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Challenges into the Actual Global Context

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SUSTAINIBILITY ASPECTS OF PROPERTY VALUATIONS

Ion ANGHEL
Bucharest Academy of Economic Studies
Muler ONOFREI
Country Manager Romania, Goodman

Abstract. *Sustainable behaviour and responsible business practices are increasingly seen as a precondition for achieving better investment returns. In this context the valuer profession needs to address theoretical and practical issues relating to the inclusion of sustainability aspects into assesments of market value and worth for commercial and residential buildings.*

Keywords: Sustainable design; Property; Asset valuation; Social responsibility; Sustainability criteria.

I. Sustainability – a real concern for property industry

The perception of property as a commodity is changing to emphasise sustainable design features and performance characteristics as important determinants of a property's value, thereby requiring new ways of assessing worth and value. Private and corporate market participants are becoming more aware and informed of the quality and performance of the space they use and occupy. Furthermore, poor environmental and social performance is increasingly being seen as an investment risk and a change in investment paradigms can be observed. Certain investors no longer see a conflict between acting sustainably and making profit. Even more, sustainable behaviour and responsible business practices are increasingly seen as a precondition for achieving better investment returns. Therefore, the necessity to implement the principles of sustainable development in the property sector and to offer socially responsible property investment products and associated consulting and valuation services does not only result from the property industry's huge responsibility to society at large but also addresses the industry's need to safeguard and increase competitiveness and long-term profit.

Within the process of property investment decision making, increasing attention is being given to the relationship between property valuation, risk analyses and financing and the growing interest and responsibility that the property industry is taking towards society and the environment. The property industry is also becoming aware of the need to actively communicate this attitude to the wider public, as well as seeing the increasing demand for property assets and investment opportunities that are in compliance with the principles of sustainable development or that follow ethical maxims as a major opportunity. The growing acceptance of social responsibility by organisations, corporations and other actors impacts on both investment, planning and financing processes as well as on the demand for and the provisioning of products (e.g. buildings, property investment products, financing and insurance products).

The main reasons for immediately and rigorously integrating sustainability issues into property valuation are as follows:

- more sustainable patterns of behaviour are urgently necessary to sustain the viability of the Earth's ecosystems;
- a huge untapped market potential exists for sustainable property investment products and consulting services;
- sustainable buildings clearly outperform their conventional competitors in all relevant areas (environmentally, socially and financially);
- neglecting the benefits of sustainable design leads to distorted price estimates;

- reflecting sustainability issues in property price estimates is already possible and the validity of this decision depends solely on the valuer's capability and sophistication to explain and justify his/her assumptions within the valuation report.

Professional bodies have increasingly realised that sustainable development is not only a key issue for their work but also has implications for the wider relationship between professionals and society. This is particularly the case for the built environment professions, where buildings have a major impact in environmental, economic and social terms (United Nations Environment Programme, 2007). To take one example, buildings are major emitters of carbon, which contributes to global warming: for example, if all the energy used in constructing, occupying and operating buildings is combined then buildings are responsible for 50 per cent of carbon emissions in the UK (Building Research Establishment, 2003). This is also a broader global issue, with the built environment a major contributor to global environmental issues, and with consequent impacts on the natural environment.

Activities and developments concerning Socially Responsible Investment and Socially Responsible Property Investment are driven by and closely linked to the efforts undertaken by the global community to achieve more sustainable development. Sustainable development means development that meets the needs of the present without comprising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987). While sustainability is usually interpreted today as the overarching goal or target of having a durable balance between the economy, environment and society, sustainable development means an ongoing process directed towards achieving this goal. In this context, taking responsibility towards society and the environment can be seen as a precondition and measure for implementing the principles of sustainable development, and socially responsible investment represents a major instrument in this regard.

One key justification for seeking to encourage action in the property and construction sector is that no other sector has such a great potential role in contributing to sustainable development. For this reason, buildings and the property and construction sector have been termed the „cornerstone of sustainability" (Organization for Economic Co-operation and Development, 2003)

II. The reasoning for integrating sustainability aspects into property valuation

Property valuation and the services that property valuers provide are critical for the functioning of property markets, interconnected financial markets as well as of national economies. Poor property valuation has a domino effect and can lead to corporate financial crises, which can in return result in severe crisis within national economies. Property valuers are „the independent axis around which property information flows. They touch every aspect of development from feasibility studies in the beginning of a project to the determination of value when an asset is to be taken by the government or destroyed to make way for new growth" (Motta and Endsley, 2003, p. 8).

The basic goal of property valuation is to provide a monetary measure of the utility derived through the access to and control of property. The value of property is determined through the flow of services it is capable to provide for the satisfaction of human needs; i.e. the increment in well-being dependent upon it, or – what is the same – the impairment of well-being that its loss must bring about. Since property prices cannot be observed in the marketplace as is the case with the prices of stocks and bonds or other regularly traded homogenous goods, property valuation involves a comparison of past prices (i.e. exchange ratios between money and property) of more or less comparable property assets. But whenever property valuers compare prices they need to bear in mind that prices are social phenomena brought about by the interplay of constellations of price-determining factors. And there is nothing constant and invariable in these prices or exchange ratios. They are permanently fluctuating.

Consequently, assigning market value to property is therefore always the attempt to anticipate the price which the market will determine. As such, its basic tool is market analysis and its result is an estimate of an expected outcome of the interplay of a constellation of price-determining factors. It is a – usually well-founded – guess! An understanding of the value-influencing forces is fundamental to the valuation of property assets and it becomes evident that the issues related to the growing awareness of and need for more sustainable development are driving all basic forces that determine value.

The perception of property as a commodity is currently changing to emphasise sustainability-related building characteristics and performance aspects as important determinants of a property's worth and market value. Furthermore, poor environmental and social performance is increasingly being seen as an investment risk or as a reason for not buying or renting a commercial or residential premise (Filose, 2005).

All this affects the way property has to be treated for valuation, insurance, lending and other decision-making purposes along the life cycle of buildings and puts pressure on valuers and professional property advisors to capture the benefits and economic value of sustainable construction and to reflect sustainability aspects within property price estimates.

III. Sustainability criteria for property

The limited response of the commercial property markets to the sustainability agenda is well recorded. Reasons given tend to be based around the circle of blame and the lack of a business case for sustainable buildings (Sustainable Construction Task Group, 2000). Behind these reasons, however, is the more prosaic problem that the market simply has not found a reliable, mutually accepted way of identifying sustainability within the existing building stock.

The sustainability criteria listed bellow form an initial step in an attempt to equip the demand side of the property industry to respond positively to the sustainability agenda.

Without the development of these basic tools to assess investment worth and monitor performance, the property investment sector will continue to struggle to engage effectively and positively with the sustainability agenda.

Operational energy efficiency

Buildings high in operational energy consumption are potentially less attractive to tenants and will become more so as carbon reduction policies develop further.

Making this type of energy data commonly available for commercial buildings will enable prospective tenants to make more informed comparisons of different buildings. Public sector tenants such as central and local government departments are likely to shift demand towards buildings that are more efficient in their use of operational energy.

The impact on the property investor holding buildings that have a high operational energy requirement will be through potentially slower rental growth as business costs increase, through pressure to refurbish to more efficient energy standards more rapidly, raising the rate of depreciation and through increased risk of (lengthening) void periods on energy-hungry properties.

Climate control

Air-conditioning has a substantial impact in terms of energy use and thus carbon emissions. Older systems may be less effective and will be likely to have a negative impact on operational energy performance of a property. More modern systems may be more energy efficient and conform to current best practice standards but not allow sufficient flexibility for using more energy efficient systems or alternative technology as conditions allow. All are factors, which will affect rental depreciation and should be reflected in the investment appraisal process.

Pollutants

The landlords should ensure, as far as possible, that they have tenants who demonstrate a high degree of responsibility with regards the potential to pollute and their

ability to cover any potential fines. Extra risk should be costed-in where the potential for pollution is above average for the particular class of property.

Water consumption

Clearly some buildings have a far higher level of water consumption than others depending on use and class. However, the cost of installing systems to reduce water usage normally outweigh any economic benefits that might be achieved through reduced business running costs, at least in climates where water is traditionally a plentiful resource.

Waste management

Waste management is currently a much more significant issue than water and could already be a factor in tenant decision-making. It is a focus for government and EU legislation and yet is not reflected in investment appraisals. Waste management is important for sustainability both through its direct impact on the environment and for the efficient use of resources. Property without the facilities to support a waste minimisation strategy may suffer lower than expected rental growth as it is compared unfavourably with properties with adequate, accessible space for waste handling. Retail and industrial property would perhaps be most acutely affected as they produce the greatest volume of waste.

Accessibility

As the real cost of fuel rises, and as private transport users are presented with fiscal and other dis-incentives, such as parking restrictions, congestion charges and fines, their impact will be felt most keenly on property:

- Located in areas without access to a relatively local workforce;
- Without a variety of alternative transport options to provide access; and
- Without on-site car parking where car-based access is the norm.

These types of property are likely over time to command lower rents than similar property with more fuel-efficient or simply more convenient transport options, if the current fiscal and policy stance is maintained. Taking the analysis of accessibility one stage further, it is possible to consider the variation in impact across different user types. Some property uses are more heavily dependent on private car access than others.

The emerging view is that in the medium- to long-term, property that is reliant on being solely or mainly accessible by car in order to support the occupier function is likely to be less attractive to occupiers, with or without parking. It is thus likely to depreciate more rapidly than similar but more accessible buildings in its class, all other things being equal. From the occupier viewpoint, therefore, accessibility, as defined above, is a critical issue.

IV. Practical aspects of valuations

One the one hand, property valuation represents the major mechanism to align economic return with environmental and social performance of property assets and thus, to express and communicate the advantages and benefits of sustainable buildings. On the other hand, it is assumed that gradual changes in market participants' perceptions in favour of sustainable buildings must be reflected within the property valuation and associated risk assessment process (otherwise valuers would produce misleading price estimates). This may lead to a positive feedback loop: as market participants see certain benefits of sustainable building (e.g. energy efficiency) reflected in property price estimates, they are encouraged to become more sustainable in order to achieve higher price estimates for the buildings they own or aim to sell.

If conducted appropriately, a property valuation (the attempt to provide a monetary measure of the utility derived through ownership and/or use of property) should be understood by everyone, regardless of whether the end-user of a valuation is committed to sustainable building or even aware of its benefits. However, this does not mean that property valuation has to account for sustainability issues in any case and to the widest possible extent. Since one form of property valuation – i.e. market valuation – requires estimating the most likely sale price, these valuations need to account for sustainability issues only to the extent

to which these issues impact on the competitive position of property assets in the marketplace. Market valuation also implies that only direct monetary benefits or reductions in property-specific risks that are realised by the owner or user of the asset have to be taken into account within the valuation process. Indirect or non-monetary benefits that are realised by society or the environment are not to be considered.

However, regarding another form of property valuation which is equally important as a basis for investment decision making – i.e. calculation of worth – the case is entirely different. Here, the extent of integrating sustainability issues into property valuation depends on subjective investment objectives. As is the case with socially responsible investors, subjective investment objectives can well be shaped by strict sustainability requirements. As a consequence and in order to avoid producing misleading calculations of worth, valuers need to account for a wider range of benefits of sustainable buildings including indirect and non-monetary benefits (such as environmental release or image gains) that are realised either by the investor himself, the environment or society. However, this requires a profound understanding of the differences between conventional and sustainable buildings, of how sustainable building features affect property risk and returns, and of how the utility derived from these buildings adds value for individuals or groups of individuals.

Identifying what is likely to be the highest bid for the property under investigation involves studying market forces in order to determine the competitive position of the property in the marketplace. If valuers take this task seriously, the importance of accounting for sustainability issues cannot be overstated. As explained in the previous sections, sustainability issues are among the most influential market forces currently observable and this is likely to have tremendous impact on the competitive position of properties in the marketplace.

A valuation is usually an assessment of the current market value of a property, based on a „hypothetical sale" approach. According to the International Valuation Standards Committee (IVSC), market value is defined as:

„the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had acted knowledgeably, prudently, and without compulsion" (IVSC, 2005, p.27). In other words, if a sale actually took place on a certain day (i.e. the date of valuation), how much in monetary terms would the sustainable commercial building and land actually sell for?

Valuation is critical to sustainability take-up in commercial buildings because the combined monetary value of the building and land, as identified in the valuation process, remains an important consideration for many stakeholders. These stakeholders include investors and owners who refer to the market value on behalf of their shareholders, as well as financiers who rely on the value for lending purposes.

It can be argued that sustainable features incorporated into a building must be related to the direct or indirect value of the building in a business context, especially as most commercial buildings are owned by businesses that are seeking to maximise shareholders' wealth. It must be remembered that the assigned market value of a sustainable commercial building is the valuer's interpretation of the *market's perception* of the value of the office building, not the valuer's perception of the value of the office building. This remains an important valuation concept.

The day-to-day operating expenses of a commercial building will be paid by the owner or the tenant, depending largely on the structure of the lease. Broadly speaking, there are two main types of leases:

- gross lease, where the owner pays the outgoings
- net lease, where the tenant pays the outgoings.

The lease structure, such as whether the lease is gross or net, will impact upon the valuation process. For example, if the lease is gross, then the owner (and the operating

expenses and consequently the capital value) of the building will benefit from increased energy efficiency, as savings are passed directly to the owner. On the other hand, a net lease will provide no direct benefits to the owner, although the tenant will benefit from the lower operating costs. There is an element of market adjustment that occurs, where a building offering lower operating costs will often result in a lower gross lease amount.

Other indirect benefits should also be considered in the valuation process. For example, a tenant with a net lease who rents space in a sustainable or energy-efficient commercial building, with associated savings in operating costs, may pay a higher rate per square metre for office space if the tenant can identify long-term energy cost savings. On the other hand, it can been argued that tenants will pay less for inefficient non-green buildings, due to the extra allowance needed for the extra direct and indirect costs (JLL, 2006).

Real estate valuers are required to have extensive education, training and experience before they are recognised as professionals, with the majority of valuation assignments focussing on market value (API, 2007). It is essential that a valuer keeps up-to-date with prevailing market trends and accurately reflects the effect of these influences on the value of sustainable commercial buildings. Sustainability has rapidly become an important influencing factor in the assessment of value, where each commercial building is directly and indirectly influenced by its level of sustainable features (or lack thereof). It is essential that valuation approaches, based on the assessment of market value on the date of valuation, consider the significance of sustainability. Although the concept of sustainability has primarily been linked only to lower operating costs, there are many other valuation components in a commercial building that are affected by its level of sustainability, including maintenance, depreciation and obsolescence, as well as the retention of future value.

Obviously, sustainable design features positively impact on a building's worth and market value. This is now beginning to be accepted and recognised outside research circles and academia. Recently, a report published by the RICS concluded that a clear „link is beginning to emerge between the market value of a building and its green features and related performance" (*Royal Institution of Chartered Surveyors,* 2005, p. 3).

Since it will take years to accumulate the informational data basis necessary to empirically underpin a valuer's decision to provide a „valuation bonus" for a sustainable building or a „valuation reduction" for a conventional/unsustainable one, valuers should report value creation through sustainable design, the risks associated with conventional buildings that increasingly fail to attract market demand as well as subjective elements leading to the final property price estimate in order to provide a transparent and credible valuation service. This means that valuation reports should be extended to include the following additional elements:

- a clear description of the availability of certain sustainability related property characteristics and attributes (preferably based on an assessment of the integrated building performance);
- a statement of the valuer's opinion about the benefits of these characteristics and attributes and, *vice versa*, about the risks that accrue from their unavailability; and
- a statement of the valuer's opinion about the impact of these benefits and/or risks on property value.

However, focussing on value creation through sustainable design and distinguishing more clearly between conventional buildings and sustainable ones requires a profound understanding of the concept of sustainable development and of its implications for the property and construction sector. This is a major challenge for property professionals, their professional bodies and their educational institutions. Making these distinctions by quantifying the positive impacts of sustainable design will not only move sustainable construction quickly into the mainstream, it will also apply greater pressure on investors and investment managers (who traditionally relied simply on financial performance information) to include sustainability issues in their decisions in order to boost property returns.

V. Conclusion

For property occupiers and investors to be able to respond effectively to issues raised by the sustainability agenda, they need to understand the range of ways building occupation and ownership can be affected by perceptions of sustainability, both in relation to their worth and also their physical characteristics. This is vital in order to be able to make an assessment of the sustainability of the commercial property stock, both that which they already hold and that which they consider acquiring. This will then enable the industry to reflect the risks attached to occupying or owning less sustainable property in a more accurate and explicit appraisal process.

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THE RELEVANCE OF DISCRIMINATORY ANALYSIS FOR THE EVOLUTION OF SHARES BYONE ISSUING ON STOCK EXCHANGE MARKET

Eduard DINU
Ştefania-Cristina CUREA
Bucharest Academy of Economic Studies

Abstract. *The role and importance of fundamental analysis in the prediction of the course development companies can not be denied. However, among the specialists in the field, dilemma persists on its share in relation to technical analysis. In the context of the financial crisis resulted in a pronounced decrease in the stock indices worldwide, identification of reliable tools for assessing the economic and the financial situation of a company, as support to maximize its value becomes an urgent necessity.*

This article presents the results of discriminatory analysis on a number of 12 issuers of a 1st class shares on Bucharest Stock Exchange.

Keywords: discriminatory analysis; score-function; shares; correlation index.

The purpose of the reserch

Benjamin Graham was stating a parallel between exchange stock market and a pendulum that is always swinging between ungrounded optimism, which makes the shares to be expensive and unjustified pessimism, making the shares too cheap. (Graham, 2006, p. xiii). The research carried out pursued the assessing of the degree of discriminatory analysis relevance as the argument that exchange rate developments of the company. In terms of an efficient financial market many experts consider that the share rate evolution reflects the economic and the financial performance achieved by an issuer.

Research methodology

The main steps followed to approach the set out theme were:

1) score-function selected

2) application of discriminatory analysis to the group of selected listed companies;

3) calculating of the correlation index between the dynamics of the score and course of action;

4) development of research findings.

First stage. Selecting the score-function

The theory in discriminatory analysis refers to several score functions turned as landmark in the field - the Conan-Holder Model, The Altmann Model, The Central Balances of the Bank of France.Given that the statistical substantioation of a score - function, based on background analysis of a sample of companies in the national economy, clearly the reliability of the functions mentioned above is altered in their application to another historical moment and to another economies level, other than those on which were originally defined.

Given those we opted for the score-function developed by I. Anghel on a sample of 176 companies belonging to a number of 12 branches of the Romanian economy (Anghel, 2002: pp 139-145):

$$A = 5{,}676 + 6{,}3718 \times X_1 + 5{,}3932 \times X_2 - 5{,}1427 \times X_3 - 0{,}0105 \times X_4$$

The meanings of the indicators within this function are presented in the table below:

Table 1

The economic and the financial indicators constituent function Anghel

Simbol	Indicator name	Method of calculation
X_1	Return on net revenue	Net result/revenue
X_2	Coverage rate of total assets to cash/flow	Net cash flow/total assets
X_3	Degree of indebtedness to total assets	total debt/total assets
X_4	Average duration of payment of obligations	(obligations/turnover) x360

A second stage. Determination of group-level score of listed companies

The companies chosen to verify the relevance of the discriminatory analysis on the development of the shares rate are those of 1st category in The Bucharest Stock Exchange, with the disposal of companies whose main activity is the brokerage and financial services to which the score-function may not be reliable because the sample at the creation of its does not included these fields of activity. The motivation of the choice of companies in the first category of issuers lies in the strict conditions of informational transparency they need to meet them to other categories and sections of the capital market.

The companies excluded from the study on the set out ground: SSIF Broker SA Cluj Napoca, SIF Banat-Crisana SA, SIF Moldova SA, SIF Transylvania SA, SIF Muntenia SA, SIF Oltenia SA, The Romanian Bank for Development SA, The Commercial Bank Carpatica SA, The Transilvania Bank SA.

The companies included in the research are: Alro SA Slatina, Antibiotics SA Iaşi, Târgu-Mureş Azomures, Biofarm SA Bucharest, Impact SA Bucharest, Oil Terminal SA Constanta Oltchim SA Ramnicu-Valcea, Petrom SA Bucharest, CN Transelectrica Bucharest, SNTGN Transgaz Bucharest SOCEP SA Constanta, Turbomecanica SA Bucharest.

The first phase of this second stage was to centralize the primary economic and financial indicators, on which were determined subsequently derived indicators presented in Table 1.

Financial years for which the analysis is completed are in 2006, 2007 and 2008.

The economic and the financial indicators required for calculation of the discriminatory model analysis are presented in the following tables:

Table 2.1

The economic and financial indicators for year 2006

The indicators-2006	ALRO	Azomurs	Antibiotice	Biofarm	Transelectrica	Impact
Net cash flow	29.044	10.900	-2.775	-5.206	287.014	48.962
Total assets	2.005.840	454.564	260.388	85.844	3.960.434	385.486
obligations	145.266	77.825	28.992	10.870	775.132	29.558
Total debts	514.205	203.138	71.210	13.622	1.797.985	209.380
turnover	2.197.659	709.301	195.678	57.830	2.503.786	115.847
Total revenue	2.330.076	753.331	197.748	58.297	2.609.129	137.086
Net profit	380.869	-1.037	23.839	12.715	277.260	18.293

Source: *www.cnvmr.ro*

Table 2.2

The economic and financial indicators for year 2006

thousands RON

The indicators-2006	Oilterminal	Oltchim	Petrom	Transgaz	Socep	Turbomecanica
Net cash flow	715	24.339	-1.046.935	13.072	2.976	-6.099
Total assets	157.533	1.377.317	19.369.775	2.184.515	59.535	144.266
obligations	23.415	369.492	2.257.230	248.848	2.164	12.326
Total debts	30.974	1.040.338	2.279.371	918.158	4.409	33.785
turnover	121.537	1.731.805	13.078.309	909.017	39.130	104.327
Total revenue	122.544	1.810.114	13.933.309	982.296	43.127	114.149
Net profit	1.561	8.780	2.285.490	237.913	1.985	16.565

Source: *www.cnvmr.ro*

Table 3.1

The economic and financial indicators for year 2007

The indicators-2007	ALRO	Azomures	Antibiotice	Biofarm	Transelectra	Impact
Net cash flow	157.325	-1.916	-505	5.661	-156.113	111.543
Total assets	2.373.138	507.590	344.868	166.116	4.049.675	558.982
obligations	197.096	72.130	84.282	10.783	649.992	44.247
Total debts	708.658	173.558	88.089	13.170	1.766.623	225.229
turnover	2.045.525	820.607	229.416	62.344	2.314.304	108.646
Total revenue	2.263.038	914.557	237.527	64.610	2.392.335	182.079
Net profit	436.261	55.614	32.456	13.514	50.347	7.401

Source: *www.cnvmr.ro*

Table 3.2

The economic and financial indicators for year 2007

thousands RON

The indicators-2007	Oil Terminal	Oltchim	Petrom	Transgaz	Socep	Turbomecanica
Net cash flow	-1.266	-63.093	-2.696.391	287.360	3.709	-4.243
Total assets	199.495	1.649.174	21.065.657	2.609.440	64.062	159.628
obligations	22.582	960.417	2.580.025	236.863	3.087	9.927
Total debts	30.147	1.624.671	2.609.007	919.826	5.184	53.594
turnover	123.495	1.749.872	12.284.378	1.038.867	44.018	91.892
Total revenue	128.540	1.958.989	12.983.244	1.064.237	47.815	103.051
Net profit	-1.266	-63.093	-2.696.391	287.360	3.709	-4.243

Source: *www.cnvmr.ro*

Table 4.1

The economic and financial indicators for year 2008

The indicators-2008	ALRO	Azomures	Antibiotice	Biofarm	Transelectrica	Impact
Net cash flow	-185.172	12.510	7.688	11.010	26.133	-98.310
Total assets	2.294.421	578.365	367.780	146.866	4.020.418	582.045
obligations	234.831	102.736	111.376	11.406	893.014	155.299
Total debts	801.131	102.736	112.829	15.259	2.085.846	242.155
turnover	1.968.016	1.144.100	215.806	65.094	2.988.066	151.687
Total revenue	2.450.512	1.350.795	231.224	70.487	3.029.275	255.143
Net profit	244.130	50.577	10.573	-21.335	50.367	8.227

Source: *www.cnvmr.ro*

Table 4.2

The economic and financial indicators for year 2008

thousands RON

The indicators - 2008	Oil Terminal	Oltchim	Petrom	Transgaz	Socep	Turbomecanica
Net cash flow	974	-79.073	-491.196	-37.756	1.881	391
Total assets	195.048	1.500.314	24.890.580	3.291.189	91.893	148.212
obligations	24.898	1.111.960	3.145.499	347.640	2.375	41.390
Total debts	30.306	1.729.646	4.950.122	933.030	4.717	68.295
turnover	134.573	1.946.943	16.750.726	1.119.390	58.818	63.049
Total revenue	136.980	2.024.314	19.331.387	1.175.886	62.467	72.613
Net profit	1.106	-225.647	896.000	239.007	7.614	-28.935

Source: *www.cnvmr.ro*

Subsequent, the values of the four indicators included in the Anghel score – function were centralized for the companies included in the study. These values have allowed the determination of score-function for each company separately for the years 2006, 2007 and 2008 (Table 5).

