1	2.40%	Hebei Steel Group	31.1	2.3%	Hebei Steel Group	33.3	2.51%
5	Baosteel	22.5	1.79%	POSCO	31.1	2.3%	JFE	32.4	2.44%
6	U.S.Steel	21.2	1.69%	Baosteel Group	28.6	2.11%	POSCO	31.7	2.38%
7	Nucor	20.3	1.62%	Tata Steel <sup>2</sup>	26.5	1.96%	Wuhan Steel Group	27.7	2.08%
8	Tangshan	19.1	1.52%	Shangdong Steel Group	23.8	1.76%	Tata Steel <sup>2</sup>	24.4	1.83%
9	Corus Group	18.3	1.46%	Jiangsu Shagang Group	22.9	1.69%	Jiangsu Shagang Group	23.3	1.75%
10	Riva Group	18.2	1.45%	U.S.Steel	21.5	1.59%	U.S.Steel	23.2	1.74%
11	Severstal	17.5	1.39%	Wuhan Steel Group	20.2	1.49%	Shangdong Steel Group	21.8	1.64%
12	ThyssenKrupp <sup>3</sup>	16.8	1.34%	Nucor	20.0	1.48%	Nucor	20.4	1.53%
13	Evrz Group	16.1	1.28%	Gerdau	18.6	1.37%	Gerdau	20.4	1.53%
14	Gerdau	15.6	1.24%	Riva	17.9	1.32%	Severstal	19.2	1.44%
15	Anshan	15.3	1.22%	Severstal	17.3	1.28%	Evrz	17.7	1.33%
16	Jiangsu Shagang Group	14.6	1.16%	ThyssenKrupp <sup>3</sup>	17.0	1.25%	Riva	16.9	1.27%
17	Wuhan	13.8	1.10%	Evrz	16.2	1.19%	Anshan Steel	16.0	1.20%
18	Sumitomo	13.6	1.08%	Anshan Steel	16.2	1.19%	ThyssenKrupp <sup>3</sup>	15.9	1.19%
19	SAIL	13.5	1.07%	Maanshan Steel	14.2	1.05%	Maanshan Steel	15.0	1.13%
20	Techint	12.8	1.02%	SAIL	13.9	1.02%	Sumitomo Metal Ind	14.1	1.06%
	<b>World</b>	<b>1 251.0</b>	<b>100.00%</b>	<b>World</b>	<b>1 351.3</b>	<b>100.00%</b>	<b>World</b>	<b>1 326.5</b>	<b>100.00%</b>

<sup>1</sup> includes part of Usiminas; <sup>2</sup> includes Corus; <sup>3</sup> 50% of HKM included in ThyssenKrupp

Source: self study on the basis of: Steel in Figures IISI (2006, 2007, 2008, 2009)

Finally, first process of consolidation encompassed: Katowice, Sendzimir, Florian and Cedler steelworks. Strong cooperation dependencies between Sendzimir and Florian steelworks in terms of cold-rolled plates and Katowice and Cedler steelworks in terms of supply of furnace charge were taken into consideration.

Moreover, the expected cooperation-related bonds were considered; they consisted in supplies of furnace charge from Huta Katowice to Huta Sendzimir for manufacturing of hot-rolled sheet metals. Polskie Huty Stali S.A. (PHS S.A.) were established in 2002. This holding included the four abovementioned entities. Production capacity of the consolidated steelworks was formed at the level of 60% of domestic production [2].

The PHS S.A. was intended to adopt a form of a consortium (departure from legal independence of each steelworks). After its establishment, the consortium was privatized. Inclusion of LNM Group (later Mittal Steel Company, then Arcelor Mittal) to Polskie Huty Stali caused that the consortium became a part of global structure. This allows for reduction of costs through common purchase of raw materials. Undoubtedly, a beneficial aspect is to make use of the international network of distribution owned by the new investor. The consortium also included the former Huta LW, which in 2005 was taken over by Arcelor.

World tendencies in organization and management in iron and steel industry confirm the need for consolidation of this sector in Poland. Thus the processes of mergers were intensified in recent years. Złomrex, which combines purchase of scrap metal, production and distribution of steel, took over, in 2006, Voestalpine Stahlhandel from Austria. This transaction allowed for reaching revenues of 400 million Euro and the access to distribution in over ten East and Central European countries. This year, Złomrex overtook a controlling block of shares from another steel operator - Centrostal Gdansk [13]. Moreover, Złomrex also includes e.g.: Ferrostal Łabędy sp. z o.o., HSW Huta Stali Jakościowych sp. z o.o. and HSW Walcownię Blach sp. z o.o. Another company which intensively operates in steel market is Alchemia S.A., who is the owner of Huta Batory and Huta Bankowa.

### 3. SUMMARY

According to the experts, the process of consolidation will encompass not only the steelworks themselves, but the vertical consolidation will also take place. Mergers will be carried out by the producers with ore suppliers or operators. Some structures, very profitable for the market, ensuring energy and raw material safety, will be created in this way.

Globalization of the industry observed in world iron and steel industry is a process which, through synergy effects, brings great benefits while it strengthens and extends the processes of consolidations.

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## **THE IMPACT OF THE NEW BASEL ACCORD ON THE SUPPLY OF CAPITAL TO EMERGING MARKET ECONOMIES**

**GABRIELA CORINA SLUSARIUC, MARIA MĂCRIȘ \***

**ABSTRACT:** *The New Basel Accord aims to ensure that international banks' regulatory capital reflects more closely the credit quality of their loan portfolios. This means that capital charges will be higher for lending to low credit quality borrowers. Some have argued that this increased risk sensitivity will lead to a curtailment in the supply of capital to emerging market economies (EMEs). There are several reasons to think that the impact of the new Accord is unlikely to be as dramatic as some commentators have suggested.*

**KEY WORDS:** *Basel Accord, international banks, policy, capital, market, risk*

Since 1999 the Basel Committee on Banking Supervision has been working on a revised Capital Accord, which should align regulatory capital requirements with the actual risk associated with banks' assets, calculated with modern risk management techniques. The new Accord will increase regulatory capital for lower rating classes and, as a consequence, many observers feared that bank lending to emerging markets would decline. The series of revisions of the new Accord have already contributed to dampening fears of a large impact on lending to high risk lenders. After the first consultative proposals for Basel II were released in June 1999 and January 2001 the Committee received a large number of responses (BIS, 1999; BIS, 2001).

The New Basel Accord aims to ensure that international banks' regulatory capital reflects more closely the credit quality of their loan portfolios. This means that capital charges will be higher for lending to low credit quality borrowers. Some have argued that this increased risk sensitivity will lead to a curtailment in the supply of capital to emerging market economies (EMEs). There are several reasons to think that the impact of the new Accord is unlikely to be as dramatic as some commentators have suggested.

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Foremost among them is that previous analyses have assumed that banks price their loans on the basis of the regulatory capital charge. But in reality the link between regulatory capital and loan pricing is far from direct. Banks themselves have an interest in maintaining a prudent stock of capital to guard against unexpected losses, and this 'economic' capital is consequently linked to the credit quality of the bank's assets. Loan pricing reflects the level and the cost of economic capital, and these are not automatically affected by a change in regulatory capital – indeed the new Accord is intended precisely to align regulatory capital more closely with economic capital.

The new Accord links the capital charge for credit risk to explicit indicators of credit quality, either measured externally (the standardized approach) or internally (the internal ratings based approach, or IRB). This stands in contrast to the current Accord, under which capital charges against sovereign and inter-bank loans are based on whether the borrower is domiciled in the Organisation for Economic Co-operation and Development (OECD).

Under the current Accord, lending to a non-OECD country bank carries a charge of 8% if the maturity of the loan is greater than one year, compared with a charge of 1.6% for shorter-term claims. This sharp step-up in capital requirements for longer-term lending is viewed by some as having encouraged an increase in short-term lending to Asian banks in the mid-1990s. The new Accord could potentially affect lending to and within emerging markets through two channels. First, it could affect cross-border flows to EMEs. For this type of lending the key issue is how the new Accord will affect international banks. Second, the new rules could affect flows of credit within EMEs. The impact of the Accord here will depend on the treatment of domestic banks, and subsidiaries and branches of internationally active banks located in EMEs. These two channels are considered in turn.

Most international banks are likely to adopt the IRB approach, which sets minimum capital as a function of their assessment of the probability of default of the borrower, and, for banks using the advanced approach, an estimate of loss given default. The OECD effect is clear – capital requirements on lending to OECD member borrowers with relatively low credit standing, for example Turkey, could increase markedly. The average regulatory charge for lending to EMEs that have a relatively high credit standing (ie around or above the investment grade boundary, eg countries such as Chile, South Africa and Malaysia) will generally be reduced. There can therefore be few concerns regarding the impact of the new Accord on loan supply to these countries. On the other hand, the average regulatory minima for lending to lower credit quality countries will generally increase.

For countries where the regulatory requirements may increase, the key question is whether the new regulatory minima will substantially exceed the economic capital that banks would otherwise hold – in which case a rise in loan prices might ensue.

Foreign banks have in recent years increased their activity in EME banking markets through the purchase of subsidiaries and establishment of branches. In Mexico and Poland, for instance, more than 70% of national banking system assets are owned by foreign banks. In addition, foreign bank participation in certain EMEs appears to be

concentrated in a few internationally active banking groups, which are sufficiently sophisticated to qualify for adoption of the IRB approach.

It is not yet clear which standard will be applied to the branches and subsidiaries of such groups. If local operations of foreign banks are treated under the IRB approach, the question again arises whether the new minimum capital charges would bite, which depends again on how far these banks price loans on the basis of economic - rather than regulatory - capital. Most domestically owned banks in EMEs are likely to adopt the standardised approach, under which minimum capital charges for EME lending seem unlikely to change much.

The majority of corporate exposures in emerging markets are likely to fall into the 'unrated' category which retains the 8% charge. And while the new Accord has introduced an additional charge for operational risk and a higher charge for non-performing loans, the lower risk charge for retail business may offset these.

Moreover, national supervisors can opt to allow banks under their jurisdiction to assign a low risk weight to holdings of government debt denominated in local currency, and to assign a risk weight to interbank exposures that is one category lower (ie a higher risk weight) than the risk weight on sovereign claims.

Concerns about a negative impact on lending to lower rating categories, a characteristic shared by most small and medium sized firms and emerging markets, led to a reduction of these risk weights in the subsequent revisions (BIS, 2003). Nevertheless, the third Quantitative Impact Study 3 (QIS 3)<sup>1</sup> revealed that capital requirements for sovereign exposures will still rise by 28% under the Advanced IRB2 and 47% under the Foundation IRB for Group 1 banks. Given the prominent role of Group 1 banks in lending to emerging markets, this rise in requirements might potentially lead to large adjustments in international bank lending to emerging markets.

Furthermore, even in the absence of large changes in capital costs, Basel II might have a significant impact on bank lending flows since small spread changes may induce large portfolio reallocations. And, following Griffith-Jones or Calvo, in a market characterised by credit rationing, spread increases may lead to the exclusion of borrowers. The simple categorisation under Basel I gave banks leeway for capital arbitrage by choosing higher-risk assets within a given risk category. In particular, the OECD/non-OECD distinction in principle allowed banks to hold risky assets (e.g., Mexico) without commensurate capital.

The critical questions in assessing the impact of Basel II are the relationship between regulatory and economic capital and which of them is the binding constraint. We test these two interlinked hypotheses: is economic or regulatory capital the binding constraint? And: have banks already based credit decisions on economic capital in the past? To the extent that the new Accord succeeds in aligning regulatory capital requirements with economic capital, which are based on modern risk management techniques, Hayes and Saporta (2002) suggest that it should have no impact on credit decisions of banks already using these techniques.

Basel II regulatory capital estimates are lower than the economic capital estimates for these sovereign portfolios, which is a prerequisite for the hypothesis of the neutrality of Basel II. Banks already base their lending decisions on credit risk models. Given that these banks provide the lion's share of bank lending to emerging

markets, and more banks are in the process of adopting modern risk management techniques, we conclude that by the time Basel II will be adopted (year end 2006) it will have only a negligible effect on German banks' loans to emerging markets.

Studying the effects of capital regulation at the individual bank level is that it permits differentiation between size and ownership structure. This differentiation is of particular importance in the context of the German financial system which is composed of a few large private banks and a substantial share of public sector banks. Given the mandate of public sector banks and the guarantees extended to these banks the business policy and objectives pursued may differ substantially from private sector banks.

The increase of capital costs predicted in the context of Basel II will not be relevant for bank lending to emerging markets, provided that they remain below the unexpected loss. Unexpected loss of banks depends on models used to calculate unexpected loss and confidence intervals chosen and will thus vary across banks. It is the explicit intention of the Basel Committee to bring regulatory capital into line with economic capital from below, and not to top it.

Basel II will not affect banks' lending if banks' estimates of economic capital is the same as or exceeds regulatory capital (under Basel I and Basel II) and, additionally, if the banks consider the unexpected loss in their lending decisions.

Basel II will have a limited effect on loans to emerging markets, as least if German Banks are representative of other banking systems. The Basel Committee seems to have achieved the goal of bringing regulatory capital in line with economic capital from below. It seems to be that the capital costs will not rise on average and, additionally, that most internationally active banks have already adopted modern risk assessment tools for their decisions.

The new Basel Accord seems unlikely to have a significant impact on banks' willingness to supply credit to emerging markets. Moreover, it is important to bear in mind that the new Accord applies only to a subset of banks' claims on EMEs. Trading book assets - eg marketable exposures such as certain bonds and equities - will not be affected. More generally, finance is available to emerging markets through non-bank channels such as foreign direct investment and purchases of bonds and equities by non-bank foreign and domestic investors, which will again be unaffected by the new Accord. Moreover, even if the new Accord did have the effect of raising the cost or constraining the availability of finance for certain EMEs, through a more accurate reflection of risk, it is not obvious that the appropriate response would be to amend the Accord. Other policy instruments may well be more appropriate, if the intention were to provide finance on more favourable terms.

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## **ASPECTS ON OPPORTUNITIES TO REDUCE PUBLIC EXPENDITURE**

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**ABSTRACT:** *Taking into account the pressures and risks caused by internal and external economic developments, the need to support economic growth and to reduce inflation, as well as prevalently ensuring the amounts intended to finance infrastructural projects and co-finance projects financed from European funds and Romania's contribution to the Community Budget, and having regard to the views and recommendations of the European Commission, but as well of the rating agencies expressed during periodic evaluations, it appears that for avoiding the risks noted is necessary to adopt a restricting policy of budgetary expenditures.*

**KEY WORDS:** *expenditures, budget, reduction, wages/salary, restructuring, public*

The recent years development of the volume and structure of national public expenditures, beyond the funds allocated through annual budget laws, shows certain trends as regards the priorities determined by the government act but also some changes arising as a result of measures of harmonizing the national legislation with the applicable legislation in the European Union, of financial obligations to the Community Budget, honouring the commitments related to Romania's status of being a member country of the North Atlantic Organization and other measures adopted in some key public sectors: education, research, health, social protection etc.

Starting from a relatively constant level of budget revenues, in conjunction with a normal degree of their collection, in the field of public funds allocation, in the lack of an efficient management, certain risks and vulnerabilities might arise in elaborating and implementing the budget by considering the following hypothetical situations: exceeding the benchmark of the budgetary deficit level could trigger the deficit procedure according to the Protocol enclosed to the Treaty of Accession to the European Union; risk of failing to ensure co-financing projects with external non reimbursable funding which may lead to a pronounced decrease in the capacity to absorb community funds received by Romania; inability of fulfilling financial commitments resulted from external contracts granted in the last years.

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Also, from one year to another, under the argument of institutional development, of creating and functioning of institutions directly involved with the European Union, a multitude of government agencies and institutions have emerged, whose funding must be secured from the budget, the growing number of these ones fuelling an administrative apparatus rather large and branchy. Even recent decisions and measures for restructuring some institutions and ministries within the Government did not had the effect of reducing public expenditure, personnel number and managerial positions remaining almost unchanged.

These measures led inevitably to an obvious pressure in the State Budget, especially in recent years, and hence to the impossibility of ensuring certain priorities and commitments derived from the Government Program for some departments whose solution can not be postponed: education - research, pensions and social allowances. The approval of own normative according to law, by Government Decision, aiming at automobile purchase, associated fuel consumption, as well as exemptions granted for this purpose to some institutions with activities considered operative or inspectional, contributed to the substantial increase of expenditure contained in the annual budgets of the institutions, whose funding is provided from public resources. Significant funds are currently directed for protocol and representation actions, a practice used by all public administration authorities and public institutions, irrespective of their funding.

Regarding public investment, although in many stages of elaborating annual budgets, it has been tried a prioritization of funds allocated to complete the investment objectives initiated long ago and not concluded, most often by modifying technical-economic documentations and the terms of calling into operation, these have not received sufficient funds, many main credit release authorities proceeded at initiating other new objectives, considered as foreground. Taking into account the pressures and risks caused by internal and external economic developments, the need to support economic growth and to reduce inflation, as well as prevalently ensuring the amounts intended to finance infrastructural projects and co-finance projects financed from European funds and Romania's contribution to the Community Budget, and having regard to the views and recommendations of the European Commission, but as well of the rating agencies expressed during periodic evaluations, it appears that for avoiding the risks noted is necessary to adopt a restricting policy of budgetary expenditures. Since all these concern the general public interest and represent emergency and extraordinary situations, whose regulation can not be postponed, the Romanian Government adopted an emergency ordinance in which is clearly stated the legal framework and measures to be taken to reduce these expenditures.

Some of the measures elaborated by the government are:

- reorganizing the structure of public authorities and institutions belonging to the central and local administration regarding the composition of services, offices and directions within an institution;
- subsidies granted from the budget for projects funded by external non-reimbursable funding and unused at the end of the budgetary exercise shall be used thenceforth to support these projects to completion, or refunded to the budget, but shall not be used for other purposes;

- reducing road and air transport costs for dignitaries travelling abroad, stipulating that air services type business class may be used in European countries only by the Government members and the economy class by the rest of the staff, and that Romanian personnel sent abroad for accomplishing temporary assignments that do not fall under the 2<sup>nd</sup> category of daily allowance, must use the public means of transportation, round trip, for the distance between the airport or train station and place of accommodation;
- abating the legal provisions which governed the granting of an increment of up to 75% for staff who manages community funds;
- abating the 75% increment for specialized personnel within the structures that have as activity object the management of financial assistance from external loans contracted or granted by the State, reimbursable or not, as well as other credits or similar loans;
- abating the legal provisions which governed the right of specialists trained in project management with international funding to benefit from the 75% increase of basic salaries than those provided by law;
- eliminating the 10% percent which could increase the basic salary of observers designated in the verification process of the procedural aspects relating to the process of awarding public procurement contracts, of public works concession contracts and service concession contracts;
- eliminating the increments granted to European affairs advisers except seniority grant and the increases provided by legal provisions for the personnel under contract within public authorities and institutions and, where appropriate, expressly provided by special legal provisions applicable to the public authority or institution in which they perform their activity;
- establishing maximum limits to which the administrators of public authorities or institutions may offer leadership grants for the budgetary personnel, provided in normative deeds, the main credit release authority having the responsibility to determine the individual levels;
- eliminating the legal provisions which institutionalized the grant of 10% increment calculated to the basic salary according to the employment position, granted to members of the Diplomatic and Consular Body of Romania working in the Ministry of Foreign Affairs who knew two or more foreign languages;
- eliminating the increment for work complexity of up to 25% applied to gross base salary granted to internal auditors;
- eliminating the 15% allowance applied to basic salary, granted to members, secretary and persons designated to conduct the administrative investigation within the Disciplinary Commissions, as well as the 10% allowance from the basic salary paid to members and persons providing the technical secretariat of the Disciplinary Commissions for public servants;
- eliminating the 20% allowance of basic salary, paid to members of the Competition and Litigation Solving Commission, as well as the 10% allowance of basic salary granted to personnel providing the secretariat of the Competition and Litigation Solving Commission;
- implementing a uniform remuneration system for civil servants and elaborating some

similar regulations for the contractual personnel, civil servants with special status, teachers and medical personnel;

- rationalizing expenditures with social works and assistance by granting them only to persons and families with precarious social situation, transforming the procedures for obtaining the disability degree into ones more transparent, as well as eliminating any measures that encourage passive behaviour in the labour market;
- performing a rigorous monitoring of expenditures made for infrastructural investment projects funded by the State and applying sanctions for breaching contractual provisions on the quality of works performed, goods and services purchased;
- reducing the numbers of fees and charges, starting with those whose administrative costs are higher than actual earnings.

Considering even the effects of recent economical crisis, applying these measures may give rise to powerful social movements among employees. To avoid as much as possible such events, social dialogue partners, particularly trade unions have elaborated themselves proposals for measures, concerning the reduction of budgetary expenditures and bureaucracy, such as: reducing the personnel within budgetary institutions with 50%; reducing by half the “self-financed” institutions - agencies - which are related to the State Budget. Revenues shall be under the incidence of the Court of Accounts, and the income and expenditure budget shall be approved by a superior institution; reducing budgetary expenditures by limiting public sector wages, which are practically supported by the private sector of the economy; limiting the employment of persons who retired on grounds of age limit, and prohibiting, while still being active on the labour market, the commutation of pension and salary - with some exceptions such as: persons working in cultural institutions and rural education institutions; simplification of administrative procedures and reducing bureaucracy.

In conclusion, reduction of public expenditure is impetuously necessary, especially now when the world economy is affected by the crisis and must find the resources and measures to ensure a swift economic recovery, taking into account as well the negative effects that may create these measures among budget sector employees. By means of dialogue a middle way must be found, concrete measures should be implemented to reduce these expenditures without affecting the quality of public servant work, providing him with an income that reflects the work performed in a manner as realistic as possible. Although most of us prefer not to remember a certain period of Romania's recent history, one adage dating back then, is today, perhaps, more applicable than ever: “*Neither work without bread, nor bread without work!*”.

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## **TESTING THE LEVERAGE EFFECT FOR THE COMPANIES LISTED ON THE CAPITAL MARKET**

**ANDREI STĂNCULESCU, PETRE BREZEANU \***

**ABSTRACT:** *The financial theory admits that levered firms record a value surplus compared to unlevered firms, at least because of the tax savings, related to interest. A series of fundamental studies indicate this phenomenon. However, incurred debt, especially the long term debt, has a more consistent influence on performance, as stated by the Modigliani-Miller model. To this respect, the paper proposes the empirical testing of this model, using financial-accounting data of firms listed on the Romanian capital market. In particular, the statistical significance of the leverage effect will be analyzed, on a sample of companies listed on the Bucharest Stock Exchange.*

**KEY WORDS:** *leverage effect, financial lever, financial return, regression, capital market*

### **1. INTRODUCTION**

The goal of this paper is to determine the existence of a causal connection between the capital structure of a firm, materialized in its debt, and the corporate performance. The starting point consists of the financial data which describes the financing sources. These data is collected from the most representative Romanian firms, particularly those whose shares are traded on the Romanian capital market.

Studying the dependency between the financial structure of an enterprise and its performance can be reduced to analyzing the degree of leverage impact, quantified by the financial lever, on shareholders' financial return on equity, according to the Modigliani- Miller model.

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## 2. LITERATURE REVIEW

The Modigliani & Miller model offers one of the most used formulas in financial theory. The relationship shows that the estimated financial return for a levered firm, from the class of risk  $k$ , is a linear function of the leverage ratio (Dragotă, M., 2006, p.69):

$$R_{fin} = E(R)_k + [E(R)_k - R_{dob}] \times \frac{DAT}{CPR} \quad (1)$$

The notation system is as follows:  $R_{fin}$  = the financial return rate of the levered company, included in the class of risk  $k$ ;  $E(R)_k$  = the expected return of the company from the class of risk  $k$ ;  $R_{dob}$  = the interest rate, also called cost of debt;  $DAT$  = the company's long term debt;  $CPR$  = shareholders' equity.

The formula shows that a levered company can obtain a return on equity ratio superior to that of an unlevered company, at the same cost of capital. The term that is added to  $E(R)_k$  is called leverage effect and may take three forms:

- a) lever effect  $\Leftrightarrow E(R)_k > R_{dob}$ ;
- b) boomerang effect  $\Leftrightarrow E(R)_k < R_{dob}$ ;
- c) null effect  $\Leftrightarrow E(R)_k = R_{dob}$ .

Thus, if the intrinsic return rate of the company surpasses the debt cost, then the shareholders' earning increases directly proportional to the degree of leverage. In the opposite case, when the interest rate is higher than the company's return on assets, supplemental leverage will enhance the negative performance and will lead to a reduction in the return of shareholders.

The Modigliani & Miller conclusions are radically amended under taxation conditions. Taking into consideration the tax on profit will favour levered companies to those unlevered, due to the deductible interest expenses of loans contracted (Modigliani and Miller, 1963, pp.433-443).

The deduction of interest from the operating profit will lead to the reduction of the tax amount and to the simultaneous completion of tax savings. Regarding the shareholders' wealth, the value of the levered company will be greater than the value of the unlevered company (Stancu, I., 2007, p. 688). The value difference is owed to tax savings. Their value, perpetually discounted, equal to  $\tau \cdot DAT$ , will add value to the unlevered company;  $\tau$  represents the tax on profit rate. The following relationship is obtained:

$$V^L = V^U + DAT \times \tau \quad (2)$$

Identifying an optimal capital structure for the companies from the Romanian financial market represents a poorly addressed research topic. The majority of studies had been concerned with the influence factors of financing policy, proving to be useful both to investors and firms. The latter's management is interested in anticipating financing decisions' implications on the company's market value.

On the Romanian capital market, Dragotă (2006, p.194) used a sample of companies listed during 1997-2003 on the Bucharest Stock Exchange (BSE). The two main findings of this study are the following (Dragotă, M., 2006, pp.209-224):

- Romanian firms have a high degree of leverage, explained to a significant extent by the weight of interest free accounts payable;
- profitable enterprises contract less debt because they have got sufficient own resources to finance investment projects.

Using information drawn from the balance sheets and the results accounts of the companies listed on BSE and RASDAQ, during 2001-2004, Robu (2005) examined the correlation between the stock price and financial accounting data. According to the results obtained, the links between financial rates and stock-market performances for the companies from the sample are generally weak in intensity and can be quantified only by means of non-linear models (Robu, 2005).

### 3. METHODOLOGY FOR ANALYSIS

As a general rule, for the analyses contained in this paper we will apply the most commonly used relationship for determining shareholders' return, both between theoreticians and practitioners, namely *ROE*. Regarding the moment in time used as reference, *the results from the year-end will be compared to the capital invested at the beginning of the year*:

$$ROE = \frac{\text{Net profit}_1}{\text{Shareholders' equity}_0} \quad (3)$$

Nevertheless, the financial practice had become familiar with return rates of capital amounts invested at the end of the financial year, which will produce results in the next year. In support of this claim we present, for example, the method of calculation that stems from the financial data of the companies listed on the Bucharest Stock Exchange, posted on the [www.ktd.ro](http://www.ktd.ro) site. In the financial results section of this web site we find the so-called "equity return", in which the net profit is divided by the equity invested at the end of the financial year (KTD Invest, 2009, [www.ktd.ro](http://www.ktd.ro)).

As an exception to the rule, we will use this method of calculation only in situations when we do not have enough data to apply the appropriate formula.

The financial structure of the firm can be described by the amount of debt, but also by means of financial leverage. The objective of the analysis is to detect the influence which leverage exerts on performance. In order to quantify leverage, a multitude of leverage ratios can be used (Brezeanu, P., 2007, p.331), which divide contracted debts (or a part of them) by total liabilities (or by shareholders' equity). Of these we selected the *financial lever*, which is determined by dividing the long-term debt by the shareholders' equity:

$$L = \frac{\text{Long-term debt}}{\text{Shareholders' equity}} \quad (4)$$

The analysis of the relationship between the considered quantitative variables is based on the regression analysis; this is one of the most important econometric methods used in studying economic phenomena. The connection between a dependent (explained) variable  $Y$  and one or several other independent (explanatory) variables can be mathematically modelled by the following function:  $Y = f(X)$ .

Yet, any type of function cannot fully describe the link between economic phenomena. Therefore, a residual variable (error) must be added in the model, in order to take into consideration the observed values' deviations from the values estimated using the model. In addition, the direction and the intensity of the relationships between variables imply a particular importance.

The analysis consists of carrying out two simple regressions:

- for percentage values, where:  $x$ = financial lever and  $y$ = financial return;
- for absolute values, where:  $x$ = long-term debt and  $y$ =profit.

#### 4. DATABASE CONSTRUCTION

In general, constructing databases for empirical studies is a difficult undertaking, for analyzing the Romanian capital market, because there is no public database that provides information. This status quo represents a genuine shortcoming that the researcher has to overcome in order to procure his "prime matter", the input of his analysis.

In the absence of complete data sources we directed our attention over data and information posted on websites of institutions such as the Bucharest Stock Exchange and the National Securities Commission. Although the NSC digital resource offers numerous data from a quantitative point of view, its lack of systematization drove us to, eventually, assume the data from the *BSE site*, because the latter is ordered and systematized in a superior fashion that makes collecting it much easier (BSE, 2009, [www.bvb.ro](http://www.bvb.ro)).

Consistent with the purpose of the proposed analysis, respectively the testing of leverage effect on performance, the database contains the following financial-accounting data:

- long-term debt, equity and financial lever;
- net profit and financial return.

The delimitation used on these two coordinates serves the purpose of highlighting separately the regression variables: the independent variable and the dependent variable.

Long-term debt is synonymous with financial debt, long-term and medium-term debt, or with debt contracted on a greater than one year term. Dividing long-term debt and net profit by shareholders' equity we obtain the financial lever and the financial return. Thus, it can be observed that the role of equity is only to contribute to the definition of variables; it is not a factor in the regression.

The generic structure of the database is the following:

**Table 1. Database structure**

Company	Year	Financial return	Net profit	Equity	Long-term debt	Financial lever
.....	.....	.....	.....	.....	.....	.....

Collected data is annual and has been taken from the balance sheets and the profit and loss accounts of companies whose shares are quoted at the first 3 tiers of the Bucharest Stock Exchange. The time period under analysis is of 3 years, with the reference interval [2005-2007]. Argument: most of the financial data posted by issuers on the BSE site contains recordings from this interval. For the year 2008, data is available only for 28% of issuers, namely 19 firms.

The data sample does not include financial intermediation companies because their degree of leverage is influenced by a number of specific financial regulations, depending on which they operate. Also excluded from the sample are those companies for which there is not sufficient information available from the selected time period, in order to accomplish a rigorous analysis. We consider that the researcher cannot be held accountable for this shortage of data. We once again emphasize the difficulty of constructing a database which is proper for high-level research, considering that in our country, a universal and complete database, including financial information of public interest, in a coherent and transparent manner, covering a time period suitable to relevant statistical analysis, does not exist.

From a total of 69 companies listed at the first three tiers of the stock exchange, three were excluded, for which we bring the following arguments:

- S.S.I.F. BROKER S.A. (BRK) is a financial intermediation company;
- CASA DE BUCOVINA-CLUB DE MUNTE (BCM) has data available only for 1 year, thus not allowing the computation of financial return;
- CONTOR GROUP S.A. Arad (CGC) does not have any data available.