Table 5

The values for Anghel score-function in the case of selected companies

Crt. no.	Company/year	2006	2007	2008
1	ALRO	5,45	6,20	2,82
2	Azomures	3,24	3,91	5,32
3	Antibiotice	4,27	3,81	2,81
4	Biofarm	3,48	8,27	6,44
5	Transelectrica	3,71	2,03	2,05
6	Impact	4,03	4,99	-2,32
7	Oil Terminal	4,14	4,35	4,40
8	Oltchim	1,14	-1,99	-3,37
9	Petrom	2,99	- 0,46	3,70
10	Transgaz	4,10	6,03	4,12
11	Socep	9,02	9,27	8,19
12	Turbomecanica	3,98	3,61	-1,68

It notes that a number of 3 listed companies were recording the end of 2008 a negative value of the score-function which suggests the bankruptcy in the interpretation according to the author function used in. All other 9 companies are located within the non-bankrupt area, none of them being positioned in the area of uncertainty.

The dynamic of shares rate exchange evolution included in the study at The Bucharest Stock Exchange during 2006-2008 is given below:

Table 6

The price per share at B.S.E. for companies included in the study (2006-2008)

Crt. no.	Issuer/year	2006		2007		2008	
1	ALRO	2,6100	4,5900	5,2500	8,7096	8,5000	1,2600
2	Azomures	0,2400	0,1450	0,1530	0,1990	0,1910	0,1550
3	Antibiotice	0,9850	1,7200	1,8300	2,0500	2,0000	0,3600
4	Biofarm	0,5300	0,8580	0,6850	1,3176	0,6150	0,0874
5	Transelectrica	22,8000	33,8000	36,0000	40,0000	38,6000	11,0000
6	Impact	0,4450	0,5850	0,6100	1,0000	0,4600	0,0314
7	Oil Terminal	0,2730	0,2740	0,2730	0,9500	0,9100	0,1600
8	Oltchim	0,3890	0,4770	0,4590	1,2000	1,1800	0,1470
9	Petrom	0,4870	0,5650	0,6050	0,4970	0,4990	0,1810
10	Transgaz	NA	NA	NA	NA	274,5000	122,0000
11	Socep	0,2170	0,2450	0,2600	0,2720	0,2680	0,1600
12	Turbomecanica	0,5120	0,7500	0,7700	0,6600	0,6300	0,0712

Source: *www.ktd.ro, closing prices of the first and last day of trading*

NOTE: If Alro, Biofarm, Impact, the prices are corrected with the capital increases carried out in those years
NOTE: If Turbomecanica during the year 2006 is updated to the value associated of division (0.1 lei to 2.5 lei)
NOTE: Transgaz was quoted on BSE during 2008

The average degree of relevance of the discriminatory type of analysis in explaining the share exchange rate evolution for a company on the stock exchange market was performed using a correlation-index Ic.

It was determined as the ratio between the variation of the share exchange rate rate between the two financial years (Δ Ca) and the variation of score-function within the same period for analysis (Δ A):

$$I_c = \frac{\Delta Ca}{\Delta A}$$

A unit value of correlation index signifies a maximum degree of correlation between the evolution and the economic and the financial situation of the examined company, syntheticaly assessed with Anghel score .

In our opinion, an over-unit value for correlation index is able to suggest that the economic and the financial development only partly explains the share exchange rate of that company.

Finally, a negative value illustrates the lack of a direct correlation between the economic and the financial situation of the analyzed company and the dynamic of share exchange rate of the company.

The centralization of the correlation indices calculated based on the methodology outlined above is shown in the Tables 7.1 and 7.2

Table 7.1

The values of correlation index between score and the development trend of shares rate

Year	Indicators	ALRO	Azomures	Antibiotice	Biofarm	Transelectrica	Impact
2006	the price variation per share	75,86%	-39,58%	74,62%	61,89%	48,25%	31,46%
2007	the price variation per share	65,90%	30,07%	12,02%	92,35%	11,11%	63,93%
	change score	13,71%	20,64%	-10,64%	137,64%	-45,31%	23,94%
	correlation index	**4,81**	**1,46**	**-1,13**	**0,67**	**-0,25**	**2,67**
2008	the price variation	-85,18%	-18,85%	-82,00%	-85,80%	-71,50%	-93,17%
	change score	45,43%	135,91%	73,59%	77,94%	101,15%	-146,66%
	correlation index	**-1,87**	**-0,14**	**-1,11**	**-1,10**	**-0,71**	**0,64**

Table 7.2

The values of correlation index between score and the development trend of shares rate

Year	Indicators	Oil Terminal	Oltchim	Petrom	Transgaz	Socep	Turbomecanica
2006	the price variation per share	0,37%	22,62%	16,02%	N.A.	12,90%	46,48%
2007	the price variation per share	247,99%	161,44%	-17,85%	N.A.	4,62%	-14,29%
	change score	5,08%	-182,90%	-115,27%	47,01%	2,77%	-9,25%
	correlation index	**48,79**	**-0,59**	**0,15**	N.A.	**1,66**	**1,54**
2008	the price variation	-82,42%	-87,54%	-63,73%	-55,56%	-40,30%	-88,70%
	change score	101,14%	-69,59%	-812,36%	68,37%	88,32%	-88,70%
	correlation index	**-0,81**	**1,26**	**0,08**	**-0,81**	**-0,46**	**0,60**

The analysis of the correlation index calculated for the 12 companies included in the study for the period 2006-2008 reveals the following aspects:

- **for 2007** a total of 4 companies had a negative value of the correlation index which shows that the evolution of exchange rate on the shares of those issuers did not reflect the dynamics of the economic and financial situation captured using the discriminatory analysis. In the 8 companies made highlighting the incidence of class actions on the development of capital market. Furthermore the correlation is stronger for Azomures, Biofarm, SOCEP and Turbomecanica (33% of all firms included in the study); Transgaz as was listed in 2008 could not be determined a value of index correlation at period 2006-2007;
- **for 2008**, the number of surveyed companies for which the correlation index value was negative doubled from the previous year reaching 9. Only 3 of the companies analyzed had a positive correlation of the index. Note that it is those companies that have felt the first effects of financial crisis, the degradation of financial situation justifying partly the diminishing stock of their titles.

Conclusions

It is clearly that the share exchange rate trend in the stock exchange market is subject to a complex of factors, the financial situation of issuers being only one of them. The level of capital market development is directly dependent of the effective application of principles of corporate governance and ensuring liquidity parameters. The psychological factor also put its imprint on the behavior of those who deal on the exchange market, causing irrational developments in price trading.

In our opinion the decrease in the relevance of fundamental analysis made using the discriminating technique for 2008 compared with 2007 for the companies included in the study is mainly due to the globally financial crisis event, which involved uncoupling the share exchange rate and the financial position .

The recent developments (May 2009) on stock exchange market are likely to re-establish the "natural" convergence between the share exchange rate and economic and financial status through a double movement:

- Descending to the main economic and financial indicators (profitability, liquidity, rotations);
- Increasingly with the effect of the share exchange rate development as the psychological factor is of diminishing importance and individual investors and those institutions regain confidence in capital markets.

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THE PLACE AND ROLE OF THE SUSTAINABILITY INDICATORS IN THE TRANSITION PROCESS TO A MODEL OF SUSTAINABLE DEVELOPMENT

Eduard DINU
Ştefania-Cristina CUREA
Bucharest Academy of Economic Studies

Abstract. *The EU successive strategies for sustainable development tend to put emphasis on conservation and recovery of the natural capital. As a member country of the European Union, Romania has undertaken specific obligations regarding the transition to a model of sustainable development, the principles, objectives and methods of work agreed in the EU.*

Thus, annually Romania report to the European Commission, a part of indicators, integrated into the European system of sustainable development.

The information provided through sustainability indicators make possible the identification of restrictions and disruptions and based measures to complement and resizing programs of transition's actions.

Keywords: sustainable development; sustainability indicators; environmental policy; strategy.

Introduction

The concept of sustainable development was crystallized in the scientific debates at the international level over several decades, becoming a priority worldwide.

On the international front, the first concerns on environmental protection dates from the early 1970s, when the Club of Rome, a private association composed of entrepreneurs, scientists and politicians, charged a group of investigators from the Massachusetts Institute of Technology under Professor Dennis L. Meadows charge to undertake a study on trends and economic problems which threaten the society. The results of this study is based on a mathematical model of the world economy, developed by Professor Jay Forrester from the Massachusetts Institute of Technology, which was published in the Meadows report entitled The Limits of increase (1972).

In the EU, sustainable development has been emphasized since 1972 at the Paris summit, when it has been putted into the question the necessity of granting a special attention in environmental protection in the context of the economic expansion and of the living standards improvement.

In Romania, the environment protection appeared in 1990, with the establishment of the Ministry of Environment. Two years later, in 1992 was adopted the National Strategy for Environmental Protection, in 1996 and updated in 2002.

In the last two decades, after the UN Conference on Environment and Development in Rio de Janeiro (1992), the necessity of the transition of the socio-economic system with its three components-economic, social and environmental, to a model of sustainable development has become a priority. This transition involves changes in the structural plan as well as in the metabolism of each of the three components of the system as a whole. Managing such a process requires not only the existence of an action program but also a set of indicators that can assess in time the pace and the efficiency of the process or can highlight deviations from the general design guideline.

1. The sustainable development indicators system for European Union

The agreement of an acceptable set of indicators of the sustainable development, reflecting trends in the environment and monitoring the progress in the achieving of the environmental policy objectives, is a matter of priority concern of the Statistical Office of the European Communities (EUROSTAT), UN Economic Commission for Europe (UNECE) and of the Organization for Economic Cooperation and economic Development (OECD).

Currently, the system of indicators for sustainable development for the European Union, reported by EUROSTAT includes:

1. Indicators of socio-economic development;
2. Indicators of sustainable consumption and production;
3. Indicators of social inclusion;
4. Indicators of demographic change;
5. Indicators of public health;
6. Indicators of climate change and energy;
7. Indicators of sustainable transport;
8. Indicators of natural resources; Indicators of global partnership;
9. Indicators of good governance.

The system integrates economic, social and environmental indicators, used for the tri-dimensional assessment of the sustainable development.

These indicators are structured in three hierarchical levels (Figure 1):

- level 1: the representative indicator corresponding to a priority area;
- level 2: the descriptive indicators corresponding to the operational objectives associated to priority areas;
- level 3: the descriptive indicators corresponding to areas of intervention

Thus defined, they can be a solid base for periodic monitoring of the progress in achieving the strategic objectives of the sustainable development.

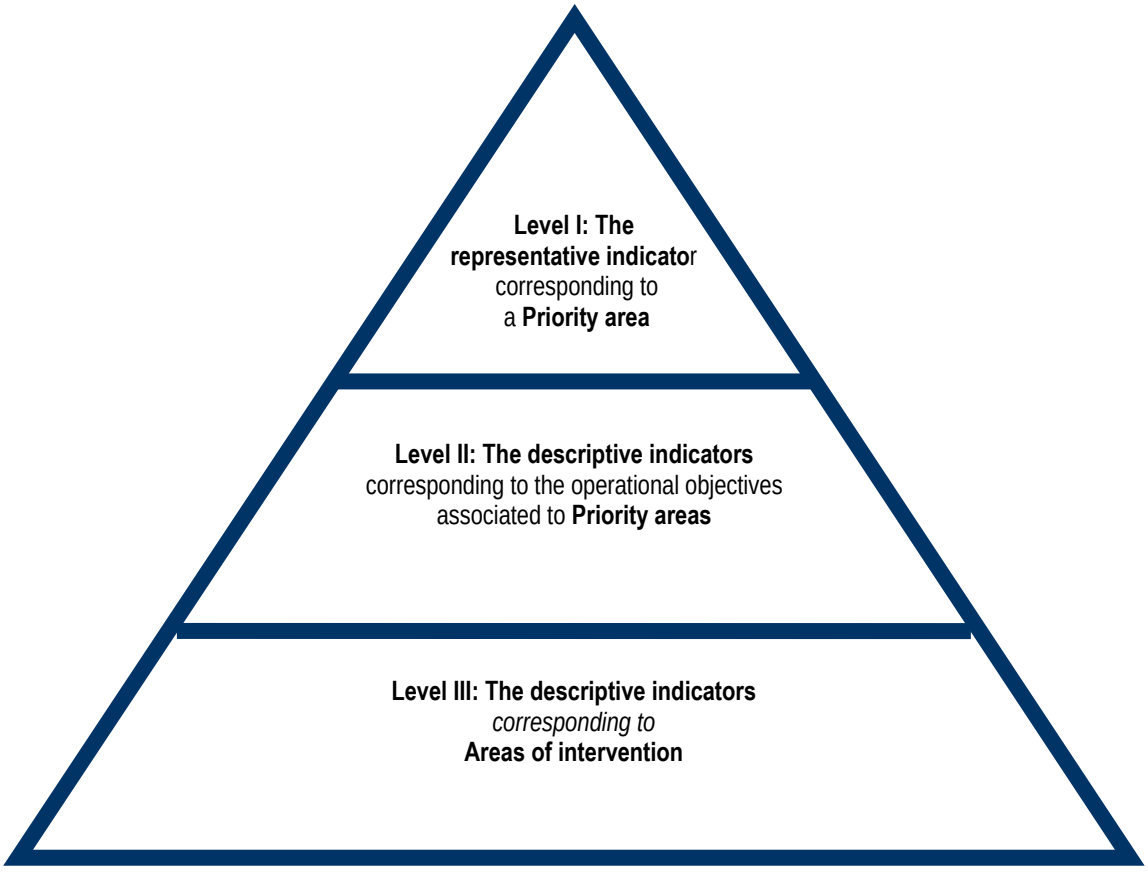


Figure 1. *The hierarchy of indicators of sustainable development*

2. Eurostat indicators following at the national level

As a member country of the European Union, Romania, through the National Statistics Institute is actively engaged in this process. In the current phase The National Institute for Statistics forward to EUROSTAT a partial system of indicators, integrated into the European system of sustainable development, according to the available data. These are:

Theme 1: The socio-economic Development

Representative indicator: The GDP rate of growth per capita GDP/capita, %)

Computing relationship: $$GDP/capita\% = \frac{GDP_t^{t-1} / P_t}{GDP_{t-1} / P_{t-1}} \times 100 - 100$$

Where:

GDP_t^{t-1} – GDP of period t expressed in prices of period t-1

GDP_{t-1} – GDP of period t-1

P_{t-1} – the stable populations from the 1st of July in year t

P_{t-1} – the stable populations beginning with the 1st of July in year t-1

Theme 2: Poverty and social exclusion

Representative Indicator: Poverty rate after social transfers

Computing relationship: $$PR = \frac{NP}{P} \times 100$$

Where:

NP – number of poor people

P – total population

Theme 3: Aging society

Representative indicator: The rate of dependency of the elderly (RDE,%)

Computing relationship: $RDE = (P_{65 \text{ year and aver}} / P_{15\text{-}64 \text{ year}}) \times 100$

where:

$P_{65 \text{ year and over}}$ – elderly population (65 year and over) in t year

$P_{15\text{-}64 \text{ ani}}$ – population of working age (15-64 years) in the year t

Theme 4: Public Health

Representative Indicator: Healthy Life Expectancy at birth by sex (HLE)

Computing relationship: $HLE = 1/lx \times \sum (1 - n\ \pi\ x) \times nL\ x$

Where:

Lx – Number of survivors at age x

n πx – ***the possibility of decay*** determined by the health of persons in the age x, x+n

nLx – the total number of years lived in full health conditions during the period of time x, x + n

Theme 5: Climate change and energy

Representative Indicator 1: Total emissions of greenhouse gases (EG)

Computing relationship: $EG = \sum EG \times coef.CO_2echivalent$

Where

$\sum EG = CO2 + CH4, + N2O + HFC + PFC + SF6$

Representative Indicator 2: Gross domestic consumption of energy by type of fuel (GDCE)

Computing relationship: CDCE = PER + PR + IMP + SB – EXP – B – SE

Where

PEP – primary energy production
PR – product recovered
IMP –import
SB – stock at the beginning of the reference period
EXP – export
B – Bunkers
SE – stock at the end of the reference period

Theme 6: Models of Production and Consumption

Representative indicator: Domestic Material Consumption and GDP in constant prices (DMC)

Computing relationship: $DMC = (DMI + Imp\text{-}Exp)/GDP_{cp}$

Where:

DMI – the sum of the materials from national environment
Imp – the import of materials
Exp – the export of materials
GDPcp – gross domestic product in constant prices

Theme 7: Management of natural resources

Representative indicator: Share of fresh water taken in the total water resources (FWRW)

Computing calculation: FWRW = (SSW)/TWR

Where

SSW – samples of surface water
SGW – samples of groundwater
TWR – Total water resources

Theme 8: Transportation

Representative Indicator: Share of road transport in the intern transportation (TMR,%)

Computing relationship: $TMR\% = \frac{TMR_t}{TM_t} \times 100$,

Where:

TMR_t Road freight transport expressed in tone-km performed in internal traffic
TM_t Total freight transport expressed in tone-km performed in internal traffic

The representative indicators for each theme are indicators of high public recognition and routine use in research. They had been chosen for their value of communication, being considered robust in terms of methodology and quality.

3. The value of the most meaningful European Union indicators for environment compared to their value in Romania

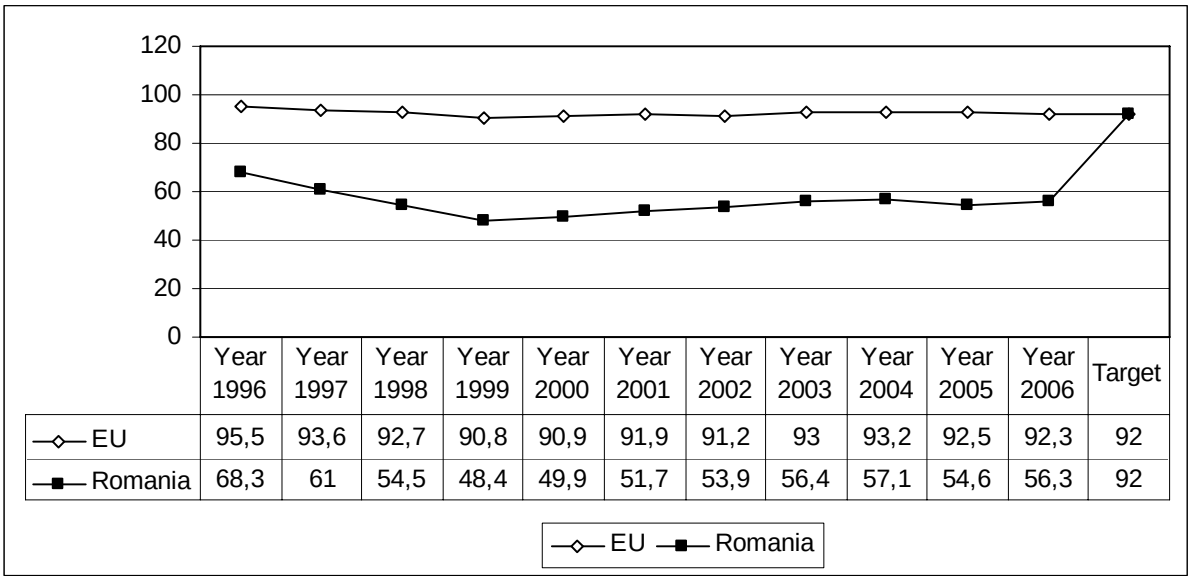
To continue this I will make a comparison between the values of most meaningful environmental indicators in the European Union and their values in Romania. They are in accordance to priority areas on the 6th Environmental Action Program of EU, namely: Climate Change, Nature and Biodiversity, Environment and Health, Natural Resources and Waste.

2.1. Climate Change – Emissions of greenhouse gases

Greenhouse gases affect the Earth heating. Increasing temperatures will cause melting Glacier, the disappearance of many coastal areas, flooding, environmental migration, the disappearance of many species of flora and fauna.

In accordance with the Kyoto Protocol, the EU pledged to reduce by 8% greenhouse gases in the period 2008-2012 compared with 1990. As a new member country of the European Union, Romania must reduce emissions by 8% of greenhouse gases in the period 2008-2012, compared to the base year (1990).

Currently, emissions of greenhouse gases are lower in our country compared with the level in the European Union (Figure 2).



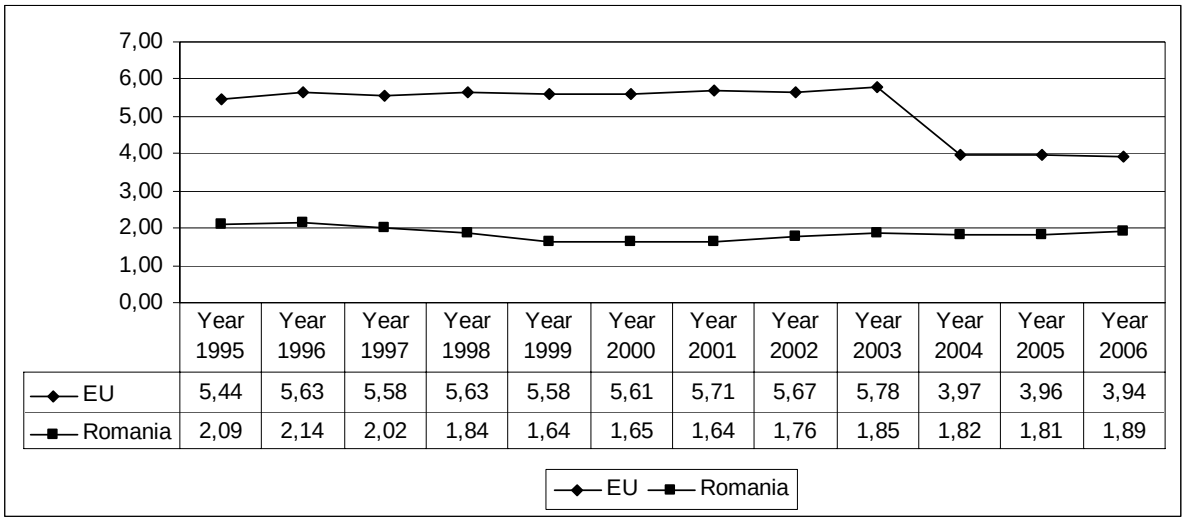
	Year 1996	Year 1997	Year 1998	Year 1999	Year 2000	Year 2001	Year 2002	Year 2003	Year 2004	Year 2005	Year 2006	Target
EU	95,5	93,6	92,7	90,8	90,9	91,9	91,2	93	93,2	92,5	92,3	92
Romania	68,3	61	54,5	48,4	49,9	51,7	53,9	56,4	57,1	54,6	56,3	92

Source: Processing of data from European Commission, „The Sustainable Development Indicators", http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1998,66119021,1998_66391726&_dad=portal&_schema=PORTAL

Figure 2. *Emissions of greenhouse gases (% from year 1990)*

2.2. Energy Consumption

Energy consumption in Romania in 2006 was 1.89 tones per capita of oil equivalent (up by 4.45 percent in 2005), while EU energy consumption amounted, in the same year, to 3.94 tones per capita of oil equivalent, stable compared to 2005 (Figure 3).



	Year 1995	Year 1996	Year 1997	Year 1998	Year 1999	Year 2000	Year 2001	Year 2002	Year 2003	Year 2004	Year 2005	Year 2006
EU	5,44	5,63	5,58	5,63	5,58	5,61	5,71	5,67	5,78	3,97	3,96	3,94
Romania	2,09	2,14	2,02	1,84	1,64	1,65	1,64	1,76	1,85	1,82	1,81	1,89

Source: Processing of data from European Commission, „ The Sustainable Development Indicators", http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1998,66119021,1998_66391726&_dad=portal&_schema=PORTAL

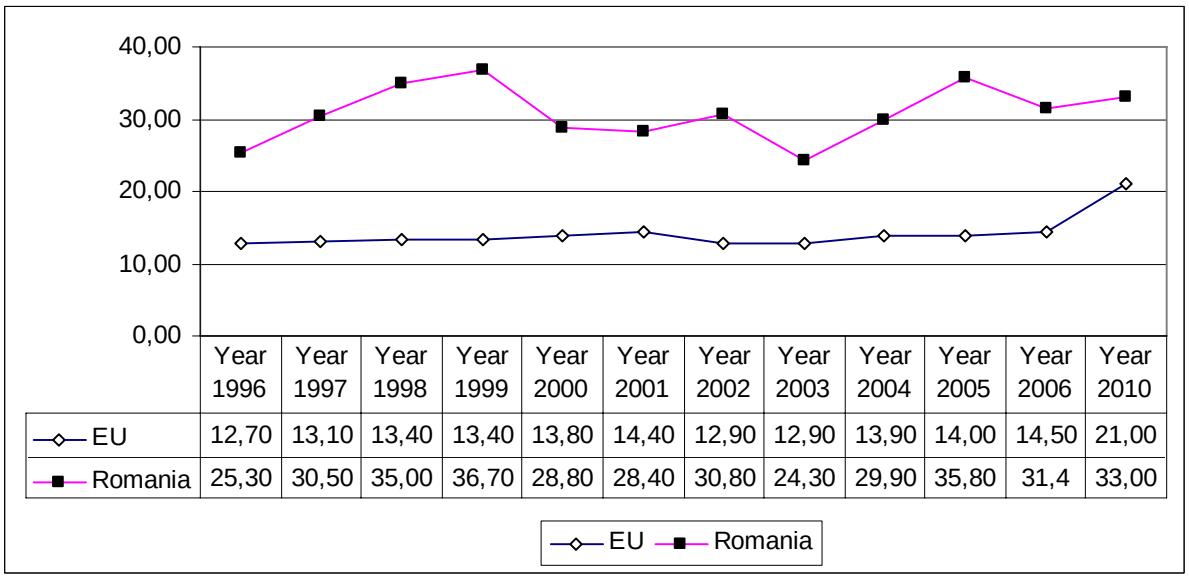
Figure 3. *Energy consumption (tonnes per capita)*

The European Union aims to reduce by 20% of energy consumption by 2020 compared with the base year to be considered in 2005.

2.3. Electricity of recyclable waste

By 2010, the recommended target for the European Union is to produce 21% of total electricity production from recyclable resources while Romania has to produce 33%.

In 2006, the percentage of energy from recyclable materials in the EU was 14%, up 0.50 percentage points over that of 2005. In Romania, there is a reduction of energy generated by renewable sources in total energy in 2006 compared to 2005 with 4.4 percentage points (Figure 4).



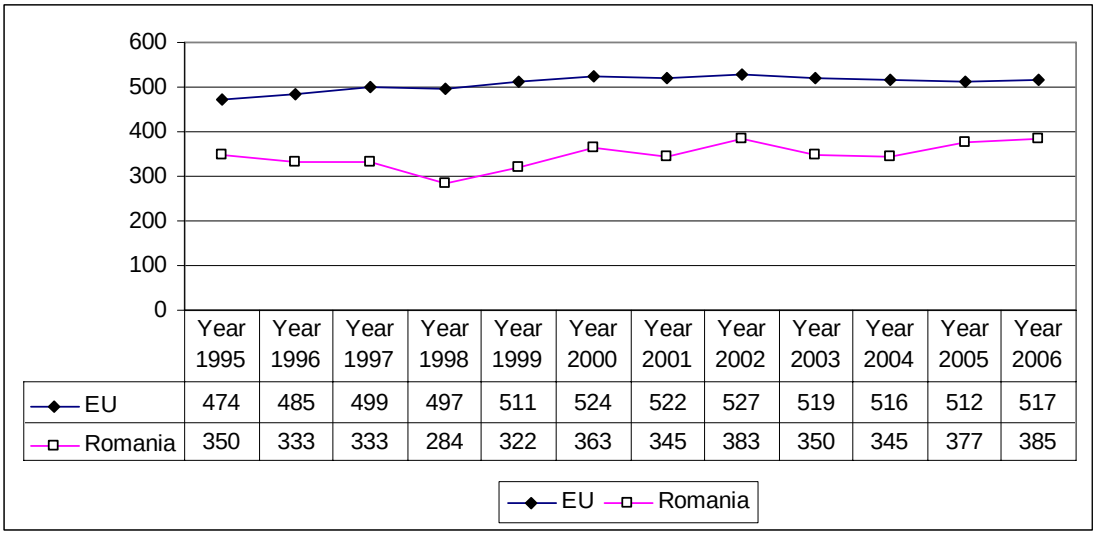
	Year 1996	Year 1997	Year 1998	Year 1999	Year 2000	Year 2001	Year 2002	Year 2003	Year 2004	Year 2005	Year 2006	Year 2010
EU	12,70	13,10	13,40	13,40	13,80	14,40	12,90	12,90	13,90	14,00	14,50	21,00
Romania	25,30	30,50	35,00	36,70	28,80	28,40	30,80	24,30	29,90	35,80	31,4	33,00

Source: Processing of data from European Commission, „The Sustainable Development Indicators", http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1998,66119021,1998_66391726&_dad=portal&_schema=PORTAL

Figure 4. *Electricity of recyclable waste (% from total electricity)*

2.4. Municipal waste

In 2006, the European Union has generated 517 kg of municipal waste per capita, with more than 9% compared with 1995, while Romania occurred in the same year, 385 kg of waste per capita, accounting for an increase of 10% compared to 1995 (Figure 5).



	Year 1995	Year 1996	Year 1997	Year 1998	Year 1999	Year 2000	Year 2001	Year 2002	Year 2003	Year 2004	Year 2005	Year 2006
EU	474	485	499	497	511	524	522	527	519	516	512	517
Romania	350	333	333	284	322	363	345	383	350	345	377	385

Source: Processing of data from European Commission, „ The Sustainable Development Indicators", http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1998,66119021,1998_66391726&_dad=portal&_schema=PORTAL

Figure 5. *Municipal waste (kg per capita)*

Romania, by the National Strategy for Sustainable Development, should establish and maintain the conditions for natural capital and socio-economic system co-development in the long term and very long term on the Romanian territory.

This is to ensure complementarity between:

− Structure of the natural capital and socio-economic system;

− The variety of products and services of natural capital of the country and diversity of production lines in the socio-economic system;

− The productivity and support capacity of natural capital, on the one hand, the intensity of metabolism and socio-economic system, on the other.

In addition, it is necessary to ensure:

− An over-unit report between natural capital components in the natural and semi-natural system and its components controlled by the human population (eg Agro-sistems);

− The connectivity between components of natural capital;

− The quality of atmosphere, water and health of the population;

− The diversity of ecological systems.

Conclusions

Starting from the idea that the significance of the concept of sustainability is actually limited to the co-development process of the complex consisting of the socio-economic and natural capital, we can say that the transition to a model of sustainable development involves:

− The simultaneous and balanced identification, negotiation and promotion of measures corresponding to the model's coordinates for sustainable development;

− The design (development), application and improvement of the set of indicators for monitoring the process;

− The design, development and application of technologies, processes and legal rules, economic instruments and mechanisms, ethical and moral standards as well as mechanisms for negotiation of interests and transition support systems.

The information received through sustainability indicators should allow the identification of restrictions and disruption and to the base for filling and resizing action programs of national transition and their harmonization at the global and macro-region scale.

The effective control of the transition model of sustainable development is therefore strictly dependent on its complementary surveillance by means of a set of indicators sensitive and relevant to the followed process.

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REAL ESTATE INVESTMENTS IN ROMANIA – ANALYSIS AND TENDENCIES

Ana MORARIU
Cornel Dumitru CRECANĂ
Bucharest Academy of Economic Studies

Abstract. *A development of real estate companies have been taken in last few years related to Romanian property investment market. These companies were submitted to „globalization", in the sense of mergers, acquisitions, partnerships with multinational companies. Because users of financial statements (in special investors) a view as fair as possible of financial position, performance and cash flow statement, an accounting according to IFRS is needed.*

Keywords: valuation; real-estate; models; real-estate investements.

The proprietors can use real estate, generally, independently in order to generate incomes. Real estates can also represent a complementary way in order to sustain and guarantee the loans. This way, the real estate and financial sector can interact and generate a strong area in a future economy.

At European level, in the last years, a clear and defined tendency in the investors' orientation to real estate sector can be observed, considering that in this manner, their investments are better protected and the associated risks are easier to control. Despite the fact that the west European real estate market registered losses in the last two years, especially commercial real estate sector, the east European market registered a period of growth.

Although the general coordinate suggest an activity decrease in European real estate market, the general opinion, agreed by the specialists, is that, on long term view, those markets will be affected by important structural changes. Those changes will "open the doors" of Economic and Monetary Union, liberalizing in this manner the property offer on investments markets. Considering European Union extending, by 15 to 27 member states, European market remains dynamic and offers a good environment for real estate investments. Property sector represents in this period the most dynamic sector of Romanian economy. The statistics point out a significant growth of real estate investments and many companies head their resources for this type of investments, fact sustained by the transactions carried out.

Romanian real estate market registered a major development after 1990 and could be defined by the following characteristics:

− The transaction carried out were not sustained by a proper legislation and regulation, which had a slower development;

− Romanian real estate market has some risks, sometimes greater than those existing in other countries, generated mainly by the frequent changes in the regulation (property right restitution, properties evaluation, land property certificates releasing, town-planning, construction certificates releasing etc.);

− Specific real estate market activities institutionalization (new institutions establishment having specific responsibilities related to real estate management, specific professional association establishment etc.).

Real estate investments development

According to an article published on euro – invest website, the global value of real estate investments amount to around 50.000 thousand millions Euro. Those investments safety guarantee a profit over the interest that could be generated by a bank deposit.

The earnings obtained on real estate market were exceeded only by those obtained on stock exchange market, considering although that this alternative implies high associated risks and a short optimal period. The same study mentions that any real estate investment is not aleatory. These investments are generated mostly by family needs, a surplus in the liquidity balance, as well as recognition of a certain condition.

Real estate speculations are a permanent presence on the market. The globalization process proved that the financial resources movement is not aleatory, and the real estate investors actions a matter of time and view. Real estate opportunities represented a permanent challenge for each investor involved that can consider those investments both as an income source and a hobby. Every stagnation stage affecting the market evolution is usually balanced by a future increasing of investment cycle.

The amounts invested in real estate area increased permanently, which proves that the general trend was a positive one. The world population increased, year after year, alongside human needs.

If 15-20 years ago real estate market encountered a significant development in countries like Portugal, Ireland and Greece, 5-10 years ago countries like Poland, Czech Republic and Hungary registered the same evolution. Now, this development is a characteristic of Romanian and Bulgarian real estate market. Otherwise, United Arab Emirates could represent successfully one of the countries with an immense potential regarding real estate market growth.

A significant decreasing in the market evolution follows every development period. „The inflation" of foreign and local investors points out that our country register a sizable increasing, forecasted for the following 2 or 3 years.

Not long ago took place the International Real Estate Congress, with the participation of important professionals of international real estate market. The generally accepted opinion was that Romania, as well as neighbouring countries, members of European Union since 2004, will register a prices decline in the real estate market, followed by a future increasing.

According to the market report from the first quarter of year 2005, realized by Colliers International Hungary*, in 2004 the number of private "developers" begun to take shape, while the number of small structures inspected by state decreased by 50%.

Forecasted scenario of Romanian residential market

After the economical „shock", the prices' increasing will be much more slowly, as the rhythm of investments in the residential market in our country. The segment of „professional tenants" will appear which will gain the interest of investments funds. If so far office buildings, business, logistic and industrial parks represented their main target, residential complexes will become more and more interesting.

The analysts' opinion is that the recently bull market is an element of the „syndrome" affecting almost all of the countries before European Union integration. The market overgrew just in expectation of the integration. But the „rumours" in which the investors will fully sustain the investments, amplifying the bull market, were not exactly confirmed around.

The Report of the Immovable Consultancy Institute shows that in Poland, Czech Republic or Hungary the houses value as well as the price list for renting industrial and office buildings conspicuousness declined after the integration. Hereby, according to the warning of the analysts, there is a high probability to succeed a peaceful period in Romania, which may be characterized even by a short-term period of decline succeeding the pre-integration phase.

The table below shows the evolution of profitability rate:

Segments	2004	2005	2006
Office	10.5% - 12.5%	9% - 11%	7% - 8.5%
Commercial	13%	10% - 12%	7% - 9%
Industrial	15% - 17%	11% - 12%	8% - 10%

Source: Romanian National Association of Realtors.

The primary evaluation

The objects of the International Accounting Standards no. 40 are the real estate investments, for example: the buildings which are the object of an operational leasing, the investment of the inhabitant financial leasing agreement, holding properties in order to benefit from value increase on a long-term period. The real estate investments must be distinct from the assets used in production, services, administration or from the properties sold during the normal activity course; those are the object of other relevant standards.

The primary evaluation of real estate investments is based on costs, comprising the purchase price, including any other direct cost, such as legal fees, transfer taxes and other transaction costs. The cost for an investment used in self-interest is the cost on the finalization date. For the assets obtain on financial leasing basis, the cost is established according to the International Accounting Standard no.17 „Leasing".

Subsequent expenses

Subsequent expenses related to a real estate investment must be added to the accounting value unless is presumable that the company will record future economical benefits, additional to primary estimates. Otherwise, the cost must be included in the profit and loss account.

Subsequent evaluation

Subsequent to the primary recognition, an entity should decide if the investment is recorded to cost or fair value. Whatever the company accounting policy may be, it must be consequent for all the real estate investments. In both cases, must be determined the fair value of the real estate investment – with a view to evaluation (applying the fair value model) or presenting information (applying the cost model). International Accounting Standard no. 40 sustains (but not claims) that the entities can establish the fair value on the basis of an experienced assessor's evaluation.

Evaluation methods

Subsequent to the primary recognition, in case that fair value model is chosen, the estimates of all the real estate investments must be based on the fair value.

What method of evaluation the management should decide?

International Financial Reporting Standards do not impose a particular evaluation method. International Accounting Standards Board affirms that the evaluation on a fair value should consider the guidelines issued by International Valuation Standards Committee. The methods approved by International Valuation Standards include:

- Comparison method**:** similar real estate sold on the market is compared with the evaluated real estate. The prices are analyzed using proximate comparison elements and the prices suffer an adjustment equal to the difference between the real estate sold on the market and the evaluated real estate. Comparison method is used in case of existing adequate information related to the market. The soundness of this method decrease in case of market volatility or restricted transactions.

- Income capitalization method: market value is estimated considering the future benefits related to the real estate. The method uses net incomes generated by the real estate, capitalized in order to determine the real estate value.
- Cost method: establishing the real estate value on basis of an equivalent real estate costs. Recent real estates evaluation uses this method.

The above mentioned evaluation methods do not count for future capital expenses improving the real estate and do not presents the future benefits related to those future expenses.

The fair value model

Subsequent to the primary recognition, a company choosing the fair value model should estimate all the real estate investment on their fair value, excepting the case when the company is not able to determine the fair value. In extremely cases of the impossibility to determine the fair value, the companies should estimate the investment using basis method presented in the International Accounting Standard no. 16. Residual value of the real estate must be considered null. Up to the disposal of the real estate investment, the company must apply the regulation of the International Accounting Standard no.16.

The net profit or loss of a period should include the benefits or losses generated by the changes related to the investments fair value from that period of time.

Usually, the investment's fair value is the investment's market value, meaning that the most presumable price which can reasonable be obtained on the market at the balance sheet date.

The fair value of the real estate investment should reproduce the market present condition and the circumstances existing only at the balance sheet date, not a previous or future date.

In absence of current prices in an active market, a company can rely on information obtained from other sources, including:

− current prices in other active markets with distinct nature, condition or locating (or related to distinctive leasing agreements or any other nature), adjusted in order to reflect the differences;

− up to date prices from less active markets adjusted in order to reflect the changes generated in the economical condition at the transaction date;

− updated estimates of cash flow, based on relevant estimates of future cash flow, sustained by the term of any leasing agreements or any other nature and (where possible) by external information. External information can be similar real estate's rents in the current market, having the same position and condition, as well as using updating rates which show the uncertainties related to the cash flow value and cycle in the condition of the current market.

To determine fair value of real estate investments, a company will avoid double record of assets or debts which are recognized in the balance sheet as distinct assets or debts.

For example:

a) Equipment as elevators or air conditioning systems are often components of a building and, in general, are included in the category of real estate investments, and they are recognized separately as tangible assets.

b) if an office is rented along with the furniture, than the fair value of the office includes, in general, the fair value of the furniture, because incomes from rent are related to the furnished office. When the furniture is not included in the fair value of the real estate investment, the company will not recognize the furniture as being a separate asset.

c) Fair value of a real estate investment excludes incomes from operational leasing delayed or unearned, because the company will recognize them distinct as an asset or debt.

If a company previous assessed a real estate investment at its fair value, then the company must continue to assess this real estate investments at their fair value, until the time

of cession (or until the time when the real estate becomes a real estate used by the owner or the company begins to improve it with the intention to sell it during the normal activity), even though the comparable transactions on the market become less frequent or the market prices are available with some delay.

The model based on cost

After initial assessment, a company which opted for the model based on cost must assess all its real estate investments using accounting treatment based on IAS 16, which is at cost, less any cumulative depreciation and any cumulative depreciation loss.

Conclusions

Transfers from real estate investments must be made only when exists a modification in using the property which dose not satisfy the definition of real estate investments. Where the real estate investment was registered at its fair value and is reclassified as real estate used by possessor or as stock, the cost of property for future registration is represented, according to IAS 16 or IAS 2, fair value at the date of use modification.

Therefore, if a real estate investment is improved with the intention of selling, will be transferred at stocks at the date when the improvement process begins. In the aim of registering the stock, fair value of the real estate at that moment will be taking over as "cost".

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THE STRATEGY OF THE INTERNAL AUDIT IN MANAGERIAL COUNCELLING

Ana MORARIU
Cornel Dumitru CRECANĂ
Bucharest Academy of Economic Studies

Abstract. *The audit service is setting for itself the purpose of a historical preview in the area of the internal audit and the Corporative Governance having the goal of evaluating the past, present and the future of an entity in achieving the target-objectives so vital today for the public and economic entities in Romania. Internal Audit, through the aimed objectives, helps by increasing the credibility of the financial statements.*

Keywords: internal audit; corporative governance; management; objectives; performance.

The concept of **internal audit** has recently appeared in the accounting profession in Romania and has developed, step by step, as the modern management practices are implementing in the firms that have as goal to become more performant and more competitive on the market.

As a matter of fact, there is no more time to wait for the principles of modern management to become predominant in the Romanian firms. With the admission in the European Union, our firms will find themselves in direct competition with top European companies, and the quality of management will be the determinant element on the integrated market.

Furthermore, the Romanian firms that already operate on an European or on an international market, have organized for themselves, willingly or unwillingly, an adequate management and an audit function, due to the fact that this is an important aid, a key to survive in a world where, above all performance, competitively is essential.

The public institutions are constantly confronted with the improvement of their performances. The internal audit function offers, from this point of view, the reasonable insurance that the developed transactions, the decisions taken are „under control" and, in this manner, contribute to the achievement of the entity's objectives.

It is very important to know the history of the internal audit and of the Corporative Governance to evaluate the past, present and the importance of them for the future of the Romanian enterprises.

The concept of **internal audit** used presently, is relatively recent and has been used for the first time in the United States of America, when the enterprises were affected by the economic recession and had to pay important sums for external auditors that offered certification of the accounts of the enterprises rated at the Stock Exchange.

The enterprises have started to organize their own internal audit departments, especially in order to reduce expenses, by taking over the preparatory operations from inside the entity, and for the achievement of the certification activity, they have kept rellying on the external audit offices, which had the right to supervise the activity of the enterprises. In order to distinguish between the two categories of auditors, the employees of the external audit offices have been named external auditors and the employees of the enterprises have been named internal auditors.