It should also be noted that for companies ROCE, UZT and VESY there is no data available for 2006, and that the issuer CMCM did not post any financial-data recordings for the year 2007. For TRP, data is available only for 2007 and 2008, but as performance in percentage values can be computed, we decided to hold this firm in the sample. These “lacks” need to be covered, in order to ensure cohesion to the database.

The 19 issuers for which records are available at the level of the year 2008, are the following: BIO, SOCP, ALU, APC, ARS, BRM, CMF, COTR, ECT, EFO, ENP, SNO, STZ, TUFE, VNC, UAM, CMCM, UZT and VESY.

For banks (TLV, BCC and BRD) and for the insurance company ASA, in the absence of accounting records consistent with the structure of the database, we have assumed the liabilities item “debt regarding credit institutions” as representing long-term debt, and the liabilities item “equity subscribed” – as representing equity. In particular, for ASA we collected the total debt data, because of the absence of a detailed debt recording.

In order not to distort the calculations by accepting null values, owing to the absence of data, we agreed on the following compromise solution:

- null values from the *long-term debt* column were replaced with the value from the previous year, when such a value exists;
- null values from the *long-term debt* column were replaced with recordings from the liabilities item “total debt”, when there is no value available for *long-term debt* from any of the previous years, to replace the null value;
- the value from the *financial return* column, corresponding with the first year of analysis (for which data is available from the firms’ records; ex: 2005) is determined by dividing the net profit from year  $t_1$  by the shareholders’ equity from the same year, because there is no data available from the previous  $t_0$  year (ex: data for shareholders’ equity from 2004 would be required).

To summarize, the database contains the cumulated recordings of values for the previously described variables, for companies listed at the first 3 tiers of the BSE, over a period of at least 3 years. The regression is performed on global data series, with values recorded for all the companies selected for the sample. It comprises of 66 companies and 213 observations on: financial return, net profit, shareholders’ equity, long-term debt and financial lever.

## 5. REGRESSION ANALYSIS RESULTS

The results of the regression analysis with variables expressed in **percentage values** - financial lever and financial return, are the following:

**Table 2. Regression results for percentage values**

Regression Statistics					
Multiple R					0.00459888
R Square					2.11497E-05
Adjusted R Square					-0.004740654
Standard Error					0.757093733
Observations					212

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.002545845	0.002546	0.004442	0.946927877
Residual	210	120.3700934	0.573191		
Total	211	120.3726393			
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	
Intercept	0.059350769	0.052273759	1.135384	0.257509	
0.142301275	-0.000962215	0.014437964	-0.06664	0.946928	

On these results we have to specify the following essential observations:

- Multiple R shows a very weak link between the two variables;
- R Square indicates a very small proportion in which the financial return is explained by the financial lever;
- P-value is greater than 5%; this implies that we cannot reject the null hypothesis which states that the regression parameter is equal to 0; consequently, there is no real connection between financial return and financial leverage;
- Significance F is greater than 5%, which implies that the regression model is not valid; the influence of the explanatory variable on the explained variable is insignificant.

The results of the regression analysis with variables expressed in **absolute values** - long-term debt and net profit, are as follows:

**Table 3. Regression results for absolute values**

Regression Statistics					
Multiple R		0.33696181			
R Square		0.113543261			
Adjusted R Square		0.109322039			
Standard Error		227877859			
Observations		212			

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	1.39678E+18	1.4E+18	26.89819	5.03534E-07
Residual	210	1.09049E+19	5.19E+16		
Total	211	1.23017E+19			
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	
Intercept	34332945.14	16143287.24	2.126763	0.034607	
150101676	0.147976391	0.028531912	5.186347	5.04E-07	

On these results we have to state the following essential comments:

- Multiple R indicates a weak link between the two variables;
- according to the R Square result, approximately 11,35% from the net profit is explained by the long-term debt factor;
- P-value <5%; we reject the null hypothesis which states that the regression coefficient is equal to 0; thus, a real connection exists between net profit and long-term debt;
- Significance F < 5%, which implies that **the regression model is valid**; the influence of the independent variable on the dependent variable is significant.

## 6. CONCLUSIONS

The results of this study are contradictory. The regression model tested for percentage values is not valid, yet the regression performed for absolute values has been validated. Both regressions analyzed the relationship between leverage and performance.

Therefore, the Modigliani-Miller model is not verified on data selected from companies listed on the Romanian capital market, and **the defined leverage effect has no statistical significance**. The financial lever does not influence shareholders' financial return on equity; this finding is opposite to the paradigm of finance.

By analyzing the relationship between the amount of financial debt (term debt) and net profit, we detected a significant influence of leverage on performance, sufficient in order to validate the regression. Nevertheless, there is a weak link between the variables.

In conclusion, the manner in which companies listed on the Bucharest Stock Exchange - tiers I, II and III decide to finance their assets has little significant impact on performance (11.35%). This finding partially supports the conclusions of the study conducted by Robu (2005). The analysis needs to be completed by adding more observations to the sample, in subsequent studies in this direction.

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## **ASYMMETRIC RESPONSES OF CAPM - BETA TO THE BULL AND BEAR MARKETS ON THE BUCHAREST STOCK EXCHANGE**

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**ABSTRACT:** *The CAPM - beta is one of the most used tools to estimate the systematic risks associated to stock. In the last decades different behaviours of beta were revealed for the circumstances of the bull and the bear markets. This paper analyses the CAPM – beta responses for bad and good news for ten representative stocks from the Bucharest Stock Exchange. We identify the bull, the bear and the tranquil markets using a univariate kernel density function and we calculate for each stage the single and the multifactor CAPM betas. We conclude that for most of the stocks CAPM betas are the largest in the bear conditions and they are the least in the bull markets conditions.*

**KEY WORDS:** *CAPM - betas, Bucharest Stock Exchange, Bull and Bear Markets, Systematic Risk, Kernel Estimation*

### **1. INTRODUCTION**

Since the discovery, five decades ago, by the Markowitz (1959) of the portfolio optimization model, several attempts were made to evaluate the financial assets price taking into consideration their risks and returns. The works of Sharpe (1964), Lintner (1965) and Black (1972) lead to the development of the Capital Asset Price Model (CAPM), which arrived as one of the most important tools for the investment decision making.

The classical Capital Asset Price Model is based on the equation:

$$E(R_i) = R_f + [E(R_M) - R_f] \beta_{IM} \quad (1)$$

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where:

$E(R_i)$  - the expected return of an asset  $i$ ;

$R_f$  - the risk free rate;

$E(R_M)$  - the expected return of the market;

$\beta_{IM}$  - a coefficient, commonly known as beta, which reflects the sensitivity of the expected return of the asset to the difference between the expected return of the market and the risk free rate.

The beta coefficient associated to a financial asset is considered as an expression of its systematic risk. In practice beta of an asset is usually calculated by regressing the historical values of the asset returns and the market returns.

Several studies revealed the instability of CAPM beta conditions. Some of them indicate different behaviors of the financial assets returns in the presence of the good news, associated to a bull market and bad news, associated to a bear market.

The estimation of the asymmetric responses of CAPM beta to good and bad news is useful, especially when the bull market alternates frequently with the bear market. In Romania, where the financial markets could be still considered as emerging, the evaluation of assets in a CAPM framework with beta instability is not very used. In this paper we try to find if CAPM - beta for ten of the most liquid stocks from the Bucharest Stock Exchange (BSE) responded asymmetrically to good and bad news during the first semester of 2009.

The rest of this paper is organized as follows. In the second part we approach a literature review in the domain. The third part describes briefly the data and the methodology used in our investigation. The fourth part reports and analyzes the empirical results and the fifth part concludes.

## **2. LITERATURE REVIEW**

The asymmetrical responses of CAPM - beta to the market conditions were approached in several studies. Levy (1974) proposed the calculation of distinct betas for bull and bear markets. Roll (1977) found the market conditions could significantly affect the values of the beta assets. The stability of betas over bull and bear markets was tested for the first time by Fabozzi and Francis (1977). They found no evidence to prove the betas sensitivity to the market conditions, but later studies doubt that conclusion. Braun et al (1995) proved the different behavior of betas in the good news and bad news circumstances. Cho and Engle (1999) found that news affected asymmetrically the betas. Ang and Chen (2003) analyzed CAPM for the US equity market from 1926 to 2001, concluding that betas are sensitive to the markets circumstances. One of the main tasks in analyzing the asymmetric responses to the good and the bad news consists in describing the bull and the bear markets. Fabozzi and Francis (1977) defined these market conditions in terms of positive or negative returns. Lunde and Timmermann (2000) studied the bull and the bear markets using functions of termination probabilities. Pagan and Sossounov (2000) analyzed the bull and the bear markets using data generating process in combination with various time series models. Granger and Silvapulle (2002) applied a bivariate kernel density function of a stock and market returns to separate, by quantile estimation, the markets

conditions. Recently, Mahieu et al (2009) used a Bayesian approach to delimitate the bull from the bear markets.

### 3. DATA AND METHODOLOGY

In our investigation we use data from a reference index of BSE called BET. This index is calculated based on the ten most liquid companies listed on BSE and it would be considered as an expression of an efficient market portfolio. We use also, as data, the prices of the ten stocks aggregated in the BET index. Our sample includes daily values from 20<sup>th</sup> of January to 20<sup>th</sup> of July provided by BSE. From the stock prices we obtain daily returns computed as:

$$R_t = 100 \times [\ln(P_t) - \ln(P_{t-1})] \quad (2)$$

where:

- $R_t$  - the return at time  $t$ ;
- $P_t$  - the price at time  $t$ ;
- $P_{t-1}$  - the price at time  $t-1$ .

As a term of comparison we calculated first the betas of all ten stocks, ignoring the asymmetric responses to the bull and bear markets. We use the following equation:

$$R_t = \alpha + \beta R_{m_t} + u_t \quad (3)$$

where:

- $R_{m_t}$  - the market return at time  $t$ ;
- $u_t$  - an error term,  $u_t \sim N(0, \sigma^2)$ .

We identify tranquil, bull and bear markets using, as Granger and Silvapulle (2002) suggested, a univariate kernel density function.

We apply the normal reference rule proposed by Silverman (1986) to obtain kernel density estimation. Then we employ a technique developed by Hyndman (1996) to compute an adequate Higher Density Regions (HDR). We split the BET index returns into three intervals: the central part, associated to tranquil market conditions which represent middle 100 (1 - p) % HDR; the left tail, representing the bear market conditions; the right tail, associated to the bull market conditions.

We make the distinction between the three intervals using two quantiles:  $Q_p$  - the  $p$  per cent quantile and  $Q_{1-p}$  - the (1 - p) per cent quantile.

Based on the two quantiles we define three dummy variables:

- a dummy variable corresponding to the bear market, defined by:

$$D_1 = 1 \text{ if } R_{m_t} < Q_p \text{ or } 0 \text{ otherwise} \quad (4)$$

- a dummy variable corresponding to the tranquil market, defined by:

$$D_2 = 1 \text{ if } Q_p \leq R_{m_t} < Q_{1-p} \text{ or } 0 \text{ otherwise} \quad (5)$$

- a dummy variable corresponding to the bull market, defined by:

$$D_3 = 1 \text{ if } R_{m_t} > Q_{1-p} \text{ or } 0 \text{ otherwise} \quad (6)$$

The three dummy variables are included in a model assigned to capture asymmetric responds of betas to the bull and bear markets:

$$R_t = \alpha + \beta_1 D_1 R_{m_t} + \beta_2 D_2 R_{m_t} + \beta_3 D_3 R_{m_t} + u_t \quad (7)$$

where:

$\beta_1$  are betas corresponding to the bear market conditions;

$\beta_2$  are betas corresponding to the tranquil market conditions;

$\beta_3$  are betas corresponding to the bull market conditions.

The parameters of the equation (7) are estimated using the OLS method.

#### 4. EMPIRICAL RESULTS

We compute the daily returns of BET and the ten stocks. The BET returns are in the range of -8.98 to 6.58, while the ten stocks returns are in the range of -16.3 to 14.0. BET and the most of the ten stocks daily returns exhibit significant standard deviation, skewness and excess kurtosis (the descriptive statistics are presented in table 1).

**Table 1. Descriptive Statistics of BET and the Ten Stocks Returns**

Stock	Min.	Max.	Mean	Std. Dev.	Skewness	Ex. Kurtosis
Bet	-8.9825	6.5783	0.23228	2.8660	-0.37760	0.28211
Azomures	-15.942	13.976	0.36688	5.2028	0.44088	1.3935
S.S.I.F. Broker	-16.251	13.959	0.50241	6.9422	-0.070411	0.63501
Impact Developer	-16.164	13.858	0.61096	5.6346	-0.26858	1.4184
Biofarm S.A.	-13.353	13.641	0.68542	4.6036	0.22743	1.4325
Transelectrica	-10.536	10.798	0.082726	2.9381	-0.064962	2.2466
S.N.T.G.N. Transgaz	-8.0421	10.037	0.25422	2.5910	0.35337	3.5068
Rompetrol Rafinare	-10.763	13.976	0.42529	4.0481	0.13053	0.74702
Banca Transilvania	-11.152	13.235	0.037821	4.4750	0.24509	0.88883
BRD - GSG	-14.183	13.976	0.066181	4.2853	-0.50437	1.5725
Petrom	-8.7647	10.622	0.23161	3.5629	0.22579	0.26261

We calculate, using the OLS method, the single factor CAPM - betas ( $\beta$ ) for the ten stocks. They are in the range of 0.60 to 1.02 (the values of single factor CAPM - betas for the ten stocks are reported in the Table 2).

In order to identify the bear, the tranquil and the bull market conditions we computed 90% HDR of the univariate kernel density function and we established the three dummy variables:  $D_1$ ,  $D_2$  and  $D_3$ . Then we calculated, using the multiple factor CAPM equation, the betas for bear ( $\beta_1$ ), tranquil ( $\beta_2$ ) and bull market ( $\beta_3$ ) conditions (their values are presented in table 2).

For six of the ten stocks the bear market betas exceeded the values of the tranquil market betas or the bull market betas. For three stocks the maxim beta occurred for tranquil market conditions while for the one stock the maxim beta occurred for bull market.

**Table 2. CAPM -betas for the ten stocks**

Stock	Single factor CAPM-betas ( $\beta$ )	Bear market CAPM-betas ( $\beta_1$ )	Tranquil market CAPM-betas ( $\beta_2$ )	Bull market CAPM-betas ( $\beta_3$ )
Azomures	0.86927	1.2176	1.0355	0.4258
S.S.I.F. Broker	1.259	1.5167	1.7343	0.80261
Impact Developer	1.438	1.5221	1.0176	1.4218
Biofarm S.A.	1.1058	1.3573	0.51258	0.92507
Transelectrica	0.73640	0.87470	0.75159	0.57698
S.N.T.G.N. Transgaz	0.59987	0.57443	0.81508	0.5864
Rompetro Rafinare	1.0273	1.1585	0.56194	0.96326
Banca Transilvania	0.92461	0.81433	0.88669	1.0595
BRD - GSG	1.2880	1.5523	0.87016	1.064
Petrom	0.97269	0.76063	1.1823	1.1783

The mean of single factor CAPM-betas ( $\beta$ ) is less than the mean of the bear market CAPM-betas ( $\beta_1$ ) but larger than the mean of tranquil market CAPM-betas ( $\beta_2$ ) and the mean of the bull market CAPM-betas ( $\beta_3$ ). For all four types of betas the standard deviations are significant (the descriptive statistics are presented in table 3).

**Table 3. Descriptive Statistics of CAPM - betas**

Betas	Min.	Max.	Mean	Std. Dev.
Single factor CAPM-betas ( $\beta$ )	0.599875	1.43840	1.02217	0.258731
Bear market CAPM-betas ( $\beta_1$ )	0.574438	1.55234	1.13489	0.357704
Tranquil market CAPM-betas ( $\beta_2$ )	0.512588	1.73432	0.936794	0.347875
Bull market CAPM-betas ( $\beta_3$ )	0.425860	1.42189	0.900479	0.306237

## 5. CONCLUSIONS

In this paper we studied the CAPM - betas of ten stocks considered as representative for the Bucharest Stock Exchange. We used daily returns stocks from the first semester of 2009 to calculate single and multifactor CAPM - betas. We identified by a univariate kernel function three stages of the markets: bearish, tranquil and bullish. It resulted that for most of the ten stocks CAPM - betas are largest in bear market conditions and the least in the bull market conditions. The mean of the bear market CAPM - betas is 1.135 in comparison with 0.937 for the tranquil CAPM - betas, 0.900 for the bull CAPM - betas and 1.022 for single factor CAPM - betas. This situation reflects asymmetrical responses of CAPM - beta to the bad and good news on the markets. It could be explained by the optimistic perceptions of the investors on the *bull* market and rather pessimistic perceptions of the investors on the *bear* market.

From this point of view the BSE situation is similar to the one from the developed stock markets. However, in the interpretation of the results we have to take into account the impact of the present global financial crisis which affected the systematic risks of stocks. In the future the research of the CAPM - beta in the bear and bull market conditions should be extended to a larger sample of stocks traded to BSE and to a bigger period of time.

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## **ECONOMIC AND FINANCIAL ATTRIBUTIONS OF LOCAL ADMINISTRATIVE AUTHORITIES**

**MELINDA SZASZ** \*

**ABSTRACT:** *Local public administration is one of the important sectors of state administration. Through public administration, state achieves its goals, respecting legal regulations. Local authorities - city councils and mayors – must manage in the name and interest of local collectivities the public business and resources. Many responsibilities were transferred to local administration, getting the first base with financial decentralization, trying to get administration next to citizens, as much as possible. Local authorities have a lot of responsibilities managing local finances. Local finances represent the process of constitution, distribution and utilisation of local incoming funds. Administrative-territorial areas' needs regarding public services and other financial local needs determined the apparition of local budgets. Local budget is a budget of incomes and expenses belonging to administrative-territorial areas. In budgetary process local authorities have the right to establish, observe, control, follow and charge municipal taxes. In this process they also have to report local budgets implementation and rectification.*

**KEY WORDS:** *local administrative authorities, central and local authorities, local autonomy, local finances, local budgets, financial autonomy*

### **1. GENERAL CONSIDERATIONS REGARDING LOCAL ADMINISTRATIVE AUTHORITIES**

Public administration represents that special state activity that is neither law nor justice. Through public administration, state achieve its goals, respecting legal regulations.

Local public administration is one of the important sectors of state administration. Our fundamental law, the Constitution adopted in 1991 and revised in 2003 established the fundamental principles underpinned to the reforms present in all society's fields, inclusive public administration - representing the incidence domain of state-citizen relation.

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So, local autonomy and public services' decentralization and deconcentration are the constitutional principles of public administration. In 2001, the public administration's law established, beside local autonomy and public services' decentralization, other essential principles for public administration's organization and activity: public administration authorities' eligibility, legality and consulting citizens in local problem of special interest and subsidiary.

According to law's settlements, local authorities - city councils and mayors – must solve in the name and interest of local collectivities the public business and resources. Many responsibilities were transferred to local administration, getting the first base with financial decentralization, trying to get administration next to citizens, as much as possible.

Public services' decentralization, as component of public administration's reform program, must include not only the transfer of activities, but, also, the financial resources' transfer, a clear demarcation of local authorities' competences and the elimination of any parallelism between their responsibilities and those of central public administration's.

## **2. SOME FINANCIAL RESPONSABILITIES OF LOCAL ADMINISTRATIVE AUTHORITIES IN BUDGETARY PROCESS**

Public administration local authorities have as base of their activities local autonomy principle. Due to this principle, local authorities have a lot of responsibilities managing local finances. For that they elaborate and approve local budgets.

Local finances represent the process of constitution, distribution and utilisation of local incoming funds. Administrative-territorial areas' needs regarding public services and other financial local needs determined the apparition of local budgets. Local budget is a budget of incomes and expenses belonging to administrative-territorial areas.

In this process local authorities have the right to establish, observe, control, follow and charge municipal taxes. Municipal taxes are a source of budgetary incomes and they are paid by taxpayers.

Also, in budgetary process, local authorities have to report local budgets implementation and rectification. It is very important so the local authorities to respect the principle of a balanced local budget. Authorities can contract intern and extern loans.

Local authorities must efficiently manage local funds and the assets from private and public property of administrative-territorial areas.

In budgetary process an important part is played by the credit officers. According to law credit officers can be principal officer, secondary officer and tertiary officer.

Principal credit officers are the mayors of administrative-territorial areas, including the mayor of Bucharest, the capital of Romania. Principal credit officers can delegate this quality to other representative persons. This procedure will contain the limits and the conditions of delegation.



Secondary and tertiary credit officers are the chiefs of public institutions with legal entity and budgetary fund allocated.

Principal credit officers analyse how budgetary credits are utilized in their own budgets and in the public institutions budgets' managed by secondary and tertiary credit officers and they approve expenses accomplishment from their own budget respecting legal provision.

Secondary credit officers distribute budgetary credits from their own budget and from the public institutions budgets' managed by tertiary credit officers and they approve expenses accomplishment from their own budget respecting legal provision.

Tertiary credit officers utilise the assigned budgetary credits only to accomplish their administrative-territorial area businesses.

Credit officers must use budgetary credits only for approved destinations. Credit officers must respond for: budget elaboration and substantiation, the pursuit, booking, liquidation and ordering of incomes, book-keeping organisation, the presentation of financial situations, budget implementation, monitoring public acquisition and investments programs, keeping evidence for public heritage.

Local administrative authorities must establish how public services of local interest will be provided. The public services can be provided by local authorities or authorised traders. The main objective is to increase efficiency in the benefit of local communities.

### **3. CONCLUSIONS**

One of the groundwork of a democratic and efficient public administration is administrative and financial decentralisation. According to local autonomy, local administration authorities elaborate and approve local budgets, because a real autonomy doesn't exist without financial autonomy. That's why local administration must have its own sufficient resources and independently dispose them for a real financial autonomy.

Public local finances are important in a democratic state, because without them decentralisation and local autonomy are impossible to put into practice. Local finances are managed by local authorities - city councils and mayors – according to subsidiarity principle.

Financial resources of local authorities must be proportional to its constitutional and legal competences. Financial autonomy is an instrument of local power's reinforcement and defence.

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## **POLITICAL FACTORS INTERFERENCE IN COMPANIES' ECONOMIC SPACE**

**GEORGIANA LAVINIA TĂNĂSOIU,  
ANIELA BĂLĂCESCU \***

**ABSTRACT:** *The influences of the political environment upon companies can be of restrictive or stimulating form (to encourage business world). The political factor is directly involved in managing problems and opportunities that could arise on different markets, through direct regulation interventions, stimulation and direction, legislation and economic policies.*

**KEY WORDS:** *political factors, the relationship between economic and political, corruption perceptions index, the relationship between population and state*  
*JEL classification: M20*

Political factors are specific to every country and mainly represent the structures of society, social classes, political forces, state's involvement in the economy, the stability degree of the political climate.

The political environment specific to a country is the assembly consisting of the political components of the society and the reports between them. The most visible components of the political factor commonly are:

- political status;
- government type;
- political parties system (uni-party, bi-party, multiparty, coalitions);
- the stability degree of the political measures of the current government;
- the historical stability degree of political measures (the analysis is made through a revelation of the national political life past);
- taxes system;
- attitude towards investors and foreign investments;
- economic regulations;
- legislation regarding the protection of the surrounding environment.

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As a form of state, Romania is a republic, and as far as the state structure is concerned, our country is a unitary state and political status is indirect democracy with proportional vote.

Political environment influences trade companies' activity through legislation and decisions. The internal and international climate always affects the activity of the trade company, because it has both direct and indirect implications through: state organization and government, economical policy it promotes, especially through the degree of involvement in economy (under the form of protectionist measures, antitrust policies etc.), appurtenance to economic and political groups and communities, through the integration conception it the economic life and world politics being promoted. All these elements can stimulate or prevent the activity developed by the trade company on the market.

Political power can act externally as well for favouring or only protecting some companies from the inside, through means like establishing some protectionist customs barriers. The influences of the political environment upon companies can be of restrictive or stimulating form (to encourage business world). The political factor is directly involved in managing problems and opportunities that could arise on different markets, through direct regulation interventions, stimulation and direction, legislation and economic policies.

Economic development and economic environment cannot be interpreted without considering the political factor acting in the geographical space. The evolution of the political environment exercises influence upon the economic factor. The provision of a peace and security climate supports the creation of favourable conditions for economic development. *Between the economic and political environment, there is, as mentioned before, a tight connection and influence* (table 1). The relation between the two components can be of various forms.

**Table 1. The relation between the political factor and economic factor**

Influence can be from ...
economic →political
<i>or</i>
political →economic
<i>or</i>
political ↔economic
The relationship between economic and political can be ...
positive
<i>or</i>
positive under some conditions
<i>or</i>
negative

Political changes from December 2004 caused the creation of a new govern, with a new orientation. A major change, influencing the companies' activity is the introduction of the sole taxation quota of 16%.

The first reaction was seen at the stock exchange market where more stocks were purchased. The introduction of the sole taxation quota facilitated the increase of companies' capitals. Up to 4<sup>th</sup> of January 2005 stocks of 800 billion lei were transacted at the stock exchange. The consequences of some political programs are, at present, one of Romania's competitive advantages.

The evaluation of the political climate is of interest in establishing and developing the strategy. The features of the political environment are altered only during its structure evolution and events it is facing. Romania's integration in the European Union, involvement in other organizations and international steps have influenced the political climate of our country. Regarding the political climate there is a constant attention paid to *corruption*, appreciating that most of negative characteristics derive from it.

Together with Romania's adhesion to the European Union, great efforts have made for our country to comply with the requirements regarding the juridical cooperation in civil and penal problems. Under the pressure of integration to the E.U., Romania has initiated corruption and fraud decrease actions. According to *Transparency International* population perceives political parties as the most seriously affected institution by corruption, followed by the parliament and other legislative bodies.

At present, Romania has an obligation regarding corruption reduction, which puts a negative image upon the political environment. Transparency International organization periodically makes a Corruption Global Barometer. Together with this thorough investigation, Transparency International annually determines Corruption Perceptions Index, CPI. According to CPI (table 2), corruption is perceived as more severe in Romania than in other east-European states.

Analyzing Romania's status, in 2008, due to its position at the half of the classification (position 69 of 179 studied countries) it is appreciated that it is similar to region it is a part of (figure 1).

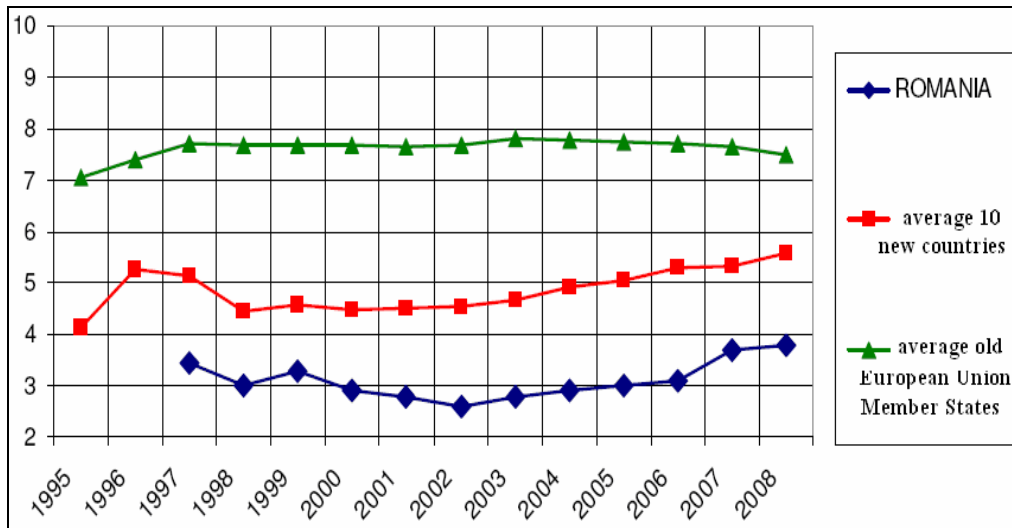
The corruption perception index value, Romania is far from the mean recorded by the European Union. Due to these values the image is a favourable one for an efficient development of trade companies' activities, and not only them, because it endangers the business environment.

The relationship between population and state (represented by administration and public utilities) is negatively influenced, due to the lack of trust and suspicion regarding the correctitude of tariffs, duties, taxes calculation etc. The relationship between the enterprisers and the political environment is also influenced by the features and the climate of the latter. Value Corruption Perceptions Index, Romania is far from average in the European Union. Because these values are a picture under unfavourable efficient conduct of business firms trade, and not only them, as jeopardizing the business.

Table 2. Corruption Perceptions Index, CPI

No.	Country	IPC 2006	IPC 2007	IPC 2008
1	Denmark	9,5	9,4	9,3
2	Finland	9,6	9,4	9,0
3	Sweden	9,2	9,3	9,3
4	Great Britain	8,6	8,4	7,7
5	Austria	8,6	8,1	8,1
6	Germany	8,0	7,8	7,9
7	Ireland	7,4	7,5	7,7
8	France	7,4	7,3	6,9
9	Belgium	7,3	7,1	7,3
10	Spain	6,8	6,7	6,5
11	Slovenia	6,4	6,6	6,7
12	Estonia	6,7	6,5	6,6
13	Hungary	5,2	5,3	5,1
14	Czech Republic	4,8	5,2	5,2
15	Italy	4,9	5,2	4,8
16	Slovakia	4,7	4,9	5,0
17	Latvia	4,7	4,8	5,0
18	Lithuania	4,8	4,8	4,6
19	Greece	4,4	4,6	4,7
20	Poland	3,7	4,2	4,6
21	Bulgaria	4,0	4,1	3,6
22	<b>Romania</b>	<b>3,1</b>	<b>3,7</b>	<b>3,8</b>

Source: Transparency International Romania, Corruption Perceptions Index 2008  
[http://www.transparency.org.ro/politici\\_si\\_studii/indici/ipc/2008](http://www.transparency.org.ro/politici_si_studii/indici/ipc/2008)

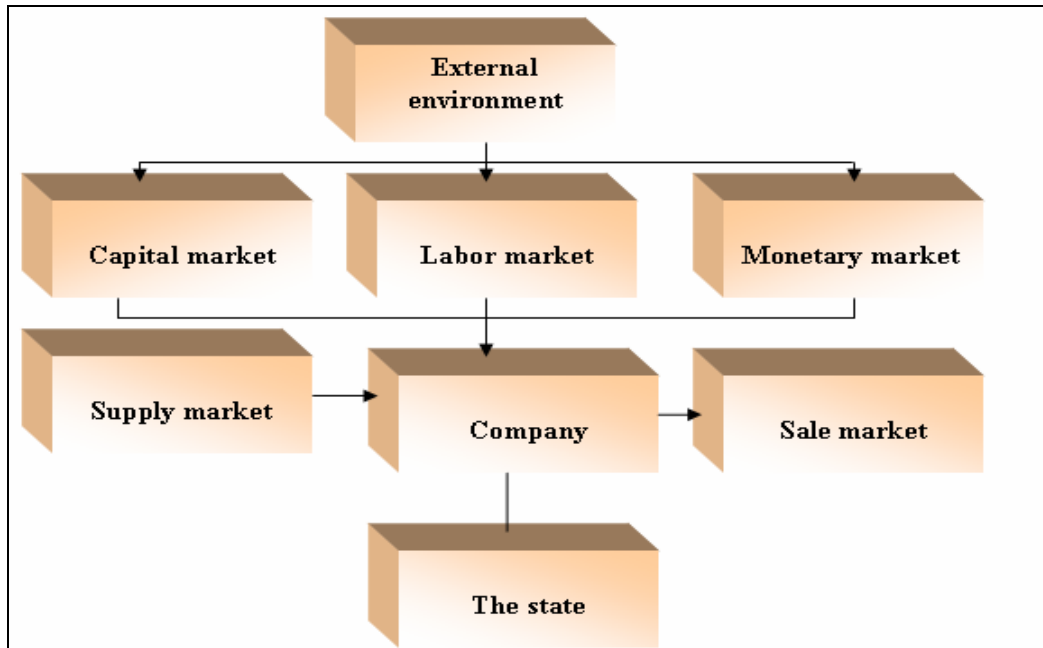


Source: Transparency International

Figure 1. Romania versus the mean of the old countries of the European Union and the mean of the newly adhered states - Corruption Perception Index 2008

The system of the relationships with the environment considers the following reports of the trade company (figure 2):

- supply and sale markets;
- financial markets: capital market and monetary market;
- employment market;
- central and local public administration.