In the evolution of the internal audit we can underline the following important stages:

The account audit has been certificated for the first time as current practice on the european continent in Ancient Greece and then in the Roman Empire.The hellenic system of public finances stated that there were also governmental auditors that examined the accounts of everyone responsible with the administration of public finances, especially at the end of their mandate.

After the fall of the roman empire, the period of the barbarian invasion has determined a regresion of the economic and social life in Europe.The Italian cities were the first to recover economically, adopting the audit as a current practice. The objective of the audit remains the same, tracking the prevention of fraude.

Until the 16th century, the audit practices had as main purpose the check the integrity of the administrators, not the quality of the records. The audit did not have as basis the internal control, and also,did not have as purpose, even as a seccundary one, the control of the actual accounting (as means of record for transactions).The audit technique mainly consists of the control of all transactions that took place.

After the beginning of the Industrial Revolution, due to the development of business, including those with industrial character, as well as the requirements of the suplimentary capital, the atitude towards the accounting system has radically changed. The accounting starts to be standardised in some way, and the results of the internal control are starting to be used in the audit procedures, however, the audit continues to base itself on an exhaustive control of transactions that have the purpose of detecting fraude.

After the middle of the 19th century, the owners are trying to check themselves the correctness of the managers but they realise thaht the checking of the accounts require a qualified personnel, that can, in the same time, be independent from the management of the checked company. Frpm this moment on the audit profession is starting to get a considerable boom, due to the growing request for professionals with independent status.

The objectives of the audit are starting to aquire new meanings. If untill now the accent was set on the control of the financial situations, following if all the transactions of the entreprise are registred, the correct representation of them in the registers and in the balance of accounts, from 1904 it has been decided that the auditor should check also the physical existence of the entreprises' actives.

The development of the audit in Great Britain over the 19th century, as a result of the industrial revolution and the capitla growth, has influenced profoundly the evolution of the auditor profession in the United States. Even if, by the year 1932, the american practice of audit has known a strong british influence, in the first decade of the 20th century, the auditor profession has known a considerable boom in America, developing as a self standing profession.

The american audit has evolved very quickly towards the usage of the **„audit tests"** as procedures adapted to the rhythm of expansion of business on the american market. In parallel with the checking surveys, there have been also used the technique of checking the transactions through the confirmations from third parties. The americans were the first that started the uniformisation and the standardisation of the audit practices even since the year 1917.

Presently, the internal audit is a very well organized profession, found in over 80 national institutes, that are part of the Institute of Internal Auditors (I.I.A) whose headquarters are in Orlando, in the United States of America. Also, the F.I.A.I.C (French Institute of Auditors and Internal Control) is one of the most important and dynamical national organisms.

After the year 1950, the audit has known a period of important progress, the first and most important objective of the audit remains the determination of the degree of fidelity of the financial situations.

The function of the internal audit has established itself in England and France, at the beginning of the 60's, being strongly marked by its origins in the financial-acoounting control. Only after the years 80's and 90's the function of internal audit has started to take shape in the activity of the entities, and its evolution, continues even in the present.

In June 1999, the Council of Administration of the **IIA** has defined **the internal audit**, as „the internal audit is an independent activity, objective of insurance and consultancy meant to raise the value and to improve the operations of an organization" .The internal audit helps an organization to obtain its objectives, evaluating, through a systematic and methodic manner, the processes of risk management, control and governance of the organization and by making propositions to consolidate its effectiveness.

The objectives of the internal audit vary from a wide range and depend on the size and the structure of the entity, as well as the requirements of the management and its administrators.

The activity of the internal audit have the following objectives:

- The revisal of the system of accounting records and the system of internal control: the responsibility of the management in establishing some adequate accounting and internal control systems, giving the required attention to the principle of continuity of the activity.
- The examination of the financial and operational information: the revisal of the models used to identify, quantify, classify and report the information and the specific examination of some distinct aspects from the activity of the entity, including the detailed control of the transactions, the balance of current account from the balance of statements, or the procedures of establishment of this information;
- The revisal of the functionality of the economic system, of the efficiency and effectiveness of all categories of activities and operations;
- The revisal of the correspondence with the present legal requirements, as well as with the internal resolutions and/or decisions issued by the management of the entity;
- The special investigations in private areas, as for example, the suspicion of fraud and the elimination of any type of losses;

Starting from these conclusions and regulations, the definition if the internal audit has been expressed in many meanings linked to the evolution of the profession. Even the official definition, comprised in all the guidelines and the specialty literature is criticized by some, considered too restrictive by others, or insufficiently explained by the professionalists interested in research and in a very exact positioning of the internal audit concept.

By simplifying and sinthethysing the meanings, one can say that the most appropriate definition of the internal audit to the meaning of these activity could be: „The internal audit is an independent and objective activity that gives an entity an insurance in what regards the degree of control over operations, a guidance to improve its operations and contribute to the achievement of an extra value."

The Romanian entities expect from the internal auditor advantages ruled by the cost-benefit report. How can these advantages be obtained? Or why doesn't the manager of an entity manage to always obtain the objective criteria that they aspire at, when the internal auditor has all the professional knowledge in the area?

Where are the weaknesses? By carefully reading the first part of the definition of the internal audit: „is an independent and objective activity".

How can a manager understand the independence of the auditor when it is paid by the enterprise on a non-determined period, and his recommendations for the deficiencies found are becoming uncomfortable?

There is a simple way to solve this issue:

The internal auditor must not be theoretically and scriptically subordinated to any functional structure of the entity; he must act directly, independently and objectively; to support the aquarate function of the enterprise/entity.

In the context, it is understandable the fact that the independent attributions of the internal auditor do not represent an inconvenience for the manager. He is called to understand the truth that the internal auditor is a professional that, in the interest of the management, undertakes an activity that must not be redirected towards *convenient* areas, but towards an aid, sometimes uncomfortable, but very necessary.

Practically, the management cannot get involved, interfere in the internal audit, but he is fully interested in considering, appreciating and valuing efficiently, the conclusions resulted from this activity. Furthermore, any tendency to direct the internal auditor towards a small control that would only create major confusion between the managerial responsibility for the internal control and the functionality of the system in it's total is totally wrong.

In this sense, it is very important to underline the double character of the independence, the one linked to the independence of the service from the entity but also the independence of the auditor by the objectivity customs.

This does not mean that the financial auditor is a second manager. On the contrary, his job must be approached subjectively, in the context and in the support of the business.

In his turn the manager has the duty to insure that, in the phase of hiring the internal auditor, this person has the necessary professional capacity, authority and psychological capacity, strongly linked to the requirements of the activity that is to be delegated to the auditor and according to the specific character and the object of that entity.

In other words, there is a certain „market", an certain offer of internal auditors, and the people who want to qualify in winning internal audit contracts are interested, more than any other professionals, to have certain standards, that will position them on the top of the professional qualification pyramid.

That is, in fact, what the Chamber of Internal Auditors from Romania has in mind, to support the members that undertake this type of activities. Therefore, The Chamber has offered the professionals the following: the international standards of internal audit, professional rules, the ethical code, and intends to develop a set of minimal specific rules.

More concretely, the internal audit helps the entity to achieve its goals, by evaluating, through a systematic and methodic approach, the risk management procedures, control procedures and governance procedures for the enterprise and by making proposals to consolidate the efficiency in total independence and not to be dependent on the management.

We consider appropriate that certain terms be clarified:

- The degree of control: *the efficiency of the functionality of the internal control system*
- The value surplus in the internal audit: *ensuring some advantages regarding the rational management of the entity's resources;*
- The evaluation: *the total number of methods to appreciate the functionality of a certain process.*
- The systematic and methodic approach: *the use of some techniques and procedures,based on the principles of the Practical Rules of Application of the Internal Audit.*

In this context it is obvious that there has to be a clear distinction between the internal control and the internal audit: the internal control is a system conceived to offer a reasonable insurance regarding the achievement of the managerial objectives, and the internal audit, like its definition stated, evaluates its functionality.

The Corporate Governance represents a set of principles, standards and good governance practices, issued by a certain institution, that have no obligatory application, being optional.The acceptance of the corporate governance principles has become concrete by elaborating the Principles of Corporate Governance by the Organisation for Cooperation and Economical Development (OCED).

In the European Union the concept of corporate governance has started to shape after the year 1977, when most countrieshave adopted codes of corporate governance.The urge to adopt these codes was determined by the financial scandals linked to the bankrupcyes of

some english companies rated on the capitla market. On the other hand, the asian economic crisis as well as the withdrawl of the investors from Asia and Rusia have raised some problems for the international business community, problems related to the consequences of the distrust of investors in the management of the companies.

Thus, the Cadbury code from 1992 was established to prevent some similar financial scandals and to regain the public's and the investors' trust in the governance proactices of companies.

Great Britain holds the largest number of corporate governance codes, almost a third of the totla number of codes issued by the member countries of the European Union.The Corporate Governance includes the relationship between the board of administartion and the interested parties, respectively: the shareholders,the employees,the clientsmthe suppliers,the government but also the public.

The main purpose?

The efficient management of the material, human and financial resources, the prevention of fraud and the minimization of risks regarding the events and the transactions that take place in an entity.

Besides the classic mission of insurance, the internal auditors assume a counseling role in order to improve the fundamental processes of the institution. The audit missions underline the anomalies and the semnificative weaknesses of the processes that are undertaken in the institution, so that their consequences can be solved or at least softened through.

The internal audit has to propose audit plans based on risk analysis, in order to establish the priorities of the audit activity.

The audit based on risk analysis, alters the way the auditors define control and risk.

The internal audit has to help the management of the public entities to maintain an adequate internal control, by evaluating its efficiency and by encouraging its continuous improvement.

The evaluation of risks has to consider the management of change: people change, methods change, risks change. The evaluation of risks represents the identification and analysis of the relevant risks that can appear in the fulfillment of the objectives, to better understand the method in which they should be administered.

We consider that the perspective of a public internal audit consists of managerial assistance to help the management organize and perfectionize the internal control. Through the sharing of knowledge, the internal public audit allows the defining of perspectives and contributes to progress.

It is very important that the internal audit participates in the debate at the highest level of decision in the institution, participates in the analysis of the important problems and the system implications that occur in the activity for the entity itself, thus creating the possibility of orienting the activity of internal audit towards the problem that the management is facing.

The internal auditors have to have clarity, consistence, professionalism, courtesy, competence, communication and also, the people audited have to fell that the auditors are on their side, are acting in their interest and, most importantly, are adding value to the entity audited. The surplus of value brought by the internal audit is the result of the competency contribution for the practice of rational internal control.

The internal audit must be approached in a constructive manner, that has as basis a partnership manager/auditor, future oriented, based on professionalism and objectivity from the auditors and the audited's acceptance of responsibility regarding the role of the internal audit.

The forming of the public internal audit in Romania through the Law number 672/2002 has determined de start of the reorganization process of the internal audit structures and activities from the public institutions. According to the internal regulations there have been elaborated the General rules regarding the reinforcement of the public internal audit and on this basis, the public entities have elaborated their own specific rules in order to reinforce the internal audit.

Conclusions

The audit has evolved in time from an exhaustive control of transactions in order to detect fraude, towards an survey investigation, in order to detect the main risks of the entities and to evaluate the internal control that had been organised and inforced at their level.

Corporate Governance is practicaly an attempt to define a good managerial practice and to introduce a series of mechanisms of verification of their implementation and function according to the existing requirements. Following the fact that Romania has joined on an economic level as well the european space, it is time that the professionals elaborate a Corporate Governance code like the european countries have done, accept and apply it.

The internal audit helps the institution achieve its goals by evaluating its processes of risk management, control and leadership. The internal auditors can, throughout permanent counceling, to help the institution identify, evaluate and implement a risk management and control management device that will allow the entity to overcome these risks.

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ENTERPRISE RESTRUCTURING IN ROMANIA'S TRANSITION ECONOMY. CONCEPT, METHODOLOGY AND MEASUREMENT

Dumitru D. POPESCU
Bucharest Academy of Economic Studies

Abstract. *This article examines the large-scale corporate restructuring process in Romania that had as objectives to restructure viable corporations, liquidate nonviable ones, restore the health of the financial sector and create the conditions for long-term economic growth.*

Restructuring involved changes in corporate governance, organizational structure, management, labor, capital, technology, output, and sales.

A comprehensive strategy and methodology for restructuring, encompassing both the corporate and financial sectors, was put in place once the economic crisis in Romania of mid nineties was judged to be systemic in scope.

The extent of the restructuring, the required resources and timing became the critical issues. These issues were compounded by contention for scarce resources, lack of legal framework, lack of expertise within the Romanian enterprises and inefficiencies resulting from the scope and complexity of the activity being carried out across the economy by various entities.

The actions taken that are justified on a cost - benefit basis and measured to ensure that the desired results are achieved within a certain timeframe create the concept of „Efficiency-Based Restructuring".

This makes it necessary for the manager to have a well-defined program of actions to be implemented along, a critical path, short term and long term priorities identified. Various performance indicators may measure the results of restructuring in Romania but is required a selection and refined interpretation of facts.

Keywords: enterprise restructuring; financial restructuring plan(FRP); risk mapping assessment.

JEL Codes: D21, L33, G32.
REL Codes: 19F, 19I.

The Challenge of Corporate Restructuring of SOE (State-Owned-Companies)

Laying the Foundation

Successful restructuring is not possible without a strong foundation established by government action across the spectrum of economic policies.

- First, overall economic stability must be entrenched to provide the confidence needed for debt restructuring. Stable prices, interest rates, and exchange rates are needed for debtors, creditors, and potential investors to have enough certainty to do business.
- The scale and nature of corporate distress must be quickly assessed by the authorities, banks, and advisers to determine if the problems are systemic and thus whether the government should take a leading role. The assessment of corporate distress can be based on quick calculations of the debt servicing capacity of the aggregate corporate sector, the demand for bank credit, increases in nonperforming loans, and bankruptcies.
- A comprehensive strategy for restructuring, encompassing both the corporate and financial sectors, should be drawn up as soon as possible once the crisis is judged to be systemic in scope. The involvement of all interested parties in the formulation of the strategy

enhances its credibility, as does transparent presentation of its objectives, tasks, and methods of implementation. Sweden, during its banking crisis of the early 1990s, and Korea, in 1997 – 1998, benefited from the early formulation of comprehensive restructuring strategies.

- A supportive legal, regulatory, and accounting environment is necessary for successful corporate restructuring. Important legal aspects of restructuring include foreclosure standards, foreign investment rules, and merger and acquisition policies. Regulations governing debt-equity conversions and asset sales often need to be changed to make possible new and complex restructuring transactions.
- Corporate governance must be brought up to international standards to provide incentives for viable firms to restructure their balance sheets and maximize their value. Improved governance is needed not only to push managers to restructure the existing debt stock, but also to operate profitably and improve future profit flows. Often liberalization of foreign investment can promote good governance through the importing of international best practices.
- Closing nonviable corporations will incur social costs that may require offsetting government actions to help the poor and to maintain political support for restructuring. Hungary and Poland took measures to reduce income disparities in the mid-1990s, which reflected more than just corporate restructuring, albeit with mixed success. In East Asia, rudimentary social safety nets at the time of the 1997 Asian financial crisis were expanded to offset the impact of the crises on the poor through income transfers, unemployment-limiting measures, and measures to maintain access by the poor to social services. Social measures should be formulated with the cooperation of corporations and unions.
- **Restructuring the Financial sector**

Even after the foundation has been laid, corporate restructuring cannot begin to make headway without substantial progress in restructuring the financial sector. The draining of bank capital as part of the crisis will usually lead to a sharp cutback in lending to viable and nonviable corporations alike, worsening the overall contraction. Moreover, banks must have the capital and incentives to play a role in restructuring.

The first task of financial restructuring is to separate out the viable from the nonviable financial institutions to the extent possible. To do this work, financing and technical assistance from international financial institutions can be helpful.

Restructuring the Corporate Sector

Corporate restructuring can begin only when banks and market players are willing and able to participate. As with the financial sector, the first task is distinguishing viable from nonviable corporations. Nonviable corporations are those whose liquidation value is greater than their value as a going concern, taking into account potential restructuring costs, the „equilibrium" exchange rate, and interest rates. The closure of nonviable firms ensures that they do not absorb credit or worsen bank losses. However, the identification of nonviable corporations is complicated by the poor overall performance of the corporate sector during and just after the crisis. Viable and nonviable firms can be identified using profit simulations and balance sheet projections, as well as best judgment.

Liquidating nonviable corporations during a systemic crisis usually requires the establishment of new liquidation mechanisms that bypass standard court-based bankruptcy procedures.

The balance sheets of viable corporations must be restructured. Restructuring will involve private domestic and foreign creditors, newly state-owned creditors, and asset management corporations, as well as stakeholders such as unions and governments. Usually, balance sheet restructuring takes place through the reduction of debt or through the conversion of debt into equity.

Choosing the Form of Government Involvement

Experience has shown that large-scale corporate restructuring requires the government to take a leading role so as to establish priorities, limit the economic and social costs of crisis, address market failures, and deal with the obstructions posed by powerful interest groups. The government's role in corporate restructuring is highly country-specific owing to its complexities, social consequences, and involvement of different elements of society. Thus, there are relatively few overarching operational principles or obvious ways to organize the policy choices, especially in comparison with other structural policy areas such as capital account liberalization and labor market reform. The need for the government to first expand and then shrink its role helps explain the long time needed to complete restructuring. The new restructuring institutions are subject to economic and political constraints that force the government to weigh difficult tradeoffs, especially between restructuring's short-term costs (unemployment, dramatic falls in asset prices, learning curve of new corporate managers, for example) and long-term benefits (improved resource allocation, and safer balance sheets).

Restructuring – Achieving Commercial Viability Through Managed Change

Definition: Restructuring a commercial activity implies change – change in the way a company creates value and delivers that value in the form of goods or services to a marketplace.

It requires, up front, a commitment to the activity on the part of the enterprise management and any stakeholders.

As evidence of this commitment, all enterprise management, regardless of the financial condition of their company, should have in place an on-going program to systematically review, from a „zero base", the values generated by each activity in their company. This generally is done, at a minimum, each year during the budgeting and business plan process. It should be recognized that this is difficult in companies such as SOE's without cost accounting systems and profit center definition.

However, unpredictable changes in an economy in general and the respective competitive market of an enterprise in particular, will require this assessment to be carried out more frequently.

This process of „mid-course assessment and adjustments", as management navigates down a critical path defined in a business plan, translate over time into a restructured business.

Incremental implementation of comprehensive restructuring programs

The success of a business is fundamentally measured in how well management carries out this process – and indeed, the long term commercial viability of an enterprise is dependent on the ability of management to implement the changes needed to optimize its strengths and minimizes its weaknesses.

In the case of Romanian enterprises it is well understood that there is a need for some degree of restructuring in all companies due to the loss of primary markets, level of technology, cost of working capital, energy costs etc.

The extent of the restructuring, the required resources and timing become the critical issues. These issues are compounded by contention for scarce resources, lack of legal framework, lack of expertise within the enterprises and inefficiencies resulting from the scope and complexity of the activity being carried out across the economy by various entities.

However, the cost of doing nothing and delaying the implementation of restructuring is such that incremental actions and highly selective approaches are imperative. Simplistically, this means that if you can quickly implement a subset of actions that have the potential to achieve a large part of your overall objectives, you should incrementally proceed and worry about the residual as you go forward.

This is the essence of „Efficiency-Based Restructuring" which is proposed as a methodology and generic theme to be applied to this activity by all involved - either in managing the process or implementing the needed changes.

Efficiency-Based Restructuring requires that any actions are justified on a cost/benefit basis and measured to ensure that the desired results are achieved within a certain timeframe.

This makes it necessary for the manager to have:

a) a well-defined program of actions to be implemented along
b) a critical path
c) short term and long term priorities identified.

Additionally, in overseeing the process of change, implicit in any restructuring program, a manager can benefit from another simple rule: „SITUATION – MISSION – ACTION" – i.e.:

(1) periodically reviewing a business situation,
(2) adjusting the business activity to a realistic set of objectives and
(3) implementing an appropriate set of actions.

Iterations of this basic rule of management are simply periodic reviews of the business situation that has developed as a result of the short-term actions that have been implemented.

If the situation has improved or deteriorated, the objectives should be either maintained or realistically adjusted and an appropriate set of next steps would be implemented.

Figure 1 is a schematic of the basic process.

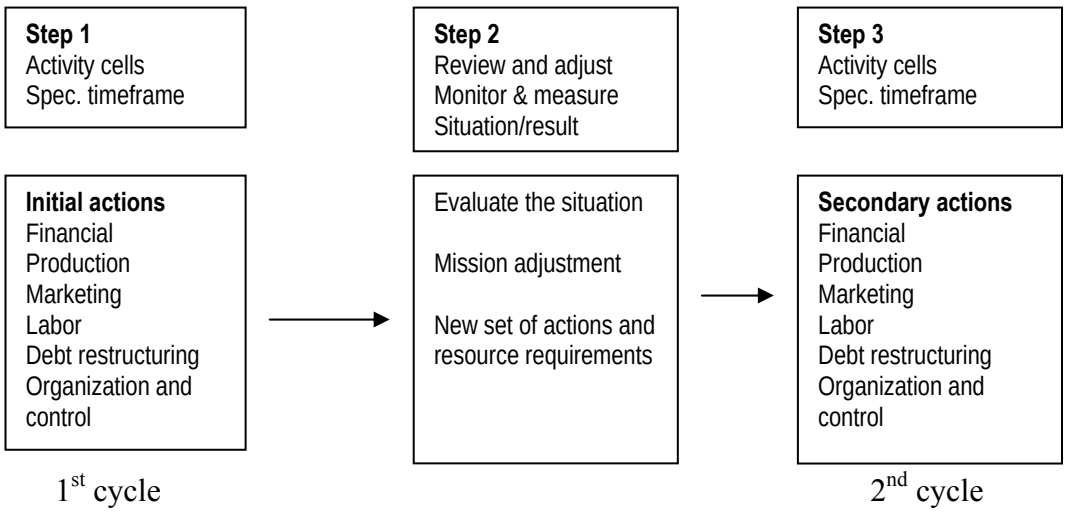

Figure 1. *Short-term action plan (STAP's) cycles*

Enterprise Level Restructuring

Identifying the achievable and taking charge

Restructuring previous State Owned Enterprises (SOE's) is very different from restructuring a fully „commercialized" company.

Management of previous SOE's are generally production-oriented professionals accustomed to having their mission defined by a centralized authority that was also responsible for providing resources.

Management's mission in an SOE was largely to control the process of delivery per specifications defined from outside the enterprise.

Therefore, it is essential that the enterprise manager implements what is achievable without outside intervention and quickly build momentum on cost control and improving liquidity pending the change in policy and/or the acquisition of outside resources.

The identification of what is achievable and then taking charge of a plan of action is fundamental to the concept of „Efficiency-Based Restructuring".

It must begin with an understanding of some of the immediate short term actions that should be undertaken as well as what strategic changes are necessary over the long-term to re-tool corporate culture, management infrastructure and other important elements of the business.