**Figure 2. Company relationships with the state and integrated system of the market**

According to the report called “Paying Taxes 2009”, launched by PriceWaterhouseCoopres Romania in on the 146<sup>th</sup> place in the world as far as duties and taxes payments by a company are concerned and on the last place of 181 studied countries for paying fiscal obligations. In Romania 113 taxes are paid per year and it is among the countries with the fewest number of taxes (table 3).

It is necessary that the political environment, through its “actors” to support profitability of an activity field in correlation to natural resources exploitation way, with the effects it could have in the development of some categories of industries with a higher degree of pollution upon the environment.

In Romania, the political factors is considerably felt in the company’s environment, generating many difficulties to many people, as well as opportunities to others by adopting incomplete, interpretable laws abrogated shortly after publication.

These legislative hesitations even if they can be explained through the need to fast regulate new situations and put the Romanian legislation on new bases, can unfortunately discourage Romanian economic agents’ initiatives and especially those of foreign investors. In the context where potential investors are fewer and fewer,

repeated sudden actions have to be cancelled (for example, pollution tax, that has had negative signals not necessarily due to its contents, but especially through its application term), generating incertitude and negatively influencing the business environment.

**Table 3. Payments - number per year**

Fewest		Most	
Country	Payments (number per year)	Country	Payments (number per year)
Maldives	1	Côte d'Ivoire	66
Qatar	1	Serbia	66
Sweden	2	Venezuela	70
Hong Kong, China, Norway	4	Jamaica	72
Singapore 5	5	Montenegro	89
Kiribati 7	7	Ukraine	99
Latvia	7	Uzbekistan	106
Mauritius	7	Belarus	112
Afghanistan	8	<b>Romania</b>	<b>113</b>

Source: Doing Business Database

All these elements are characteristic, at last, for the political climate of a country, its evaluation being important in establishing national development strategies in the trade field.

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## THE CRACKS IN THE BRICS

SARIKA TANDON, SWAHA SHOME \*

**ABSTRACT:** *The emerging economies Brazil, Russia, India and China have been popularly named BRIC nations. For almost a decade the name survived although the strength of the BRIC weakened as the members displayed differential rates of growth in most macro indicators. An alternative cluster has emerged recently which stands out to be more integrated in key variables than the original. The paper seeks to examine the correlation strengths between the BRIC nations at first and subsequently investigate for the newer cluster with the same macroeconomic parameters.*

**KEY WORDS:** *BRIC, GDP, inflation, current account, correlation, significance, N11*

In 2001, Goldman Sachs clubbed Brazil, Russia, India and China into a group and gave the famous acronym BRIC for it. These new emerging economies showed the world a united strength never seen before and the acronym survived for almost a decade. The global slowdown in 2008 put all economies to test and the BRIC Nations were no exception. In June 2009, the BRIC nations came together on many financial issues in the first ever BRIC summit. Yet, a united stand notwithstanding the strength of the group became a matter of debate. This paper seeks to examine critically how strong the BRIC wall is and examines the unity of a new group N11 also formed by the Goldman Sachs. The creation of BRICs was a direct aftermath of the September 2001 terrorist attacks in the United States. Jim o Neill the head of economic research at Goldman Sachs who coined the term stated that the danger of globalisation became apparent following the heinous act of terrorism. The emerging economies came up strongly on the global scenario and the concept of Americanization as the other name of globalization was valid no more. It was apparent that the fast growing economies with their impressive population numbers would become the drivers of the future global growth. The BRIC economies hold 26% of the world's land resources and 42% of the world's population. It was felt that a large population combined with increasing productivity can make these economies surpass the advanced economies in the near future. While the natural resources are the strength of Brazil and Russia, the fast

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consuming populations are the assets of India and China. In 2003, Goldman Sachs published "Dreaming with the BRICS: the path to 2050". This report stated that the largest economies by GDP may not be the richest (by income per capita). In fact the BRIC research findings argued that these economies would be larger than the G6(G7 excluding Canada) in less than forty years. At present the BRIC economies account for 15% of the global economy and 42% of the global currency reserves.

The BRIC Economies have certain common features but that should not distract us from the discrepancies. We have considered the main macroeconomic variables of GDP, Inflation Rate and Current Account Balance for the years 2001 to 2010. The results show that there is a clear subdivision into two groups, one comprising Brazil and Russia and the other comprising of India and China. This paper aims to test the following hypothesis: H1: Russia is the weak link in the BRIC countries, H2: Chinese and Indian economies are highly correlated, H3: N11 countries are the new economic power pole. For BRIC countries the data on the three economic parameters viz. G.D.P Growth Rate, Current Account Balance and Inflation Index has been correlated. The data has been collected from 2000 to 2010. The data has been smoothened over a period of four years and then standardized to remove sharp changes and to give a better picture of correlations. This data has been used to find Pearson's correlations. For N11 countries data has been taken on four economic parameters viz. G.D.P Growth Rate, Current Account Balance and Inflation Index and population. The data has again smoothened for a period of four years and then standardized for better correlations. The source of all the data is IMF site. All the results are represented in tables form. Only positive high correlations (greater than 0.5 have been considered). The first part of the analysis shows Pearson's correlations on the three parameters. It takes care of the first two hypotheses, viz. H1; Russia is the weak link in the BRIC countries. H2: Chinese and Indian economies are highly correlated.

**GDP growth rate of BRIC economies.** The GDP of a country is defined as the "market value of all final goods and services made within the borders of a nation in a year" (source: wikipedia). It can also be defined as the sum of the income generated by production in the country in the period - that is, sum of all factor earnings. The 10 year data provided by the IMF after smoothening shows a positive correlation between three economies, India, China and Brazil. However the correlation between Russia and these three economies is weak. China and India's growth drivers have been strong domestic consumption as well as investment spending. On the other hand Russia's growth has largely been export led. Russia depends heavily on the exports of oil gas metals and fertilisers. According to a Standard and Poor report released in February, the BRIC should not be called a group any longer. Since 2001, the growth rates in all four economies were increasing but the pace was not in tandem. Russia had a peak GDP growth rate of 8.1% in 2007 as compared to 5% six years ago. During the same period, China's growth rate was higher at 10%.

**Current account balance.** The net flow of transactions, including export and import of goods and services, remittances and interest earnings within a period is defined as the current account. After smoothening out the data for the relevant period, a significant observation can be made that none of the countries have any correlation. The current account balance for an economy is an indicator of its economic health.

Russia has been the worst hit amongst the BRIC nations due to the recession. The fall in the oil prices from \$150 a barrel to \$40 has impacted the Russian economy severely. The rouble has depreciated strongly against the dollar and the euro as a result. Russia's economy is completely pro- cyclic to the commodity prices. Hence any volatility in commodity prices is likely to impact its current account.

***Inflation index of BRIC economy.*** The inflation index for the four economies has the base year as 2000. As is clearly visible in the data below, Russia and Brazil are better correlated. China has a high correlation with India. Both economies went through a period of overheating which needed to be controlled with suitable monetary policy. Brazil's economy is also oil dependent but it is much more diversified than Russia. Brazil's currency depreciated by 50% in the last three months mainly due to a fall in prices of oil. The exports to GDP ratio have shown divergence between the economies. It has been significantly high for countries such as India and China.

Our conclusion from analysing the correlation between the macro economic variables is that the BRIC nations which were started as a common entity with similar trends in most macro- variables is no longer showing much unison. Although in June 2009, the BRIC Economies held a common summit to discuss measures to counter the global slowdown, it is debatable as to how strong their voice is in the global scenario. Russia has clearly diverged from the group and China and India are entirely on a different growth trajectory. In the face of such divergence, it is worthwhile to examine the common elements in another group of nations also created by the gold man Sachs research team. In 2005, Goldman Sachs introduced a new group of emerging economies called the N11 (NEXT 11).

These comprise 11 eleven emerging economies which are Bangladesh, Egypt, Indonesia , Iran, South Korea, Mexico , Nigeria, Pakistan, the Philippines, Turkey and Vietnam. These economies consist of both emerging and oil producing economies which have future potential as growth drivers for the global economy. However there is a long way to go before this group can overtake the BRIC group as political instability and volatile prices of commodities and oil have weakened these economies. The next part of the paper examines the correlation between the macro-economic parameters of these eleven economies.

H3: N11 countries are the new economic power pole. A similar exercise has been made for the entire group. However the data is limited by the fact that Korea includes both North and South Korea. It is shown that a much better correlation exists for these emerging economies as far as these variables are concerned. The GDP growth rates and inflation rates are exhibiting similar trends in most of the economies. The current account has Indonesia as an exception. These countries have a large and increasing population. Highest growth being in Pakistan at 110.8% between 1980-2008 and lowest in South Korea at 28.4%. This indicates that these economies can expect a large domestic demand. While these economies exhibit common characteristics, there are many differences as well.

There are two groups within these economies, the developing economies and the recently industrialized economies. The first group of economies still depends on primary exports whereas the second group exports manufactured products. Bangladesh, Iran, Nigeria, Pakistan and Vietnam are belonging to the first group whereas all others

except South Korea can be called recently industrialized economies. South Korea can be called the only developed country in the group due to stable macro-economic parameters and significant levels of industrialization. Korea therefore has a higher GDP per capita than the other economies. Korea is also not a major oil producer.

Although currently these economies are significantly correlated, volatility in commodity prices will affect the future of these economies. Demand from the US and China will affect the growth prospects in a varied manner. Differing political tensions especially in Bangladesh and Pakistan may also threaten the future of these economies. For Iran the greatest risk are the sanctions imposed by the US.

There appears a better correlation between these economies as compared to the BRIC economies. Indonesia is the only exception. The major exports of Indonesia are: plywood, textiles, rubber, tin, bauxite, silver, copper, nickel, gold, and coal. Indonesia imports machinery and equipment; chemicals, fuels and food. The main trading partners are: Japan, European Union, United States and Singapore.

**Conclusion.** With the current data available the strength of the BRIC economies as a sustainable entity in the future is perhaps weaker than when the acronym was first given. Russia appears to be a weak link in the chain with a better correlation with Brazil rather than India or China. However a newer cluster named as the Next 11, (also coined by Goldman Sachs) is perhaps appearing as a stronger wall in the current scenario and might even overtake the BRICs as a unified body of strong emerging markets driven by a sustained and strong domestic market.

Table 1. GDP

Correlations					
		Zscore(Brazil)	Zscore(China)	Zscore(India)	Zscore(Russia)
Zscore(Brazil)	Pearson Correlation	1	.964**	.956**	.510
	Sig. (2-tailed)		.002	.003	.301
	N	6	6	6	6
Zscore(China)	Pearson Correlation	.964**	1	.953**	.696
	Sig. (2-tailed)	.002		.003	.125
	N	6	6	6	6
Zscore(India)	Pearson Correlation	.956**	.953**	1	.481
	Sig. (2-tailed)	.003	.003		.334
	N	6	6	6	6
Zscore(Russia)	Pearson Correlation	.510	.696	.481	1
	Sig. (2-tailed)	.301	.125	.334	
	N	6	6	6	6

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 2. Significant correlations

Countries	Significant correlations
Brazil	China ,India
China	Brazil, India
India	Brazil, china
Russia	None

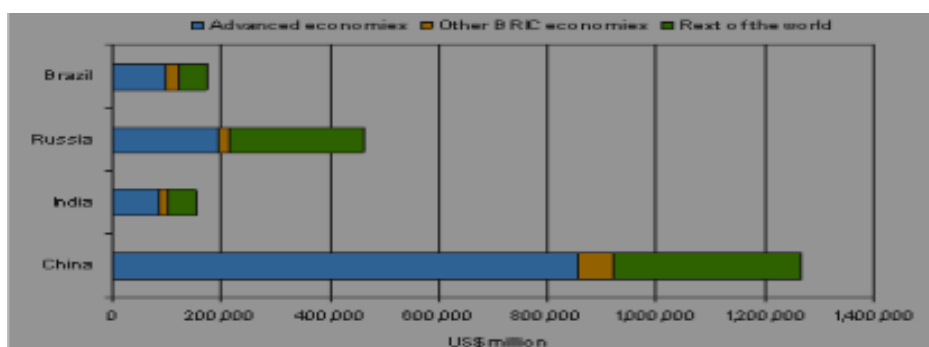
Table 3. Current account balance (U.S dollars) of BRIC economies

Correlations					
		Zscore(Brazil)	Zscore(China)	Zscore(India)	Zscore(Russia)
Zscore(Brazil)	Pearson Correlation	1	-.404	.428	.384
	Sig. (2-tailed)		.369	.338	.395
	N	7	7	7	7
Zscore(China)	Pearson Correlation	-.404	1	-.999**	.634
	Sig. (2-tailed)	.369		.000	.126
	N	7	7	7	7
Zscore(India)	Pearson Correlation	.428	-.999**	1	-.620
	Sig. (2-tailed)	.338	.000		.138
	N	7	7	7	7
Zscore(Russia)	Pearson Correlation	.384	.634	-.620	1
	Sig. (2-tailed)	.395	.126	.138	
	N	7	7	7	7

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 4. Significant correlations

Countries	Significant correlation
Brazil	None
China	None
India	None
Russia	none



Source: Euromonitor International from national statistics/trade sources

Figure 1. Exports by destination in BRIC economies: 2007

Table 5. Exports by destination in BRIC economies: 2007

Correlations					
		Zscore(Brazil)	Zscore(China)	Zscore(India)	Zscore(Russia)
Zscore(Brazil)	Pearson Correlation	1	-.948**	-.975**	.802*
	Sig. (2-tailed)		.001	.000	.030
	N	7	7	7	7
Zscore(China)	Pearson Correlation	-.948**	1	.906**	-.909**
	Sig. (2-tailed)	.001		.005	.005
	N	7	7	7	7
Zscore(India)	Pearson Correlation	-.975**	.906**	1	-.722
	Sig. (2-tailed)	.000	.005		.067
	N	7	7	7	7
Zscore(Russia)	Pearson Correlation	.802*	-.909**	-.722	1
	Sig. (2-tailed)	.030	.005	.067	
	N	7	7	7	7

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
 \* . Correlation is significant at the 0.05 level (2-tailed).

Table 6. High Positive Correlations

Countries	High Positive Correlations
Brazil	Russia
China	India
India	China
Russia	Brazil

Table 7. DP growth rates (smoothened and standardized) of N11 countries

		Correlations										
		Zscore(Ba ngladesh)	Zscore(Egypt)	Zscore(In donesia)	Zscore(Iran)	Zscore(M exico)	Zscore(Ni geria)	Zscore(P akistan)	Zscore(P hillipines)	Zscore(T urkey)	Zscore(Vi etnam)	Zscore(K orea)
Zscore(Bangladesh)	Pearson Correlation	1	.888*	.989**	.980**	.652	.250	.942**	.887*	.342	.937**	.735
	Sig. (2-tailed)		.018	.000	.001	.181	.832	.005	.018	.507	.006	.098
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Egypt)	Pearson Correlation	.888*	1	.909*	.796	.394	-.205	.750	.675	-.052	.723	.886*
	Sig. (2-tailed)	.018		.012	.058	.439	.696	.086	.141	.922	.104	.019
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Indonesia)	Pearson Correlation	.989**	.909*	1	.971**	.892	.210	.953**	.909*	.352	.944**	.770
	Sig. (2-tailed)	.000	.012		.001	.128	.890	.003	.012	.493	.005	.074
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Iran)	Pearson Correlation	.980**	.796	.971**	1	.742	.427	.971**	.938**	.501	.977**	.616
	Sig. (2-tailed)	.001	.058	.001		.092	.398	.001	.006	.311	.001	.193
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Mexico)	Pearson Correlation	.652	.394	.892	.742	1	.594	.888*	.925**	.871*	.888*	.439
	Sig. (2-tailed)	.181	.439	.128	.092		.214	.025	.008	.024	.026	.383
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Nigeria)	Pearson Correlation	.250	-.205	.210	.427	.594	1	.439	.500	.877*	.492	-.359
	Sig. (2-tailed)	.632	.696	.690	.398	.214		.384	.312	.022	.321	.485
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Pakistan)	Pearson Correlation	.942**	.750	.953**	.971**	.868*	.439	1	.990**	.614	.997**	.662
	Sig. (2-tailed)	.005	.086	.003	.001	.025	.384		.000	.195	.000	.152
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Phillipines)	Pearson Correlation	.887*	.675	.909*	.938**	.925**	.500	.990**	1	.702	.989**	.603
	Sig. (2-tailed)	.018	.141	.012	.006	.008	.312	.000		.120	.000	.205
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Turkey)	Pearson Correlation	.342	-.052	.352	.501	.871*	.877*	.614	.702	1	.640	-.044
	Sig. (2-tailed)	.507	.922	.493	.311	.024	.022	.195	.120		.171	.934
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Vietnam)	Pearson Correlation	.937**	.723	.944**	.977**	.868*	.492	.997**	.989**	.640	1	.610
	Sig. (2-tailed)	.006	.104	.005	.001	.028	.321	.000	.000	.171		.198
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Korea)	Pearson Correlation	.735	.888*	.770	.616	.439	-.359	.882	.803	-.044	.610	1
	Sig. (2-tailed)	.098	.019	.074	.193	.383	.485	.152	.205	.934	.198	
	N	6	6	6	6	6	6	6	6	6	6	6

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

**Table 8. High positive correlations (greater than .5)**

Country	High positive correlations (greater than .5)
Bangladesh	Egypt, Indonesia, Iran, Mexico, Pakistan, Philippines, , Vietnam, Korea
Egypt	Indonesia, Iran, Pakistan, Philippines, , Vietnam, Bangladesh, Korea
Indonesia	Egypt, Bangladesh, Iran, Mexico, , Pakistan, Philippines, Vietnam, Korea
Iran	Egypt, Bangladesh, Indonesia, Mexico, Pakistan, Philippines, Turkey, Vietnam, Korea
Mexico	Bangladesh, Indonesia, Pakistan, Philippines, Turkey, Vietnam, Nigeria, Iran
Nigeria	Turkey, Mexico, Philippines
Pakistan	Egypt, Bangladesh, Indonesia, Iran, Mexico, Philippines, Turkey, Vietnam, Korea
Philippines	Egypt, Bangladesh, Indonesia, Iran, Mexico, Nigeria, Pakistan, Turkey, Vietnam, Korea
Turkey	Iran, Mexico, Nigeria, Pakistan, Philippines, Vietnam
Vietnam	Egypt, Bangladesh, Indonesia, Iran, Mexico, Pakistan, Philippines, Turkey, Korea
Korea	Egypt, Bangladesh, Indonesia, Iran, , Pakistan, , Vietnam, Korea

**Table 9.**

		Correlations										
		Bangladesh	Egypt	Indonesia	Iran	Mexico	Nigeria	Pakistan	Philippines	Turkey	Vietnam	Korea
Bangladesh	Pearson Correlation	1	.996**	.999**	.996**	.999**	.997**	.994**	.999**	.994**	.997**	.997**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	6	6	6	6	6	6	6	6	6	6	6
Egypt	Pearson Correlation	.996**	1	.991**	1.000**	.992**	.988**	1.000**	.990**	.982**	.999**	.987**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.001	.000	.000
	N	6	6	6	6	6	6	6	6	6	6	6
Indonesia	Pearson Correlation	.999**	.991**	1	.991**	1.000**	.999**	.988**	1.000**	.997**	.993**	.999**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	6	6	6	6	6	6	6	6	6	6	6
Iran	Pearson Correlation	.996**	1.000**	.991**	1	.992**	.988**	1.000**	.990**	.982**	.999**	.987**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	6	6	6	6	6	6	6	6	6	6	6
Mexico	Pearson Correlation	.999**	.992**	1.000**	.992**	1	.998**	.990**	1.000**	.996**	.994**	.999**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	6	6	6	6	6	6	6	6	6	6	6
Nigeria	Pearson Correlation	.997**	.988**	.999**	.988**	.998**	1	.985**	.999**	.999**	.990**	1.000**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	6	6	6	6	6	6	6	6	6	6	6
Pakistan	Pearson Correlation	.994**	1.000**	.988**	1.000**	.990**	.985**	1	.987**	.978**	.999**	.984**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.001	.000	.000
	N	6	6	6	6	6	6	6	6	6	6	6
Philippines	Pearson Correlation	.999**	.990**	1.000**	.990**	1.000**	.999**	.987**	1	.998**	.992**	1.000**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	6	6	6	6	6	6	6	6	6	6	6
Turkey	Pearson Correlation	.994**	.982**	.997**	.982**	.996**	.999**	.978**	.998**	1	.984**	.999**
	Sig. (2-tailed)	.000	.001	.000	.000	.000	.000	.001	.000		.000	.000
	N	6	6	6	6	6	6	6	6	6	6	6
Vietnam	Pearson Correlation	.997**	.999**	.993**	.999**	.994**	.990**	.999**	.992**	.984**	1	.989**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000
	N	6	6	6	6	6	6	6	6	6	6	6
Korea	Pearson Correlation	.997**	.987**	.999**	.987**	.999**	1.000**	.984**	1.000**	.999**	.989**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	N	6	6	6	6	6	6	6	6	6	6	6

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 10. Significant correlations

Countries	Significant correlations
Bangladesh	All
Egypt	All
Indonesia	All
Iran	All
Mexico	All
Nigeria	All
Pakistan	All
Philippines	All
Turkey	All
Vietnam	All
Korea	All

Table 11. Current account balance (Dollars) of N11 countries

		Correlations										
		Zscore(Ba ngladesh)	Zscore(Egypt)	Zscore(In donesia)	Zscore(Iran)	Zscore(korea)	Zscore(M exico)	Zscore(Ni geria)	Zscore(P akistan)	Zscore(P hillipines)	Zscore(T urkey)	Zscore(Vi etnam)
Zscore(Bangladesh)	Pearson Correlation	1	-.227	-.403	.931**	-.731	.305	.883*	-.983**	.979**	-.974**	-.975**
	Sig. (2-tailed)		.665	.428	.007	.099	.556	.020	.000	.001	.001	.001
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Egypt)	Pearson Correlation	-.227	1	-.467	-.054	.776	.843*	.145	.373	-.048	.039	.401
	Sig. (2-tailed)	.665		.362	.920	.069	.035	.784	.467	.928	.942	.430
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Indonesia)	Pearson Correlation	-.403	-.467	1	-.237	-.178	-.656	-.344	.242	-.431	.409	.301
	Sig. (2-tailed)	.428	.362		.652	.736	.158	.504	.844	.394	.420	.563
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Iran)	Pearson Correlation	.931**	-.054	-.237	1	-.645	.427	.971**	-.923**	.968**	-.977**	-.879*
	Sig. (2-tailed)	.007	.920	.652		.166	.399	.001	.009	.001	.001	.021
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(korea)	Pearson Correlation	-.731	.776	-.178	-.645	1	.397	-.458	.837*	-.613	.614	.849*
	Sig. (2-tailed)	.099	.069	.736	.166		.435	.361	.038	.195	.195	.033
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Mexico)	Pearson Correlation	.305	.843*	-.656	.427	.397	1	.615	-.152	.470	-.476	-.105
	Sig. (2-tailed)	.556	.035	.158	.399	.435		.194	.774	.346	.340	.843
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Nigeria)	Pearson Correlation	.883*	.145	-.344	.971**	-.458	.615	1	-.840*	.957**	-.965**	-.780
	Sig. (2-tailed)	.020	.784	.504	.001	.361	.194		.037	.003	.002	.067
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Pakistan)	Pearson Correlation	-.983**	.373	.242	-.923**	.837*	-.152	-.840*	1	-.943**	.940**	.989**
	Sig. (2-tailed)	.000	.467	.644	.009	.038	.774	.037		.005	.005	.000
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Philippines)	Pearson Correlation	.979**	-.048	-.431	.968**	-.613	.470	.957**	-.943**	1	-.999**	-.918**
	Sig. (2-tailed)	.001	.928	.394	.001	.195	.346	.003	.005		.000	.010
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Turkey)	Pearson Correlation	-.974**	.039	.409	-.977**	.614	-.476	-.965**	.940**	-.999**	1	.911*
	Sig. (2-tailed)	.001	.942	.420	.001	.195	.340	.002	.005	.000		.012
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Vietnam)	Pearson Correlation	-.975**	.401	.301	-.879*	.849*	-.105	-.780	.989**	-.918**	.911*	1
	Sig. (2-tailed)	.001	.430	.563	.021	.033	.843	.067	.000	.010	.012	
	N	6	6	6	6	6	6	6	6	6	6	6

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
\* . Correlation is significant at the 0.05 level (2-tailed).



**Table 12. High Positive Correlation (greater than 5)**

Country	High Positive Correlation (greater than 5)
Bangladesh	Iran, Nigeria, Philippines
Egypt	Korea, Mexico
Indonesia	none
Iran	Bangladesh, Nigeria, Philippines
Mexico	Egypt, Nigeria
Nigeria	Bangladesh, Iran, Mexico, Philippines
Pakistan	Korea , Turkey, Vietnam
Philippines	Bangladesh , Iran , Nigeria
Turkey	Korea, Pakistan, Vietnam
Vietnam	Korea , Pakistan , Turkey
Korea	Egypt , Pakistan , Turkey , Vietnam

**Table 13. Population of N11 countries**

		Correlations										
		Zscore(Ba ngladesh)	Zscore(Egypt)	Zscore(In donesia)	Zscore(Iran)	Zscore(K orea)	Zscore(M exico)	Zscore(Ni geria)	Zscore(P akistan)	Zscore(Phi lippines)	Zscore(T urkey)	Zscore(Vi etnam)
Zscore(Bangladesh)	Pearson Correlation	1	-.227	-.403	.931**	-.731	.305	.883*	-.983**	.979**	-.974**	-.975**
	Sig. (2-tailed)		.665	.428	.007	.099	.556	.020	.000	.001	.001	.001
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Egypt)	Pearson Correlation	-.227	1	-.457	-.054	.776	.843*	.145	.373	-.048	.039	.401
	Sig. (2-tailed)	.665		.362	.920	.069	.035	.784	.467	.928	.942	.430
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Indonesia)	Pearson Correlation	-.403	-.457	1	-.237	-.178	-.656	-.344	.242	-.431	.409	.301
	Sig. (2-tailed)	.428	.362		.652	.736	.158	.504	.644	.394	.420	.563
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Iran)	Pearson Correlation	.931**	-.054	-.237	1	-.645	.427	.971**	-.923**	.968**	-.977**	-.879*
	Sig. (2-tailed)	.007	.920	.652		.166	.399	.001	.009	.001	.001	.021
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Korea)	Pearson Correlation	-.731	.776	-.178	-.645	1	.397	-.458	.837*	-.613	.614	.849*
	Sig. (2-tailed)	.099	.069	.736	.166		.435	.361	.038	.195	.195	.033
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Mexico)	Pearson Correlation	.305	.843*	-.656	.427	.397	1	.615	-.152	.470	-.476	-.105
	Sig. (2-tailed)	.556	.035	.158	.399	.435		.194	.774	.346	.340	.843
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Nigeria)	Pearson Correlation	.883*	.145	-.344	.971**	-.458	.615	1	-.840*	.957**	-.965**	-.780
	Sig. (2-tailed)	.020	.784	.504	.001	.361	.194		.037	.003	.002	.067
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Pakistan)	Pearson Correlation	-.983**	.373	.242	-.923**	.837*	-.152	-.840*	1	-.943**	.940**	.989**
	Sig. (2-tailed)	.000	.467	.644	.009	.038	.774	.037		.005	.005	.000
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Philippines)	Pearson Correlation	.979**	-.048	-.431	.968**	-.613	.470	.957**	-.943**	1	-.999**	-.918**
	Sig. (2-tailed)	.001	.928	.394	.001	.195	.346	.003	.005		.000	.010
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Turkey)	Pearson Correlation	-.974**	.039	.409	-.977**	.614	-.476	-.965**	.940**	-.999**	1	.911*
	Sig. (2-tailed)	.001	.942	.420	.001	.195	.340	.002	.005	.000		.012
	N	6	6	6	6	6	6	6	6	6	6	6
Zscore(Vietnam)	Pearson Correlation	-.975**	.401	.301	-.879*	.849*	-.105	-.780	.989**	-.918**	.911*	1
	Sig. (2-tailed)	.001	.430	.563	.021	.033	.843	.067	.000	.010	.012	
	N	6	6	6	6	6	6	6	6	6	6	6

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 14. High Positive Correlation (greater than 5)**

<b>Country</b>	<b>High Positive Correlation (greater than 5)</b>
Bangladesh	all
Egypt	all
Indonesia	all
Iran	all
Mexico	all
Nigeria	all
Pakistan	all
Philippines	all
Turkey	all
Vietnam	all
Korea	all

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## **THE CONSEQUENCES OF ACCOUNTING STANDARDIZATION AND HARMONIZATION OVER THE CONCEPT OF FINANCIAL POSITION**

**SILVIA TAULEA (SAMARA) \***

**ABSTRACT:** *The concept of financial position and its multiple meanings are often related to the balance sheet, being defined as the financial statement reflecting a company's financial position at any time, without giving details on what is meant by financial position. The concept of financial position was refined in the conceptual accounting frameworks of FASB, IASB and ASB. Differences in the content of this concept are linguistic, and therefore insignificant. Therefore we propose the following to make an analysis of dimensions and nuances of the concept.*

**KEY WORDS:** *financial position, standardization, financial statements, balance sheet, FASB, IASB, IFRS, ASB, conceptual accounting framework*

### **1. STANDARDIZATION AND REGULATIONS REGARDING FINANCIAL STATEMENTS**

Standardization efforts are reflected in the definition of postulates, principles and accounting rules. Normalization aims to achieve accounting standards at a national or international level or at the level of the capital market, with the intention of establishing uniform accounting practices. Normalization is defined in accounting literature as: the process of harmonizing the presentation of financial statements, accounting policies and terminology, which is done by defining principles and accounting rules. Although financial situations may seem similar from one country to another, there are differences generated by the diversity of legal and social environments, as well as by the different needs of the users, determined by specific national specific national requirements. The set of statements on financial reporting was imposed for the first time officially in the United States. Currently, the standardization body in U.S., the Financial Accounting Standards board (FASB) demands the preparation and presentation of the following statements:

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- Balance sheet or statement of financial position;
- Statement of income or gains;
- Statement of net earnings;
- Statement on change in financial position, called the Statement of sources and uses of funds, known as Statement of cash flows;
- A summary of accounting methods/practices and other explanatory notes.

Financial reporting in Europe is going through a process, originally called of harmonization, with the formation of the legislative and economic framework of the EU. In 1978 was issued the Directive 78/660/EEC of the EU Council (4<sup>th</sup> Directive), who's objective is to coordinate the provisions related to the presentation and content of annual accounts (name used in continental European countries for financial statements) and of annual reports of companies in the Member States, with the assessment models used for the preparation of annual accounts and their publication for commercial companies. According to article 2 of the 4<sup>th</sup> Directive, the annual accounts must contain: the balance sheet; Profit and Loss Account; Notes on the annual accounts.

The amendment brought by the Directive 2003/51/EC in June 2003 added the possibility of allowing or demanding the inclusion in the annual accounts of other statements than the three mandatory ones, so that entities can prepare financial statements comparable to the financial statements prepared in accordance with the international standards. The need to implement International Financial Reporting Standards in the EU has led to the Regulation nr.1.606/2002 developed by the European Parliament and the EU Council, referring to the application of international accounting standards, known as IAS Regulation, to private companies that meet certain criteria (balance sheet total, turnover, average number of employees). In time, Directive IV suffered a series of changes in order to eliminate disparities between the provisions of European directives and the provisions of international standards. European directives, while stricter in imposing demands to all Member States, allows the possibility of adaptation to specific national demands. For this reason, the financial statements of companies in different countries have specific characteristics.

EU's strategy to turn to international accounting standards was determined, first, by the obligation imposed on European companies listed on international capital markets to publish financial statements in accordance with the requirements of these markets, and secondly, by the IAS/IFRS being accepted also by the Americans (as a result of the collaboration between IASB - IOSCO towards improving IAS/IFRS), the European Union considered that a solution to the problem would be the orientation towards these standards. But that solution does not solve all problems, in the sense that as long as the EU demanded that the European directives and demands are met also, together with IAS/IFRS, there was and certainly will require amendments to reduce the arisen conflicts. Because of the role and importance of the statements and of the credibility of financial information, differences in interpretation can be difficult to resolve without an accepted conceptual accounting Framework across Europe.

The International Accounting Standards Board (IASB) with the U.S. and European standardization body campaign to reduce the differences in the presentation of financial statements, trying to harmonize regulations, standards and accounting

procedures regarding the elaboration and presentation of financial statements. It is known that companies that compile annual financial statements in compliance with IAS/IFRS have in mind the provisions contained in the *Framework for the preparation and presentation of financial statements*. *Accounting conceptual framework* is “a coherent system of objectives and fundamental principles, linked together, which may lead to the formulation of robust rules and state the nature, role and limits of financial accounting and financial statements” [3].

In fact, this conceptual accounting framework is a *normative accounting theory*, which underlies the development of *accounting rules*. According to professors Niculae Feleaga and Ion Ionascu, the *Accounting conceptual framework* “is a guide for developing accounting rules and for their interpretation. It is a support for processing operations related to transactions and the events involved in the companies activity, which are not solved by the rules” [2].

## **2. DIMENSIONS IN DEFINING THE CONCEPT OF FINANCIAL POSITION. COMPARATIVE STUDY**

FASB in SFAC5 Recognition and Measurement in Financial Statements of Business Enterprises, defines the presentation of financial position as a situation that provides information on assets, liabilities and equity of an entity and the relationship between them at any time, as reflections of the economic resources on one hand and the financing structure on the other hand, emerging from the needs of users. IASB defines financial position by four coordinates which also give clues on its information capacities:

### **2.1. Economic resources controlled by the company**

Information about resources are useful to the extent that they help to forecast future cash flows. Resources are accepted by the IASB’s conceptual framework as assets only if they meet a set of restrictions:

- *they are controlled by the company*. The notion of control is not defined in an explicit manner. A resource is presumed to be controlled if the company has the opportunity or ability to extract incorporated economic benefits but also the ability to restrict access to other entities to the potential it offers. Therefore, control must be exercised effectively.
- *they are the result of past events*. The definition of economic assets requires resources to be controlled, as a result of past transactions or events. Therefore, the company with access to future economic benefits, but which had, up to the date of the balance sheet, the ability to limit access of others to these advantages, will not record an asset on the balance sheet date.
- *they generate future economic benefits for the company*. The ability to generate future economic benefits is the essential dimension of an asset. The economic benefits related to an asset correspond to the potential with which the asset contributes, directly or indirectly, to a flow of cash or cash equivalents.

*FASB's definition given to an asset is more restrictive.* It does not refer to resources but the probable future economic benefits. Temporal and control restrictions are concerned. Professor Nicolas Feleaga noted that the definition of the American conceptual framework generated intense debate related to capitalization of intangible elements such as brands, market share, research expenses, etc.. British conceptual framework does not equate assets and future economic benefits. The definition implies that not the economic benefits are controlled by the company, but rights and other ways to access these benefits. In our opinion, this definition is even more restrictive than the one provided by FASB, but has the advantage of reducing ambiguity. The existence of the latter is defined in the restriction of items recognition in financial statements.

## **2.2. The financial structure of the company**

Information about the financial structure is useful in order to anticipate the needs of credit and how the results and future cash flows will be distributed to those who have an interest in the company. They are also useful for anticipating the company's chances to receive funding in the future. Financial structure of the company is assessed through qualitative elements of debt and equity. IASB's definition of debt overlaps with that given by the FASB. The presence of the expression "... it is expected for an exit possibility to result..." in the first case and of "probably" in the second case (as with the definition of assets), means that the entity activates in an unsafe environment. ASB eliminates ambiguity in the definition of debt leaving it to the recognition criteria.

It can be concluded that such definitions encompass not only legal or judicial obligations, but also social or moral ones. A difference can be grasped however. In order to present the cause of an asset (or debt) IASB uses the notion of past events while FASB makes a distinction between operations (or transactions) and events. The operations usually result from an agreement of the entity, which is no longer required in the case of the events. ASB insists on the idea of control over operations and events in order to recognize the existence of debt and state that there are certain debt and obligations that are not likely to generate a transfer of economic benefits even if they can not be recognized in financial statements.

In the definition of *equity*, regardless of the conceptual framework to which we relate, the concept of residual interest is essential. It is based on the hypothesis of the company's liquidation. At the base of equity there is only a residual ownership right over all assets of the entity and not on specific activities. From the above definition and, in particular, from the expression "residual interest" it results that debts are prioritized on the entity's assets and, as such, they must be placed before equity when it is their right or interest on same assets.

The two elements of adjustment of equity have a particular conceptual treatment. We target owner's investments and distributions in their favour. The American conceptual framework retains these adjustments in the set of elements of financial statements. IASB does not explicitly retain these elements in defining the company's financial position. They are found, however, in the form of restrictions in

the definition of expenses and income. Practice shows that one can not always draw a clear dividing line between debt and equity elements.

### **2.3. Liquidity and solvency of the company**

IASB's conceptual framework emphasizes the importance of this information in making predictions about the ability of the company to honor outstanding financial commitments. Liquidity is the expression of short-term management, while solvency concerns a longer perspective. Liquidity is seen as a way to control access to other resources.

### **2.4. Company ability to adapt to changes in the environment in which it operates**

*The international conceptual framework is poor in details concerning the size of financial position.* More generous is the British conceptual framework that emphasizes the financial side of the company's adaptability to environmental changes. Financial adaptability of a business is its ability to act effectively in order to change the size and pace of cash flow, in order to respond to unexpected needs or opportunities arose. An entity wishes to have a financial adaptability as one such quality helps the company to mitigate the risks facing its business and to survive during periods of low (or even negative) cash flows generated by various operations.

## **3. USERS OF INFORMATION ON FINANCIAL POSITION**

J.N. Frank remarks: the multitude of users of financial statements leads to a multitude of images of financial position.

Creditors look at information provided by financial statements from another perspective than managers or investors. Their interest is directed towards ensuring the recovery of loans and extending them. Also, creditors are looking for information on ensuring their credits. But the financial position is not reflected for all creditors by the same information. Commercial creditors look at the financial position differently than the financial creditors. The creditors who have an interest in the company's activity have completely different approach on the financial position of an entity (financial creditors that make a long-term investment in the entity).

This type of creditors' interest becomes similar, up to a point, to the interest of investors. In this regard, the reflection of financial position is made by information on solvency, future projections regarding the company's ability to generate cash flows, which brings into question the concept of continuity and reconsiders the importance of elements present in the financial statements both in structure and value. Although similar, the interests of creditors and investors in reflecting the financial position are not identical. In the case of creditors, the focus is on presenting information related to total assets (items that ensure recovery of investment), from the perspective of investors the importance is on size and structure of equity (value which generates future earnings brought by the investment or value that can be recovered from the withdrawal of the investment).

The perspective of the management entity is multiple; each department of the entity has specific needs for information. The balance sheet, as a component of the financial statements, can not fully meet the need for information of the management, but can be a bridge between internal and external environment of the entity.

#### 4. CONCLUSIONS

If world economy is under the “banner” of a large “earthquake” of business globalization, of internationalization of economic relationships, accounting can not remain immune to these mutations, being virtually on the verge of a big process of “conciliation” which takes place within a broader process of harmonization of accounting, in which the different accounting systems attempt to redefine their position in order to find a accounting language universally understood. The need for convergence and uniformity in accounting requires its normalization. This will materialize the objectives, principles, methods and rules regarding accounting reporting, both in the production of accounting information and its use.

The current objective related to producing the financial statements, as it is mentioned by the IASB, remains the one about presenting the financial position, financial performance and changes in the financial position. Current design on balance sheet accepted by users of financial accounting information is that it reflects the entity’s financial position at a certain moment in time and allows the issuing of opinions on past activities that may constitute a basis for shaping future work.

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## **THE RELATION AMONG SIX SIGMA AND OTHER MANAGERIAL TECHNIQUES OF IMPROVING THE PERFORMANCES OF THE ORGANIZATIONS**

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**ABSTRACT:** *In this work we proposed myself to approach aspects bound to the importance of Six Sigma method in what concerns the growth of the organization's performances within a dynamic and hostile environment marked by the nowadays slump and by the more and more sophisticated requests of the customers. Within my work I have gone over and presented the necessity of improving the processes through the Six Sigma method and I have analysed the external and internal factors "relatively fluid" and "relatively rigid" which influence the attainment of some superior levels of processes' performance. I have studied the Six Sigma model of improving the processes and I have emphasized the operational and managerial influences of this model. I have also analyzed the relation of complementarity among the management system ISO 9000:2000, the Kaizen techniques, Total Quality Management and Total Productive Maintenance and the strategy Six Sigma which has as result the growth of the economic performances.*

**KEY WORDS:** *quality, Six Sigma, performance, strategy, total quality management*

### **1. INTRODUCTION**

In a dynamic socio-economic environment, the organizations must be permanently oriented to the long-term improvement of the processes. The improvement of a process does not represent only a goal, this is directed to the growth of the organization's competitiveness or, in other words, to the growth of the organization's ability of realizing, in its domain of activity, superior results in comparison to similar structures (Thawani, 2002).

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Competitiveness is relevant through the level of performance the respective organization attains at a certain moment, where performance is defined as being the combination between efficacy and productivity (Brad, 2006).

Because both efficacy and efficiency are dynamic parameters, performance is nothing else than “the area of dynamic equilibrium” between the two parameters at a certain moment.

Therefore, from this perspective, performance represents the organization’s ability to contribute to “the balanced satisfaction” of all interested parts.

Starting with these elements, the effort of improving the performance of the organizational processes must generate both the growth of global performance of the organization (meaning to lead to the growth of organizational excellence) and the attainment of this objective in a balanced way, through keeping a superior balance between efficiency and efficacy. Thus, the improvement of a process must lead to:

- The growth of the process’ efficacy;
- The growth of the process’ efficiency;
- The growth of the process’ level of excellence(through the growth of the satisfaction level of all interested parts associated to the respective process);
- The assurance of an internal dynamic equilibrium (through the assurance of an evolution with the same dynamics for both efficiency and efficacy);
- The assurance of an external dynamic equilibrium (through the avoidance of perturbing the internal dynamic equilibrium of the processes inter-correlated with the considered process).

If the environment of a process is seen from the perspective of the previously underlined vectors, a lot of provocations can be easily identified, as well as constraints, to the attainment of some superior levels of the processes’ performances.

In the case of an organization, the provocations and constraints depend both on content and on intensity, on a series of external and internal factors “relatively rigid”, as well as on a series of external and internal factors “relatively fluid”.

Within the internal factors “relatively rigid” we can include: the type of the economic activity developed by the organization, the organization’s character (public, private, mixed), the organization’s age, etc. within the group of the external factors “relatively rigid” we can consider: the geographic location of the organization from the perspective of climate and relief conditions, the geographic location of the organization from the perspective of political, historical, cultural and social conditions, the geographic location of the organization from the perspective of economic conditions.

Within the internal factors “relatively fluid” we can include: the human resource, the managerial potential, partnerships, financial resource etc. in the last category, that of external factors “relatively fluid”, we can bring in: the access to financial resources, the market evolution, the competitors, the political factor, the customers’ behaviour, etc.

Therefore, one can appreciate that to generate mature solutions in the effort of improving the processes within the internal and external factors presented above, the use of some modern managerial techniques is imposed, through which the Six Sigma model is a solution.

## **2. THE SIX SIGMA MODEL OF IMPROVING THE PROCESSES**

Six Sigma is a model of long-term improvement of processes, resulted from practice, because the approaches of type Kaizen could not surpass sigma level 3 or 4 of the processes' performance (J. Ming C., Jia-Chi T., 2004). To reach some higher levels of processes' performance - sigma 5 and 6 - the use of some more elaborated methodologies and instruments is requested. Model Six Sigma measures this performance through the organization's ability to lower the damage (the number of non-concordances considering the number of opportunities) (Cronemyr, 2007).

The model Six Sigma measures this performance and can be applied to all the structures of an organization. Thus, the high management can use the Six Sigma model to improve the rate of market occupancy, to increase the profitability and viability of the organization on long term. The management at an operational level can take into consideration the Six Sigma model to improve efficiency and to lower the operational costs. At the production level, the Six Sigma model can be applied to lower the non-concordances, as well as to improve the processes' ability (Cronemyr, 2007).

The Six Sigma approach is actually a complex of strategic and operational methods through which, the attainment of an excellence degree in the quality of products or services offered by a certain organization, industrial or services, is followed.

This "degree of excellence" (Isaic –Maniu, Vodă, 2008) is not just a figure of speech - it can be quantified and thus, there is the possibility of relating to this level through different indicators which measure the degree of rapprochement or remoteness from the followed best.

Thus, it is outlined the fact that the main aspect of the Six Sigma approach is the managerial one, of organizing and leading the activity of quality structure, in this activity being incorporated the operational aspect (methodological, procedural) which is based on the practical and theoretical arsenal offered by the mathematic statistic.

Six Sigma, this "new philosophy of quality" refers to the identification of some vital elements which can lead to the improvement of the activity at all the levels of the organization, as well as to the quantification of these elements through different "metrics" of performance.

In Motorola vision, which introduced for the first time this concept, the vital elements refer to the following:

- The production cycle, the time allocated to a certain activity, which must be lowered to the possible maximum;
- The capability of each and every process developed with the respective organization.

The processes must be able in such a way that the probability of the supplied products not to respect their specifications to be smaller than the probability of a normal variable to take higher values than six standard deviations from its average.

A Six Sigma objective or a quality at a Six Sigma level means that a quality of 99,99966% to be produced, meaning to have only 3,4 non-concordances at a million of "opportunities".

Another interpretation derives from here and also, another objective, that of satisfying, close to perfection the client's requests. Actually, the term of Six Sigma refers to a target of performance, derived from statistic, to operate only with 3, 4 deficiencies to each and every million of activities or "occasions" (Pande P., Neuman R., Cavanagh R., 2009).

Another way to define Six Sigma is as a general effort of changing the organizational culture, to direct the company to a better satisfaction of the clients, to profitableness and competitiveness. We can say that Six Sigma represents a comprehensive and flexible system to realize, sustain and maximize the success in business. Six Sigma is guided only by the close understanding of clients' necessities, by the disciplined use of information facts and statistic analyses, as well as by the special attention given to the administration, improvement and remodelling of the business process (Pande P, Neuman R., Cavanagh R., 2009). The obvious benefits of Six Sigma model refer to: the lowering of costs; the improvement of productivity; the growth of market quote; the lowering of time of the activities cycles; the lowering of the deficiencies number; the changing of the organizational culture; the development of product or service and many others.

### **3. SIX SIGMA, ISO 9001-2000 AND OTHER MANAGERIAL TECHNIQUES**

Among the Six Sigma strategy and other managerial techniques focused on quality there is a relation of complementarity which has as a result the increasing of an organization benefits which implements these strategies of quality, materialized in a profit growth, costs lowering, the lowering of the deficiencies number, the growth of clients' satisfaction and their devotion.

The ISO certification of the firms represents an indicator of performance, but with all these, the certification given, based on a standard of quality, does not offer any guarantee over the fact that the products realized by the respective firm respect certain standards of quality or that, from that moment they will be better in what concerns the quality. Also, ISO does not establish procedures to be followed, but it only gives to the existing ones a standard. These two observations constitute, in a way, the essential conceptual differences among Six Sigma and the standards of quality management. In fact, the implementation of a Six Sigma program means the delivery of products and services of exceptional quality through the elimination of all the internal deficiencies.

Thus, a Six Sigma organization will have excellent products from the quality point of view and it will maintain at the same time some extremely efficient systems of the production and administrative. There are common points, too, between the two managerial techniques as it can be seen in table 1.

Thus, the Six Sigma offers a managerial environment, including processes, techniques, training to implement the requests of the standard ISO 9001: 2000 referring to:

- The demonstration of high leadership engagement to the long-term improvement of the efficacy of the quality management system;
- The assurance of competences, abilities and the necessary training in what concerns the statistic techniques and of the management;

- The long-term improvement of the quality management system;
- The supervision and measurement of the consumer's satisfaction;
- The supervision, measurement and improvement of the processes and of product;
- Data analysis.

**Table 1. Correspondence between Six Sigma and ISO 9001:2000**

<b>The Principle of the Quality Management</b>	<b>Correspondence</b>
The attention focus over the consumer	Six Sigma indicates the way of alignment of the organization's objectives to the consumer's requests, through measuring the obtained performances as a succession of the attention focus over the user.
Leadership	The superior management involves actively in the realization of the Six Sigma projects, in what concerns the assurance of the financial support and the necessary training.
The involvement of the interested factors	The Six Sigma projects are thus conceived to assure the involvement of all the interested factors; the program includes the training assurance for the use of work techniques and the development of team work.
The processual approach	The Six Sigma project identifies, analyses and assesses the organization's processes concerning the improvement of the activity.
The systemic approach	The Six Sigma projects are based on the interaction among people and processes that are connected in an inter-dependent system; this system assures the getting of performances, improved by following some measurable objectives.
The long-term improvement	The organizations which adopt the Six Sigma strategy are aware of the fact that the quality of their products must be improved continually, this being the main factor for success in the conditions of a high competitiveness.
The management based on facts in taking decisions	The Six Sigma teams focus their attention on collecting and analysing data, on their base formulating opinions and arguments which assure a unitary understanding and allow the substantiation of decisions.

Source: (Isaic- Maniu, A., Vodă V., 2008)

The goal of Six Sigma strategy deals with the growth of an organization profit through the elimination of variability, the lowering of deficiencies number and the elimination of damage, which removes the consumer and affect the organization.

The strategy Six Sigma can be understood and perceived in three different ways (Isaic- Maniu A., Vodă V., 2008):

1. *Metric*: the Six Sigma level is assured when there are obtained 3, 4 deficiencies per one million of opportunities.

2. *Methodological*: Six Sigma is based on the use of two methods DMAIC and DMADV, which appeal to different instruments and techniques of the quality management for their leadership.

The basic methodology of DMAIC method has as principle the following steps:

- the defining of the improvement targets which are in accordance with the clients' requests and the enterprise strategy;
- the measurement of the current process and the data collecting relevant for future comparisons;

- the analysis of the relations verifying and of the factors causality. To determine what sort of relationship is and to try to guarantee that all the factors have been taken into account;
- the improvement or optimisation of the process based on the use of analysis techniques such as the Experiments Projection;
- to control the guarantee that any variance is corrected before it transforms in deficiency. The arrangement of pilot tests to establish the process ability, the transfer of production and after that, the long-term measurement of the process and of the control mechanisms of the institute.

The DMADV methodology consists of the following five steps:

- the defining of cycle improvement targets which are in accordance with the clients' requests and the enterprise strategy;
- the measurement and the CTQ identification (critical to qualities), the product and production process ability and the risk factors;
- the analysis, the projection and the development of alternatives (what projects must be realized at a high level);
- the details projection, the projection optimisation, the planning for the projection verifying. This phase needs simulations;
- the projection verifying the organization of pilot tests, the implementation of the production process and the delivery of the project to the beneficiary.

3. *Philosophical*: Six Sigma supposes the lowering of the organization processes' variation, the focus of attention over the consumer and taking decisions on data and facts. The comparisons among the managerial techniques of improving the performances (Kaizen, Six Sigma, Total Quality Management, and Total Productive Maintenance) are very suggestive, as it can be seen in table 2.

The techniques Kaizen, Six Sigma, Total Quality Management and Total Productive Maintenance have the same essence and use the same stages for the processes optimisation. They do not exclude themselves reciprocally, but it is very important that the chosen method to be implemented with flexibility, following the realization of the final objectives. Otherwise, a lot of companies use, at present, a combination of Lean Sigma or Kaizen Sigma.

#### 4. CONCLUSIONS

The Six Sigma method integrates elements of managerial culture, as well as elements specific to quality, which are essential for the lowering of the quality performances of an organization at a level of excellence. Six Sigma is not a substitute of the quality management system and is something more than a system of quality as TQM or ISO, having this way a trans-disciplinary character.

The Six Sigma specialists consider that the success in business consists in producing what is asked first and faster, better than competitors and that the secret of such a success is even Six Sigma through its methodologies.

**Table 2. Comparisons among the main managerial approaches in the quality domain**

	<b>Kaizen</b>	<b>Six Sigma</b>	<b>Total Quality Management (TQM)</b>	<b>Total Productive Maintenance (TPM)</b>
Objective	The permanent optimisation of the work processes	The reach of processes and product perfection: “zero deficiencies”	The activity development and the lowering of damage caused by useless processes	Zero deficiencies Zero failures and zero accidents Zero fallings
Principles	Optimisation is realized through the elimination of elements with no value	By measuring the “deficiencies” of a process a method to eliminate them can be found. The deviation from the process perfection must be lowered or eliminated	The realization of quality in all the company operations is obtained by eliminating the deficiencies and the superficial elements	The rise of efficaciousness is realized by eliminating the deficiencies from the process. The optimisation of the process leads to “zero failures”
Defining Element	All the employees are involved in the process.			
<b>The Method of Implementation</b>				
Problem Identification	There are groups (circles of quality) that identify the superficial elements. The processes’ performance is assessed concerning the cost and the results quality	There are work groups that assess statistically the deviation of processes from perfection. There are special processes to assess each process	There are work groups that identify the deficiencies from a process	There are work groups that identify the causes of failures and fallings from a process
The solution of problems	Within the work groups possible solutions are debated. The debate is guided by the responsible people of different domains and compartments involved in the analysis	The teams discuss and create special process sheet cards Six Sigma to follow improvements. The debate is guided by realizing some project reports and it is framed in a hierarchic system of Six Sigma leaders	The teams change information obtained from their work experience and observations over the efficiency of different ways of process functioning applied in the past	The teams discuss the ways to reduce the deficiencies. Employees from all the levels are involved in the process of finding a solution for the problems

Source: (Isaic- Maniu A., Vodă V., 2008)

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## WAYS OF SETTLEMENT IN INTERNATIONAL TOURISM

DUMITRU TROANĂ \*

**ABSTRACT:** *The ways of settlement used within international commercial relations have evolved continuously, as an effect of the evolution of the world economy, as a whole, but also as an effect of the evolution of information technology and message transmitting techniques. In the same manner, the ways of settlement which are used in tourism, have also evolved due to the necessity to meet the high volume of international payments for tourism services. Cash payments, traveller's cheques, bank card payments, payment order and internet payments are shortly take into consideration in this paper, discussing about how often are they used, in which cases and why one of them is preferred to another.*

**KEY WORDS:** *settlement, tourism, cash, cheque, card, payment*

All transactions made in international tourism, have as a basis firm contracts, which differ in accordance with the means of distribution, between contractors and intermediaries, between contractors and tourists which are beneficiaries or between intermediaries and tourists. Within the ensemble of clauses which are enclosed in such contracts, a major role is played by the currency-financial component, which refers to the used ways of settlement, the means of avoidance or diminishing currency risks or the means of payment, the payment scheme, etc. [1].

The ways of settlement used within international commercial relations have evolved continuously, as an effect of the evolution of the world economy, as a whole, but also as an effect of the evolution of information technology and message transmitting techniques. In the same manner, the means of payment which are used in tourism, have also evolved due to the necessity to meet the high volume of international settlements for tourism services: only in the last 20 years, the sums allocated for payment regarding international tourism increased over 5 times, from 242.7 billion USD in 1988 to 1,168.6 billion USD in 2008 [2].

**A. Cash payment** is usually used only when one of the parties is the tourist. They occupy, at the current time, a modest position concerning international payments in tourism, due to several disadvantages:

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- the need of effective cash transfer which involves risk of loss or theft;
- direct contact between the two partners is difficult to create if service payment needs to be done on reservation or if the supplying agency of the respective service finds itself in another area than that of where the tourist actually receives the services he pays for;
- the difficulty to synchronize the obligations of both partners whereas terms of tourist services involve a reservation in most cases, which supposes a partial settlement before the service is carried out and which creates, for the tourist, the risk of lack of satisfaction by comparison with the service he paid for, when he does not receive the expected quality.

Having taken all these aspects into account there are also reasons which make cash settlements used today:

- in countries which have currency restrictions regarding ownership of foreign currency or which have severe tax-based tourism services, cash settlement may allow for the means of fiscal evasion or avoidance of currency restrictions;
- discretion concerning cash settlements when prohibitive goods are being traded;
- certain tourism and transport services, especially in countries not yet connected to electronic payment and settlement systems (debit or credit cards), are still paid for in cash. This thing involves the fact that tourists must have a certain amount of cash in local currency in order to cover costs for such services.

Certain tourist services, when they are carried out professionally, lead to the „rewarding” of the person which carried out such services, by the tourist itself, a tip which may be even 10 % of the whole service cost. Restaurant owners for example, have a tendency to pay their employees with small wages, to stimulate them to carry out such services to tourists, which will grant them tips and thus to aid them in completing their income. This is why, in restaurants, the possibility of carrying out payment with a credit card for example, is not really enjoyed (although it is made possible).

**B. Cheque payment** is the nearest way to cash payment, the character of the written cheque giving partners a higher degree of security. The cheque is an instrument of payment which encloses the unconditional order of payment by a respective person or enterprise, called owner, to a legal entity (which may be a bank or credit institution), to pay a beneficiary, a determined amount of cash, on sight.

Payment through different forms of cheque took off after the 60s, when the *traveller's cheque* was first used in tourism. This is an instrument of payment with a fixed value, printed on the cheque, which is emitted by a bank and is usually destined for people travelling abroad, to cover travelling and maintenance costs. Traveller's cheques can be sold both by the emitting bank as well as by its correspondent banks. They can be cashed in at any desk office of the respective banks, shops, hotels and restaurants. The possessor of such cheques has the advantage of wearing money on him without the risk of loss or theft, a situation in which he is granted the quick

replacement of the cheques in short time from the announcement of their disappearance.

On the face of the cheque we see two spaces, designated for signatures: the first of which is given when buying the cheque, and the second when the cheque is used as an instrument of payment or when it is presented for cashing in. In this manner, one can probe the fact that he who uses the cheque is its rightful owner.

Traveller's cheques are available as leaflets or in individual files in various currencies and values. They can be sold in any amount and any combination. The most cheques are under the American Express logo, but those familiar with these also use Thomas Cook, Visa, Swiss Bankers or Travellers Cheque.

They are cashed in dollars, euros, or pound sterling, they can be changed anywhere in the world, in local currency, in banks or exchange houses, and the amounts in which we find them are 50, 100, 500 or 1,000 monetary units. They do not have an expiration date, being universally valuable and in cases of loss or theft they can be replaced in 24 hours maximum.

Another advantage is the fact that at exchange houses the customers can take advantage of a better exchange rate than if he was to swap local cash for its own.

**C. Bank card payment** is used more and more in the last few years, due to the fact that it eliminates the transport of cash and the risks that it involves. Starting with the 1960s when Bank of America launched its BankAmericard (currently known as VISA), cards have revolutionized the way we purchase goods and services. This is the same for millions of consumers.

They have evolved from the point of view of the technology they involve (magnetic band cards or electronic chip cards), with the sole purpose of increasing transaction safety. They evolved as functions held as well - banks issue debit cards today (which allow for the existence of an amount within an account, which is decreasing with each payment) or credit cards - these are for bank customers which apply for certain bank terms, and of which the bank considers that they can cover, with their current income levels, the amount borrowed.

One of the major advantages of card payments is that, due to the evolution of information technology, the existence of card readers is obsolete, as this is now made safely with the help of the internet, the sole condition being that the one who uses the card possesses the respective amount on the card or is entitled to overdraft.

**D. Payment order** is seldom used by tourists who pay for services, due to the fees which are slightly higher by comparison with transferred money. However, these are used in settlements concerning tourism agencies, tour-operators, intermediaries and service providers. This form of payment is similar to cash payment, but is realized by banking means and consists of the order which a client issues to his bank to pay from his account, an amount of money, to a partner, in an account which the partner has opened to the respective bank, or any other bank for that matter.

Fees and commissions are payable in three ways: only by the one who makes the payment (the mark is "OUR" on the external payment issue), by both the one who pays as well as by the beneficiary (the mark is "SHA" on the paper issued) or only by the beneficiary (in which case, the option "BEN" appears on the order). On a normal circuit, external payments are finalized between 2 and 5 working days, regardless of

the area. There is also the possibility of making the payment in a state of emergency (one day to another), but this implies a higher fee, which is calculated concerning the transferred amount.

The usage as ways of settlement is not denied (perhaps concerning settlements between enterprises) of credit titles - promissory notes, although they are not particularly used in tourism settlements.