As examples of immediate and long-term changes, the following outline is useful in organizing and mobilizing the restructuring of a commercial activity (figure 2):

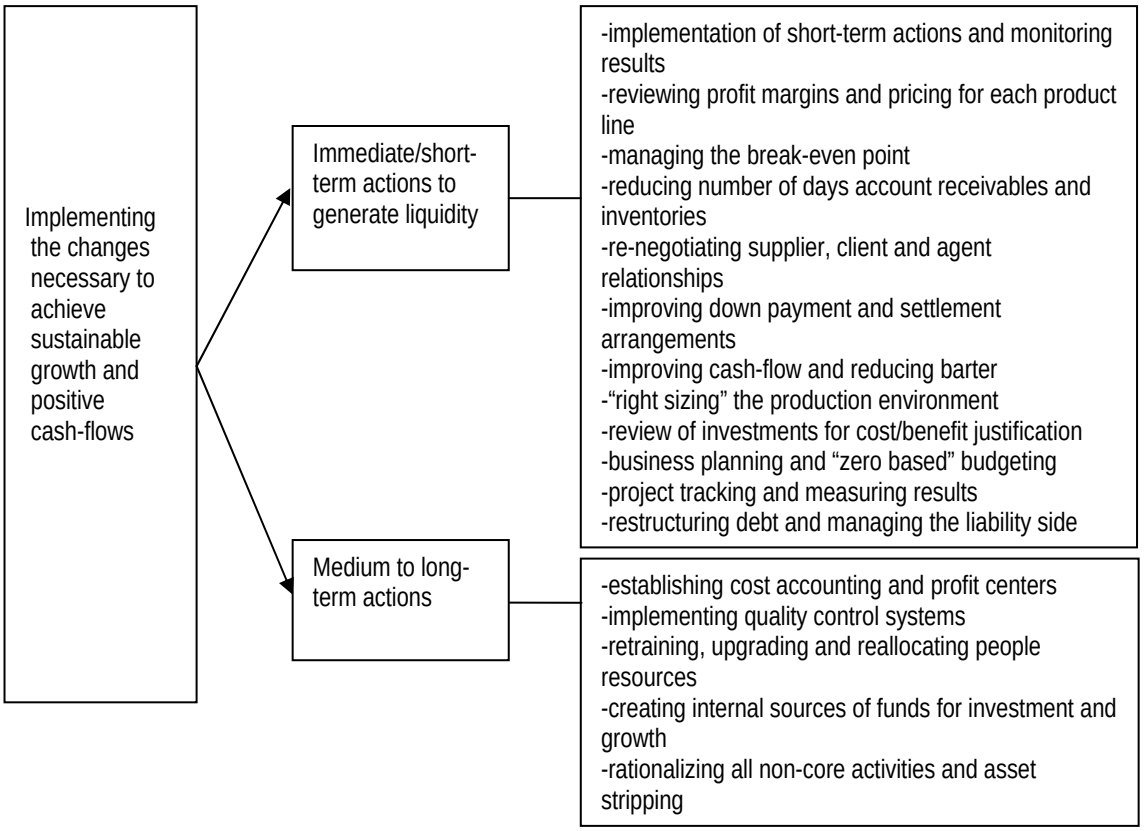

Figure 2. *Actions to generate positive cash-flow*

Techniques for quick assessment and momentum building

In order to quickly assess a company, the technique of "Risk Mapping" can be employed.

This is a process of reviewing the operating landscape of a company – its internal operations, as well as the external environment in which the business is conducted – and identifying the high risk „hot spots".

Having this map will assist a manager and his key staff to focus on areas that can be changed without outside intervention or investment in an effort to quickly build momentum toward restructuring.

These immediate areas of attention are intended to be areas of potential cost cutting in order to generate liquidity on a short-term basis.

The hot spots will be the priority items in a „Short-Term Action Plan" and would be the first phase of an overall restructuring program.

The initial benefits of such a short-term action plan in the case of a company that is not yet privatized could be:

1) To empower the management to take harder and longer-term actions;
2) To buy time and resources needed for an overall restructuring program;
3) To promote further „buy-in" to the process by key staff;

4) To position the enterprise for privatization; and

5) To reduce the drag on the national budget pending transfer of ownership.

The following is a matrix of issues that should be reviewed in the „Risk Mapping" process in order to identify areas that require immediate attention. These issues are „tiered" with the „Short-Term Action" items being within Tier 1 and are generally areas that may affect immediately the implementation process and have good potential to generate immediate liquidity improvement.

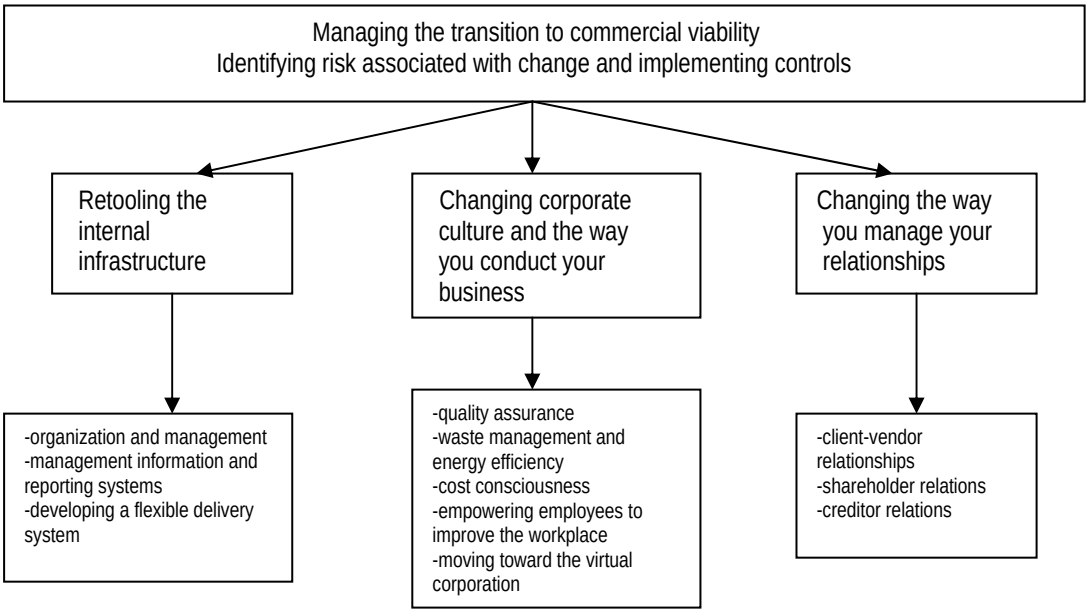

Figure 3. *Risk Mapping Process*

Efficiency-based restructuring is a realistic approach to the restructuring of a large number of complex enterprises across a wide range of industrial and agricultural sectors within a short timeframe and with limited resources. This approach maintains a primary objective to identify immediate improvements that can be incrementally implemented by the enterprise management, with little or no outside intervention, in order to buy the time necessary to achieve overall turnaround of the company.

For example, in the case of complex companies, the initial evaluation process can take up to 180 days to complete and obtain the necessary review and approvals from stakeholders.

During this timeframe, the financial condition of that company can improve or deteriorate sufficiently to warrant a graduation to a more or less drastic set of turnaround measures.

Therefore, time is of the essence and it is imperative that immediate steps be taken to prevent further deterioration of a company's operations and to preserve value that can ultimately be privatized.

The basic approach to „Efficiency-Based Restructuring" involves the following:

Choosing the right approach

The selection of the right approach to restructuring each enterprise depends on a number of variables – some of which include:

(a)profile of the enterprise(s) to be restructured, the particular industrial or agricultural sector involved, as well as the capabilities of the entity overseeing the project

- level of distress and risk of survival of the enterprise.
- type and size of enterprise (i.e. industrial vs. agricultural, metallurgy vs. petrochemical, highly integrated etc.).
- number of enterprises and sites involved and other logistical issues.

- level of expertise within the evaluating organization and in the selected enterprise to be restructured.
- strategic importance of the enterprise activity (in terms of export earnings, sole producer status, principal regional employer etc.).
- level of technology installed in the enterprise and the level of integration within the sector.
- attitude of management, unions, line ministries towards the process.

(b) scope of program and resources available

- budget and timeframe available and linkage with schedules for other national programs.
- pre-privatization vs. post-privatization restructuring.
- number and complexity of deliverables required (i.e. short-term action plans to achieve quick liquidity, conciliation agreements and detailed debt workout plans, strategic turnaround programs, environmental assessments, re-deployment schemes).
- availability and integrity of up-to-date financial and operating information on the enterprise(s).

(c) general environment within which the project is being conducted

- number of stakeholders involved and level of commitment to the process
- mandates from the shareholders (government or private)
- legal framework (i.e. insolvency law passed and mobilized) and legal status of enterprise to be restructured
- level of outside intervention required for technical assistance, periodic reviews and approvals, etc.
- linkage with other national priorities (such as international financial institution programs)
- life span of entity responsible for restructuring (i.e. task force vs. government agency).

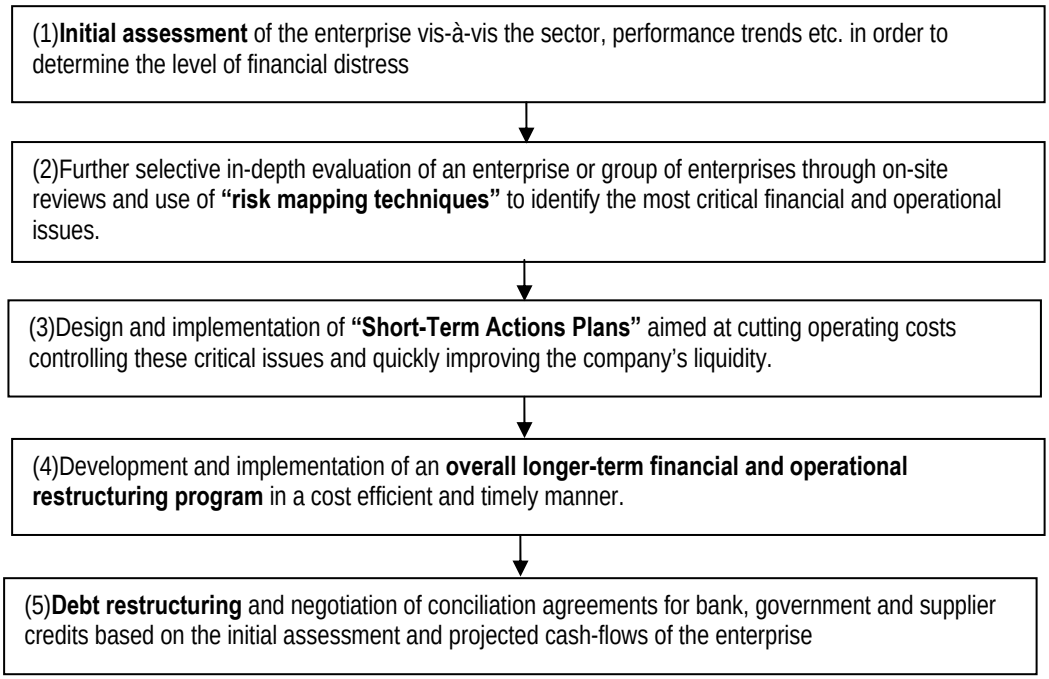

Figure 4. *Basic approach to „Efficiency-Based Restructuring"*

Unique approach to the restructuring process

A) Establish a „Special Designed Delivery System" and a core team of professionals geared to deliver the following products for a wide range of industrial and agricultural activities within an immediate timeframe and with limited resources:

1. Short-term action plans
2. Conciliation agreements
3. Financial restructuring plans

B) Establish a „Partnership for Privatization" with the enterprise through „Cooperative Agreements" that provides for the joint development by the agency and the enterprise management of the above products.

C) Establish „Strategic Alliances" with other entities such as line ministries, multilateral organizations etc., that share a „Common Purpose" in reforming the economy.

Conduct initial evaluations of the enterprises and develop the following:

1. A „Triage" of the involved enterprises and classification of enterprises.

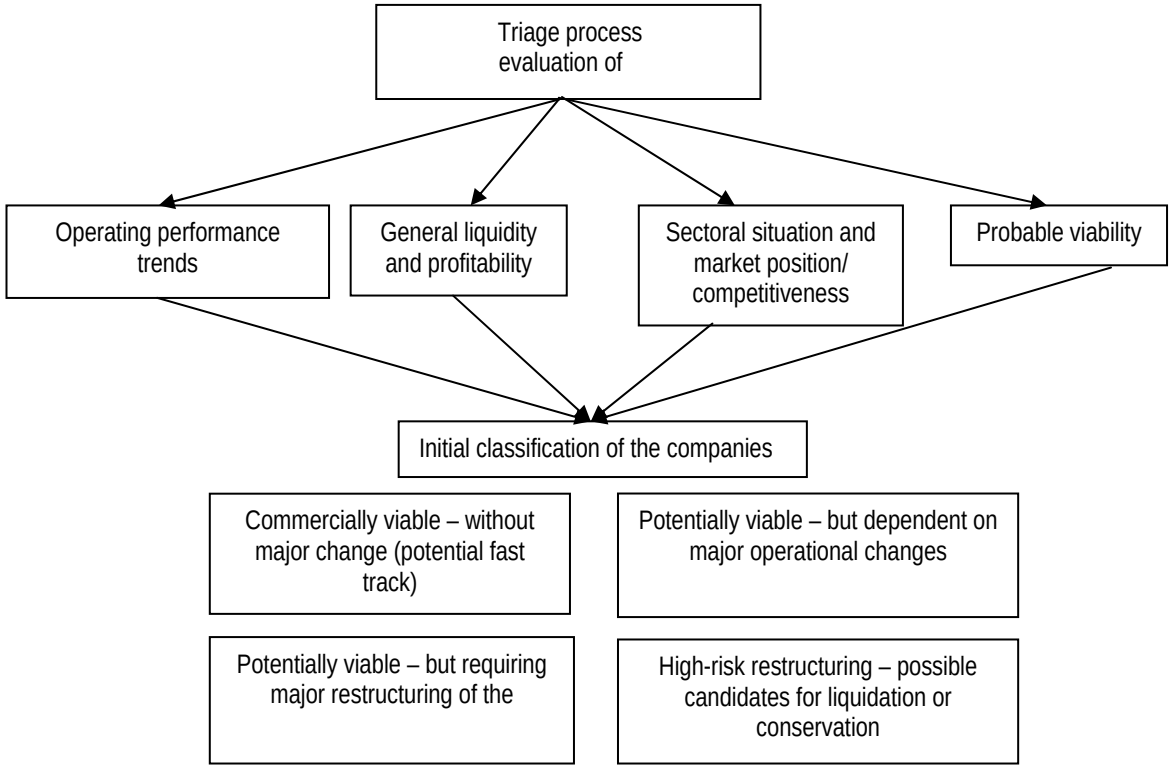

Figure 5. *Production process – Stage*

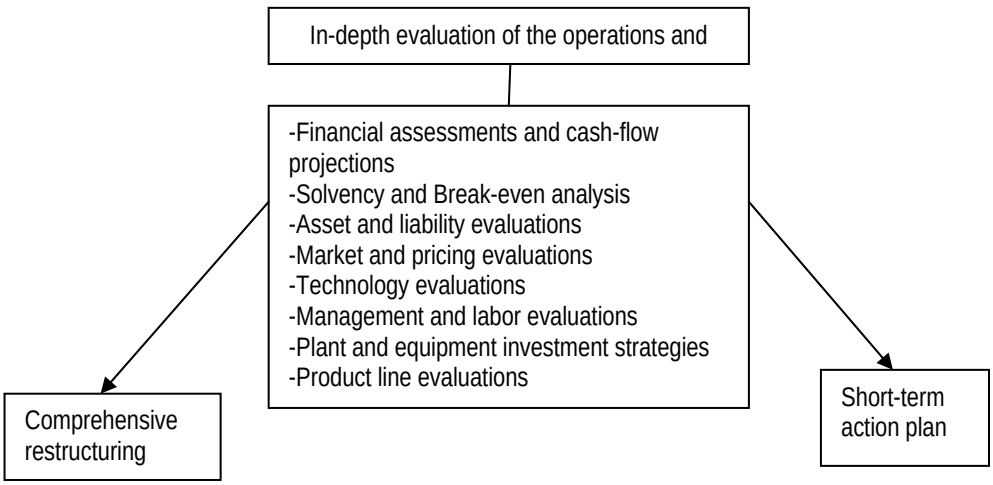

Figure 6. *In-depth evaluation*

„Early warnings" needed to alert the various stakeholders and allow them to make appropriate interim decisions.

2. Short-term action plans (STAPs) that can be incrementally implemented by the enterprise management to reduce financial overheating during the period the longer term plans are being developed.

3. „Discretionary credit guidelines" (CAP'S) that will provide enterprise specific interim support that is justifiable and which will allow the enterprise to continue operations during the restructuring process.

4. „Special technical assistance" that will put in place immediately needed management and operations expertise and provide key know-how to the enterprises and better position them to manage the transition process and for privatization.

5. Proceed with further in-depth operational and financial analysis of the enterprises while closely monitoring the incremental implementation of the STAPs and CAPs and adjusting for „mid-course" improvements or deterioration of the enterprise.

6. Carryout an in-depth appraisal of the debt structure of the enterprise and develop initial strategies for obtaining conciliation agreements and "work-out plans" between the enterprise and their creditors.

7. finalize the „financial restructuring plans" (FRPs) and carryout a full review process to include the principal stakeholders and ensure that there is a tacit "Buy-In" agreement among all the parties in order to facilitate the implementation process.

Besides the initial classification of the companies, the triage process also provides with an indication of an appropriate Approach and Methodology for Processing the enterprises.

Stage 1

The „triage process" is important in marking commercially non-viable enterprises and obvious liquidation candidates early on in the evaluation of these distressed enterprises.

This allows for separation from other enterprises that appear to have commercial viability over time and gives an "early warning" to stakeholders in order for them to position for difficult short term actions that may be necessary and that might have significant regional or at a sector level impact.

Also, by identifying up front any commercially viable enterprises, better allocation of scarce national resources can be achieved by directing support to these viable entities rather than to liquidation candidates.

Continuing support of the enterprise in this selective manner will preserve commercial value and buy sufficient time for the enterprise to achieve financial turnaround.

Stage 2

The next stage of activity involves an in-depth evaluation of the operations and finances, as the foundation for developing comprehensive restructuring programs that will result in better survival rates of these companies after privatization.

Also an in-depth "Due Diligence" prior to privatization can result in higher levels of commercialization and improved performance in these enterprises thereby making them more attractive investment targets and achieving better prices for the assets.

While the Comprehensive Restructuring plans are being developed (90-120 days), Short-Term Actions are identified very quickly that can be incrementally implemented to cut operating costs and generate better cash flows in the interim.

These actions involve straight-forward changes such as energy utilization controls and waste minimization programs that do not require outside intervention.

The evaluation process is carried out on-site at the enterprise and is closely coordinated with the related line ministry. This process involves the assessment of every major element of the company's operations among which are:

- Financial assessment and cash flow projections;
- Solvency and Break-even analysis;

- Asset and liability evaluations;
- Market and pricing evaluations;
- Technology evaluations;
- Management and labor evaluations;
- Plant and equipment investment strategies;
- Product line evaluations.

Stage 3

After the „in-depth" evaluation of the company's operations and financial situation has been done, there is the ability to identify potential for rationalizing industrial sectors through mergers and spin-offs. This of course results in a stronger, more competitive aggregation of remaining industrial assets.

Throughout the process, specific efforts are made to transfer know-how to the enterprise management and deploy operational enhancements into the production environments. This all leads to improved rates of survival after privatization.

As by-products of the process, special purpose Valuations provide the enterprise and stakeholders with special benefits such as:

1. An Environmental Valuation to identify potential issues that would create an obstacle to privatization or that would represent significant financial risks to the future operations of the enterprise.
2. A Re-deployment Valuation that outlines schemes to assist the enterprise in dealing with significant downsizing.
3. A Debt Valuation that provides a strategy for conciliating the outstanding debt and arrears of the company through write-offs, debt holidays, rate concessions and/or debt equity swaps.

Stage 4

The final stage in Pre-Privatization Restructuring is to identify specific linkages to privatization where possible and identify „Post Restructuring" Assistance Requirements that addresses on-going needs of these enterprises and continue the „Commercialization" of the enterprise pending privatization.

Continued Technical Assistance in upgrading the production, management and marketing capabilities and that integrates with and enhances the know-how initiatives during the process of developing financial restructuring plans.

Development of capital plans in line with the enterprises restructuring plans and access to reasonably priced working capital through special credit support and guarantees in sync with the changing working capital needs of the enterprises that demonstrate positive turnarounds in their operations.

Ongoing assistance and follow through on merger and acquisition opportunities, phased right-sizing through spin-offs and production rationalization plans and conservation or liquidation programs.

Cost effective restructuring

With an expanding portfolio and delivery time frames constricting, it has been necessary to find ways to be more efficient in the way is carried out its incremental projects.

An example of this is the different approach implemented in Romania for developing plans for smaller scale operations (Project 500 for all enterprises with less than 500 employees) in a manner distinct from that for highly integrated and complex enterprises such as in the refining and petrochemical sector – essentially, it was simply not cost justifiable to allocate the same amount of time and resources to enterprises that were obviously not sector leaders nor significant contributors to the economy and where, in some cases, „doubtful survivors".

Following on this efficiency theme, a number of other „Efficiency-Based" techniques and methodologies have to be developed and employed – namely:

a) „Triaging" of the Portfolio – i.e. quickly assessing the level of financial distress and survivability of the enterprise and allocating resources accordingly;

b) „Fast Tracking" through the process any „quickly privatizable" enterprises or enterprises that are clear cut liquidations situations;

c) „Risk Mapping" the operational landscape of an enterprise (i.e. isolating high risk areas of an operation) and „Early Warning" advisories issued to various stakeholders such as the Ministry of Labor in order to position for significant downsizing in a particular enterprise.

d) Short-Term Action Plans (STAPs) that focus on near-term liquidity (reducing the number of days inventory and account receivables, asset stripping and downsizing etc.) which are incremental implementation by enterprise management while simultaneously developing a full-scale turnaround program.

e) Sector Restructuring vs. Enterprise by Enterprise (i.e. focus on top 2 or 3 sector leaders with the majority of market share). By restructuring these major market share companies, certain forces within the sector will be generated and will drag peripheral operators and suppliers into the process.

f) Develop Generic Models for rapid deployment in low risk enterprises with standardized operations.

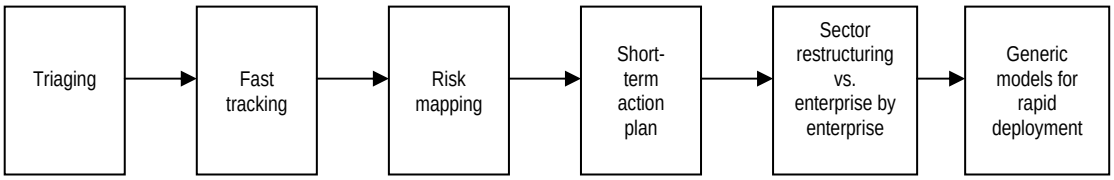

Figure 7. *Efficiency-based techniques and methodologies*

Downsizing of staff is a key indicator of the general willingness of enterprise managers to build momentum in turning around their operations and to demonstrate a firm position on restructuring in general.