**E. Internet payments** began to gain more and more ground in the last few years due to a major advantage which they offer: they can be made in front of any computer (although, for safety issues, it would be advised not to be a publicly used computer), with the help of safe internet connections. A condition which must be fulfilled is that of an open account or providers of such services: PayPal, Moneybookers, Mondopay, Alterpay, etc. By means of such providers, one can make transfers of money from or to various partners, but also payments for services or products bought from one's own country, or abroad. Once the procedures of subscription verification checked, the rest of the operations do not require some special effort or skill. If he who makes the operation has an internet banking service available, then, banking trips are completely eliminated, because people can use the computer for loading their account for one of the providers fore mentioned.

For example, the Moneybookers has a friendly-user interface, which is also in Romanian and offers several advantages [3]: transfers are real-time (the cost of a transfer is 1 % of the transfer value, but no more than 0.5 EUR), other data is not required, except for the e-mail address. The difference with on-line payments made by credit card is that, if we issue our card data (card number and safety code), every time we make a payment and, to each beneficiary, concerning internet payments we reveal these information only to the provider (if the payment is trough credit card) or it is sufficient to load the account which we already opened at the provider with the amount which is to be transferred, without revealing data concerning our accounts.

More and more tour-operators accept internet payments as viable alternatives to traditional ways of settlement (banking transfers, cheque payments), thus meeting the tourists' desire to simplify the payment procedure and to reduce operational costs. We can also consider *vouchers*, in this category, but we must state that these are not instruments of payment in tourism, as they are wrongly considered in some papers, but documents which contain details concerning the services for which the tourist paid for and which will be carried out by hotels, public restaurants or other providers.

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## INVESTMENTS, AN ECONOMIC GROWTH FACTOR

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**ABSTRACT:** *In the national economy system, investments are an accelerator for multiplying receipts of material and labour resources thus causing a growth of disbursements from the system<sup>32</sup>. Therefore, in the system of factors influencing the economic development of a country, investments have a strategic role. This is why, investments are the main method for achieving economic growth.*

**KEY WORDS:** *investment, factor, national economy, labour, products*

Economy is facing more and more technical and scientific implications, whose “products” require significant investments funds for their application in production. Mechanization, automation, robotization and cybernetization of production cannot become realities without the society spending significant investments funds.

For the developing countries, investments have to be seen as the sole factor allowing to decrease unbalances compared to economically advanced world countries. Only through adequate use of investment resources, new jobs can be created, gross domestic product per inhabitant can be increased, labour efficiency can be increased and hence people’s quality of life. The internal unbalances of a country between branches, areas cannot be removed or decreased without the capitalization of local, natural and working resources, without creating new economic objectives possible through the allocation of investments funds. On the other hand, investments are the main factor of national economic structure modernization, because all the changes developing in the technological and technical and economic structure, the possibility of economy to keep up with the technical and scientific requirements are conditioned by investments. Investments are a significant qualitative, intensive factor of national economic structure modernization.

Investments are mostly an extensive factor of economic growth which makes us see it in tight interdependence with intensive factors, with the ones causing economic growth of resources in the system of national economy. It is necessary to increase national income both extensively (new investments) and especially intensively (labour efficiency increase, reducing material costs etc).

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Investments influence on economic development is conditioned by the structure of tangible asset it is materialized into. It is the weight the active elements of fixed assets hold – machines, plants and equipments – through which technological process is developed; the higher this weight is, the greater their economic efficiency. The achievement of a dynamic and balanced economic growth depends, to a large extent, on the development of its own basis of raw materials, drawing new natural resources in the economic growth, superior processing and efficiency of all national resources. The development and diversification of services, scientific researches, health protection, living conditions improvement, extension of trade network, as well as social and cultural endowments in accordance with the growing requirements of the population require investments. This is because the material basis has to be first of all developed and modernized for all these activities which cannot be achieved without investments. Economic growth in all countries has caused and causes numerous opinions, as well as patterns regarding the same economic growth. Among the factors influencing the level of this growth we can mention: human potential, volume and quality of fixed and circulating capital, existing natural resources and drawn in the economic circuit, technical and scientific progress, organization level of production and work, exterior trade efficiency and allocated and achieved investments.

Economic growth and welfare of a country essentially depend on the expansion of invested capital, as proven by the impetuous development of USA. USA economic growth rate has based on the fact that investments have been 21% of the gross domestic product (GDP), with peaks of 28% during prosperity period, while in times of war or crisis, the weight of investment has considerably decreased. The role of investments in market economy starts from the goal of investments, in the meaning that these investments mean the growth of a portfolio of assets with the two components: Fixed assets, that can be incorporated (buildings, plants), not incorporated (patents, technologies, software) and financial (shares, bonds, other valuable assets), thus with long time of use; Circulating assets, necessary for current operation and hence undergoing a fast rotation, referring to material stocks and liabilities on clients, as well as production debts. The problem occurs for the technical renewal of all branches and fields in the national economy, but this renewal means internal and external financial efforts that have to be supported based on the current internal production and through the contribution of foreign investors. Renewal means orienting investments towards fixed assets that would draw a certain structure of circulating assets.

In Romanian economy, the first problem consists of property restructuring in order to institutionalize the three types of properties found in all countries: private, public and mixed property, along with the restructuring of Romanian economy, based on a real, national, democratic and humanistic conception, complying with national interests and with the international economic life. A special importance is given to the role of investments in the strategy of production capacities restructuring. This is because production capacities restructuring at microeconomic level cannot develop within the investment process. Two trends can be found in the investment activity: investing in order to produce better and investing in order to survive. Passing to market economy is for many companies, first of all a matter of survival. Survival is just a way of delaying and preventing economic bankruptcy. Practice reveals the significant way

investments have in supporting active strategies of companies, like: making new products, conquering new markets, thorough specialization, and fast adaption to client's requirements. Promoting these strategies allows better chances of success to these companies aiming only reduce costs, always making the same product. Economic agents' interest is to establish and strengthen their position on the market, to analyze the offensive component of investment strategy in order to restructure production capacities and permanent adaption in the mechanism of demand and offer. In conclusion, in all countries, they want to promote an investment policy, and in Romania, efficient investments achievement is an essential matter in the economic growth process.

**Investment policy. Investment: strategic financial decision.** Any capital placement, either long-term or short-term, in order to achieve profit is an investment. Whether funds are placed in intangible assets or circulating assets, investment is a fixed capital significant as volume and lasting in time, aiming to achieve a future adequate profitability. Therefore, the investment decision leads to a present fixed capital hoping for a further profitability to be achieved in several accounting periods. Investment decision is a part of the general policy of the company. It is not just a fixed capital but also a useful activity placed in a certain segment of the market, involving a certain amount of natural, human and money resources, initiating and maintaining relations with companies in related fields of activity, whose turnover is positively influenced. Considering the high cost of investments, the first problem is finding and choosing the necessary sources for financing, as well as assessing their profitability, comparing financing costs with predictable financial results. Investment choosing procedure supposes along with assessment, the comparison of considered projects profitability in the context of general strategy of the company and difficulties in achieving financing sources. If the selection of investments projects is made depending on financial criteria, one has to also consider the priorities dictated by the company's policy within its development strategy. It is obvious that every project shall be adopted based on a commercial, technical and financial study that would justify investment's opportunity. Financially, the investment causes high initial costs that have to be followed in the view of funds receipts, recovery financial flows respectively predicted to have a distributed place for the entire period of the economic life of the task (usually, duration of economic life or normal operation duration).

If initial costs for achieving fixed assets and negative flows or immobilization flows are know from the general estimation, future financial flows, also called positive or entry flows consisting in annual depreciations and benefits to be achieved from the use of the objective, have to be quantified. After establishing positive and negative financial flows they shall be compared in order to establish the opportunity of the investment. Establishing positive financial flows is relatively difficult to achieve from at least two reasons: first of all because there is always certain incertitude of predictions and second of all, for the weight of separating the contribution of a certain fixed asset to positive general flows (benefit, especially) of the company. All these are completed by the difficulties to quantify fiscal incidence, the contribution of the project to the gross profit that has to be corrected with the profit tax, respectively.

An investment policy is defined depending in the objectives engaged by a company having the necessary resources. But the actual fulfilment of objectives, formation of resources and incomes generated by the exploitation of the objective shall be distributed on several consecutive periods, reason why it is necessary to determine their value at a given moment, meaning that value which can be assigned to fixed liabilities in the investment process. Accounting approach considers patrimonial (market) value, the equivalent monetary value of purchase/sell of an asset respectively at a given time and that can be the purchase value, liquidation value or replacement value. Unlike it, the financial approach considers the economic value of an investment, given by the size of receipts flows updated based on the opportunity cost economically determined proper to the investment project and the profitability degree of other offered opportunities. Any investment decision or the decision to keep a built objective occurs in the conditions when the economic value is higher or at least equal to its market value, just as any disinvestment decision shall be taken when the economic value < market value. The profitability of an investment project shall be established not depending on the normal operation time of the objective, but depending on its economic life duration, meaning the period in which the objective generates adequate profitability. When the normal operation duration is long, from reasons of prudence, there is the practice to determine entry financial flows (positive), on a shorter period - for ex., 10 years - following that the rest be considered remainder value, corrected with fiscal incidence (sale related value added tax to third parties of the remainder value) shall increase the entry flow in the last year of the objective economic life duration.

*State's investment policy in economy.* Investments play a central role, multiplying economic growth, influencing both demand and market offer. Practically, things develop as follows: the company benefiting from the investment addresses to providers of plants, entrepreneurs, in order to achieve the project. If they are from the country, the investment decision causes certain movements for the investor's country and economy: it increases internal providers' turnover, increases the remuneration fund, benefits, state taxes, increases related branches like light industry, food industry etc. It results that investing in a certain field has a multiplying role upon the generated economic activity. If providers or entrepreneurs are external, the growth of turnover and benefits shall positively influence the economy of goods and services exporting country. The commercial balance of the investor's country shall be demanded, and positive effects shall influence exporting country's economy. Consequently, the state is interested to interfere in order to stimulate internal investors and create favourable conditions in order to resist in the international competition fight. Practically, all countries with developed market economies are involved in economy in different forms. Intervention policy of states in economy follows certain objectives and shall be achieved through various techniques.

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## **THE BENEFITS OF UTILISATION COMPUTER SYSTEM FOR MONITORING THE MOVEMENTS OF EXCISE (EMCS)**

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**ABSTRACT:** *Since 2009 - a new system will work fully computerized tracking of shipments to Romania for intra under suspension of excise goods: EMCS, the new system will record all economic validate who are entitled to send and receive excise goods within the EU. If the EU wants a company to deliver products to one of any other Member State, it may check the database if the recipient is a valid one and can work with him. The database will be updated daily and through the new system will simplify existing rules for commercial movements. EMCS is useful in reducing fraud by creating a system of rapid information exchange between customs authorities in the administration of excise duties.*

**KEY WORDS:** *computer system, movements of excise, the Council European Directive*

### **1. THE LEGISLATIVE CONTEXT OF THE IMPLEMENTATION OF EMCS**

The Council Directive 92/12/EEC from February 25, 1992 on provisions for products subject to excise duty and holding movement and monitoring of such products, it needs considerable revision.

The purpose of incorporating into the legal basis necessary changes resulting from computerization project EMCS provides the basis for a simple and paperless environment for trade and at the same time allows a better integrity, speed and an approach to risk control for authorities responsible for management and control duty.

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Starting from these new provisions, other amendments and simplification of the Directive may be deemed necessary, such as introducing new legal concepts.

According to the Commission Decision nr.1152/2003, the European Parliament and the Council of June 16, 2003, the European Commission and EU Member States decided to implement a computerized system for monitoring movements excise goods, to allow Member States to obtain information on real time about the movements and conduct checks required, including during the movement of products.

Legally speaking, the entire process starts with the decision of EMCS in 2003. But for the force, the EMCS will also require changes in EC legislation existence, noting Directive 92/12 and implementation of this legislation. Legal basis for the development of EMCS is the nr.1152/2003/EC Decision of the European Parliament and Council, dated June 16, 2003 for the computerization system whereby excise duty is transferred between authorized merchants in the Community under the provisions of the suspension. Commission held a public consultation in 2006 on the topic. Starting from this detailed review will be defined provisions to implement the content of messages and other procedural requirements. The decision requires the development of EMCS within 6 years after publication, July 1, 2009 respectively.

## 2. OVERVIEW EMCS

EMCS is a computerized system for monitoring the movement of goods between Member States.

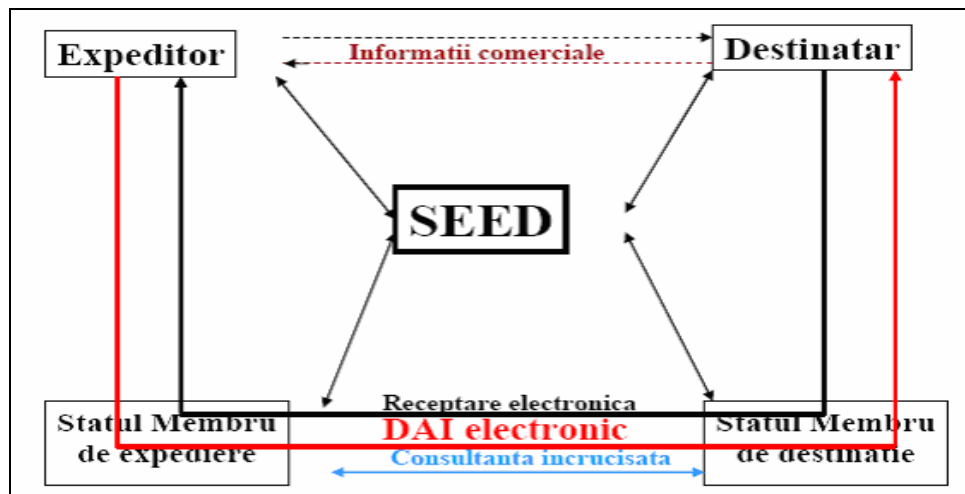


Figure 1. Simple scheme of operation of the EMCS

Excise goods can move in two forms: the duty paid or under suspension. EMCS refers exclusively to the movement of excise goods under suspension. Currently, the circulation of excise goods must be accompanied by a document called the accompanying administrative document (AAD) which contains information on

transport, origin, destination, or the content and information on administrations and economic operators involved in the movement of goods.

DAI-is issued by sending a copy of it must be sent back to sender by the receiver to close the circuit and to recover the securities. This warranty mandatory for the displaced, which is usually filed by the sender, cover potential tax loss if the goods or part of the goods do not arrive at the destination.

The main objective of EMCS is computerization DAI sites on paper: Compared with the current system based on paper, the EMCS will:

- Allow the transmission and electronic validation of the accompanying administrative document (e-AAD)
- Enable electronic download of the movement of products;
- Improve the functioning of the internal market by simplifying the movement of excise goods within the EU, by improving real-time monitoring of flows and doing surveys.

EMCS advantages are:

- The operators: a quick download of relevant security motion products, and reduce administrative burdens;
- For Member State administrations: a better monitoring of movement of excise goods, a decrease in the risk of fraud and better coordination of controls.

### **3. THE STAGES OF EMCS IMPLEMENTATION**

Regarding the implementation of the computerized system in accordance with Fess; EMCS project is divided into several stages and will not work in its entirety from the first day. EMCS functionality has been divided into "packages" that will be made available progressively Member State administrations and economic operators and provision of operational versions of the EMCS will be in about 2 years. The document that is described EMCS implementation and implementation stages of this specification are called the stretching and project phases (PSS). EMCS will be introduced in phases from 2003 until 12 in 2009 (phase 0 and phase 1, 2), following from that time another phase (phase 3) that covers all the features developed. Each phase has its own management plan.

*Phase 0* (2003 - Ongoing) provide operational support, maintenance and improvement of current systems used in field duty, anticipating the operational phase of the EMCS and ensures that these systems are aligned in accordance with the objectives of EMCS.

*Phase 1* (2003 - Ongoing) prepare and welcomed the launch of the project for computerization and production EMCS system specifications of EMCS (ESS). Among various specifications produced in Phase 1, the most important are: The functionality covered by EMCS; Steps of implementation of EMCS.

*Phases 2* (2006-2009) and *3* (2007-2011) are the phases of development and implementation, including detailed design of national duty applications, application development and national power, and their implementation in stages. Phase 2 will focus on essential functions necessary to ensure successful entry into operation of EMCS.

Phase 3 will add about customs procedures (such as movements of excise goods under suspension in place of importation and a tax warehouse) and expand the possibilities conferred administrations.

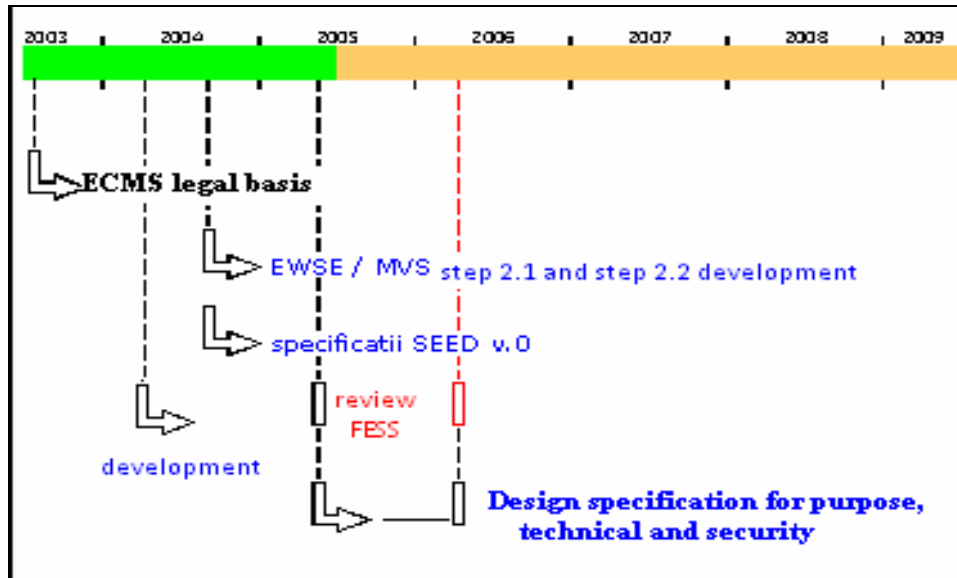


Figure 2. The scheme is as EMCS stages

#### 4. THE UTILISATION OF EMCS PROTOTYPE

EMCS operation can be illustrated by using the prototype that enables the completion of scenarios including specific cases, thus showing users how the system will behave in these cases. The EMCS Business Prototype gives the vision of the various actors on the future system. It shows how they can act and when (states).

Therefore, the prototype highlights: the manipulated entities, their content and their life cycle; the involved actors, their roles and their capabilities regarding a particular scenario; the automated applications, their behaviour through the various processes they must implement and the exchanged messages.

The scenario screen provides the list of available scenarios and allows selecting one of them. Each scenario is briefly introduced and the list of participants is provided. *By clicking on the blue arrow, the storyboard screen is displayed and the selected scenario starts.* The EMCS Business Prototype provides various scenarios that illustrate major use cases of the FESS specifications.

A storyboard consists of animations for particular steps of a selected scenario. It provides an overview of flows, exchanged messages, state transitions and functional interfaces. In some cases, you are able to alter the scenario according to the defined alternative flows.

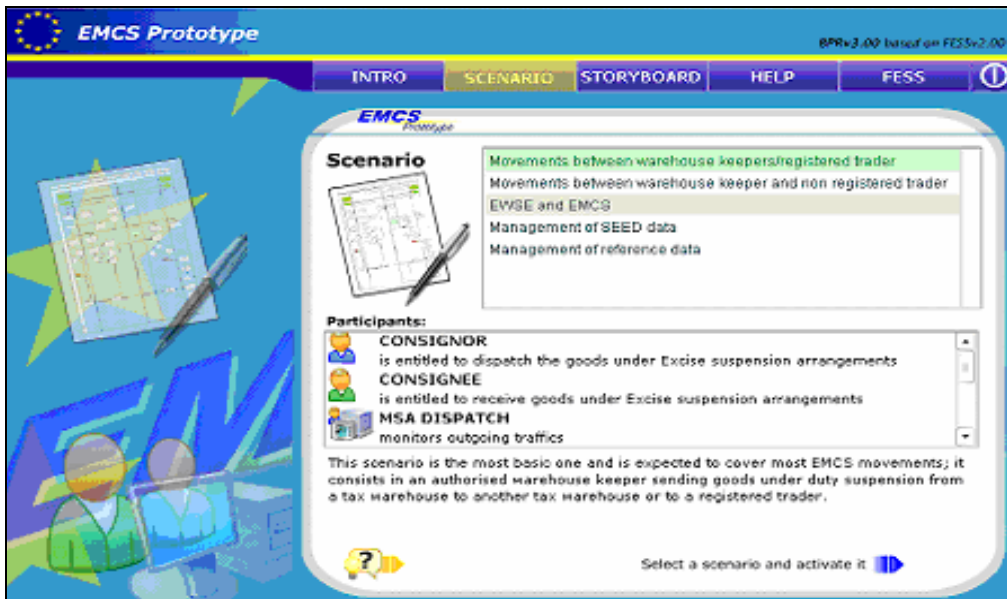


Figure 3. Activate a scenario

The selected scenario takes place somewhere in Europe where traders in various countries exchange products under excise duty suspension arrangements.

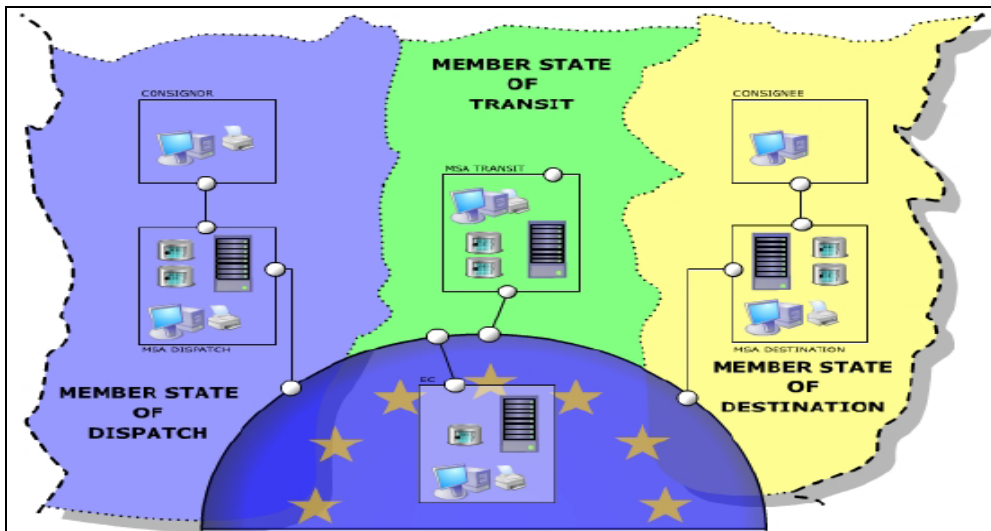


Figure 4. Storyboard (map)

When a step of the scenario concerns a specific actor, the screen indicates the actor's identification and the state of the currently manipulated entity regarding the actor's role. Each item of the list provides the role (i.e. 'CONSIGNOR'), the identity

(i.e. 'EO1/MSA1'), the entity state (i.e. 'ACCEPTED') and the state of the concerned actor (i.e. 'Waiting for discharge').

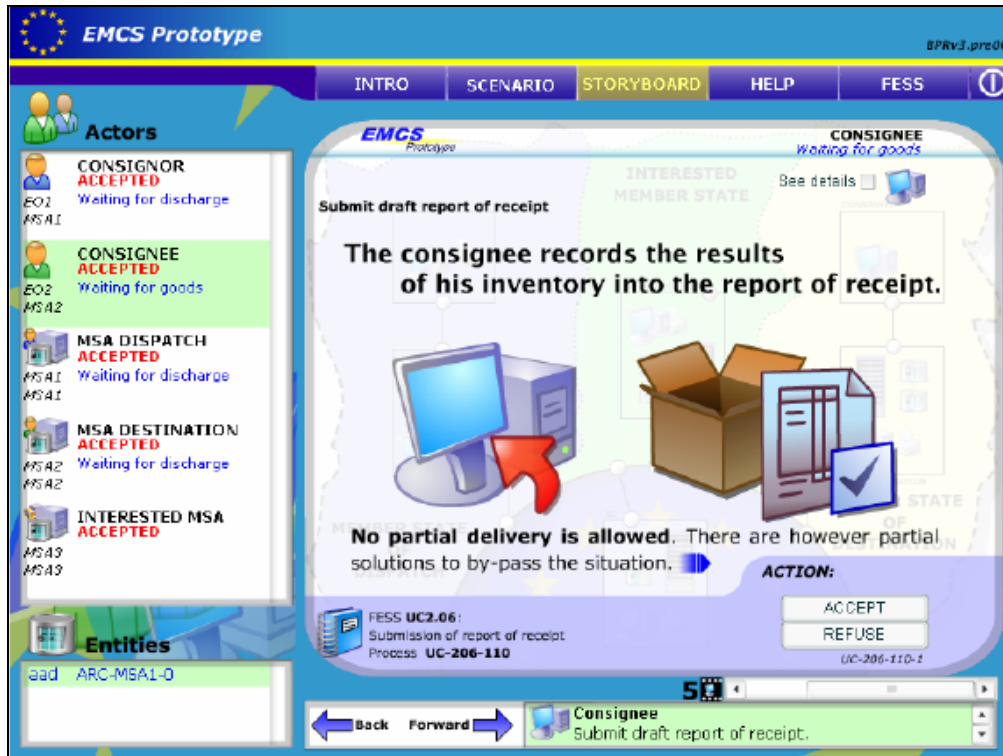


Figure 5. Actor's action

The displayed state depends on the entity that is currently operated. During a scenario, several entities can appear. A list describes the type and the reference of existing entities. The highlighted item represents the current operated entity. The entities appearing in blue are the ones taken into account during processes. EMCS will introduce electronic processing for declaring, monitoring and closing circuit intra movements of excise goods that are in suspension. This system will replace current procedures based on such papers, current accompanying administrative document (AAD) are supposed to be replaced with electronically processed documents.

In short, through this system, DAI on paper will be replaced by an electronic recording called eDAI. This record will be created and sent electronically by the sender to recipient. Registration will be received in real time and will be validated by the administrations of Member States of departure and destination. At the time of arrival of products recipient will complete a report of the electronic receipt, which will be sent to the sender for closing the circuit, similarly being informed and Member State administrations.

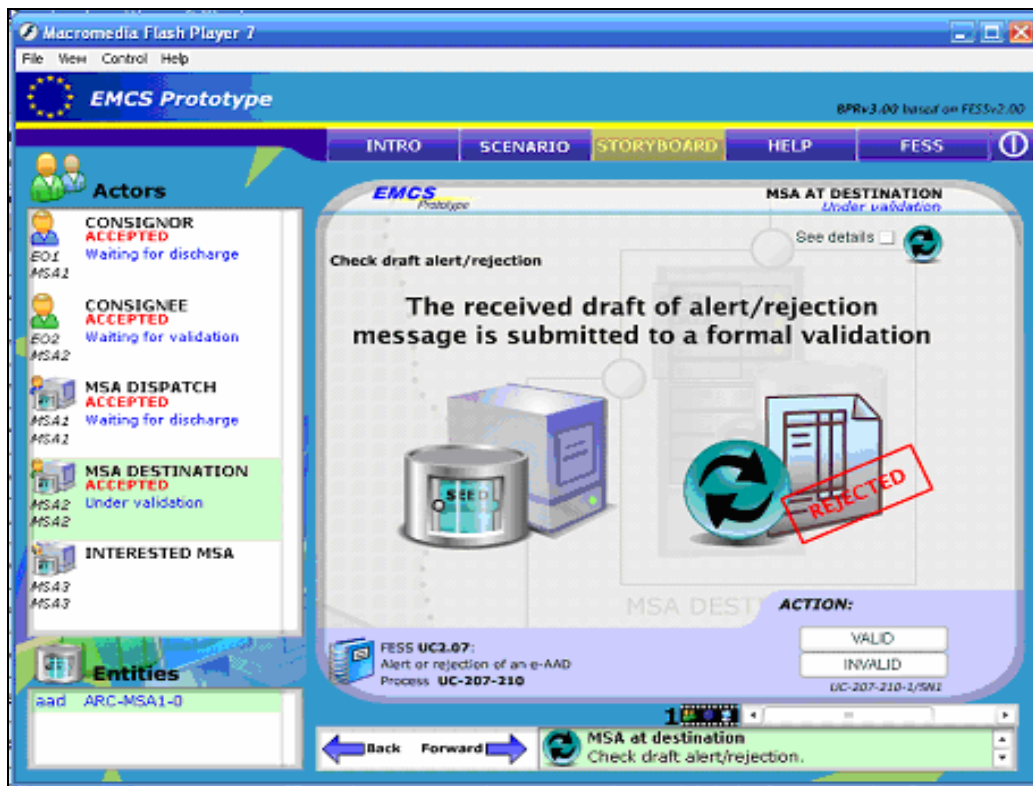


Figure 6. Control the storyboard

## 5. CONCLUSIONS

The implementation of this computerized system, called EMCS - Excise Movement Control System will simplify the intra-Community movement of goods under suspension. EMCS will allow such electronic monitoring in real time both by Member States and the merchants, deliveries under suspension and will ensure better security of these transactions. It is an ambitious project, which will connect about 100,000 manufacturers, retailers and importers of excise goods (eg alcohol, tobacco and mineral oil) which makes about 4 million annually for the transport and excise duty, by the billions euros, is suspended.

The project is developed stages, the necessary regulations on a number of procedural and technical specifications, legislative changes, software development, to establish a common secure communications networks, and information campaigns for economic operators who will use this system. The European Commission coordinates the activities of Member States to ensure smooth operation of the internal market. Commission and Member States will have the resources to develop and implement the system, funding is realized EMCS both from Community funds and national funds, depending on the nature of the components developed.

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## THE NEW ARCHITECTURE FOR AUDITING STANDARDS

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DANIELA GIURESCU \*

**ABSTRACT:** *The purpose of this paper is to challenge the conceptual basis upon which the current auditing standards are based. The paper critically appraises the Auditors' Code published by the Auditing Practices Board and containing the nine fundamental and enduring principles upon which current auditing standards are based. It is argued that the nine enduring principles should be replaced by seven enduring tensions – the fault lines of auditing – so as to rethink the conceptual basis of auditing standards. Further research should be carried out to test the robustness of the seven enduring tensions as the basis for standard setting. A first step might be to map the existing standards onto the new conceptual basis. Standard setters can deploy a new architecture for auditing standards and one that addresses the tensions inherent in auditing. Standard setting should be recognised as an activity dominated by ethical choices and concerns.*

**KEY WORDS:** *auditing; professional ethics; standards*

### 1. INTRODUCTION

Shortly after its formation in 1991 the then Auditing Practices Board (APB) established a working party under the chairmanship of John McFarlane to prepare a discussion paper on the future of audit. The working group felt that its deliberations should be founded upon an understanding of the enduring principles of auditing. A statement of these principles was consequently published in *The Future Development of Auditing* (APB, 1992), refined in *The Audit Agenda* (APB, 1994) and published in final form as *The Auditors' Code* (APB, 1996). In 2002 the APB was re-formed and brought under the Financial Reporting Council. The Code has been revised by the re-formed APB, most recently in 2008 (APB, 2008), but it remains virtually the same as the original. According to the APB (2008, p. 5) the Code provides a framework of fundamental principles which encapsulate the concepts that govern the conduct of

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audits and underlie the APB's ethical and auditing standards. Currently in issue from APB are:

- (1) a series of five ethical standards relating to the independence, objectivity and integrity of external auditors; and
- (2) 30 ISAs which are the operational and reporting standards.