SOE Restructuring

Romanian case

The restructuring process of the preponderantly state-owned commercial companies in Romania started by the Government Decision no. 301/06.29.1993 on the initiation of the special surveillance program for some commercial companies characterized by a critical financial status with negative impact on the entire Romanian economy, as a result of the accumulated outstanding debts to the suppliers, banks and state budget.

The first exercise included 30 state-owned commercial companies from sectors of the chemical, petrochemical, machine building, metallurgy, construction materials and textile industries.

The coordination of the overall process was in charge of a Restructuring board made up of representatives of the Ministry of Finance, the Ministry of Industries, the State Ownership Fund and the National Bank of Romania. In order to have coherence and unity in the mobilization of the mechanisms, operations and human resources required for the materialization of the restructuring process – generator of the implementation of macroeconomic reforms and adjustment options expressed by the Government, the Agency for Restructuring was set up by Government Decision no. 780/1993.

In order to fulfill the tasks conferred by the law, the Agency for Restructuring has developed cooperation relationships with all the institutions involved in the restructuring process, namely: the State Ownership Fund, the Ministry of Finance, the Ministry of Labor and Social Security, the line ministries, the financing banks, etc.

In observance of the attributes conferred by the GD no. 780/1993, the Agency for Restructuring approached for the first time in Romania the microeconomic restructuring as a

complex of changes in the structure of the existing technical, technological, organizational, financial, management components of the economic agents, in order to ensure their viability in an environment of competition at national an international levels.

The achievement of this objective considered the following:

- identification of the market shares for which there is a solvent demand;
- re-dimensioning of the commercial companies or of the production capacities depending on the market demand;

		Total industry 1995			Total agriculture 1995			General total AR 1995		
		Forecast	Achieved	%	Forecast	Achieved	%	Forecast	Achieved	%
I.	Measures – Total (technical, organizational, management – no)	1.077	873	81.1	975	720	73.8	2.052	1.593	77.6
II.	Own Effort (million lei)									
1	Closed capacities (mil.	772.138	3.068.767	425	13.723	448.685	3.269,6	735.861	3.517.452	478
2.	lei output)	-	439.324		-	300.869		-	740.193	
3.	Assets leading to closing of capacities (mil)	27.275	6.495	23.8	2.750	3.061	111.3	30.025	9.556	31.8
4.	Sales of assets (mil lei)	(23.745)	(19.796)	83.4	(3.427)	(1.989)	58	(27.172)	(21.785)	80.2
	Lay-offs – total (no) of which – with severance of 6 salaries (no)	(17.667)	(15.249)	86.3	(3.427)	(1.013)	29.6	(21.094)	(16.262)	77.1
III.	Outside effort									
1.	SOF credits	213.294	100.390	47.1	202.001	79.474	39.3	415.295	179.864	43.3
2.	(mil. lei)	368.000	217.000	59	293.000	279.000	95.2	661.000	496.000	75
3.	Bank credits (mil. lei)	175.419	147.263	83.9	11.420	1.431	12.5	186.839	148.694	79.6
	Budget (recovery fund) – total (mil. lei)	149.333	129.314	86.6	9.157	1.044	11.4	158.490	130.358	82.2
	of which: – for gas and	26.086	17.949	68.8	2.263	387	17.1	28.349	18.336	64.7
4.	energy (mil. lei) – for	1.314.955	843.096	64.1	603.992	503.376	83.3	1.918.947	1.346.472	70.2
	severance payments (mil. lei)	320.909	319.671	99.6	22.646	20.243	89.4	343.555	339.914	98.9
	Conciliation –	118.324	112.525	95.1	381.073	358.499	94.1	499.397	471.024	94.3
	total (mil. lei),	875.722	410.900	46.9	200.273	124.634	62.2	1.075.995	535.534	49.8
	of which: a)with the state budget – rescheduled tax (mil. lei) b) with banks (mil. lei) c)with the suppliers (mil. lei)									

Figure 8 Synthetic efforts in 1995 (for the commercial companies in the AR's portfolio) set up profit centers, spin-offs or mergers in order to maximize the value of the existing production capacities and labor, to extend the cooperation relations and to adjust to the requirements of a competitive market;

- temporary suspension, conservation or sale, as the case may be, of assets or fixed assets unutilized in the production process;
- correlation of the required labor with the level of production;
- restructuring of debts of the economic agents by conciliation with the suppliers, the state budget, the financing banks and the other creditors;
- revocation, with assistance from SOF, of the management teams which do not implement the measures provided in the restructuring programs;
- cessation of inefficient operations and liquidation, together with SOF, of the commercial companies unable to fulfill their scope.

No.	Measure	No. measures	Financial effort									Effect	
				Total	Covered from:							Reduction of payments and/or costs	Increased collec-tions
					Own sources	State budget	Local budget	Bank effort	SOF funds	Bank credits	Other sources		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Provided for 1995	2.052	planned	3.565.572	373.851	530.394	9.640	499.397	415.295	661.000	1.075.995	927.016	1.482.226
		1.593	achieved	2.464.059	286.489	488.608	6.540	471.024	179.664	496.000	535.534	418.610	2.933.920
2	Achieved (achieved/ planned %)	77.63%		69.11%	76.63%	92.12%	67.84%	94.32%	43.31%	75.04%	49.77%	45.16%	197.94%

Figure 9. *Synthetic efforts and effects*

The initiation and implementation of these measures were aimed at:

- a profitable economic activity;
- the reduction and eventually the elimination of outstanding debts and the collection of notes receivable;
- positive cash-flows;
- easing the burden on public financing.

The Agency for Restructuring selected some commercial companies for the restructuring process based on:

- the volume of losses
- the volume of arrears
- the strategic position in the sector and in the national economy
- the regional social impact of the company

Thus, a number of 200 state-owned economic agents were selected by the Government Decision no. 445/1994.

The experts of the Agency for Restructuring together with the foreign consultants launched in the fall of 1994 the restructuring process, by designing studies and short-time restructuring plans for companies in the following sectors:

- metallurgy
- chemistry and petro-chemistry
- machine building
- glass and ceramics
- farming

The actual legal support for the enactment of the special surveillance program was the Ordinance no. 19/1995.

These economic agents accounted for approximately 30% of the arrears and over 50% of the losses in the economy.

Coordination of the restructuring process of the economic agents under special surveillance per the Ordinance no. 13/1995

The coordination of the restructuring process took place in three stages:

- the design, supervision and approval of the Restructuring and financial turnaround programs (since the initiation of the special economic and financial surveillance program until the approval of the Financial Recovery Plans(FRP) by SOF);
- the conciliation of the outstanding debts;
- the monitoring of the implementation of the measures provided in the Restructuring and financial turnaround programs and of the economical and financial results (since the approval of the FRP's forth).

Design and supervision of the FRP's

The principles considered in this process were to place the entire responsibility for the reduction of operational costs and generation of a positive cash-flow on the management of the economic agents, the FRP's becoming annex to the management contract signed per the Law no. 66/1994.

The analysis undertaken by the Agency for Restructuring highlighted that the main causes in favor of the critical financial situation of the economic agents under special surveillance were mainly related to:

- the loss of traditional markets,;
- overcapacity;
- overstaffing;
- insufficient financial resources for carrying a normal activity;
- the severe need to modernize the operating capacities in order to:
  - cut the specific material and energy costs with positive effects on cost reduction;
  - improve the quality of products with positive effects on the competition level;
  - resolve the serious environment protection problems;
- the lack of well defined strategies and actual business plans;
- obsolete technologies;
- low value added by product;
- ineffective and unskilled management facing new market conditions;
- inefficient in-house control systems;
- high union pressure and low labor discipline.

With a view to resolving the problems arising, all the FRP's included:

- actual measurable steps to reduce costs and improve collections;
- credible projections to demonstrate how a positive cash-flow can be generated;
- reduced dependence on the governmental financial support as subsidies and guarantees for new credits;
- the approval of equipment replacement and modernization costs in order to increase incomes and decrease expenses without leading to capacity expansion or new costly investments.

The FRP's, as Figure 8 shows, provided for 1995 measures oriented mainly to:

- closing of capacities representing the equivalent of a production worth 735,861 million lei;
- sales of assets worth 30,025 million lei;

- staff reduction of approximately 27,172 persons of which 21,094 with severance payments totaling 6 salaries.

Additional measures were provided for which financing shall be supported by the SOF, the Ministry of Finance and the banks as follows:

- funds worth 415,295 million lei from SOF for modernization and technology upgrading;
- bank credits worth 661,000 million lei;
- state budget allocation worth 186,839 million lei from the financial recovery fund destined both to energy and gas payments and to severance payments totaling 6 salaries to the staff downsized per the FRP's.

For these measures as well as for those addressed to conciliation, the estimated economic effects will be materialized in:

- cost reductions (927,016 million lei);
- cash-in improvements (1,482,226 million lei).

Conciliation process

An important stage of the restructuring is represented by the conciliation between the companies under surveillance and their creditors, with a view to restructuring the outstanding debts of the debtors in the sense of rescheduling, reduction or even cancellation.

The conciliation process was carried out by direct negotiation depending on the debtors' payment capability and the creditors' financial power.

Of the total number of 120 commercial companies under special surveillance, in the portfolio of the Agency for Restructuring, between August 25, 1995 – September 26, 1995 a number of 115 commercial companies were conciliated (39 from industry and 76 from agriculture); conciliation agreements were signed with the main suppliers and the banks (BCR, BRD, BANCOREX, EXIMBANK) and also the Ministry of Finance signed agreements for tax relief.

Synthetically, the results of the conciliation process at the 115 commercial companies that signed the conciliation agreement are as follows:

- of the total debts of 1,918,947 million lei on September 29, 1995, 1,343,664 million lei (71%) were conciliated;
- of the total conciliated debts of 1,343,664 million lei, 964,070 million lei represent rescheduled debts to the suppliers, banks and the state budget (71.8%), 6,856 million lei represent reduced payment of the debts to the suppliers, banks and the state budget (0.5%) and 372,738 million lei represent cancellation of penalties granted by the suppliers, banks and the state budget (27.7%).

Keeping track of the FRP's implementation and monitoring of the economic and financial results

The implementation of the measures in the FRP's and the results of the restructuring process have been monitored monthly based on a specific monitoring system of the Agency for Restructuring.

As a consequence of the economic and financial results registered at the end of 1995 by some commercial companies which turned them into more attractive targets for privatization, a number of 4 commercial companies were privatized (S.C. Amonil S.A. Slobozia, S.C. Romlux S.A. Targoviste, Avicola S.A. Targoviste, Avicola S.A. Targu Jiu and Avicola S.A. Brasov) while for a number of 26 commercial companies the prerequisites for immediate privatization were created (17 from industry and 9 from agriculture).

The economic and financial results at the end of 1995 highlighted a significant improvement of the profit, outstanding debts and cash-flow for those economic agents, as follows:

- losses decreased from 326.0 billion lei at the end of 1994 to 37.8 billion lei on December 31, 1995.
- Of 116 commercial companies, a number of 98 registered at the end of 1995 an improved net result against 1994. The situation is as follows:
- in industry, 32 of the 42 commercial companies still in the portfolio of the Agency for Restructuring improved their result;
- in agriculture, 66 of the 74 commercial companies still in the portfolio of the Agency for Restructuring improved their result;

The improved net result at the end of 1995 against the end of 1994 was determined mainly by the implementation of the technical, technological and organizational measures in the FRP's carried out with the companies' own efforts assisted by the institutions involved in restructuring, less from SOF.

With reference to what was mentioned:

- the degree of achievements with the companies' own effort was 76.6% (286.5 billion lei achieved against 373.8 billion lei planned) of which:
  - closing of capacities 478% (3,517.4 billion lei achieved against 735.8 billion lei planned).

The amounts represent in value terms the production that could be obtained with the fixed assets under conservation or closed.

- sale of assets 31.8% (9.5 billion lei achieved against 30 billion lei planned);
- lay-offs 80.2% (21,785 persons achieved against 27,172 planned).
- the outstanding debts in nominal terms decreased by 112.2 billion lei on December 31, 1995 against September 30, 1995 (6.7%) at the date of conciliation (1,667.8 billion lei on December 31, 1995 against 1,779.9 billion lei on September 30, 1995).

The reduction on arrears at the end of 1995 was determined substantially by the results of the conciliation made immediately after the approval of the FRP's. Structurally shown, the outstanding debts on December 31, 1995 are:

• suppliers and creditors	1,133.6 billion lei (68.0%)
• taxes	379.6 billion lei (22.8%)
• credits and interest on principal	154.4 billion lei (9.2%)

The structure of the outstanding debts outlines the continuance of the financial blockage by the fact that the debts to suppliers account for 68% while the debts to the budget account only for 23% and to banks for 9%.

The structure of the portfolio by sectors can be seen in Figure 10.

Industry	76 companies
of which	
• metallurgy	13
• chemistry	15
• machine building	19
• electrotechnics, precision mechanics	4
• textiles, garments and leatherwear	12
• wood, glass, construction materials	9
• pulp and paper	4
Agriculture and food	111 companies
of which:	
• poultry	37
• swine	40
• sugar	17
• flax and hemp	16
• cannery	1

Transports	2 companies
of which:	
• air	1
• railway	1
Local administration	1 company

Figure 10. *The structure of the portfolio*

Conclusions

Corporate restructuring (of SOE) on a large scale in Romania was made necessary by the systemic financial crisis that caused a severe disruption of financial markets in the early 90's. The government was forced to take a leading role, because of the need to prioritize policy goals, address market failures, reform the legal and tax systems, and deal with the resistance of powerful interest groups on the one hand and to put in place On the other hand a mechanism able to:

- restructure viable corporations
- liquidate nonviable ones
- restore the health of the financial sector
- create the conditions for long-term economic growth.

In this paper we analyzed the concept and mechanism created and led by The Agency for Restructuring and also their achievements. At the end of the day what we see is that the clear result of the restructuring process that involved approximately 500 companies from various sectors in the Romanian economy, that counted for about 60% of the arrears and 35% of Romania's GDP is comprised in the following numbers:

- ♦ restructuring process lasted from 1994-1998;
- ♦ this paved the way for economic recovery that started in 2000 and for 9 years in the row Romania recorded high growth rates;
- ♦ between 2000 and 2008 Romania's GDP tripled;
- ♦ state-owned companies sector was until 2004 virtually fully privatized;
- ♦ the inter-enterprise arrears have virtually eliminated;

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Ordonanta nr. 13 din 31 ianuarie 1995 privind unele masuri de accelerare a procesului de restructurare a regiilor autonome si a societatilor comerciale cu capital majoritar de stat, de intarire a disciplinei financiare si de imbunatatire a decontarilor in economie.

MARKET RISK ASSESSMENT OF A BANK. METHODS AND MEASUREMENTS

Dumitru D. POPESCU
Bucharest Academy of Economic Studies

Abstract. *The paper aims at substantiating the market risk assessment of a bank's portfolio that is based on three main indicators, which are used to define exposure limits:*

– the 99%"Value at Risk" (VaR) method,

– a stress-test measurement based on a timeframe shock-type indicator

– complementary limits(sensitivity, nominal, concentration or holding period, etc)which ensure coherency between the total risk limits and the operational limits used by the front office, that also allow for the control of risks that are only partially detected by VaR or stress test measurements.

Keywords: risk assessment, value at risk, stress-test, and sensitivity analysis.

JEL Codes: C02, C19, C52, C61, E32, G21.
REL **Codes**: 11C

Market risks assessment and stress-tests

The recent turmoil triggered by tensions in the U.S sub prime mortgage market is only the latest instance of financial markets disruptions of the past decades that showed the dysfunctions and vulnerabilities of the global financial system and the threat financial crises can pose to the real economy. Ever since the Asian Financial Crisis, concerns have risen over whether policy-makers have sufficient tools to maintain financial stability. That is why, systemic risk become a key concern for central banks charged with safeguarding overall stability. Systemic risk arises when there is the potential for multiple banks to fail and to impose costs on the financial system and ultimately on the economy as a whole. The ability to anticipate financial disturbances enable the authorities to take precautionary action to minimize their impact .In this context, appeared the necessity of the macro stress testing. Macro stress-testing refers to a range of techniques used to assess the vulnerability of a financial system to "exceptional but plausible" macroeconomic shocks. Stress-testing at the level of individual institutions has been widely applied by internationally active banks since the early 1990s.Bank regulators require the use of stress-tests for monitoring both market and credit risks. Macro stress testing, as a tool to assess the vulnerability of entire financial systems, is instead much more recent. It has been an important component of the Financial Sector Assessment Programs (FSAPs) launched by the IMF and the World Bank in the late 1990's and has become an integral part of the financial stability toolbox of policymakers.Macro stress-testing has received considerable attention in the last few years. Central banks and international organizations have taken the lead in this area of research, given their particular concern for financial stability issues. In particular, Blaschke et al. (2001) and IMF and World Bank (2003) review the basic analytical tools used by FSAPs across countries, while Drehmann, Hoggarth, Logan and Zicchino (2004) describe a number of approaches and results of macro stress tests carried out as part of the FSAP for the UK. Jones, Hilbers and Slack (2004) provide a general non-technical description of macro stress-testing and Worrell (2004) discusses an integrated approach to macro stress-tests, early warning systems and financial soundness indicators. Several studies on the procyclicality of

credit and market risk measures, surveyed by Allen and Saunders (2004), have attempted to incorporate macroeconomic factors into risk measurements. Furthermore, a few recent papers have broadened the analysis to account for potential domino effects in interbank markets or endogenous portfolio adjustments and spillovers on asset prices, drawing on the literature about financial contagion and systemic risk, surveyed for example by De Bandt and Hartmann (2001). The main methodological approaches to macro stress-testing are:

• a „piecewise approach" that evaluates the vulnerability of the financial sector to single risk factors, by forecasting several "financial soundness indicators" (such as non-performing loans, capital ratios and exposure to exchange rate or interest rate risks) under various macroeconomic stress scenarios;

• an „integrated approach" combining the analysis of the sensitivity of the financial system to multiple risk factors into a single estimate of the probability distribution of aggregate losses that could materialize under any given stress scenario.

Stress testing of financial systems presents a different set of methodological challenges to stress tests of individual portfolios. The first issue to consider is the question of scope: while the portfolios of individual banks can be clearly delineated, the aggregate portfolio of the financial system can be more problematic to define. In situations where financial institutions have diverse portfolios of complex claims, it may be difficult to aggregate across institutions. For example, aggregating across bank exposures to the interbank market may give a small figure for net exposure, but the gross figure may be quite large and significant source of systemic risk.

Market risks structure

Banks are exposed to rising levels and complexity of risks. The following risk categories were taken into account in the FSAP 2007 provisions:(a) credit risk, including its main components, namely domestic credit risk, credit risk of foreign currency loans triggered by foreign exchange rate fluctuations;(b)market risk within the interbank market and (c)liquidity risk and(c)operational risk.

In this paper we will focus on the market risk .Bank of International Settlements (BIS) defines market risk as the risk that the value of 'on' or 'off' balance sheet positions will be adversely affected by movements in equity and interest rate markets, currency exchange rates and commodity prices.

In other words market risk is the risk of adverse deviations in price of financial items (equities, bonds, FX deals, derivatives etc).Market risk includes currency risk, interest rate risk, equity prices risk, commodity prices risk.

Interest rate risk arises when there is a mismatch between positions, which are subject to interest rate adjustment within specific period. The bank's lending, funding and investment activities give rise to interest rate risk. The immediate impact of variation in interest rate is on bank's net interest income, while a long term impact is on bank's net worth since the economic value of bank's assets, liabilities and off-balance sheet exposure are affected. The sources of interest rate risks occur due to:

(1) Differences between the timing of rate changes and the timing of cash flows (re-pricing model);

(2) Changing rate relationship among different yield curves affecting bank activities (basis risk);

(3) Changing rate relationship across the range of maturities (yield curve risk); and

(4) interest-related options embedded in bank options (options risk).

Foreign Exchange Risk: it is the current or prospective risk to earnings and capital arising from adverse movements in currency exchange rates. It refers to the impact of adverse movement in currency exchange rates on the value of open foreign currency position. The banks are also exposed to interest rate risk, which arises from maturity mismatching of currency positions. As a result, banks may suffer losses due to changes in discounts of the

currencies concerned. In the foreign exchange business, banks also face the risk of default of the counter parties or settlement risk. While such type of risk crystallization does not cause principal loss, banks may have to undertake fresh transactions in the cash/spot market for replacing the failed transactions. Thus, banks may incur replacement cost, which depends upon the currency rate movements. Banks also face another risk called time-zone risk, which arises out of time lags in settlement of one currency in one center and the settlement of another currency in another time zone.

For equity prices, there should be risk factors corresponding to each of the equity markets in which the bank holds significant positions:

− At a minimum, there should be a risk factor that is designed to capture market-wide movements in equity prices (e.g. market index);

− A somewhat more detailed approach would be to have risk factors corresponding to various factors of the overall equity market (for instance, industry sectors or cyclical or non-cyclical sectors);

− The most extensive approach would be to have risk factors corresponding to the volatility of individual equity issues;

For commodity prices, there should be risk factors corresponding to each commodity markets in which the bank holds significant positions.

The BIS provisions act as a shock absorber in the event of adverse market movements. This is the rationale behind BIS advocating computation of capital charge for market risk and allocation of sufficient capital for the same. BIS recommends two methods for computing capital charge for market risk: the standardized approach and the internal models approach.

Standardized approach is the basic approach for computing capital charge. It is a norm for a uniform methodology followed across the banking systems to compute capital charge for market risk. The central bank stipulates certain pre-defined multiples and rates, required to be applied to the exposures to calculate the provisioning. This method uses a building block approach in which specific risk and general market risk arising from debt and equity positions from the bank's trading book are calculated separately.
To begin with, all banks in the system are to adopt and implement the standardized approach for computation of capital charge for market risk. As risk measurement systems mature banks could move towards the more advanced "internal models" for computing capital charge. However, before doing so, banks would need to get their processes and proposed risk measurement models approved by the regulator. Only then would banks be able to adopt the more sophisticated internal models approach for computing capital charge for market risk.

Methods of measuring market risk and defining exposure limits

The Bank's market risk assessment is based on three main indicators, which are used to define exposure limits:

- The 99% „Value at Risk" (VaR) method: compliant with the regulatory model, this composite indicator for the day-to-day monitoring of the market risks incurred by the bank, in particular as regards the regulatory scope of its trading activities;
- A stress test measurement based on a decennial shock-type indicator. Stress test measurements limit the Bank's exposure to systemic risk and exceptional market shocks;
- Complementary limits (sensitivity, nominal, concentration or holding period etc.), which ensure coherency between the total risk limits and the operational limits used by the front office. These limits also allow for the control of risks that are only partially detected by VaR or stress test measurements.