The latter are published in six series (the 200 series through to the 700 series) and deal with the audit as a process in roughly chronological order starting with the establishment of the auditor's responsibilities and ending with the auditor's report to shareholders. The APB has from 2004 adopted, with some adaptation to local requirements, the Standards (ISAs) of the International Auditing and Assurance Standards Board (IAASB). In addition to the ISAs it has adopted the IAASB's International Standard on Quality Control (ISQC) 1 which deals with quality control for audit firms. The epicentre of standard setting for the UK standards has therefore shifted to the IAASB, and the recommendations for standard setting made in this paper, though developed in the context of the APB and its Auditors' Code, may now need to be applied at the level of the international standard setting body (the IAASB), as well as the level of the APB.

The Auditors' Code gives nine fundamental principles of auditing. It is deontological in nature, the principles being presented as universal and enduring. This paper revisits the Code and focuses on the inherent tensions between, and sometimes within, the principles espoused. This paper posits that there are no enduring principles of auditing, only enduring tensions. Instead of nine enduring principles the paper identifies seven lines of tension. Thus, the challenge for the standard setters is to develop auditing standards that position audit on each of these fault lines.

## **2. THE ENDURING TENSIONS**

The seven enduring fault lines of auditing identified by the authors are:

- Primary stakeholders vs the public interest.
- Clear communication vs association.
- Independence and objectivity vs accountability.
- Judgement vs rigour.
- Objectivity vs providing value.
- Insurance vs assurance.
- Personal vs corporate accountability.

The first five are drawn from the Auditor's Code and the final two are drawn from the authors experience and in the authors judgement should be included. The first additional tension that the author has included is audit as assurance versus audit as insurance. Frequently, and often on the advice of the professional indemnity insurers, legal action against auditors is settled out of court highlighting a tension between audit as assurance and audit as insurance. The author observed that a major factor in APB's discussion of the wording of proposed auditing standards was its potential impact in litigation against auditors, leading the author to conclude that the tension between assurance and insurance is a major issue for standard setters and should be included in any list of enduring tensions.

The second additional tension the author has included is that between individual and corporate responsibility for the audit. This emerged as an important issue in the discussions surrounding *The Audit Agenda* (APB, 1994) and it lies behind the Agenda's recommendation (p.39) that the audit reports be signed by the responsible audit partner for and on behalf of the firm in his or her own name in addition to the name of the firm.

The seven enduring tensions or fault lines are now discussed in turn.

***Primary stakeholders vs the public interest.*** This tension is acknowledged in the first principle of the Code when it states: Auditors act in the interests of primary stakeholders, whilst having regard to the wider public interest. It is possible to go beyond the tension between primary stakeholders and the public interest, to consider the tensions between all stakeholders in the audit, including directors, lenders, employees, creditors, and of course auditors. Even within the audit firm there are tensions between the practitioner and the administrative managerial components (Carpenter et al., 1994).

***Clear communication vs association.*** The Code asserts a clear professional duty for auditors only to allow their reports to be associated with documents which contain other (unaudited) information if they have no cause to believe that the other information is misleading. It follows that in respect of the annual report outside the financial statements, the auditor is giving a silent negative opinion. No opinion is stated but if it were, it would give the "negative" assurance that the auditor had no cause to believe that the information is misleading. Silent opinions and negative assurance opinions do not provide a clear expression of opinion or set out the scope of the work necessary for a proper understanding of negative assurance. What the Code says on association is contrary to its other principle of clear, complete and effective communication. And yet there are occasions when auditors, given the complexities of the auditor's position in a litigious environment, may only be comfortable with a negative assurance and/or a silent opinion. Standard setters have to judge when and in what circumstances such an approach is permissible.

Potentially the tension between clear communication and association increases as the information content of the annual report outside the financial statements increases. For example, if investors consider the Operating and Financial Review to be an important document would they benefit from a clear statement of the auditor's opinion of it?

***Independence/objectivity vs accountability.*** It has long been recognised that accountability has an impact upon the exercise of professional judgement. The Code sees independence in terms of the appearance of independence. Independence/objectivity as a state of mind might be interpreted in terms of a facility (a personal trait) to reach the same judgement via the same articulation and reasoning irrespective of the environment of accountability. Yet we know that the pattern of accountability does affect judgement, so the only true independence/objectivity is when there is no accountability for the auditor. This would place independence/objectivity as the antithesis of accountability in the sense that any accountability is capable of reducing objectivity.

The tension therefore is between the need for auditors to be independent/objective, a condition that implies the auditor should be free to judge impartially without

reference to the interests of stakeholders in the audit, and accountable, a condition that implies the auditor should be conscious of and influenced by, the interests of the stakeholders. The nature of this tension depends upon which accountabilities are dominant. For example, if audit committees play a major role in the appointment of auditors then this has the significant benefit that auditors' independence from executive directors is increased. However, their independence from the non-executives of the audit committee is reduced. Auditors may be inclined to give consideration to the issues that the audit committee regards as important rather than making or following their own judgement.

**Judgement vs rigour.** Auditing of financial statements is inherently a professional judgement using the auditor's competence and experience to apply principles to the particular circumstances of the audit. Francis (1994) pointed out that auditing is not so much a set of generic principles but rather it is the process of giving understanding or meaning to those principles through their application in the given circumstances of the auditee. This view is supported by those sociologists who argue that there can be no unswerving application of principles or of rules (MacKenzie, 2008 who builds on Barnes, 1982; Bloor, 1997). Proper usage of a principle, which is conceptually a high level rule, is developed step by step, in processes involving successions of on the spot judgements. Suchman (1987, 1993) makes similar arguments in respect of procedures. She argues that procedures are designed to be contextually independent, yet, like utterances in a conversation, have to be interpreted with respect to the particulars of the situation in which they are used. Thus, procedures are invariably incomplete specifications of action.

The Code equates rigour with thoroughness and scepticism. Scepticism is an inclination to disbelieve and seems to say that auditors should require a high quality of evidence and be willing to seek further evidence if in doubt. Used in his way rigour seems to moderate the exercise of judgement by saying that judgement is made after a thorough investigation and not before. There is no real tension between judgement and the APB's interpretation of rigour. However, there is a well-recognised tension between judgement and an interpretation (see, for example, Chambers Twentieth Century Dictionary) of rigour as the unswerving enforcement of law, rule or principle. Rigour in this sense of rigidity is at odds with judgement. The tension therefore is whether the principles, rules and procedures of auditing, should be applied judgementally according to context or rigourously (rigidly) without reference to context. The fear is that too many rules and procedures designed to cover as many situations as possible changes the mindset of the auditor from one of independent judgement to one of unthinking compliance. This is a tension that has received much recent attention from the auditing profession (Audit Quality Forum, 2006).

**Independence/objectivity vs providing value.** According to the Code the auditor provides value not only by adding to the reliability of financial reporting but through constructive observations arising from the audit process. In order to evaluate whether a set of financial statements reflect a business' financial performance the auditor needs to get close to the business and its directors. This is implied by the Code's principle of competence which demands an understanding of financial reporting and business issues. In getting close to the business the auditor may be

encouraged to see the business as the directors see it, with potential consequences for the auditor's objectivity. In addition it is this close understanding of the business that helps to make the auditor's observations and recommendations valuable. The paradox is that this role of "Mr Inside" may be at odds with the value that capital markets and shareholders attribute to the audit which is a function of the auditor's position as an objective outsider. Thus, the auditor has to be both "Mr Inside" and "Mr Outside" and to maintain a balance between understanding and advice on the one hand and objectivity on the other. The implication is that audit failure can come from the auditor being either too close to, or being too distant from, the business. Constructive observations to directors and officers arising from the audit process can include a recommendation for improved systems or the identification of other needs that can be met by consultants working for the audit firm. Where the observations constitute or lead to non-audit services, there is an additional tension arising from the perception that the auditor's independence and judgement on the audit will be impacted by the rewards available from the non-audit services.

In the public sector where the pattern of auditor accountabilities is quite different to the private sector, the tension between adding value and independence/objectivity takes on a different character. Here, the tension is between the audit as confirmation and the audit as challenge. Whilst the basic audit function is one of confirming the reliability of the financial statements, adding value in terms of the functioning of the organisation requires the auditor to challenge how the organisation goes about meeting its policy objectives (the value for money audit). Thus, the auditor and the audit stakeholders have to be comfortable with both the audit as confirmation and the audit as challenge - two rather different mindsets.

***Insurance vs assurance.*** Litigation has always been a major concern of the stakeholders in the audit and one where the interests of stakeholders diverge. (See for example, the differing views of Pasricha, 2002 of audit firm Ernst and Young and Richards, 2004 of Morley Fund Management.) Following the Companies Act 2006 (Sections 534-536) a company may, with the agreement of shareholders as a body, enter into a contract with its auditors to limit the auditor's liability. However, it remains to be seen how often shareholders as a body will agree to this and, if they do, how it will affect the auditor's liability to third parties to the contract, including individual shareholders.

In a highly litigious environment there develops a tendency for the audit to become implicitly a joint product of (audit) assurance and insurance. The audit report provides assurance but the auditor's signature also provides a target for legal action by investors if the financials turn out to be unreliable. The audit firms take out professional indemnity insurance to cover the risk that they are negligent in the conduct of the audit. The auditors are only liable if they are negligent, owe a duty of care to the plaintiff, and the plaintiff can establish that any loss is the result of a reasonable reliance on the defective financials. In some cases that have come to court the difficulties in establishing these three criteria, has led to damages not being awarded, even though the auditor had not conducted a competent audit. However, many other cases, on the advice of the auditors' insurers, are settled out of court even when the auditors are not necessarily at fault. It is this latter situation that is equivalent

to insurance. Audit evidence is not a guarantee and so financials can be unreliable even after an unqualified audit report and a well conducted audit. If this risk is carried by the auditor or their insurer then we have an insurance product. Any insurance of financial statement reliability is based upon a risk assessment which is a professional judgement the auditor is often in the best position to make. Indeed the insurance concept sits comfortably within an audit profession where risk is a primary discourse. The audit work may become viewed as an examination not only to provide assurance but to determine the financial statement risk and hence the insurance premium element within the audit fee.

***Personal vs corporate responsibility.*** The Companies Act 2006 (s503) requires the auditor's report to state the name of and be signed by the senior statutory auditor who is in effect the audit engagement partner thus acknowledging that partner's personal responsibility. However, that partner signs for and on behalf of the audit firm whose name also appears on the audit report.

The extent to which the audit opinion is the responsibility of an individual audit engagement partner as opposed to the responsibility of the corporate audit firm discharged through a corporate process, is a significant issue since it highlights the nature of quality control within the audit firm. There are review requirements set out in ISQC 1. Formal review of audits within the audit firm sets up a mode of accountability for the audit partner as opposed to the self-accountability associated with independent judgement. In a sense therefore the personal vs corporate responsibility debate is an extension of the independence/accountability and judgement/rigour dilemmas already posed.

Maintaining self-accountability is important to the issue of whether the market concentration on four big audit firms allows sufficient choice. If there is sufficient self-accountability we can regard the client's choice of auditor as being any one of a large number of audit engagement partners each one of which happens to be committed to one of four global resource and accreditation networks (Hatherly, 2003, p.32).

### **3. THE IMPLICATIONS FOR AUDITING STANDARDS**

The first implication relates to how standard setters perceive or conceive of the audit. Instead of the audit being seen as a set of enduring fundamental principles it should be seen as a set of enduring tensions – audit's fault lines. The first duty of standard setters should be to identify these fault lines and to position the audit upon them. Each auditing standard should then explain how it relates and gives meaning to, the positions taken on audit's fault lines.

The position taken on one dimension constrains the position that can be taken on another. By way of example, a position which emphasises judgement implies high personal responsibility, while a position that emphasises high levels of accountability implies clear communication of how judgements have been made. It follows that the fault lines are in fact interdependent dimensions of the audit, and these interdependencies in turn suggest the audit as a network of tensions with only the main fault lines being discussed in this paper. In the jargon of factor analysis, variables can load on more than one dimension. One consequence of interdependency is the holism of

audit standards. There should not be, as we have at present, a set of largely technical, operational and reporting standards and a separate set of ethical standards. The current ethical standards in particular, with their routine observations upon independence, are inadequate for dealing with the pervasiveness of the ethical dimension of auditing.

Whereas the extant development of principles based standards can be seen as the application of judgement in a professional process, the positioning of audit upon its fault lines is much more of a political/social/ethical process balancing the interests of audit's stakeholders. The latter process suggests three strands that influence standards development being:

- the identification of the consequences of standards, a process where experience and technical understanding can play a big part;
- notions of fairness to audit's various stakeholders impacted by these consequences; and
- the self-interests of individual standard setters in terms of the consequences for the stakeholder group to whom each standard setter belongs.

Notions of fairness are dependent upon the culture of the individual standard setters concerned including the culture of the organisation from which the individual comes. The three strands embrace modes of ethical reasoning other than deontology, being utilitarianism (consequences - the most good for the most people), justice (fairness), egoism (self-interest – the ethic being that one should not expect others to look after you) and relativism (there is no universality since ethics are a product of cultural background). Standard setting is a process that combines experience of auditing with much ethical reasoning and the output of the Board will be highly dependent upon the mix of ethical reasoning favoured by the members of the Board. The ethical standards of the Board are every bit as important as the ethical standards for individual audits.

Insofar as self-interest is unavoidable then the composition and cultural background of the membership is a crucial influence on the Board's output. It is noteworthy that the constitution of the APB limits Board members eligible to carry out audits to 40 per cent of the Board membership. There is no similar condition applying to the membership of the IAASB. At the international level there are additional considerations of achieving balance, notably in terms of geographical representation and representation from economies at different levels of development. (IAASB, March 2006, Terms of Reference, Section 4.0).

It is particularly important that the standard setters identify and take account of the unintended consequences of auditing standards. Michael Power (1994, p. 34) was one of the first to articulate this problem. He pointed out that auditing is not neutral with respect to the activities it inspects. He argues, for instance, that in a value for money (VFM) setting that audit does as much to construct definitions of quality and performance as to monitor them, leading to managing by numbers which enables a drift towards centralised forms of control and displacement of concerns about good policy by concerns about good management. Clearly an audit that shapes the conduct of the auditee in this way is not a fully independent audit, highlighting the tension between independence/objectivity and providing value.

In these ways the primary concerns of auditors and managers becomes auditability itself-leading to a bureaucracy of process and documentation that distracts

from the real objectives of both the organisation and the audit. Thus, there is a tension between the organisation's auditability on the one hand and on the other, the efficiency and effectiveness of both auditor and auditee. Whilst auditability might be an advantage for the stakeholders in the audit and notably for the auditors, a loss of efficiency and effectiveness is a clear disadvantage.

#### 4. CONCLUSIONS

The Auditing Code which provides the fundamental principles behind current auditing and ethical standards, presents auditing as a set of enduring principles. This paper argues that auditing is more appropriately conceived as a set of enduring tensions, resolved through standard setting as a substantially ethical, rather than technical, process. Accordingly the role of standards is less about the implementation of principles and more about the positioning of audit as the intersection of competing forces. Thus, auditing standards require a new conceptual basis.

The seven enduring tensions (eight if you include auditability vs efficiency/effectiveness) put forward in this paper are a preliminary attempt to identify these competing forces and are described as the fault lines of auditing. Further research needs to be conducted into their reliability and appropriateness. As a first step it would be helpful to map the existing auditing and ethical standards onto the seven dimensions. This would almost certainly reveal some dimensions that were given too little consideration in terms of standards whilst others may be over specified, pointing the way forward for a substantive revision of the standards. Indeed auditing standards might be restructured as seven series of standards, each series corresponding to one of the enduring tensions. The ethical and technical reasoning associated with the positioning on each fault line should be dealt with together and not in separate standards.

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## **NON-AUDIT SERVICE FEES, AUDITOR CHARACTERISTICS AND EARNINGS RESTATEMENTS**

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**ABSTRACT:** *The objective of the study is to provide empirical evidence of the impact of non-audit services (NAS) as well as other auditor characteristics on auditor independence by testing the relationship of NAS fees to the occurrence of financial statement restatements. The authors tested whether firms that restate their financial statements have higher levels of total service fees or higher levels of NAS fees than non-restatement firms. The testing also includes an examination of the relationship between the audit firm size and the audit firm industry specialization to financial statement restatements. The study found only limited evidence to support the concept that firms with higher NAS fees are more likely to restate earnings. The study did find stronger evidence that the level of total fees paid to the audit firm is significant in the predictability of a restatement. Results demonstrate the necessity of regulations concerning NAS and conflict of interest.*

**KEY WORDS:** *auditor's fee; auditors; earnings; financial reporting*

### **1. INTRODUCTION**

During the 1980s, the environment within many accounting firms focused on revenue generation and firm growth as the primary criteria for auditors to become partners an “up or out” or “whatever it takes” culture developed (Almer et al., 2000). The sale of non-audit services (NAS) became a major strategy for achieving firm growth. This strategy included linking a partner’s performance to the amount of NAS sold. In 1975, NAS represented 11 percent of the Big 8’s (now Big 4) total revenues. By 1998, NAS had grown to comprise 45 percent of the Big 5’s total revenues (GAO, 2003 a, b). The strategy was successful but with this new prosperity came criticism and concern about the conflict of interest perceived by regulators and the public. Amid increasing scrutiny and after independence violations were investigated by the SEC, the Big 5 firms began to spin-off their consulting arms in an attempt to appease the SEC

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(Gilbert et al., 2001). By 2000, the consulting divisions of the firms had been sold or divested, resulting in NAS shrinking to approximately 30 percent of firm revenue.

The following year, the Enron and Arthur Andersen scandal would be exposed. Other corporate accounting scandals followed resulting in increased scrutiny of the accounting profession, particularly the incentive for auditors to continue the practice of joint provision of services. The Enron debacle brought this debate to the forefront when it was disclosed that Arthur Andersen received \$25 million in audit fees and \$27 million in NAS (Beattie and Fearnley, 2002). In the Enron example, not just non-audit fees but fees in general, exceeding \$50 million, raised questions about the economic dependence of the audit firm to its client and the conflict of interest fees created. Arthur Andersen's US Net Revenue was \$3.6 billion for their fiscal year ended August 31, 2000. This meant Enron alone would constitute 1 percent of the firm's annual revenue. The number of firm partners for the same time period totaled 1,313 which would mean the average partner revenue stream to the firm would be \$2.7 million indicating that the partners on the engagement for Enron would have placed a high value on retaining the client and its associated revenue stream.

At the same time, concerns over the quality of the financial information provided to the public and regulators were on the rise. In October 2002, the United States General Accounting Office (GAO, 2002) reported that although the number of companies restating financial statements constitutes a small percentage of publicly listed companies, the number of restatements related to accounting irregularities had increased by a staggering 145 percent from January 1997 to June 2002.

In combination, the perceived conflict of interest resulting from the joint provision of services and the increase in accounting irregularities, led to the passage of legislation that restricted such fees. This historic legislation has led to a growing academic interest in the question as to whether the payment of NAS fees impacts auditor independence.

This study adds to the small but growing literature that examines the relationship of joint provision of NAS fees to earnings management using restatement data (Agrawal and Chadha, 2005; Raghunandan et al., 2003; Kinney et al., 2004). These studies have generally found little or no effect of NAS fees on auditor independence and leaves researchers to question how important is the marketing pressure for NAS in comparison to actual NAS fees or whether the accounting profession is in a no win battle with public perception. This statement raises questions as to whether the actual providing of NAS can lead to impairment of independence or whether the need to market and sell these services leads to impairment.

This study directly compares auditor characteristics and auditor fees as explanatory factors in restatement risk. The study did find evidence that the level of total fees paid to the audit firm is significant in the predictability of a restatement. In addition, the study also found a negative correlation to audit firm industry specialization and a strong positive correlation to Big 5 audit firms. Overall, this study finds that auditor characteristics have much stronger explanatory power than auditor fees when it comes to predicting restatements.

This study adds to the existing research on restatements and auditor independence in three important ways. It is one of a growing number of studies to use

restatements as a proxy for earnings management rather than discretionary accruals or other methods. The database has been pre-scrubbed to include restatements limited to those arising from accounting irregularities. The previous studies employed various internet search techniques to create a population database. Third, this study includes the examination of additional sources of conflict of interest. Specifically, this study takes a closer look at the impact of auditor specialization and audit firm size and their relation to restatement risk.

### **1.1. Restatements and NAS fees**

As previously stated, this study differs from many studies on earnings management and non-auditor fees in that it uses financial restatements as a proxy for earnings management. Other recent studies on NAS and earnings management have used alternative proxies such as analysis of discretionary or abnormal accruals (Frankel et al., 2002; Antle et al., 2002; Ashbaugh et al., 2003). However, the findings from these studies have been inconclusive. The use of discretionary accruals as a proxy for earnings management has proven to be a difficult methodology to use effectively and may be the reason for mixed study findings (Young, 1999). Beneish (2001) states the following with regard to using discretionary accruals as a proxy for earnings management:

The difficulties faced by aggregate accrual models suggest that studies of specific accruals, perhaps even case studies, are needed. One way in which one could assess the external validity of aggregate accrual models and learn about the exercise of discretion in specific industries is to study earnings restatements, the analysis of instances where firms restate earnings, e.g. where actual earnings management is more likely. Thus, restatements were used in this study as an alternative proxy for earnings management.

Following Beneish's recommendation for future research (2001), the use of restatements as a proxy for earnings management has been established in recent academic literature including Richardson et al. (2002), Raghunandan et al. (2003), Agrawal and Chadha (2005) and Kinney et al. (2004). Financial statement restatements are viewed as audit failures resulting from "the increasing reliance of audit firms on fees from non-audit services" (Raghunandan et al., 2003). Restatements provide a means for a direct test of the association between NAS and audit quality (Raghunandan et al., 2003).

Raghunandan et al. (2003) tested for an association between NAS and financial restatements based on the following research question: "Are firms that pay higher fees for NAS more likely to restate their financial statements?" The sample covered 110 firms drawn from SEC filings from 2000 to 2001 and compared the fees paid by the restatement sample to fee data from 3,481 firms filing proxies with the SEC from February 5, 2001 to August 31, 2002 (Raghunandan et al., 2003). The findings indicated that firms with restatements are not more likely to have unexpectedly high NAS, fee ratios or total fees. This study more than doubles the Raghunandan sample size to 250.

The Agrawal and Chadha (2005) study examined the effect of NAS fees on restatement probability using a sample of 318 firms of which 159 were US public companies that had restated earnings. The control firms were matched by industry and

size to the restatement firms. Fee measures included the proportion of NAS fees to total fees and a dummy variable for NAS fees greater than \$1 million. No strong association between NAS and restatements were found.

Kinney et al. (2004) examined the relationship between NAS fees and financial restatements using a data set prior to the heightened concern over NAS fees and financial reporting, covering 1995-2000. The sample included 617 restating SEC registrants matched with a non-restating firm that has the same SIC code, the same audit firm and similar size in total revenue. The study did not find a statistically significant association between fees for financial information system services or internal audit services, some association with unspecified NAS fees, and a negative association with tax services.

Overall, research on the impact of auditor size and NAS fees has usually shown negative or inconclusive results. One reason for this may be related to the pair matching methodologies used in some of these studies including Agrawal and Chadha (2005) and Kinney et al. (2004). While Raghunandan et al. (2003) compares the mean characteristics of restatement firms versus the mean characteristics of all non-restatement firms, the regressions in their paper were done with matched paired sampling. While matched paired sampling is common in auditing research methodologies, this approach has been criticized. For example, Carson and Hoyt (2003) point out that "Correlation between the matching variable (such as size) and the independent variable may produce coefficients that are biased and inconsistent." Of the three previous mentioned studies, only one of them (Agrawal and Chadha, 2005) also used auditor characteristics as explanatory variables. In fact, Kinney et al. (2004) employed matched pair by auditor so any conflict of interest effects from having a large auditor that offers non-auditor services could not be examined. The next section will review the literature on auditor characteristics and earnings management.

## **1.2. Restatements and auditor characteristics**

This study examines the auditor characteristics of size and industry specialization which may be criteria reviewed by management in selecting an audit firm; thereby playing a role in the economic bond between auditor and client. One of the few studies to look at restatement risk and auditor size found no significant relationship (Agrawal and Chadha, 2005). While the research on NAS fees and restatements has found little or no evidence of conflict of interest, the largest auditor firms are the ones associated with offering the broadest range of NAS. While previous researchers have suggested that the largest auditor firms are chosen due to their high reputations of quality and independence and are thus less prone to conflict of interest (Ruddock et al., 2002; Francis et al., 1999), other research has produced contradictory results on auditor size and earnings management (Kim et al., 2003). This study enhances existing research by testing the auditor size variable in relation to financial statement restatements, finding a strong correlation between Big 5 firms and restatements.

Again referring to the economic bond of the client firm to the independent auditor, the concept that the firm paying for the audit has the ability to "hire and fire" the auditor, leads to other questions regarding the selection of audit firms. While there

are many considerations in selecting a public accounting firm to conduct an independent audit, one of the main criteria is that the auditor specializes in the client's industry. This is significant because it means that the audit firm is experienced in any unique accounting practices or issues within the industry. The firm, based on knowledge gained in the industry, should be better qualified than other firms, to design an audit program that would incorporate industry specific items. If a firm chooses an audit firm that does not have expertise in their industry, a question is raised as to why. Therefore, this study examined the relationship of auditor specialization and restatements and found a negative correlation.

## **2. HYPOTHESES**

Regulators, financial statement users, and researchers are all concerned that higher total fees compromise auditor independence (Ashbaugh et al., 2003). Economic theory of auditor independence suggests that when client fees are a larger component of total firm fee revenue, there is an incentive for the auditor to compromise independence for important clients as measured by fee contribution (Chung and Kallapur, 2003). This economic bond between clients and their auditors is the main threat to auditor independence (Ashbaugh et al., 2003). Therefore, the first set of hypotheses tested was structured to disprove that independent auditors, in cases involving restatements, have compromised independence based on higher fee levels. The related hypotheses are:

H1(a). There is a positive relationship between higher total service fees paid to auditors and restatements.

H1(b). There is a positive relationship between the ratio of higher total service fees to total auditor revenue and restatements.

Second, the joint provision of NAS to audit clients has been considered an impairment of auditor independence by legislators and the public (Raghunandan et al., 2003). These fees is being particularly dangerous in terms of a conflict of interest. If NAS are, in fact, a source of conflict of interest and give the client additional bargaining power over the auditor, there should be a positive relationship between NAS and restatement risk. The related hypotheses are:

H2(a). There is a positive relationship between the ratio of non-audit service fees to total fees paid to auditors and restatements.

H2(b). There is a positive relationship between the ratio of non-audit service fees to total auditor's revenue and restatements.

H2(c). There is a positive relationship between NAS fees paid to auditors and restatements.

Empirical evidence on auditor size and earnings management has been inconsistent and contradictory. The Public Accounting Report's (PAR) Top 100 for 2001 and 2002 data indicate that the Big 5/Big 4 firms provided \$8.7 billion and \$5.9 billion in NAS in 2001 and 2002, respectively, compared to non-Big 5/Big 4 firms of \$850 and 800 million, respectively. According to the logic of H2(a),(b),(c), NAS leads to conflict of interest problems. However, the level of NAS fees received might not necessarily be the best indicator of conflict of interest. Simply offering NAS along with the concurrent pressure to market such services to audit clients might be as big if not a

greater predictor of conflict of interest. Since, the Big 5 audit firms generally offer the majority of NAS we expect them to face greater pressure to market NAS; hence, the following hypothesis is proposed:

H3(a). Big 5 audit firms are associated with firms registered with the SEC that restate their financial statements.

Finally, again referring to the economic bond of the client firm to the independent auditor, the concept that the firm paying for the audit has the ability to “hire and fire” the auditor leads to other questions regarding the selection of audit firms. One important criteria in selecting an audit firm that has received attention in the auditing literature as a possible explanatory factor for disclosure or fraud, is auditor industry specialization (AIS) (Carcello and Nagy, 2004, Dunn and Mayhew, 2004). This choice of whether a firm selects an audit firm with industry specialization is significant. For example, Carcello and Nagy (2004) find that firms who choose an auditor without specialization in their industry are more likely to engage in fraud. Krishnan (2003), found that auditors with client industry expertise mitigate accruals-based earnings management. To test the relationship between AIS and restatement risk, the following hypothesis is proposed:

H3(b). There is a positive relationship between the choice of an auditor outside the firm’s specialization and restatements.

### 3. THE VARIABLES

For the dependent variable we simply used a dummy variable, which carries a value of 1 if the firm is a restatement firm and a value of 0 for a non-restatement firm. This is similar the approach used in Kinney et al. (2004).

We used annual revenues as the primary control variable for size which is similar to Kinney et al. (2004). As tests for sensitivity of the results, we also used total assets and total number of employees as alternative measures of size. The profitability of the firms was measured as a return on assets in two ways. The primary way we measured profitability was by using net cash flow from operations divided by total assets. This is often considered a more reliable measure of the financial health of the firm than the traditional measure of net income to total assets. Net income can be influenced by many factors that do not relate to operations or that are subject to manipulation. However, as a test of sensitivity, we used the ratio of net income to total assets as a secondary measure of profitability.

The firm industry dummy variables were defined by the first digit in the SIC number and were denoted as SIC. The categories ranged one through seven as follows:

- agriculture, mining, and construction;
- manufacturing;
- technology;
- transport, communications, and utilities;
- wholesale and retail;
- financial services; and
- services.

For each firm, the firm industry variable carried a value of 1 with the other six groupings carrying a 0 value.

#### **4. CONCLUSION AND IMPLICATIONS**

The results of this paper show that characteristics of the auditor rather than fees paid to auditors are more important predictors of earnings management as measured by restatements. The result that NAS fees do not have strong explanatory power is consistent with previous studies. We do find that total fees paid to auditors have some mild but significant explanatory power. The variable that appears to have

the strongest explanatory power is the BIG 5 auditor variable. The study findings, while not supportive of the need to limit NAS through regulation, does highlight the need for regulation and supports the spirit of Title II of the act which includes among other components, the establishment of the Public Company Accounting Oversight Board, audit partner rotation, conflict of interest policies and requiring auditors to report to the audit committee. In addition, the study results related to large audit firms highlights the concerns explored by the US GAO with regard to mandatory audit firm rotation and the impact of consolidation and competition on the public accounting industry. Finally, the study results raise additional questions for academic researchers to pursue - to add to the knowledge on audit quality, auditor independence, and earnings management.

Throughout history as large profile public companies announce financial statement restatements the question “where were the independent auditors?” arises. From the crash of 1929, to the savings and loans crises of the 1980s, to the large fraud cases of the turn of the millennium, the government and the public have turned to the accounting profession for answers. While the SEC has the primary regulatory responsibility over the accounting profession, the US Congress has the ability to legislate and thereby regulate the profession as well (Chenok, 2000).