The 99% Value at Risk (VaR) method

This method was introduced in this Bank (our ex) at the end of 1996 and it is constantly improved with the addition of new risk factors and the extension of the scope covered by the VaR. Today, the market risks on almost all investment banking activities are monitored using the VaR method, in particular those relating to more complex activities and products, as well as on certain overseas retail and private banking activities.

The method used is the "historical simulation" method, which is based on the following principles:

- The creation of a database containing risk factors which are representative of The Bank's positions (interest rates, share prices, exchange rates, commodity prices, volatility, credit spreads etc.). The VaR is calculated using a database of several thousand risk factors;
- The definition of 250 scenarios, corresponding to one-day variations in these market parameters over a sliding one-year period;
- The application of these 250 scenarios to the market parameters of the day;
- The revaluation of daily positions, on the basis of the adjusted daily market parameters and on the basis of a revaluation taking into account the new linearity of these positions.

The 99% Value at Risk is the biggest loss that would be incurred after eliminating the top 1% of most unfavorable occurrences. Over one year, or 250 scenarios, it corresponds to the average of the second and third largest losses observed.

The VaR is first and foremost designed to monitor market activity in the bank's trading portfolios. In 2006, the VaR limit for all trading activities was set at EUR 60 million.

The Value at Risk in the Bank's trading activities, across the full scope of activities monitored, evolved as it shown in the Table 1.

Between 2005 and 2006, the average VaR went from EUR 19 million to EUR 25 million, namely back to its 2004 levels. The EUR 10 million increase in equities results from the integration of more volatile scenarios throughout 2006. The impact was tamed by better compensations between the various risk elements of the bank.

Table 1

	Year-end		Average		Minimum		Maximum	
1-day, 99%	2006	2005	2006	2005	2006	2005	2006	2005
Equity price risk	(25)	(10)	(21)	(11)	(7)	(4)	(38)	(21)
Interest rate risk	(9)	(16)	(15)	(17)	(9)	(11)	(20)	(25)
Credit risk	(18)	(13)	(14)	(12)	(9)	(8)	(24)	(16)
Exchange rate risk	(3)	(1)	(2)	(1)	(1)	(1)	(5)	(4)
Commodity price risk	(2)	(2)	(2)	(2)	(1)	(1)	(5)	(5)
Compensation effect	35	23	29	24	NM	NM	NM	NM
Total	(22)	(19)	(25)	(19)	(11)	(12)	(44)	(32)

NM=compensation is not material since the potential minimum and maximum losses do not occur on the same date.

Limitations of the Value at Risk assessment

The VaR assessment is based on a model and a certain number of assumptions and approximations. Its main limitations are as follows:

- The use of „1-day" shocks assumes that all positions can be unwound or hedged within one day, which is not the case for some products and in some crisis situations;
- The use of the 99% confidence interval does not take into account any losses arising beyond this interval. VaR is therefore an indicator of losses under normal market conditions and does not take into account exceptionally large fluctuations;

- VaR is calculated using closing prices, so intra-day fluctuations are not taken into account;
- There are a number of approximations in the VaR calculation. For example, benchmark indexes are used instead of certain risk factors and, in the case of some activities, not all of the relevant risk factors are taken into account which can be due to difficulties in obtaining daily data.

The Bank counters these limitations by:

- Systematically assessing the relevance of the model by back-testing to verify that the number of days for which the negative result exceeds the VaR complies with the 99% confidence interval, which has been the case since the VaR system was introduced. In 2006, the total daily loss exceeded the VaR on two occasions which, statistically, is compatible with the 99% confidence interval used (2 to 3 occasions per year);
- Supplementing the VaR system with stress-test measurements.

The Stress Test model

Alongside the internal VaR model, the Bank monitors its exposure using the stress test method to take into account exceptional market occurrences.

The stress test risk assessment methodology is based on 18 historical scenarios and 8 hypothetical scenarios, including the „The Bank's Hypothetical Scenario" which has been used since the start of the 90's. Alongside the VaR model, the stress test is one of the main pillars of the Bank's risk management system and is based on the following principles:

- Risks are calculated every day for each of the bank's market activities (all products), using the 18 historical scenarios and 8 hypothetical scenarios;
- Stress-test limits are established for the Bank's activity as a whole and then for the different business lines. These set, first, the maximum permissible loss under the the Bank's Hypothetical Scenario and the hypothetical scenario of a stock market crash such as that of October 1987, and, second, the maximum permissible loss under the 24 historical scenarios and the remaining hypothetical scenarios;
- The different stress-test scenarios are reviewed and expanded by the Risk Division on a regular basis, in conjunction with the Bank's teams of economists and specialists.

The list of scenarios used was reviewed in 2006. No scenarios were withdrawn or added as a result of this review.

Historical stress tests

This method consists in an analysis of the major economic crises that have affected the financial markets since 1990: changes in the prices of financial assets (equities, interest rates, exchange rates, credit spreads, etc.) during each of these crises are analyzed in order to define scenarios for potential variations in these risk factors which, when applied to the bank's trading positions, could generate significant losses. Using this methodology, the Bank has established 18 historical scenarios.

Hypothetical stress tests

The hypothetical scenarios are defined by the bank's economists and are designed to identify possible sequences of events that could lead to a major crisis in the financial markets (a major terrorist attack, political instability in the main oil-producing countries, etc.). The bank aims to select extreme but nonetheless plausible events which would have major repercussions on all international markets. The Bank has adopted 7 hypothetical scenarios, in addition to the the Bank's Hypothetical Scenario.

The highest potential loss calculated (around EUR 1.000 million) corresponds to very severe or extreme shocks to the prices of all asset classes held by the bank (fall of between 15% and 40% in the global stock market indexes, etc.) Moreover, the probability of such

stress scenarios, which involve simultaneous shocks to the prices of all financial assets over a period of a few days, is several times lower than that of a decennial shock.

Structural interest rate and exchange rate risks

The application of regulations of the Central Bank on internal control provided the Bank with the opportunity to formally define the principles for monitoring the Bank's exposure to interest rate and exchange rate risks which had been in force for several years.

Structural interest rate and exchange rate risks are incurred in commercial and proprietary activities (transactions involving shareholder's equity, investments, bond issues).

The general principle is to concentrate structural interest rate and exchange rate risks within capital market activities, where they are monitored and controlled using the methods described above for market risks, and to reduce structural interest rate and exchange rate risks as much as possible.

Wherever possible, commercial transactions are hedged against interest rate and exchange rate risk, either through micro-hedging (individual hedging of each commercial transaction) or through macro-hedging techniques (hedging of portfolios of similar commercial transactions within a treasury department).

Interest rate and exchange rate risks on proprietary transactions must also be hedged as far as possible.

Consequently, structural interest rate and exchange rate risks are only borne on the residual positions remaining after this hedging.

Organization of the management of structural interest rate and exchange rate risks

The principles and standards for managing these risks are defined at the Bank's level. The operating entities assume primary responsibility for the management of their risk exposure, while the Bank's Asset and Liability Management Department (ALM Department) carries out a second level of control on the management of these risks performed by the entities.

The Bank's Finance Committee, chaired by the General Management and attended by members of the Executive Committee and Finance Department:

- Validates the basic principles for the organization and management of the Group's structural risks;
- Sets the limits for each operating entity;
- Examines the reports on these risks provided by the ALM Department;
- Validates the hedging programs implemented by the Bank

The ALM Department, which is part of the Group Finance Department:

- Defines the standards for the management of structural risks (organization, monitoring methods);
- Validates the models used by the entities;
- Informs the entities of their respective limits;
- Centralizes, consolidates and reports on structural risk exposure, and carries out second level controls (independently of the operating divisions supervising the entities).

The operating entities are responsible for controlling structural risks.

The operating entities are required to follow standards defined at the Bank level for the management of risk exposure, but also develop their own models, measure their exposure and implement the required hedges.

Each entity has its own structural risk manager, attached to the entity Finance Department, who is responsible for conducting first level controls and for reporting the entity's structural risk exposure to the Group ALM Department via a shared IT system.

Retail banking entities both inland and abroad generally have an ad-hoc ALM Committee which validates the maturities of non-contractual commitments (sight deposits,

etc.) and therefore determines the corresponding transformation strategy, reviews structural interest and exchange rate positions and validates the associated hedging programs in accordance with the Bank standards.

Structural interest rate risks

Structural interest rate risk arises from residual gaps (surplus or deficit) in each entity's fixed-rate positions with future maturities.

The Bank's principal aim is to reduce each entity's exposure to interest rate risk as much as possible once the transformation policy has been decided.

For this, any residual structural interest rate risk exposure must comply with the sensitivity limits set for each entity and for the overall Bank as validated by the Finance Committee. Said sensitivity defines the variation in the net present value of future (maturities over 20 years) residual fixed-rate positions (surplus or deficits on assets and liabilities) for a 1% parallel shift in the yield curve (this sensitivity does not relate to the sensitivity of annual net interest income). The limit for the overall Bank is EUR 500 million (which equates to less than 1.7% of shareholder's equity).

Measurement and monitoring of structural interest rate risks

In order to quantify its exposure to structural interest rate risks, the Bank analyzes all fixed-rate assets and liabilities with future maturities to identify any gaps. These positions come from operations remunerated or charged at fixed rates and from their maturities.

Assets and liabilities are generally analyzed independently, without any a priori matching. Maturities on outstanding positions are determined on the basis of the contractual terms governing transactions, models based on historical client behavior patterns (special savings accounts, early repayments, etc.), as well as conventional assumptions relating to certain aggregates (principally shareholder's equity and sight deposits).

Once the Bank has identified the gaps in its fixed rate positions (surplus or deficit), it calculates their sensitivity (as defined above) to variations in interest rates. This sensitivity is defined as the variation in the net present value of fixed-rate position corresponding to an immediate parallel shift of 1% in the yield curve.

Analyses are also performed on scenarios of potential variations in net interest income, which factor in assumptions as to how assets and liabilities are likely to evolve in the future.

Throughout 2006, the Bank's global sensitivity to interest rate risk remained below 1% of the Bank shareholders' equity and well within the EUR 500 million limit.

The following observations can be made with regard to the business lines' structural interest rate risk:

- Within the domestic Retail Banking division, outstanding customer deposits, generally considered to be fixed-rate funds, exceed fixed-rate loans for maturities over 2 years.
- Transactions with large corporate are match-funded (on an individual basis), and therefore present no interest rate risk;
- Transactions with clients of the Specialized Financial Services subsidiaries are generally macro-hedged and therefore present only a small residual risk;
- Client transactions at subsidiaries and branches located in countries with weak currencies can generate limited structural interest rate risk. Indeed, due to the lack of long-term fixed-rate loans, investment possibilities and hedging instruments such as swaps in these countries, the entities in question may have difficulty investing their excess deposits over a sufficiently long horizon;
- Proprietary transactions are generally well hedged. Residual positions are limited and arise primarily from shareholders' equity that has not yet been fully reinvested with the desired maturities.

Structural exchange rate risks

Structural exchange rate risks essentially arise from:

- Foreign-currency denominated capital contributions and equity investments financed through the purchase of foreign currencies;
- Retained earnings in foreign subsidiaries;
- Investments made for regulatory reasons by some subsidiaries in a currency other than that used for their equity funding.

The Bank's policy is to immunize its solvency ratio against fluctuations in strong currencies (USD, GBP, JPY, etc.). To do this, it may decide to purchase currencies to finance very long term foreign currency-denominated investments, thus creating foreign exchange structural positions.

In the case of other currencies, the Bank's policy is to reduce its structural foreign exchange positions as much as possible.

Measurement and monitoring of structural exchange rate risks

The Bank quantifies its exposure to structural exchange rate risk by analyzing all assets and liabilities denominated in foreign currencies, arising from commercial and proprietary transactions.

As commercial transactions are hedged against exchange rate risk, the Bank's residual exposure results primarily from proprietary transactions.

The Bank Asset and Liability Management Department monitors structural exchange rate positions and the currency sensitivity of the solvency ratio.

In 2006, the Bank neutralized the sensitivity of its solvency ratio fluctuations in strong currencies using structural positions in these currencies. Moreover, its positions in other currencies remained limited.

Conclusions

Analysis of banks' risk exposures is important both for management in banks and for bank supervisors. Mainly, in recent times when the turmoil triggered by tensions in the U.S. sub-prime mortgage market, was only the latest instance of financial markets disruptions of the past decades. Much of the debate also in recent years concerning the management of market risk within banks has focused on the appropriateness of so called Value-at-Risk (VaR) method.

In this paper, we pass through the presentation of these debates as well as to presenting the main indicators which are used to define the exposure limits of a Bank namely:

- the 99% „Value at Risk" (VaR) method,
- a stress-test measurement based on a timeframe shock-type indicator
- complementary limits(sensitivity, nominal, concentration or holding period, etc)which ensure coherency between the total risk limits and the operational limits used by the front office, that also allow for the control of risks that are only partially detected by VaR or stress test measurements.

We also presented the results in this concern for 2005 and 2006 that have been obtained for a Commercial Bank.

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*** Normele BNR nr. 17/2003 privind organizarea si controlul intern al activitatii institutiilor de credit si administrarea riscurilor semnificative, precum si organizarea si desfãsurarea activitatii de audit intern a institutiilor de credit, publicate in Monitorul Oficial nr. 47 din 20.01.2004, cu modificarile si completarile ulterioare

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FINANCIAL COMMUNICATION THROUGH INTERNET IN TRANSITION ECONOMIES – PATTERNS AND CHALLENGES

Vasile ROBU
Raluca SANDU
Bucharest Academy of Economic Studies

Abstract. *Our paper deals with the evolution of the financial communication through Internet media for listed companies, in transition economies. Our question of research is: How did this companies use new technologies in the context of an increasing pressure for financial information and communication? Our approach relies on qualitative methods, especially multiple case studies, based on companies listed on the BSE. Our findings suggest the existence of local patterns, which bring new evidence for the research in Internet financial communication issues.*

Key words: financial communication; financial disclosure; Internet; transition economies.

Introduction

Privatized economies and liberalized markets, along with the process of globalization, and the overall High-Tech context created the framework for a new paradigm of financial communication (Léger, 2003, Marois, Bompoint, 2004, Westphalen, 2004, Crowther, 2002). This refers to the global evolution of the economic and social context from the period before the financial crisis, a period characterized by trends that have irreversibly marked the evolution of financial information and communication practices.

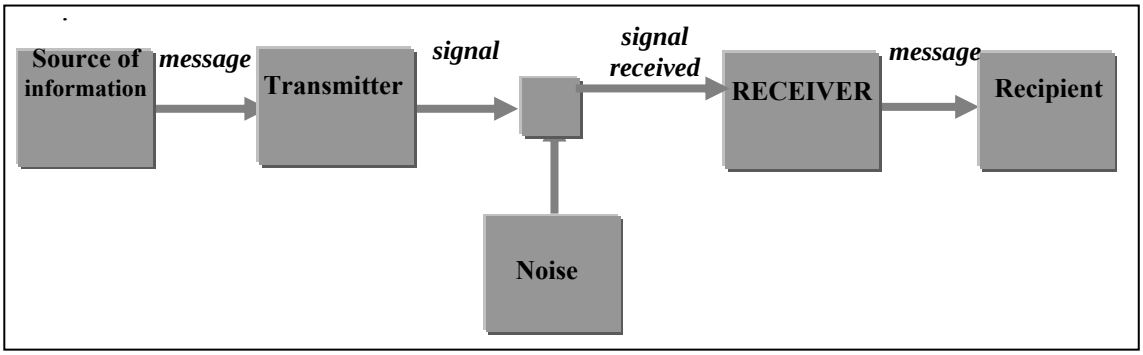
Transition economies are converging to market conditions similar to that of developed countries, and this process also involves a special own evolution of financial communication issues. Traditionally, research based on the field provided by these markets approached mainly reform and restructuring issues, and, to our knowledge, the emergence of financial communication and Investor Relations in this particular context was not yet analyzed within a systematic construction.

Moreover, the powerful development of the new technologies is reshaping the framework of this type of research. In this study we will analyze the evolution of the Internet based financial communication of companies listed at the Stock Exchange in transition countries. Our research question is: How have these companies used the new technologies in the context of increasing pressure for financial information and communication?

In order to answer this question we have used in a first stage conceptual analysis to make the distinction between financial information and financial communication. Within a second stage we will introduce the element of contextualization, by presenting the specific features of the terrain, which will prove very important for a coherent answer to our question of research. This will be followed by the presentation of empirical data and the discussion of results, and the final part will comprise conclusions and perspective for continuing the research.

Financial communication in context of new technologies

„Information, in the sense of mathematical theory, is essentially a probabilistic concept, defined within a quantitative approach" (Saada, 2000, p. 1190). The classical model of communication (Figure No 1), applicable in various fields, derives from the quantitative approach to information, whose main authors are Weaver and Shannon**.**



Source: Shannon, 1963, p. 34.

Figure 1. *Diagram of a general system of communication*

Under this mathematical model, with limited application, the fundamental elements are the *source* of information, the *transmitter*, that encodes the message in order to transform it into a signal that could be transmitted through the channel of communication, *the channel of communication,* representing the medium for the transmission of the message, the *receiver*, that decodes the signal and restores the original message, and the *recipient* of the message. Also, communication is not perfect, and there are always possible sources of noise. This highly technical diagram may be applied to different contexts, including to corporate financial communication.

Beside the technical framework, other specific descriptions are needed to sketch the conceptual framework used by this research. Therefore, a terminological distinction is needed between financial advertising, financial information and financial.

The following table is useful to us in order to state clearly the meaning of the financial communication, according to three types of affirmations: (a) the direct indication of the strategic dimension of the financial communication; (b) the scope and the targets of the financial communication; (c) the differentiation of other concepts/practices. (a, b and c in the last column of the table).

Table 1

Definitions of financial communication

Source	Definition	Key-points
Chekkar and Onnée, 2006	„The financial communication is a strategy integrated process which aims, in a given environment, to raise awareness about the company and its leaders, promote its image and express its values among investors and other stakeholders, developing tools of communication which integrate managers discourse in order to maintain value added relations on the long term.", p. 48	*(a) strategy integrated process* *(b) expression among investors and other stakeholders; maintaining value added relations on the long term*
Marois and Bompoint, 2004	„The financial communication includes two quite distinct parts: - the financial information which is regulated by the stock exchange institutions (AMF, SEC ...) with effect on the publications of results and releases; - financial communication, which is not regulated and which consists, as its name indicates, to address interlocutors who ask questions to whom the company may express its strategies and comment its activities." p. 173 „the transition to financial communication is made when a company decides to have a communication strategy", p. 174	*(a) express its strategies and comments on its activities; decision; strategy* *(b) facing interlocutors* *(c) two distinct parties*
Léger, 2003	„Company communication to the shareholders, investors, financial analysts, journalists" „The financial communication covers a broader reality than financial information", p. 32	*(b) shareholders, investors, financial analysts, journalists* *(c) a broader reality than financial information and financial advertising*
Guimard, 2007	„A true strategic tool in the service of business development", p. 6	*(a) strategic tool* *(b) business development*

Source	Definition	Key-points
Depoers, 1999	„the transition to the financial communication is accompanied not only by a change of objectives, it also involves voluntary arbitration" p. 9 „as we talk about accounting choice we can also talk about publication choice", p. 10	*(a)change of objectives; choice* *(c) transition*

When applying to all of these definitions a research software specialized in text analysis (Tropes) we find the confirmation for the existence of a strategic dimension, as the software also identifies the lexical field „strategy", beside the three main determinants of the context („communication", „finance" and „business").

As we have seen, financial communication changes its status: „in the past the companies listed at the stock exchange saw the financial communication as yearly mandatory activity, a duty that they willingly delegated to their accounting services. The financial picture has become today a strategic concern, administered at the level of general management". (Westphalen, 2004, p. 257).

This is partly due to the evolution of context: development of financial markets following privatization in western Europe and the countries in transition, development of institutional investors and in particular of pension funds, globalization of markets and growing participation of foreign investors, competition for financial resources, explosive development of new technologies.

Starting from these findings, some authors propose descriptions in chronological stages. We quote Léger, on the financial communication of French companies (Léger, 2003) and Westphalen, for the role of the CEO in the financial communication of the company (Westphalen, 2004).

Therefore financial communication has not remained insensitive to changes of environment. Crowther analyzed the relationship between financial communication and the environment on the semiotic plan and outlined four stages: (1) *the stage before 1940* – the external environment is acknowledged, but ignored; the manager acknowledged the relationship between company and shareholders and performed duties relating actions and results; (2) *stage 1940-1975* – the existence of the external environment is acknowledged and the orientation of the communication changes toward potential investors; (3) *the stage after 1975* – the reporting focuses on the external environment, it is oriented toward the future, and recognizes the rest of stakeholders, becoming a self-promotion mechanism, rather than just a means of communication; (4) *a fourth stage could develop*, following the emergence of virtual communication environments that change the power relations between businesses and individuals. (Crowther, 2002).

Although such chronologies (ante-crisis) are available to describe the evolution financial communication in developed countries, we have not encountered similar analyses for the states in transition towards market economy. The course of these states is different, and development of financial communication practices follows a course that is also specific, if only by the simple concomitant evolution (endogen evolution). We shall describe, as follows, a few major features of these economies that present interest for the research.

Financial communication challenges for the transition economies

In the White Paper on the corporate government in the south-eastern Europe (OECD, 2003), it is stated that the improvement of the transparency and disclosure of financial information in the south-eastern Europe implies that the progress of standards be accompanied by the profound transformation of the actors' attitude toward the very idea of transparency. This attitude is partly the legacy of socialist systems, where the accounting served mainly statistic and fiscal purposes within the framework of a planned economy, which made the managers experts in the manipulation of company accounts in relation to the central administration. The experts gathered by OECD consider that legislative as well as

administrative pressures are not sufficient to ensure a satisfactory level of disclosure, and this would therefore require a change of attitude within organizations, so that financial communication is seen as an asset, rather than a load for the company. The analysis shows that at that moment there were few companies in the region to adopt a proactive policy of financial communication and that most of them had difficulties in fulfilling the requirements of the law. (OECD, 2003, p. 28)

According to the White Paper on the Corporate Governance in South-East Europe (2003), the stock markets of this region are still influenced by their original purpose of serving as instruments in the process of privatization, initial transactions being in close relation to the redistribution of property. According to the same document, the reasons for which investors avoid to invest on the stock markets of South-East Europe are, mainly, the lack of liquidity, the lack of confidence and the lack of legal protection for minority investors. The conclusion of the participants in the debates was that the financial markets of South-East Europe can be considered as inefficient, in the specific sense that the market prices do not reflect the real value or at least a reasonable value of enterprises. The market prices are considered as very volatile and usually below the net book value of assets.

Financial communication through Internet

The Internet is beginning to have a more and more important role in the financial communication of the company (Marois and Bompoint, 2004). One of the consequences of the use of Internet in the financial communication with the shareholders and investors is the speed of the communication and the reduction of costs. However, electronic instruments are for the moment only a complement and do not replace the classical financial communication.