During 1976-1977 a Senate Subcommittee of the Government Affairs Committee held hearings to investigate publicly owned company failures and wrongdoings that had not been reported by independent auditors (Chenok, 2000). The committee was concerned with the quality of audits and auditor independence. The resulting staff report made recommendations for reform that boiled down to taking away the ability of the accounting profession to self-regulate and transferring the responsibility to the federal government (Chenok, 2000). The AICPA formed a response and lobbied congress to stall the legislation. In spite of almost three decades of effort to preserve the right to self-regulate the accounting profession, the battle was lost when the Sarbanes-Oxley Act created the Public Company Accounting Oversight Board.

Respondents to the GAO study on Accounting Firm Consolidation (2003), required as a part of the Sarbanes-Oxley Act, commented that new regulations deriving from the Sarbanes-Oxley Act and changing auditing standards have had an impact on audit quality and independence. Another GAO study on mandatory audit firm rotation (2004) concluded that mandatory rotation should not be regulated until the effectiveness of the act for enhancing auditor independence and audit quality could be monitored and evaluated.

Future academic research will need to examine the effectiveness of this increased oversight and regulation on reducing the number of audit failures and financial statement restatements. These studies should include pre and post Sarbanes-Oxley Act testing to determine if the increased regulation has had an impact on audit quality and the number of financial statement restatements. An examination of the effectiveness or correlation of the regulatory variables should be conducted as well as impact studies of moving from self-regulation to external oversight of the accounting industry. Additional root cause and systemic research should be conducted to determine what audit firm characteristics, including firm size, industry specialization, audit processes and quality controls, are factors impacting audit quality and audit failure.

The independent audit is a crucial component of the US capital market system, as evidenced by the market's reaction to stock prices of companies that announce an accounting restatement. It is imperative that regulators, audit committees, corporate management, the accounting profession and academic researchers continue to work collaboratively to mitigate the risk of audit failures.

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## GLOBALIZATION OF ENGLISH AS A CORPORATE LANGUAGE

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**ABSTRACT:** *Linguistic and cultural knowledge are very important nowadays when doing business in an international environment. Due to the rapid development of trade in Romania and in the other Member States of the European Union business English has become more and more important in the economic field. The world's language situation is undergoing some significant changes and that is why I will try to describe the development of English as a global language. The linguistic globalisation is not an internal language phenomenon but the result of a deliberate linguistic attitude, strictly determined by economic interests.*

**KEY WORDS:** *linguistic globalization, business English, borrowings, culture, communication*

### 1. INTRODUCTION

Many scientific researchers talk about globalization in their works in terms of economic and political issues. According to Stanford Encyclopaedia of Philosophy, the term globalization covers a wide range of distinct political, economic and cultural trends. The same source states that in popular terms globalization is associated with the following phenomena: “free market”, “economic liberalization”, “westernization” or “Americanization”, “Internet Revolution” or “global integration”.

Globalization refers “to processes of change which underpin a transformation in the organization of human affairs by linking together and expanding human activity across regions and continents” (Held, McGrew, Goldblatt, Perraton, 1999: 15). Globalisation can also be associated with words like *global, international, transnational, multinational* or *worldwide*. According to Waters (2001:5) globalization can be defined as “a social process in which the constraints of geography on economic, political, social and cultural arrangements recede, in which people become increasingly aware that they are receding and in which people act accordingly”. So, globalization is

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not a simple phenomenon or trend, it is a complex process which covers not only the economic field but also the social, cultural and technological one.

However, little attention has been paid to the linguistic side of globalisation. In spite of this language has been affected by globalisation in different ways.

The world's language situation is undergoing some significant changes and that is why I will try to describe the development of English as a global language trying to discover the ways in which English may become the European official language.

## **2. GLOBALIZATION OF ENGLISH**

English is developing as a means of international communication. English for Specific Purposes and in this case business English in a European context is quite a controversial subject because there are many cultural differences in the legal sphere. But the globalization and the appearance of international bodies like the UN, NATO, EU, WTO have brought an increase in legal documentation as for example legislation, treaties, agreements where English is used as a common language. In the European Union all official languages are equal, theoretically speaking, but all the matters related to competition, certain laws are first drafted in English or French and in this case English may be thought to be the source language. EU institutions use three main working languages: English, French and German. The fact that the new Member States have preferred English has marginalized in a certain way the use of French and German.

A survey carried out by the "Special Eurobarometer 243" about the Europeans and their languages shows that German is the most widely spoken mother tongue with 18% of the speakers, while English is the most widely spoken language in the EU with 51%. This survey also shows that 100% of the Hungarians, 100% of the Portuguese, and 99% of the Greeks speak the state language as their mother tongue. Researchers have showed that the long-term objective for all EU citizens is to speak two languages in addition to their mother tongue. So, 56% of citizens in the EU Member States are able to hold a conversation in one language apart from their mother tongue. 28% of the interviewed persons say that they speak two foreign languages well enough to have a conversation. But in spite of these almost half of the respondents, 44%, admit not knowing any other language than their mother tongue.

Approximately 1 in 5 Europeans can be described as an active language learner. All in all, English remains the most widely spoken foreign language throughout Europe because 38% of EU citizens state that they have sufficient skills in English to have a conversation (apart from the citizens of the United Kingdom and the Republic of Ireland, and Malta).

14% of Europeans indicate that they know either French or German along with their mother tongue. In 19 out of 29 countries polled, English is the most widely known language apart from the mother tongue, this being particularly the case in Sweden (89%), Malta (an ex-British colony) (88%) and the Netherlands (87%), while German and French is so in three countries. Moreover, the citizens of the EU think they speak English at a better level than any other second or foreign language. 77% of EU citizens believe that children should learn English. English either as a mother

tongue or as a second/foreign language is spoken by 51% of EU citizens, followed by German with 32% and French with 28% of those asked.

The results of this survey show the rise of English as a lingua franca. English is preferred by most of the foreign investors although it is not their mother language. Other surveys have demonstrated that the majority of foreign investors come from non-English speaking countries as for example Germany or France. And in spite of this they would rather choose English as the language of communication.

Linguistic and cultural knowledge are very important nowadays when doing business in an international environment. Due to the rapid development of trade in Romania and in the other Member States of the European Union business English has become more and more important in the economic fields. Therefore businessmen and many students have to master specific English skills from establishing a business relation to the signing of a contract. Thus, Business English has become a very important field of research in the context of English for Specific Purposes. Business English is a professional language that originates from LSP, or Language for Specific Purposes.

Language for Specific Purposes can be seen as the language used by a group of people who share an area of expertise (linguistics, economics, medicine, social studies, etc.) or a hobby or interest. LSP contains a range of domains which may be further divided into subdomains involving a number of sublanguages. This system may have a horizontal dimension involving the number of domains into which language can be divided (the medical language, the language of law, the language of engineering, etc.) and a vertical dimension specifying the layer of the domain. Since the early 1980s, research on English for Business Purposes (EBP) has flourished as English has become widely accepted as the primary language for international business. LSP reflects the relationship between knowledge, society and the individual without prioritizing any one of these.

According to David Carter the specialized language has been split into a variety of subsystems as for example:

- English as a restricted language;
- English for Academic and Occupational purposes which can be further divided into:
  - English for Science and Technology;
  - English for Business and Economics;
  - English for Social Studies;
- English with specific topics.

The globalization of Business English has led to some borrowings or calques in Romanian. That is why we often find many neologisms of English origin which have been adopted into the current use of business language, as for example: *computer*, *hard disk*, *marketing*, *management*, *anti-dumping*, *broker*, *a plăți cash* and so on. Therefore I think it is very important to know the historical roots of the words which describe and explain economic activities. In table 1. I picked up a few examples of English and the Romanian business terms and I tried to give the etymological explanation of the words.

As we can see from this table the English and Romanian variants of the business terms have similar forms, and most of the chosen terms have Latin or Greek origins. These borrowings from English may create difficulties in adaptation or they may not be well accepted by the speakers. In spite of these aspects we have to think of the strong Latin influences upon the English vocabulary and as we have seen in the above mentioned examples these English loans do not harm our vocabulary. The lexical units which have been phonetically adapted are of French origins, while the others are of English origin. These lexical borrowings like for example: *management*, *marketing*, *microeconomics* or *clearing* which have not been adapted phonetically are considered to be an expression of informational density (Olga Bălănescu, 1997, 27-37).

**Table 1. English and Romanian business terms and their etymology**

English term	Romanian term	Etymology of the word
Boycott	Boicot	The word boycott derives from the name of the Captain Charles Boycott, an Irish landlord. In 1880 all his tenants decided to protest against him and demanded a reduction in their rents. He decided to evict them.
Budget	Buget	Budget comes from Old French <i>bougette</i> , diminutive from Lat. <i>bulga</i> , which means leather bag.
Capital	Capital	Capital has its roots in the trade and ownership of animals. The Latin root is <i>capita</i> which means head.
Clearing	Clearing	Comes from the English verb to clear. Clearing involves the management of post-trading, pre-settlement credit exposures, to ensure that trades are settled in accordance with market rules, even if a buyer or seller should become insolvent prior to settlement.
Economy	Economie	Comes from the Latin word <i>oeconomia</i> , from the Greek terms <i>oikonomia</i> "household management", <i>oikonomos</i> "manager, steward," and <i>oikos</i> "house"
Embargo	Embargo	The term designates a prohibitory order on the passage of ships; suspension of commerce. Comes from the Spanish noun <i>embargo</i> .
Macroeconomics	Macroeconomie	Greek Prefix <i>makros</i> which means on a large scale.
Profit	Profit	Comes from the Latin <i>profectus</i> which means profit, progress.
Salary	Salariu	Comes from the Latin <i>salarium</i> which means salary, stipend, originally "soldier's allowance for the purchase of salt".

The use of business English in Romania has increased after 1989 due to the liberalisation of trade, to foreign investments and also due to the privatisation of most of the state-owned factories. Starting with 2000 we can speak of a globalization of the business language in Romania and even of a corporate language. Yet, the term corporate language has not been adopted by linguists but it has a certain meaning. It acts like a sublanguage, a jargon, a language for a specific professional group (higher

management, Human Resource management, and so on). It is characterized by borrowings and massive loans and therefore I can say it has a mixed English-Romanian vocabulary.

An eloquent example for the globalization of corporate language in Romania is the job advertisement posted by Romanian corporations in newspapers or online. The online recruitment process facilitates rapidity both for the company and for the applicant and therefore more and more corporations and companies tend to use this channel of communication. I have read and analysed a few examples of job descriptions from different fields. The examples have been taken from one of the well known Romanian recruitment websites. The results of my analysis have shown the following characteristics:

- many job titles are written in English: *store accountant and controller, financial controller, chief accountant – insurance, customer sales support specialist, pricing analyst, project manager, accountant, sales agent, unit manager*, etc.
- in many cases the job description and the responsibilities of the candidate are drafted in English, but there are also cases when the title is in English and the description is in Romanian.

After carrying out a comparative analysis of a few job advertisements, I noticed that large corporations as for example HP, Xerox, Siemens or Genpact publish their job advertisements only in English. This Anglicization of job offerings may pose great difficulties to many applicants, especially to the elderly ones. Although many job descriptions are in English the activity which will be carried out by the prospective employee does not involve English. For example experienced candidates from the field of accounting who do not possess thorough knowledge of English find these advertisements hard to understand and they often do not apply for such jobs even if they are highly qualified for that position.

Many of the above mentioned corporations prefer to use English as their official language of communication inside the respective organisation and that is why one of the requirements in those job descriptions is proficiency in English. Therefore I would also like to mention some frequently used examples of English neologisms and loanwords which are used in daily communication in a corporation: *training, challenge, deadline, target, focus, a se centra, a se focaliza, a prioritiza*. Some Romanian linguists are against the trend of adopting so many English words, while other consider the new English elements as necessary for a proper communication nowadays.

The linguistic globalisation is not an internal language phenomenon but the result of a deliberate linguistic attitude, strictly determined by economic interest.

### 3. CONCLUSION

In this article we tried to describe how the phenomenon of globalization acts on language and we focused on English because this language is developing as a means of international communication. English for Specific Purposes and in this case business English in a European context is quite a controversial subject because there are many

cultural differences in the legal sphere. A survey carried out by the “Special Eurobarometer 243” about the Europeans and their languages shows that German is the most widely spoken mother tongue with 18% of the speakers, while English is the most widely spoken language in the EU with 51%. The use of business English in Romania has increased after 1989 due to the liberalisation of trade, to foreign investments and also due to the privatisation of most of the state-owned factories. The term corporate language has not been adopted by linguists but it has a certain meaning. It acts like a sublanguage, a jargon, a language for a specific professional group

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## **REFLECTIONS ON THE EU CCT APPLICATION TO IMPORT OF GOODS IN ROMANIA**

**PAUL-BOGDAN ZAMFIR \***

**ABSTRACT:** *In terms of customs policy for Romania EU accession requires the elimination of customs duties on all imports from countries and overall customs duties reduction on imports from third countries. By implementation the Common Customs Tariff (CCT) duties of Romania have seen a change in the value but at the same time, a change in the tariff regime applied on trading partners. Therefore, the utilization of the EU Common Customs Tariff is a very important opening of the Romanian market which will stimulate demand for imports. The Application of duties stipulated in the Customs Tariff involves the reduction of customs protection of the national economy both the industrial and agricultural goods.*

**KEY WORDS:** *import in goods, Common Custom Tariff, Romanian Custom Tariff, Combined Nomenclature, Most Favoured Nation, Harmonized System Codes*

### **1. GENERAL REMARKS**

Alignment Romania at customs duties on most favoured nation clause, under CCT involves reducing customs protection of domestic production, both agricultural and industrial goods. Becoming EU member, Romania joined the CCT application, the basic tool of the common customs policy (established with completion of the customs duties removal process between EU member states and the formation of customs union), and of free trade agreements concluded by the EU with third countries into force upon accession. On this basis, since Romania's accession to the EU, have ceased applicability of the Romanian Customs Tariff (RCT) and type of preferential trade arrangements concluded by Romania (Albania, Bosnia and Herzegovina, Serbia and Montenegro, Macedonia, Central European Free Trade Agreement - Bulgaria and Croatia, Moldova, Turkey and Israel and the EFTA members) [7].

CCT includes duties imposed under Most Favoured Nation (MFN), by exception preferential duties which represent reciprocal tariff concessions, established by preferential trade arrangements concluded the EU with third countries, which take

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the form of eliminating or reducing customs duties [5]. These concessions are in the interest of all involved in trade conducted on the basis of preferential customs regimes. The CCT shall apply uniformly throughout the EU, having a role in reducing trade distorting, through customs duties and avoid trade orientation depending on the lower level of customs duties in some countries, and to support the need to maintain control at the external border. CCT has two components: customs duties and tariff classification, targeting the Harmonized System Codes (HS Code) Commodity Classification and it has 10,241 items, grouped into 21 sections, 97 chapters plus two chapters reserved for using at national level and Combined Nomenclature (CN), including the Harmonized System, plus two assumptions, resulting in a detailed code, with eight digits, representing a total of 9500 positions [1].

On the other hand it is important to note that CN meet the trade and exports requirements of Community. The adoption by Romania of the EU's Common Customs Tariff has effects on our foreign trade according to the difference between import duties, in the two rates and the size and structure of trade between Romania and external trading partners [4]. Also, it must bear in mind that the duties of the CCT will decrease further as a result of the Doha Round of multilateral trade negotiations under World Trade Organization. The EU has consolidated all the tariff lines during negotiations, representing 99.6% duty imposed and strengthened the CCT. EU applies a variety of duties like as: ad valorem duties (which are 90.1%), specific and compound duties, joint customs duties (alternative taxes covering a minimum and a maximum) and variables duties (which vary in price, for example) [11]. I consider this multitude of duties requires a good knowledge of them by Romanian experts involved in the foundation and instrumentation of the country's trade policies.

## **2. THE IMPLICATIONS OF THE CCT ADOPTION ON IMPORTS OF GOODS**

Romania has applied in pre-accession period, only ad valorem duties and variable duties the latter being particularly applicable for agricultural products. For this reason, we believe that requires currently a further effort to review and appropriation new category of duty from the Romanian specialists which came into force along with Romania's EU accession [2]. In terms of distribution size of MFN duties applied by Romania and EU there were significant differences (see Table. 1) which also produced a number of effects on the Romanian economy after EU integration.

From Table 1. results the following significant issues:

- Customs positions, exempt from customs duties, held in RCT had a much lower proportion (10.8%) in all tariff positions than CCT (26%);
- In the CCT categories of duties more moderate (0-10%) have a much higher proportion of the total tariff positions (55.5%), than the RCT (24.5%);
- Tariff positions with higher custom duty (10-30%) had a much higher of the total tariff positions in RCT (56.2%) than in the CCT (13.8%).

The European Commission estimates that 75% of the Community trade shall be based on MFN. MFN regime applied by the EU which is now applying Romania as EU membership, aimed at MFN customs procedure, from nine countries WTO



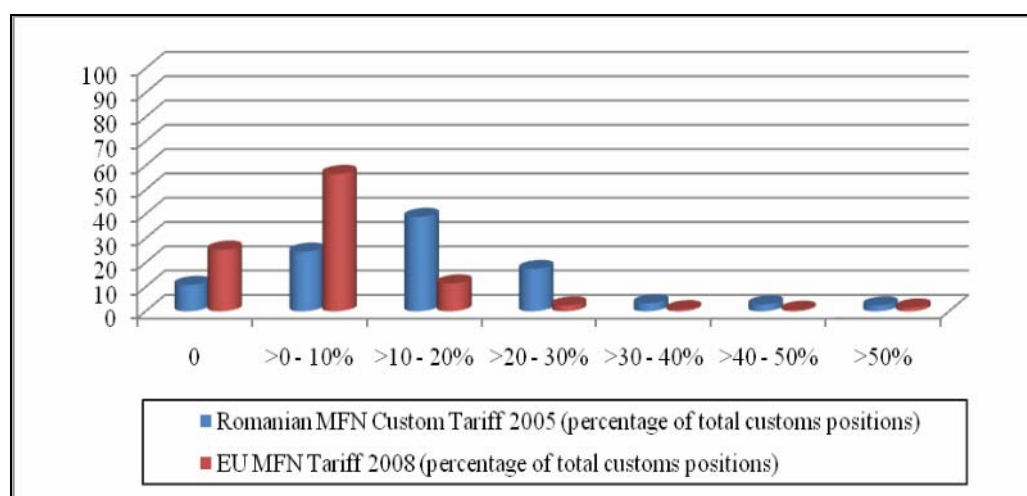
(Australia, Canada, Taiwan, Hong Kong, China, Japan, South Korea, New Zealand, Singapore and USA), the nine countries holding about 36% of trade in goods of the Union. The remaining 38% EU external trade on MFN basis are conducted by partners with whom the EU has concluded non-preferential bilateral trade agreements [6].

**Table 1. Distribution of Romania and EU MFN tariffs rates, 2005 and 2008**

The rate of custom tariff	Romanian MFN Custom Tariff, 2005* (percentage of total customs positions)	UE MFN Tariff 2008** (percentage of total customs positions)
Duty-free tariff rates	10,8	25,3
>0-10%	24,5	56,5
>10-20%	38,8	11,4
>20-30%	17,4	2,4
>30-40%	3,3	0,8
>40-50%	2,8	0,6
>50%	2,4	1,5

Source: Trade Policy Review, Romania, Report by the WTO Secretariat, 24 October 2005; Trade Policy Review, European Communities, Report by the WTO Secretariat 6-8 April 2009.

These issues are much more visible in Figure 1.



Source: Trade Policy Review, Romania, Report by the WTO Secretariat, 24 October 2005; Trade Policy Review, European Communities, Report by the WTO Secretariat, 6-8 April 2009

**Figure 1. Allocation of Romania and EU MFN tariffs rates, 2005 and 2008**

It is also important to note that preferential trade agreements concluded by the EU which currently applies by Romania cover the following preferential trade regimes with the third countries:

- a) reciprocal trade preferences which in their structure are included: association agreements, the EU single internal market extension agreements, customs union agreements, free trade agreements, the Agreement on the European Economic Area;

- b) non-reciprocal trade preferences which are essentially the following:
- ✓ based on partnership: the Cotonou Agreement between EU and 78 countries in Africa, Caribbean and Pacific (ACP) Euro-Mediterranean Partnership;
  - on the basis of cooperation: a new model is the cooperation agreements concluded in 1997-1998 with the Russian Federation, Ukraine, Moldova and other former CIS states, which is called the "Partnership and Cooperation Agreement [10].
  - autonomous preferential measures: Stabilization and Association Agreements, The Autonomous Trade Preferences (SPCA) for the Western Balkans, Generalized System of Preferences (GSP), Everything But Arms Initiative; The preferential treatment granted by the EU in 1963 "Overseas countries and territories.

In the same time we have to remark that in the pre-accession period Romania, have concluded preferential trade agreements with 38 partners: 25 EU countries, 4 EFTA Member States, 2 CEFTA member countries (Bulgaria and Croatia), 4 Western Balkan countries (Albania, Serbia and Montenegro Bosnia and Herzegovina, Macedonia), Israel, Moldova and Turkey [8].

Under these agreements, industrial products were generally exempt from customs duties, while for selected agricultural products to provide zero duty or reduced duty, often under tariff quotas. Also, Romania, under preferential trade agreements granted on a reciprocal, preferential customs duties for certain products originating in developing countries in the Global System of Trade Preferences and the Protocol of 16.

The grant of preferential treatment by Romania on the basis of preferential trade agreements concluded with the 38 partner countries was an important exam successfully promoted by Romania in adopting CCT that provide tariff treatment similar to that practiced by the EU trade relations with third countries. For agricultural products, is difficult to realize a comparison between the CCT and RCT. First, in addition to ad valorem customs duties applicable to agricultural products subject to other types of ad valorem equivalent taxes. On the other hand, the EU customs duties on agricultural products (which are the most protected in terms of customs) are significantly higher than in non-agricultural products. On agricultural products, the simple average of customs duties, calculated on the basis of MFN was in TVR of 27.9% (reaching up to 100% for some fruits and vegetables)[3], while in the CCT of 17.9%. In general, tariffs applied to agricultural products, which are not produced in the EU (eg coffee, tea, spices) are higher than those applied to products covered by CAP [9], (see table 2).

Although generally the application of CCT, on MFN clause in the import of agricultural products as a whole generates a clear reduction of custom protection for this category of products will be recorded increases of customs duties. For example, products from affected countries could be: live cattle, beef cattle and grain from Moldova, offal of animals in Canada, bananas from Cameroon, Colombia, Costa Rica, Ecuador, Honduras, Panama, rice from China, Egypt, Lebanon, Pakistan, Thailand, Chinese mushrooms, wheat flour in Moldova, Israel, United States, sugar in Brazil, Turkey, Cuba, milk and cream from Israel, Moldova, Brazil, vegetables and canned fruits from Turkey, food grain in Brazil, USA, sheep or goat meat from New Zealand, olive oil from Israel.

Table 2. MFN applied tariff - Simple Average in Romania and EU

Name	Number of lines <sup>a</sup>		Simple avg. tariff (%)	
	Romania (2005)	EU (2008)	Romania (in 2005)	EU (in 2008)
<b>Total by WTO definition<sup>b</sup></b>	<b>10,096</b>	<b>9,699</b>	<b>17.5</b>	<b>6.7</b>
<b>Agriculture</b>	<b>2,071</b>	<b>2,000</b>	<b>27.9</b>	<b>17.9</b>
Live animals and products thereof	331	323	28.8	24.3
Dairy products	160	151	37.2	35.2
Coffee and tea, cocoa, sugar, etc.	303	293	25.0	17.5
Cut flowers and plants	62	54	14.5	4.6
Fruit and vegetables	439	428	20.6	15.6
Grains	55	55	14.2	49.4
Oil seeds, fats, oils and their products	164	164	12.0	8.2
Beverages and spirits	274	271	50.3	17.6
Tobacco	30	30	50.3	28.6
Other agricultural products	253	231	26.4	7.2
<b>Total Industry</b>	<b>7,984</b>	<b>7,658</b>	<b>14.9</b>	<b>4.1</b>
Fish and fishery products	381	386	21.1	10.6
Mineral products, precious stones and precious metals	517	514	11.2	2.5
Metals	1,045	1,022	13.9	1.7
Chemicals and photographic supplies	1,396	1,396	13.5	4.4
Leather, rubber, footwear, and travel goods	291	285	16.6	4.8
Wood, pulp, paper and furniture	449	456	12.1	1.1
Textiles and clothing	1,272	1,234	22.2	8.0
Transport equipment	273	269	21.4	4.8
Non-electric machinery	1,033	932	11.6	1.7
Electric machinery	604	501	9.2	3.0
Non-agricultural articles	723	663	13.2	2.5

a. Total number of lines is listed. Tariff rates are based on a lower frequency (number of lines), since lines with no ad valorem equivalents may be excluded.

b. 41 tariff lines on petroleum products are not taken into account.

Source: Trade Policy Review, Romania, Report by the WTO Secretariat, 24 October 2005; Trade Policy Review, European Communities, Report by the WTO Secretariat, 6-8 April 2009.

For industrial products, comparison of the CCT and RCT is fairly easy to achieve, given that 99.6% of duties applied by the EU, on MFN were ad valorem duty, resulting in an easy understanding of the interferences and delimitations involving the two customs tariffs analyzed. On industrial products, the simple average of MFN applied duties of Romania was 14.9% and respectively 4.0%, of those applied by the EU as shown in table 2. A significant number of tariffs positions on industrial products of CTR and EU's CCT duties are exempted. As is known, the EU and Romania are participating in the WTO agreements on trade in civil aircraft and information technology. Under the provisions of those agreements are exempted from customs duties the products subject to their. Other products, especially raw materials also benefits, exemption from customs duties.

### 3. CONCLUSIONS

The adoption of common customs tariff on imports of agricultural and industrial products intra and extra Community involves not only customs duties to third parties, on most favoured nation clause, but also a preferential tariff granting to third countries with which EU has preferential trade agreements.

Although CCT application based on the most-favoured-nation clause at the importation of products from third countries into Romania was clearly diminished customs protection however must note some beneficial effects of reducing custom protection, such as: broadening the supply of quality goods and services, stimulate domestic producers to became more performance under competitive pressure, diversification of import sources.

Due to significant reduction of customs duties applied to imports of agricultural and industrial products from third countries, we can expect to rise the volume adequately to the most customs positions so that may occur adverse effects to those positions which show a significant market share. Also, the adoption by Romania of CCT will significantly reduce the customs protection against increased competition from at the vast majority imports of industrial products, which, on the one hand, will encourage increased imports, with negative effects on trade balance and, secondly, will negatively affect local producers, who have not made the necessary adjustments facing fierce competition on the EU single market.

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## **MODELS OF COSTS OPTIMIZATION IMPLEMENTED BY SPREADSHEETS SYSTEMS**

**CERASELA PÎRVU, ANCA MEHEDINȚU \***

**ABSTRACT:** *Starting from the importance and role of the information regarding the costs that characterize the decisional process, the purpose of this paper is to present the main tendencies registered in the evolution of the information technology in order to create the information systems that represent the support for the assistance of the managerial decision regarding the costs. The authors of this paper want to emphasize the moulding instruments, which are an essential part of the managerial process, knowing that mouldiness supposes problem conceptualization and abstraction into quantitative and/or qualitative shapes. At the end of our work we are going to present the results that we got by using Microsoft Excel Solver as an instrument in those problems regarding costs optimization. We have chosen this information instrument of optimization that generalizes the technique of value as a goal and offers more possibilities of simulation of some parameters that create an optimum situation.*

**KEY WORDS:** *cost management, information technologies, model, linear programming, spreadsheets systems*

### **1. MATHEMATICAL MODELS AND COSTS MANAGEMENT**

Cost is one of the most important synthetic indicators that characterizes economic activity and has a crucial role in ensuring the organizations' efficiency and competitiveness. Also, information on costs is an important tool for adjusting, orientation and optimization of the current and further activity and this happens because it occurs in all the activities of an organization.

In these circumstances, cost management plays an essential role in the management system of an organization because, through the cost calculation and results analysis, prepares the forecasts and the control of their achievement, analyzes and explains the irregularities and on this basis provides information and solutions for

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the board. Due to the essential role of information on costs in the management process, we believe that modeling is a part of the design of the information - decision-making system.

The success of this activity and the application into production of the developed models decisively depend upon the frame in which it takes place, namely the system analysis. This involves, first, a set of preparatory operations for carrying out the modeling work, and on the other hand some further operations. Only when the mathematical modeling of the economic phenomena, generally speaking, and of costs, in particular, is preceded by a thorough system analysis, and the obtained results are going to be a thorough basis for the decisions' substantiation.

The term "model" is an isomorphic representation of reality to which it creates an intuitive picture, but rigorous too, to show the logical structure of the studied phenomenon. The purpose of modeling economic processes is the discovery of some links that should be legitimate and which, by other means would be very hard to find, or even impossible. The models used to solve some economic problems, which have taken a mathematical formulation, suppose following the steps of a coherent succession of logical operations called algorithms.

Using the specific algorithms of the constructed model leads to the obtaining of a solution, which will be analyzed in economic terms and will serve as the basis for decisions' substantiation. For this an algorithm must have the following properties:

- Coherent instructions - assumes that the result of an instruction to be retrieved by the following instructions;
- Universality – requires the algorithm to ensure the processing of a large number of the types of problems;
- Timeness - refers to the time of obtaining the results that should be as small as possible;
- Determinism - requires obtaining a solution with the exception of probabilistic algorithms and the fuzzy (vague) ones;

Economic theory and practice have resulted in economic need for extremely varied models. They can be systematized and analyzed by several criteria.

Thus, mathematical models that are part of the abstract models, namely abstract quantitative models are exclusively based upon customized mathematical functions (economic models). They may be:

- Deterministic models, based on the application of general laws (postulated that characterize that field in a very general way) leading customized mathematical functions. In these cases random variables are not involved;
- Statistical models that assume the existence of at least a relationship derived from the statistical processing of experimental data;
- Stochastic models, meaning the use of random variables in order to describe how the system works. They seek to determine the parameters of static output quantities. Relations thus obtained are considered probabilistic;
- Fuzzy (vague) models, usually reflect a certain property of the studied system, allowing the establishment of the degree of belonging to a certain property;
- Mixed models when we want to notice the use of random variables in order to describe the relations of that system, aiming, on the one hand, determination of

stochastic parameters of the output quantities and on the other hand, the mathematical functions.

After the nature of mathematical relations which describe the system's links, models can be linear and nonlinear.

Linear models are the easiest way of approximation of the economic relations due to the fact that both the restrictions and duties are of the 1st degree. The most often used example concerns the linear programming because onto the models which are resolved we can find those relating to costs, that's the reason why we give it our entire attention.

Nonlinear models have as characteristic the fact that both the restrictions and the object function have a higher degree. For example, the square patterns in which the constraints or the object function are of the 2nd degree.

Depending on how the time factor is or not taken into account, there are static and dynamic models. Static models are based on functions whose parameters are independent of the time factor. Decisions based on the solutions offered by these models are valid for a short period of time, but they may be subsequently updated.

Dynamic models are better suited for the most economic phenomena, approximating in a better way reality. They are characterized by time functions.

These patterns can be stable when after a disturbance, the response of a system tends to be either to the initial condition, either to a defined state (for example - to adjust prices to meet the conditions of profit) or unstable when successive states of an element, at least, are represented by a string of numbers that grows unbounded.

Cost management models and records economic flows, but these operations matter only when they address to the managers and they use them in their decision making process. Once we've identified cost flows there must be a network analysis of the expenses contained within the structure, describing the relations which exist between them and finality.

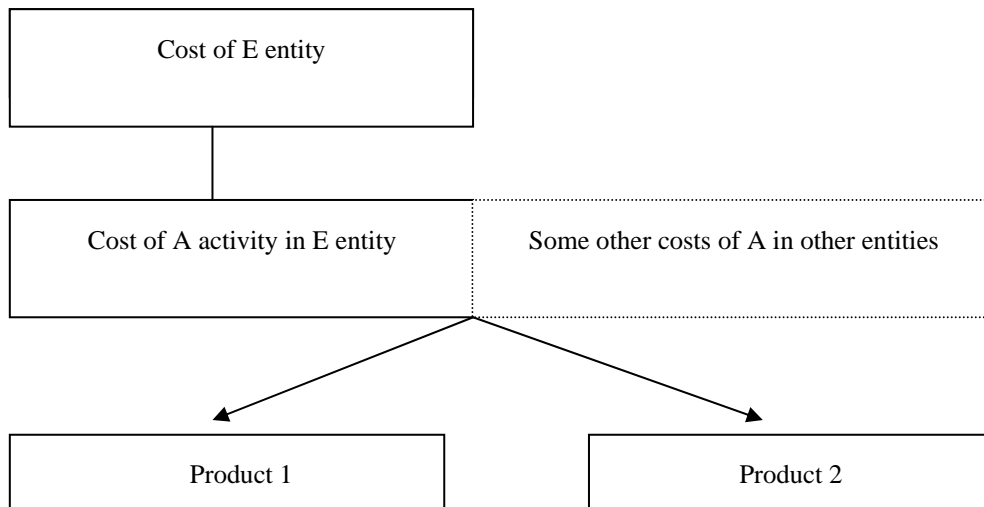
The first step in the network analysis is the distribution of costs between the incorporated entities, after which it will seek the allocation of their activities and products.

These steps are not difficult to be followed if several conditions are fulfilled namely:

- entities have their own means;
- each entity pursues only one activity;
- any of these activities provided by each entity, also has its own means;
- an activity concerns only one product;
- accounting system for recording consumption expenditure allows costs knowledge without ambiguity.

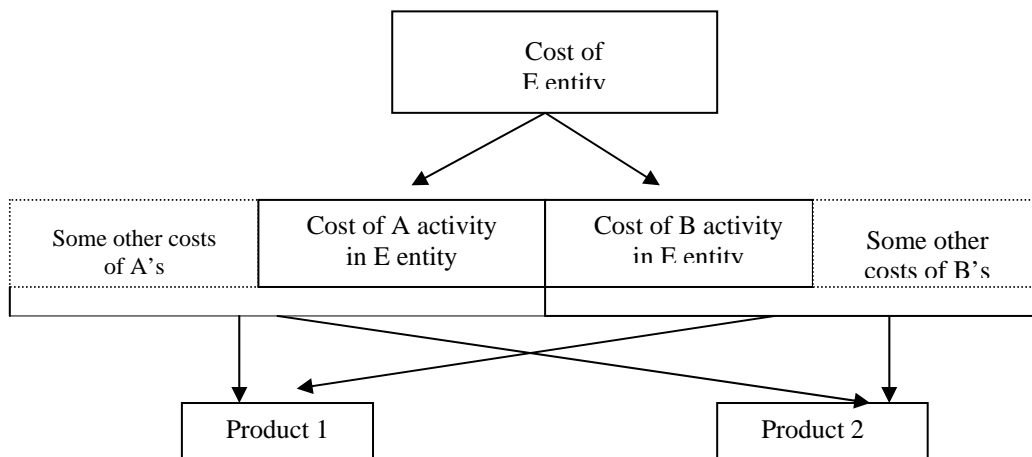
If a certain entity E provides only one activity A, the cost of such activity within the entity is known as soon as the entity's cost is unknown. But it is possible that this activity A results some other costs in other entities too, which emerges from the figure 1.

In this case we must model the cost of A activity, the distributed between the first and second product, due to which it can be acted upon it.



**Figure 1. First graph**

If an entity provides more activities, the first problem that appears is to identify the cost of each of them. When each activity can be driven by its own means (personnel or specialized equipment for the A or B activity) knowing the cost is basically simple. When such means are common (e.g. staff attendance of several activities of the entity) we encounter the modeling problem having the same nature as the previous one, but which involves two steps: modeling the cost of the E entity in order that this should be attributable to the activities, and the modeling of each activity's cost. The figure 2 shows schematically the following situation:



**Figure 2. The second graph**

Therefore, to model the entities' costs, the first phase is the allocation of consumption that they generate, after which it can be sought for the identification of



economic laws which are followed by the costs of the activities produced by the entities. It should be noted that this crucial phase for costs knowledge and mastery raise certain risks. In the attempt to identify them we encounter the issue of costs treatment by grouping them into fixed and variable ones.

In this context, **in order to develop a mathematical model applicable in the field of economic management, we must follow the next steps.**

1. Knowing the depth of the body is a preparatory nature, dominated by information-specific decision-making methodology, which involves first of all the knowledge of the system objectives and the description of the logic decisional processes.
2. Develop proper application of the model assumes the use of a classic modeling tool that should be in a maximum correlation with reality. If this correlation can not be achieved, it can be used either a combination of classical models, or a new model.
3. The model that has been developed facing practice reality and being experimented too;
4. Use of the developed models.

Mathematical modeling seeks, in fact, the determination of certain solutions as much as close to optimal level or even of optimal solutions using:

- Optimization process which involves obtaining the best solution in terms of a specific criterion precisely formulated. In this case, the lack of a better solution, means that the error is zero;
- Heuristic methods which involve the obtaining of some good solutions without claiming that these are the optimum. In these situations it can not be estimated the deviation from the optimum and therefore the error can not be controlled;
- Approximative processes which involve obtaining some solutions close to the optimal solution by means of some successive iteration. In this case the error can be controlled.

Economic and mathematical models applied in the company's activity have as an object the reproduction of some properties of the modeled system (descriptive models) or are models that are to be used for the implementation of some efficient decision rules (normative models). In the most economic-mathematical models descriptive side combines with the normative one.

## **2. MODELING THROUGH LINEAR PROGRAMMING**

Linear programming includes those methods used to solve problems whose model is composed of a system of linear restrictions and an objective function, also linear.

Linear programming problem takes the form of a system of linear equations that characterize an economic process or phenomenon.

Suppose that a company manufactures  $m$  products  $P_1, P_2, \dots, P_m$ , for which  $n$  resources are used  $R_1, R_2, \dots, R_n$  (raw materials, fuel, energy, labor, etc.).

Producing a unit of  $P_i$  product implies a consumption " $a_{ij}$ " of  $R_j$  resource ( $i=1, \dots, m; j=1, \dots, n$ ). These consumptions " $a_{ij}$ " are known in the literature as technical factors.

Prices for a unit from the resource  $R_j$   $P_{rj}$  ( $j = \overline{1, n}$ ). The company has planned to produce from each product quantities  $q_i$  ( $i = \overline{1, m}$ ), corresponding to the order received.

Data presented can be systematized in a table form (Table 1):

Table 1

<b>P / R</b>	<b>R<sub>1</sub></b>	<b>R<sub>2</sub></b>	<b>..</b>	<b>R<sub>j</sub></b>	<b>..</b>	<b>R<sub>n</sub></b>	<b>Quantities planned according to the order</b>
<b>P<sub>1</sub></b>	$a_{11}$	$a_{12}$	..	$a_{1j}$	..	$a_{1n}$	$q_1$
<b>P<sub>2</sub></b>	$a_{21}$	$a_{22}$	..	$a_{2j}$	..	$a_{2n}$	$q_2$
:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:
<b>P<sub>l</sub></b>	$a_{l1}$	$a_{l2}$	..	$a_{lj}$	..	$a_{ln}$	$q_l$
:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:
<b>P<sub>m</sub></b>	$a_{m1}$	$a_{m2}$	..	$a_{mj}$	..	$a_{mn}$	$q_m$
<b>The price of R<sub>j</sub> resources</b>	$pr_1$	$pr_2$	..	$pr_j$	..	$pr_n$	

By using the dot-matrix technology, the company's managers can express the following matrix elements:

- technical coefficients (in line with the products and resources in columns);
- price of consumed resources;
- unit cost of products;
- total consumption for the issued order (for the quantities planned to be produced);
- total cost for each product from the issued order;
- overall cost analysis

The following matrices are going to be used:

- technical coefficients matrix

Table 2

	<b>R<sub>1</sub></b>	<b>R<sub>2</sub></b>	<b>..</b>	<b>R<sub>j</sub></b>	<b>..</b>	<b>R<sub>n</sub></b>	
	$a_{11}$	$a_{12}$	..	$a_{1j}$	..	$a_{1n}$	$P_1$
	$a_{21}$	$a_{22}$	..	$a_{2j}$	..	$a_{2n}$	$P_2$
	:	:	:	:	:	:	:
<b>A=</b>	:	:	:	:	:	:	:
	$a_{l1}$	$a_{l2}$	..	$a_{lj}$	..	$a_{ln}$	$P_l$
	:	:	:	:	:	:	:
	:	:	:	:	:	:	:
	$a_{m1}$	$a_{m2}$	..	$a_{mj}$	..	$A_{mn}$	$P_m$

- vector (matrix column) unit price of each resource:

$$p = \begin{bmatrix} p_{r1} \\ p_{r2} \\ \vdots \\ p_{rm} \end{bmatrix}$$

With these two matrices can be calculated the unit vector cost of the products

Pm. Note:

$$C_u = \begin{bmatrix} C_{u1} \\ C_{u2} \\ \vdots \\ C_{un} \end{bmatrix} \text{ then}$$

$$C_u = \begin{bmatrix} C_{u1} \\ C_{u2} \\ \vdots \\ C_{un} \end{bmatrix} = A \times P = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \dots & \dots & \dots & \dots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{bmatrix} \times \begin{bmatrix} p_{r1} \\ p_{r2} \\ \vdots \\ p_{rm} \end{bmatrix}$$

The matrix contained into the order (quantities planned to be produced from each product Pi):

$$Q = [q_1 \quad q_2 \quad \dots \quad q_m]$$

By the help of this matrix and of the matrix of technical coefficients we can express resource consumption matrix for order execution. Noting this matrix  $M_r$  we have:

$$M_r = \begin{bmatrix} m_{r1} \\ m_{r2} \\ \vdots \\ m_{rm} \end{bmatrix} \text{ then}$$

$$M_r = \begin{bmatrix} m_{r1} \\ m_{r2} \\ \vdots \\ m_{rm} \end{bmatrix} = Q \times A = [q_1 \quad q_2 \quad \dots \quad q_m] \times \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \dots & \dots & \dots & \dots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{bmatrix}$$

Starting from the matrix Q we build square matrix Qd (which is diagonally q1, q2, .. qm, and the remaining elements are 0):

$$Q_d = \begin{bmatrix} q_1 & 0 & \dots & 0 \\ 0 & q_2 & \dots & 0 \\ \dots & \dots & \dots & \dots \\ 0 & 0 & \dots & q_m \end{bmatrix}$$

Multiplying this matrix by the unit costs' matrix we get the total costs' matrix for each product from the order.

Note:

$$C_p = \begin{bmatrix} C_{p1} \\ C_{p2} \\ \vdots \\ C_{pm} \end{bmatrix} \text{ the total cost matrix of each product.}$$

Then:

$$C_p = \begin{bmatrix} C_{p1} \\ C_{p2} \\ \vdots \\ C_{pm} \end{bmatrix} = \begin{bmatrix} q_1 & 0 & \dots & 0 \\ 0 & q_2 & \dots & 0 \\ \dots & \dots & \dots & \dots \\ 0 & 0 & \dots & q_m \end{bmatrix} \times \begin{bmatrix} C_{u1} \\ C_{u2} \\ \vdots \\ C_{un} \end{bmatrix} \text{ or } C_p = Q_d \times C_u.$$

Knowing the total cost of each product we can determine the total cost of the order which we note with  $C_{tc}$ . So,

$$C_{tc} = [1 \quad 1 \quad 1 \dots \quad 1] \times \begin{bmatrix} C_{p1} \\ C_{p2} \\ \vdots \\ C_{pm} \end{bmatrix} \text{ or } C_{tc} = [1 \quad 1 \quad 1 \dots \quad 1] \times C_p$$

We get to the same result if we multiply the unit resources' prices by the quantities of the resources used for the order, i.e. matrixes product:  $P(Q \times A) = C_{tc}$ .

In the previous examples unit and total costs have been determined and without imposing restrictions on the resources needed (i.e. it was assumed that the company has unlimited resources whose cost they can pay) and it was also considered that there is a firm command of products of the type of P1, P2, Pm ..

These cases are ideal but rarely encountered. Companies are often faced with situations in which their resources are limited, the market study shows that the demand for certain products is limited or the maintaining business relations with certain partners requires the production of some products which, although they are not very profitable, it's necessary.

If the company can get the same products with the same resources and the same technical coefficients (the above examples) but without a firm command and has limited resources (in whole or just in part) we encounter the issue of determining an optimal production plan for the purposes of determining the quantities that are to be made of each product, based upon the available resources so that the production costs should be minimal.

Under these conditions, the model presented in Section 2, the quantities  $q_i$  ( $i = \overline{1, m}$ ) from the products  $P_i$  ( $i = \overline{1, m}$ ) are no longer aprioristic determined, but they are to be determined so that manufacturing costs should be minimal.

Being unknown to us we will note them this time with  $x_i$  ( $i = \overline{1, m}$ ) and matrix  $Q = (q_1 \ q_2 \ \dots \ q_i \ \dots \ q_m)$  is replaced by matrix  $X = (x_1 \ x_2 \ \dots \ x_i \ \dots \ x_m)$  which is the size of a series of products introduced into manufacturing at a time.

Matrix costs of each product is going to be:

$$C_p = \begin{pmatrix} C_{p1} \\ C_{p2} \\ \vdots \\ C_{pi} \\ \vdots \\ C_{pm} \end{pmatrix} = \begin{pmatrix} x_1 & 0 & \dots & 0 & \dots & 0 \\ 0 & x_2 & \dots & 0 & \dots & 0 \\ \dots & \dots & \dots & \dots & \dots & \dots \\ 0 & 0 & \dots & x_i & \dots & 0 \\ \dots & \dots & \dots & \dots & \dots & \dots \\ 0 & 0 & \dots & 0 & \dots & x_m \end{pmatrix} X \begin{pmatrix} C_{u1} \\ C_{u2} \\ \vdots \\ C_{ui} \\ \vdots \\ C_{um} \end{pmatrix} = \begin{pmatrix} x_1 C_{u1} \\ x_2 C_{u2} \\ \vdots \\ x_i C_{ui} \\ \vdots \\ x_m C_{um} \end{pmatrix}$$

and the total cost of a series formed by the quantities  $x_1, x_2 \dots x_i \dots x_m$  from the products  $P_1, P_2 \dots P_i \dots P_m$  is:

$$C_{ts} = \sum_{i=1}^m x_i C_{ui} \Leftrightarrow C_{ts} = XC_u$$

This cost should be minimized.

Also, resources being limited, it follows that the matrix's elements that mean their consumption for each series is limited.

If  $b_1, b_2 \dots b_j \dots b_n$  is the maximum level allowed to be available from each resource and  $R_j$  and we note:

$$B = \begin{pmatrix} b_1 \\ b_2 \\ \vdots \\ b_j \\ \vdots \\ b_n \end{pmatrix}$$

and the calculation in place of Mr Q's introduce the matrix X, then we obtain the restriction system:

$$\overline{M}_r \leq B$$

where  $\overline{M}_r = XA$  (A being the matrix of the technical coefficients)

As the quantities  $x_i$  ( $i = \overline{1, m}$ ) can not be negated  $\Rightarrow x_i \geq 0$  ( $i = \overline{1, m}$ ) i.e. for matrix X we have the condition  $X \geq 0$

Therefore we have the following problem:

$$(P) \begin{cases} \min f(x) = XC_u \\ XA \leq B \\ X \geq 0 \end{cases}$$

which is a problem of linear programming.

Problem (P) dot-matrix written above can be presented analytically as follows:

$$\begin{array}{l}
 \min f = x_1 C_{u1} + x_2 C_{u2} + \dots + x_m C_{um} \\
 \left\{ \begin{array}{l}
 a_{11}x_1 + a_{21}x_2 + \dots + a_{m1}x_m \leq b_1 \\
 a_{12}x_1 + a_{22}x_2 + \dots + a_{m2}x_m \leq b_2 \\
 \dots\dots\dots \\
 a_{1i}x_1 + a_{2i}x_2 + \dots + a_{mi}x_m \leq b_i \\
 \dots\dots\dots \\
 a_{1n}x_1 + a_{2n}x_2 + \dots + a_{mn}x_m \leq b_n
 \end{array} \right. \\
 x_i \geq 0, i = \overline{1, m}
 \end{array}
 \quad (P)$$

### 3. INFORMATION TECHNOLOGIES USED FOR MODELING

Currently, information technologies used for modeling enjoy major changes regarding the way in which managers can use computer systems as the support for decision-making process: more and more computers are connected on the network, so that decision support systems can quickly become used goods jointly by the entire organization, organizations can now easily use the Intranet and Internet networks offering high-performance applications to the makers from any point on earth, many organizations develop distributed systems, intranets and extranets, which allow both easy access to data stored in multiple places, and collaboration and cooperation with the whole world; integrated systems are made which exceed even then organization's frame. Managers can make better decisions because they have more precise information.

The type of decision support systems can create interactive interfaces that allow the users to view and process data and models with standard Web browsers by great flexibility, efficiency and ease. Communication between managers and computer and Web can be achieved through a great variety of tools, including cell phones. With these tools, managers can use information and important systems and can cooperate one to the other.

Data Warehouses - and their analytical tools such as Data Mining and Online Analytical Processing (OLAP) have substantially improved access to information within organizations. Support for group decisions continues to improve due to great development and in this way they allow group work at any time and any place. Methods of artificial intelligence help to improve the quality of the decision and they are embedded in many applications: from household appliances to the Web's search engines. Intelligent agents can be used for routine activities, which allows to the makers to devote more time to important activities.

The development of the organizations that learn and knowledge management provide the expertise of the entire organization in order to solve problems anytime and from any place.

A major feature of decision support systems is that they contain at least one model. The basic idea is that the analysis of decision making for the selection of decisional alternatives should be performed on a real model and not on a real system.

### 3.1. Trends in the evolution of information technologies for modeling

We will now present the main trends in the evolution of information technologies for the systems' accomplishment for the management decision support by pointing out the modeling tools that is an essential part of managerial decision-making process.

There are several software products that create and update charts of influence, i.e. a graphic representation of a model which can be used for a model's design, development and understanding. They serve as a framework for expressing the precise nature of the model's relationship and so they help to eliminating elements that are not needed or are not important to be included in the calculation relations.

The most representative are considered to be the following:

- **Analytics performed** by Lumina Decision Systems, Los Altos, CA. Analytics allows the user to describe the model by large blocks representing sub-models of the original model and shows how these blocks affect the model's important outcomes. Each block can then be disaggregated to obtain a more detailed model. Finally, at the last level of decomposition, the variables are assigned values and the problem is solved.
- **DecisionPro** made by Vanguard Software Corporation, Cary, NC. DecisionPro incorporates multiple modeling techniques: linear programming, Monte Carlo simulation, decision trees. After one influence diagram model develop, the model can be solved directly without the need to convert it by a special tool.
- **DATA Decision Analysis Software** developed by TreeAgc Software Inc., Williamstown, MA. DATA include influence diagrams, decision trees, simulation models etc.
- **Definitive Scenario** of the Definitive Software Inc., Broomfield. CS'company. Scenario creates influence diagrams that can be integrated into Excel spreadsheets. Also, these charts allow the direct application of the Monte Carlo method to generate the random variables values.
- **PrecisionTree** made by Palisades Corporation., Newfield, NY. PrecisionTree create influence diagrams and decision trees directly into Excel spreadsheets.

For the models' construction and implementation there are available many other systems from software programming languages for the third generation, fourth and fifth to the CASE systems (computer - aided systems engineering) that can automatically generate software. Next we are going to refer to the type of spreadsheet (spreadsheets) systems which are the most popular modeling tools for the final users.

Due to the ease that can be used, many applications in economics, technical, mathematics and other sciences are built on systems of spreadsheets. The best known systems of this type are Microsoft Excel and Lotus 1-2-3.

The current trend is to extend as many applications as possible that can be achieved with the type spreadsheets systems. Thus, to solve specific classes of models instruments of "add-ins" were created, such as for example:

- **Solver** developed by Frontline Systems Inc., Incline Village, NV, for linear and non-linear optimization;

- **@ Risk** performed by Palisades Corporation, Newfield. NY, for risk analysis by simulation.

Due to intense competition in the software market, the best "add-ins" have been directly incorporated into the latest versions of spreadsheets. That happened to Solver, which was incorporated in Excel.

The spreadsheets system types have become important analysis, planning and modeling tools, because they incorporate a range of financial, statistical, mathematical, functions generating random numbers, etc..

Most systems have interfaces which assure the connection with various databases and other modeling techniques: expert systems, optimization and simulation systems etc.

The spreadsheets system types were developed primarily for personal computers, but they can be executed on large computing systems too. The spreadsheets system types underlying multidimensional spreadsheets systems and OLAP tools.

We will now present the Solver component of the Microsoft Excel program that allows the implementation of some mathematical models used to optimize costs. This component is launched from the Tools sub-menu. If it does not appear in Tools, then to install the Add-Ins select Solver Add-in and then click OK button.

This very strong analysis element uses multiple variables and restrictions which are adjusted to find the optimal solution to solve a problem. Also one can solve:

- problems with obtaining extreme values of some functions.
- problems of linear and non-linear programming.
- problems in programming into the multitude of whole numbers.

The most famous problems in the economy are those that regard **optimization**.

They consist of an **objective function** that should reach an optimum (**minimum or maximum**) and of some **restrictions** (natural limitations of the existing resources: for example, buying products at a time is limited by the amount considered available, manufacturing products is limited by the amount of raw materials held). All the variables involved must be numerically quantified.

This very strong analysis element uses multiple variables and restrictions which are adjusted to find the optimal solution to solve this problem.

### 3.2. Case study. Problem of cost optimization

The problem's goal is to minimize production costs into a company with productive activity, so as not to exceed the budget given for a planned production.

Data can be structured in an Excel spreadsheet with the following structure (Fig. 3):

	A	B	C	D	E	F	G	H	I	J
1		R1	R2	R3	R4	R5	Cu/P	Budget	Q	Ct
2	P1	0.01	16.00	0.32	3.50	21.00	1648889.76	0.00	0.00	0.00
3	P2	0.02	12.00	0.50	3.00	30.00	1398009.00	0.00	0.00	0.00
4	pr	95000.00	85000.00	41218.00	18500.00	10000.00				0.00

Figure 3. Spreadsheet with optimization calculation



where:

**Table 3. The meaning of the spreadsheet's elements**

<b>P</b>	Products that are being made
<b>R</b>	Resources used according to the fabrication technologies
<b>pr</b>	Resources' price
<b>Cu/P</b>	Unit cost of each product (e.g. for P <sub>1</sub> product =B2*B4+C2*C4+D2*D4+E2*E4+F2*F4)
<b>Budget</b>	budget per product depending on the quantities planned to be produced (e.g. for P <sub>1</sub> product =B2*I2+C2*I2+D2*I2+E2*I2+F2*I2)
<b>Q</b>	Quantities planned to be made
<b>Ct</b>	Total cost per product (e.g. for P <sub>1</sub> =G2*I2)

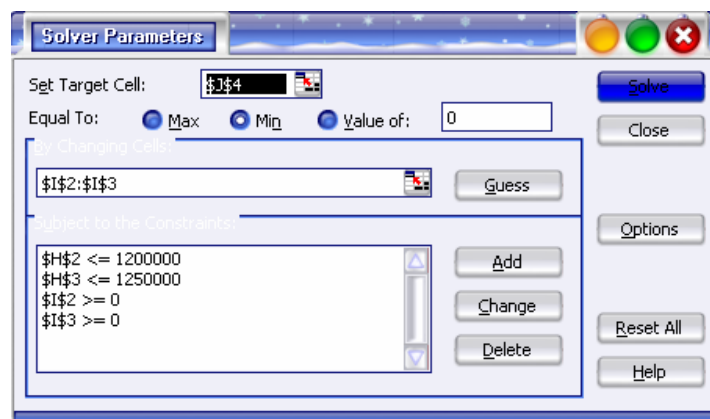
**Objective function** is placed in J4 cell and represents the optimal cost of production for a planned production.

In addition the following restrictions are known:

- the budget for P1 is of 120,000 for a planned quantity.
- the budget for P2 is of 130,000 for a planned quantity.
- the amount planned for P1  $0 \geq$ .
- the amount planned for P2  $0 \geq$ .

To determine the optimal total cost, the variables that must be determined are the planned quantities that should be made of each product.

We will use from the TOOLS menu the option Solver. The window with the name Solver Parameters will open (Fig. 4).



**Figure 4. Solver Parameters window**

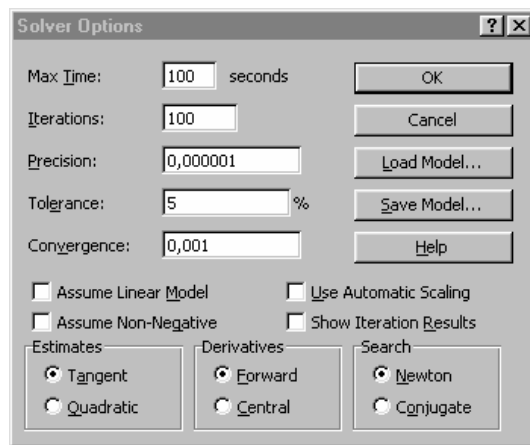
Cell target (Set Target cell) is the total cost, on the min. option.

**Specifying variables (By changing cells)** are the amount planned to be produced (Q).

**Specifying restrictions:** One push the button Add from Solver Parameters and the window Add constraint is obtained.

Restrictions will be written and click Add in order to write the next restriction or OK to return to the Solver Parameters.

After creating all the restrictions, they appear alphabetically in the Solver Parameters window.



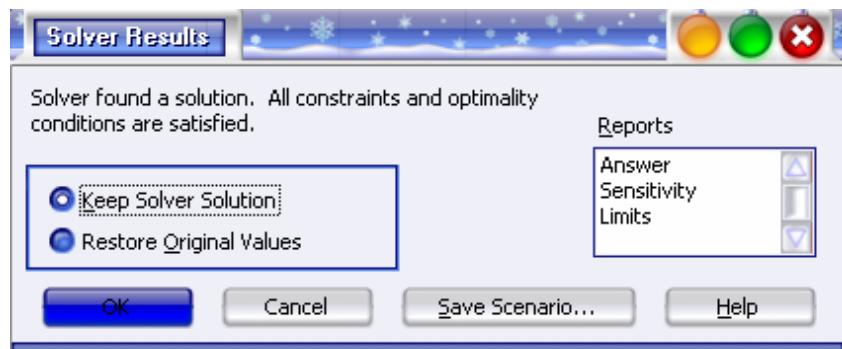
The user can use the following work options (Fig.5):

1. Max Time and Iterations: establish working conditions. If one of them is reached, iteration stops. For routine cases, default values are sufficient.
2. If accuracy increases over the default, working time increases too.
3. Tolerance applies only to full numerical solutions and the it represents the error percentage which is upheld against the exact solution.

**Figure 5. Work Options**

4. Estimates, Derivates, Search - using default forms. It refers to linear optimization techniques.
5. Assume Linear Model – allows a faster solving of linear problems.
6. Show Iteration Results – allows the operation of several combinations of variables, not only to that one leading to the optimal solution.

By pressing **Solve** from the Solver Parameters window we obtain Solver Results window (Fig.6).



**Figure 6. Solver Results Window**

From the Solver Results window the user must specify if he wants all those three reports that the solver provides to solve.

The significance of the information of those three reports is:

1. **Answer Report** shows:
  - the initial and final value, for the current values of variables for the objective obtained function;
  - initial and final values for variables (the problem’s unknowns);
  - restrictions’ values for the final values of the variables.
2. **Sensitivity Report** presents the final values of the unknowns and of Lagrange’s multipliers.
3. **Limits Report** presents the objective function’s value and the interval in which an unknown can vary; the other ones remain unchanged, without changing the value of the objective function.

If the case of the analyzed problem Limits Reports window is (Fig.7):

	A	B	C	D	E	F	G	H	I	J
1	<b>Microsoft Excel 11.0 Limits Report</b>									
2	<b>Worksheet: [costuri1.xls]Limits Report 1</b>									
3	<b>Report Created: 26/04/2009 01:42:26</b>									
4										
5										
6	<b>Target</b>									
7	<b>Cell Name</b>		<b>Value</b>							
8	\$J\$4 pr Ct		0.00							
9										
10										
11	<b>Adjustable</b>				<b>Lower Target</b>		<b>Upper Target</b>			
12	<b>Cell Name</b>		<b>Value</b>		<b>Limit Result</b>		<b>Limit Result</b>			
13	\$I\$2 P1 Q		0.00		0.00 0.00		29,390 48,461,124,467			
14	\$I\$3 P2 Q		0.00		0.00 0.00		27,460 38,389,965,949			

**Figure 7. Limits Reports window**

The result is:

- Q1 = 29,390 (the amount to be produced from P1)
- Q2 = 27,460 (the amount to be produced from P2)
- Ct for P1 = 48461124467 (total cost P1)
- Ct = 38389965949 for P2 (P2 total cost).

In conclusion, the optimal total cost will be 86851090416.

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**THE TITLE OF THE PAPER WILL BE WRITTEN WITH CAPITAL LETTERS, CENTERED, TIMES NEW ROMAN, 14 POINTS, BOLD**

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**THE FIRST NAME AND THE FAMILY NAME will be written with capital letters, bold, centred, Times New Roman, 12 points**, being followed by asterisks, and in the footnote *the didactic and scientific degree, the position and place of work of the authors e-mail* are indicated (italics, TNR, 10 points) \*

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\* Prof., Ph.D., University of Petroșani, Romania, [e-mail](mailto:)

and references. Between the last line before the title and the title of the chapter and between the title and the first next line a blank line is left for each.

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The mathematical equations will be Times New Roman, 11 points, centred and numbered on the right with Arabic numbers between round brackets.

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$$X^2 + Y^2 = Z^2 \quad (1)$$

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Figures and tables should be enclosed in the text in the order of their presentation, as possible on the page where reference is made to them. They shall be numbered with Arabic numbers. Black and white, high contrast figures are recommended. Both the number and the explanations to the figure/table are written with Times New Roman, 10 points, bold, centred. The table entries will be Times New Roman, 10 points, bold, and the data in the table will be Times New Roman, 10 points.

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