In his study on the financial communication through the Internet Ettredge starts from a series of hypotheses that he tests on a sample of 193 American companies, from data of the specialized database AIMR. His hypotheses are: there is a positive relation between the volume of information transmitted on the site of the company and (1) the need for external capital of the company; (2) the performance of the company; (3) the size of the company; (4) the perception of analysts on the quality of the classical financial communication. In defining the dependent variables the author makes the distinction between mandatory information and voluntary information. The main results show the association of the elements of voluntary communication with the variables of size, demand for external capital and reputation of classic reporting for the company. (Ettredge, 2002).

Similar studies on the transition economies are not to be found (one of the reasons may be the lack of specialized databases). There are, however, analyzes of practices of financial communication through the website of the company. Thus, the study of financial communication on the website of the company carried out only three years ago by Bonson and Escobar in the field of transition markets presents a very poor standing for Romania (compared to other countries, such as Latvia and Estonia) from the point of view of the financial information transmitted through the site of the company (their sample included also 23 Romanian companies, and the study was carried out for the period February - March 2005). (Bonson and Escobar, 2006). It is easy to understand that subsequent changes of the legislative and business environment of Romania, related to European integration, have had some impact at the level of financial reporting through company webpages. We are not aiming however to prove and measure this impact (this could be done, for example, by considering the study of Bonson and Escobar on the present period, using of similar methodology and sample).

Case study on companies listed at Bucharest Stock Exchange

The initial study which was made in the period February-April 2008 concerned financial reporting through institutional websites of a series of companies in Romania. The main aim was to establish an inventory of communication practices by virtual media in the prospect of a qualitative analysis of websites of BET index companies.

In choosing the companies listed on the Bucharest Stock Exchange we showed a preference for the size, but the choice is explained by the existence of more strict communication requirements for these companies (the regulations of CNVM - Romanian National Securities Commission) and by the introduction of electronic applications of financial reporting, which allow companies listed on the Romanian stock exchanges to make their (periodical or current) information available online on the website of CNVM.

The dispersion of shareholding, following privatizations which are the origin of capital markets in Romania, is also an argument.

Table 2

Quantitative Results – website analysis

Existence of the site				
Companies having website		**Companies not having website (or with not working website)**		**Companies not having website, but with contact data on the website of the group**
46		**2**		**2**
Language				
Only Romanian	Only English	Romanian and English version	Mixed, English and Romanian	Romanian, English and a third language (Russian, German)
8	**1**	**33**	**2**	**2**
Existence of investor relations chapter (from the total of 46 having a website)				
YES, explicit		NO	NO, but the website contains financial information	
21		**11**	**14**	
Presence of online annual reports				
YES		NO		
35		**11**		
Other useful information for shareholders and investors				
YES		NO		
36		**10**		
Having a special contact header for shareholders				
YES		NO		
8		**38**		
Naming an official responsible for relations with shareholders/investors				
YES		NO		
4		**42**		

The survey on the information presented on website helps us to get an image of Internet communication in Romania, in the framework of our exploratory study. We therefore noticed that 84% of the total population studied are open to foreign investors, having a version or part of their website in English. It is also interesting to observe the emergence of a function of investor relations, which is explicitly visible (in a specially designed heading with that name) in the websites of 42% of the population, while elements of financial communication can be identified for 72%. At the same time only 20% of companies expect a focused feedback from shareholders and investors and only 10% explicitly delegate the responsibility of these relations.

It is also important to notice the diversity of documents made available online by companies and the variety in terms of volume of information (from a single online document, generally the last balance sheet, up to websites containing dozens of documents, structured in periodical and current documents and covering several financial periods). The reports available online are generally annual and quarterly reports prepared in accordance with requests of CNVM, the non-consolidated financial statements prepared in accordance with the Romanian Accounting Standards or, in some isolated cases, the consolidated statements and statements established according to IFRS, (directors' reports). There are, however, a few more eccentric choices of publication, such as the trial balance, for one of the websites analyzed. Other useful information provided by companies often is addressed to shareholders

(current reports, financial information schedule, notices of convocation and letters of attorney) and, for some cases, fundamental or technical analyzes made by external analysts, and also reports made by internal analysts, addressing financial analysts and presented in road shows. The website becomes an interface for financial communication practices, and we are „online" and „live" witnesses to the emergence of very diverse practices on this market in transition.

As a complement, we may present the conclusions of a recent study made within the program PFS (Partners for Financial Stability) organized by USAID, monitoring the evolution of investors' relations in 11 countries from Central and Eastern Europe, including Romania. The monitoring covers the period 2004-2008 and is based, as far as Romania is concerned, on the evolution of investors' relations as reflected by the websites of the 10 companies from the BET index. Among the 11 countries analyzed (Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia), Romania's position fluctuates between 6 and 9, with best performance between the period 2004-2005 (within a comparative system), with Hungary and Poland as regional leaders in the field of investors' communication. The Romanian companies analyzed have been Petrom, BRD-GSG, Alro, Transilvania Bank, Rompetrol Group N.V., CNTEE Transelectrica, and SIF Transilvania, Oltenia, Banat Crişana and Muntenia.

Conclusions and perspectives

This study brings into discussion the problem of emergence of financial communication in transition economies concomitantly to the development of the new technologies. This situation, together with the specific course of the countries which started at the end 1980s the transition process towards a market economy, argues for contextualization. The path of development identified has born specific models, already suggested within the exploratory stage of our study.

Thus, we intend to farther deepen the study for the BET index companies, by the application of special programs of information content analysis of websites (Tropes and Robot), in order to reveal a first textual analysis structure of financial communication by the Internet, in the context of an advanced stage of transition. The aim of the result is not a comparison with the developed markets, but a specific model of evolution.

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THE IMPACT OF FINANCIAL ANALYSIS ON ROMANIAN INSURANCE MARKET

Nicolae GEORGESCU
Cosmin ŞERBĂNESCU
Bucharest Academy of Economic Studies

Abstract. *The Romanian insurance market reached in 2009 a historical level, due to the first position regarding the relative evolution for the gross written premiums. This success revealed for the first time that the insurers' management was a key factor for the market development. This pro-active management lies in a correct interpretation for the main indicators, such as: claim ratio, technical reserves, financial result, rate or return. The present paper consists in an analytical approach for the correlation between a stable market and positive technical results.*

Keywords: market concentration; liquidity degree; insurance company; solvability degree; financial result.

JEL Classification: 11C.

It has been identified that the insured person's option, in order to cover series of risks by giving up them to a profile company, is made by heart. Even is easy to be influenced by relatives of friends, there are also official sources that can determine the final decision for insured persons. For these last versions, the most representative indicators are: gross written premiums, gross paid claims, claim ratio, technical provisions, liquidity degree, solvency margin, which state for the technical approach referring to the insurance companies' financial analysis.

For the pension funds, this preoccupation can seem to be overcome due to the 24 months delay in reporting the yields to CSSPP, term that flows from the first payment made for the pensions' administrators by the public budget, fact that can place suspicions on the investment policy.

If we take in account the strong financial insurance companies and pension funds, the market should offer, as a result of competitiveness pressures, better products for the market situation and of course more reduced tariffs.

We have also not to forget about the insurance market evolution for the last few years, no matter we discuss the life or the non-life sector and the private pension funds market, the most remarkable trend being the acquisitions-mergers activity.

The Romanian insurance market is a competitive market; even it didn't reach the maturity. The indicators we have prove its continuous development, multiple negative factors determining an unassuming trend.

The continuous evolution for our domestic market pinpointed the interest of insurance companies for their financial status, a key for the cover of liabilities assumed by the policies concluded. The insured persons are the key elements for the recent developments, the positive progression validating the increase of confidence in insurance.

Anyway, the insurance market evolution should not identify to insurance companies and pensions funds. The mediation for this market is also relevant, consisting in an important sales force for the development of the entire business environment. Since the adherence to European Union, Romania became a point of interest for the foreign investors, many foreign brokers applying for the domestic market, a proof for increasing competitiveness and better

products. In 2007, more than 450 brokers notified the intention to conduct insurance businesses in Romania, based on free circulation of services principle. There is no point to discuss the number of marketing agents that were authorised for the second and third private pension pillars, the whole amount of mediation persons reaching a million.

Regarding the mergers and the acquisitions which took place lately, the most important are:

− Vienna Insurance Group was, at the begining of 2008, one of the Romanian market leaders, due to the four companies controled: Omniasig Asigurare – Reasigurare, Omniasig Asigurari de Viaţă, BCR Asigurări şi Agras. The concentration was strong enough to determine the self grasping of Competition Council, who decided actions against excesive concentration, so Unita was sold by Vienna Insurance Group;

− Uniqa Group bought Astra, this acquisition representing a step forward for the achievement of an important rank on the following markets: Bulgaria, Serbia, Ukraine, Albania and Macedonia. The insurer Astra was conducting businesses as both on life insurance and non – life insurance (a market share of 6.56% for general insurance, 0.14% for life and 5.29% for both branches). Afterwards it bought also Unita, who was sold by previous mentioned group;

− PPF Investments took over in 2007 the control of two domestic insurance companies RAI Asigurări and Ardaf. The Czech group invested in banking, insurance and other financial services sectors 9% of its entire portfolio. In February 2007, was accomplished the acquisition of RAI. From this point of view we can state that the Czech group became one of the main providers for medical insurance. For the second company, the holding share was 72.75%, the other investors being Raiffeisen Zentralbank Austria and physical and legal persons. The group was also active on mergers, that was concluded with Generali. In order to attain a better position on the second pillar market, Ardaf commited in the underwriting of adhesions for the Italian insurer (the third rank on the market);

− Groupama România is going to be established based on the nets of two important Romanian comanies: Asiban and BT Asigurări;

− The private pension funds administrated by Omniforte and BCR (as part of the worldwide transaction between Vienna Insurance Group and Erste), respectively Bancpost şi Eureko.

Before analysing the financial statements for these insurance companies or funds, a few notes about second pillar should be made. The first observation that can be made is about the clasification of private pension funds from the market share point of view. For the last six months it can be noticed the lack of castling between these entities. From this angle is obvious that the Romanians are in abeyance, as a result of multiple informations regarding the pension funds yields. Anyway, the uncertainty remains an actual issue for the Romanian insurance market, as it is mentioned in other papers (Şerbănescu, 2007:pp 26-28), ellement that allow every gossip to grow into a senzation news, even it is false.

The second observation is related to existing portofolios of the private pension funds. For this analysed period we emphasize an increase in high level securities, such as state bonds, municipal bonds and bank deposits. Such an approach was neccessary, as we can see, due to negative evolutions in stock index and unit values.

As a result, the investments in state bonds and municipal bonds increased from 42,11% to 67,81%, in order to ensure the yields realised by the investment of 2%, a quota share of social assistance contribution, to private pensions funds. In January 2009, the investments in listed shares stabilize after the decreases recorded in June-August period, after the peak of May 2008, 9,53%, high enough if we consider the reduced foreign investments and the degree of affectation for the the domestic market due to international evolutions.

We can start the evaluation for the private pension funds with the yield. It should be emphasised that both investments of pension funds and outputs are tax exempt. The compliance with the legal framework is the premise for a solid business environment,

intended to attract the investors. The financial stability, that, as we stated before, provide the security for the indemnity in case an insured event occurs, evolve from a qualitative standpoint.

So the insurer has to asess the available solvency margin, the minimum solvency margin, the security fund based on financial statments and to convey CSA, at the end of financial period, a file with the computations of these three indicators.

Third of solvency margin is called security fund and its minimum valus is:

- 2 millions euro for life and non-life branches;
- 3 millions euro for insurers pentru asigurătorii care subscriu riscuri încadrate în clasele 10, 11, 12, 13, 14 sau 15, as follows:

Class 10 – Motor third party liability insurance;
Class 11 – Aircraft third party liability insurance;
Class 12 – Ships third party liability;
Class 13 – Liability insurance;
Class 14 – Credit insurance;
Class 15 – Warranties insurance;

- 75% of previous values for mutual companies;
- 50% of previous values for foreign subsidiaries.

Before this situation, we used to compute the solvency degree, as a ratio between the available solvency margin and the minimum solvency margin. The evaluation was as stated below:

a) insolvable insurers, if the ratio is below one;
b) break-even point insurers, if the result was 1;
c) high degree of insolvency, for values between 1 and 1.5;
d) small degree of insolvency, for values between 1.5 and 2;
e) solvable insurers, if the ratio is above 2.

There were also separated cases, such as those referring to insurers with a negative degree or an extremely high degree, to whom it should be paid great attention.

In the first situation, an explantion is provided by CSA: an insurance that is going to increase its equity in order to heighten the solvency margin. For the other situations we should ask ourselves: Why? We set off the insurers' liabilities by taking in account the shareholders'equity.

For the second situation, it was of major importance to assess how it was possible to reachvalues above 10, not to emphasize those above 100. An answer might be the recent authorisation. An insurer situated at the beginning of the road had enough assets to overcome the liabilities, so resulting a overdimensioned asset. Aditionally, the premiums for the first result, and the claims, used to compute the second result are small enough to generate a low solvency degree.

The liquidity degree, computed as a ratio between short-term liquid assets and short-term liabilities (the gross claim reserve) has to be above one. But even for this indicator the values are contradictory, varying from 1162 Irasig (non-life insurance) and 819 for Asirom (life insurance) to normal values between oen and two (Asiban, Euroins, Unita).

We are saying normal values because a higher coefficient is the sign of an investment directed to liquid assets, that cannot always generate a yiled high enough to remunerate the shareholders and insured persons.

Conclusions

The market signs are very important for the insured persons, who have at their disposal many informations hard to explain. No matter the solvency degree or the liquidity degree, th insured persons are easy to misinform, especially the data is not audited.

This fact is important because the market financial strenght is strongly correlated to insured persons' responsibilities and trustworthiness and these are imposible to achieve once

they were swindled. Aditionally, if the data was wrongly interpreted, even the uspervions autorities may suffer of lack of trust.

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ARE SMEs IN ROMANIA INNOVATING?

Elena Claudia ŞERBAN
Raluca Florentina CREŢU
Bucharest Academy of Economic Studies

Abstract. *Given the changes throughout the world where the global competition and the new economy based and led by knowledge are essential parameters in shaping the nowadays part of SMEs in the economy, by researches on the innovation phenomenon, we hereby undertake by the present study to analyze the fundamental elements that should lead to the anatomization of the innovation level so that by an optimum graduation of efforts, maximum effects are produced.*

The economic agents' adoption of technological innovation processes ensures the conditions needed to correlate the increase in value for customers by means of products and services offered through meeting the intrinsic development goals.

Keywords: analysis; competition; innovation; indicators; SMEs.

Introduction

The European Union has adopted a series of strategies and programs in order to stimulate the interest in the field of development research and innovation.

Taking into account the Annual report of the Small and Medium Enterprises (SME) for 2008, an important part of it has been assigned to SMEs in order to increase their competition skills and stimulating innovation.

Undertakers and small enterprises are the key players within the innovation process, therefore the political efforts of the Commission responsible for innovation are focused in two fields:

On one hand the European Commission seeks the increase of awareness regarding the need for innovation and the benefits thus produced by means of financing an initiative assembly which demonstrates the importance of innovation for most of the enterprises.

The second goal of the European politics in the innovation field consists of encouraging the central and public authorities in the member states to create the conditions where innovation is welcome, supported and maintained.

Authorities have to allow small enterprises to act fast – an essential condition as far as innovation is concerned – to share ideas and information, but mainly to cut down the administrative and financial stress that burden them.

In order to accomplish the goals planned within the Lisbon Strategy, the most important program designed for SMEs is the FP Frame research program. The Lisbon Strategy 2000 is a strategic goal by which the EU undertake to turn into the most competitive and dynamic economy based on knowledge, capable of a continuous economic growth with more and better jobs and ensuring a better social cohesion.

Scientific research, technological development and innovation are the very heart of the knowledge based economy, the main growth agents of the companies competition skills and labour occupation.

The EU has envisaged a goal of increasing investment in research field by 3% from the internal gross product of the EU starting with 2010.

As an EU member state, Romania is interested in the SMEs innovation field. As a result of it, in order to support the SMEs field for encouraging investments in the research, development and innovation field, the Romanian Government, together with the national

institutions that are representative for SMEs, other various European bodies that act in the name of the SMEs interests, have adopted several measures by means of national and European programs.

Out of all these, the most important ones for the SMEs field at a national level as far as research, development and innovation are concerned are the following:

− The Government's Strategy for supporting the development of small and medium enterprises during 2004 – 2008 interval;

− The National Plan for Research, Development and Innovation;

− CIP – The Frame Program for Competition and Innovation, 2007-2013;

− The regional Operations Plan (POS);

Technology plays an extremely important part in the functioning of the SMEs within a highly competitive and dynamic environment where the customers require competitive services and products under various financial conditions of quality and time.

In such situations, SMEs show their interest in 'adding up technology' in order to deal with immediate problems, on a short and average term, and only a small part of these are interested in technological investments by considering the requirements of long term development.

Economic agents ensure their market competition if they are able to control certain factors such as:

− Investing capacity;

− The capability of generating and introducing new products on the market;

− The capacity of competing both on the home market as well as on the international markets.

The dissemination speed of innovation in the economy is crucial for productivity and economic growth; as a consequence the evaluation of the innovation capacity stands as an instrument that should be developed in order to help companies that wish and are capable of bringing up fundamental organization and production changes.

The company's innovation level along with other economic indicators constitute a key element of the market comparative analysis (the benchmarking exercise).

In the same time, an important part within competitive indicators is represented by the indicators grouping that refer to innovation.

The main indicators used hereinafter are (according to Bala Gh., 2007, pp. 14-15):

− Turnover for new products/services referring only to new products or services launched during the last year (excluding the existing ones or the minor changes inflicted upon them);

− Turnover from new market segments occurred during the past year (this would include: entering into a new business field, new applications for a product or service), new business fields formally developed by the organization as a result of the strategic decisions adopted.

− Turnover resulted from new geographical markets, either national or international, developed as a result of strategic decisions.

− The number of new customers occurred over the past year.

In order to ensure the increase in competition by innovation it is recommendable that each company should pay a high attention to all internal factors (personnel, training, management, marketing) and to the activities that can possibly generate the increase of productivity and the added value.

Conceptual component

In order to answer the question if SMEs in Romania are innovative we will define below the SMEs and innovation.

According to the laws in force, SMEs have to have an average number of employees lower than 250 and should develop an annual net turnover, in lei equivalent, of maximum 50 million euro or to have total assets that do not exceed the equivalent in lei of 43 million euro.

Total assets include the invested assets, the circulating assets and the advance payments.

Depending on the annual average number of employees and on the net turnover or the company's total assets, SMEs are divided into 3 categories:

− micro-enterprises that have maximum 9 employees and develop an annual net turnover or have total assets not exceeding 2 million euro (in lei equivalent).

− small enterprises: that have between 10 and 49 employees and a net annual turnover or total assets of maximum 10 million euro (in lei equivalent).

− medium enterprises: having between 50 and 249 employees and a net annual turnover of maximum 50 million euro (in lei equivalent) or which possess total assets that do not exceed the equivalent in lei of 43 million euro.

Companies that do not meet these criteria are to be considered as big enterprises.

According to the questionnaire regarding the implementation of the innovation level within SMEs made by The Romanian Institute of Polls (IRECSSON) and Economic and Social Research, i**nnovation** is defined as an activity producing a new product (goods or services) or a significantly improved product released on the marked or the introduction in your own enterprise of a new or significantly improved process.

Innovation is based on the results of a new technology, on new combinations of the existing technology or on using the knowledge gained by the enterprise.

Innovation can be developed by the innovating enterprise or by any other company.

In conformity with article 2 from the Annex of the Guidelines 361/2003/CE "the SMEs category is made up by companies employing less than 250 persons and having a net annual turnover of maximum 50 million euro and/or total assets not exceeding 43 million euro."

We can therefore state that innovating SMEs represent a heterogeneous group that include various companies characterized by emphasized dynamics oriented towards development and diversification.

A company's sales of innovative products that have been previously developed or gained by other companies shall not be considered innovations as such.

Innovation is categorized in 4 main types, according to chart no. 1:

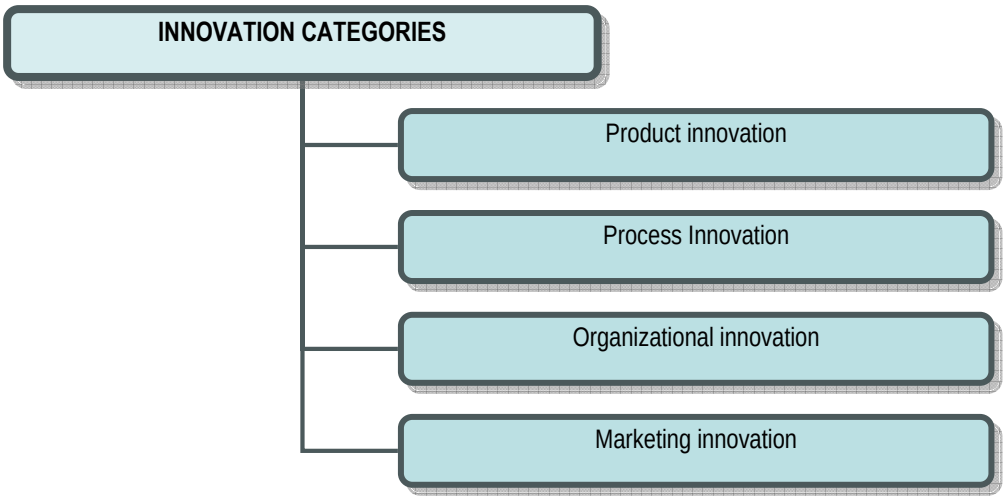

Chart 1. *Innovation categories*

We can talk of a product innovation within a company even if this is not new on the market, but it is new for the company itself.

In the same time, a company can claim process innovation even if the company is not the first one that has released it on the market.

Product innovation refers to goods or services with features or usage purposes that significantly differ from the previous products made by the company.

These include: significant changes in the technical specification, either in the components and materials, in the incorporated software, friendly use or other functional characteristics. Unlike process innovations, these are sold directly to customers.

Product innovations do not comprise: minor changes or improvements, program updates, control procedures, seasonal changes (e.g. confection lines), changes made on a product based only on one customer's request if the similar products designed for other customers stay the same, design modifications that do not alter the functional and technical characteristics of goods or services, the simple re-sale of new goods and services purchased from other enterprises, except the goods and services developed and produced in association with other enterprises.

Process innovations can be met both in the industrial as well as in the services field and they include new production methods or significantly improved ones, transport and distribution systems.

They include significant changes in the specific techniques, equipment and/or software aiming at improving the quality, the efficiency or the flexibility of a production or supply activity and reducing the risks inflicting on the environmental safety.

Process innovations do not include: minor changes or improvements, an increase of the production or services capacities by adding processing or logistic systems that are similar to the already existing ones; innovations with an important interface with the customer such as the goods taking over service (these are product innovations).

Organizational innovations represent the implementation of significant changes in the business practices, the administration of the working environment or the external relationships, aiming at improving the innovating capacity of the company or the performance characteristics, such as quality and the efficiency of the labour flows.

Organizational change shall be considered innovating only if there is a measurable change in the efficiency, such as productivity and direct sales. Organizational innovations usually suppose more important changes in the company's supply chain and they depend on technology on a lower level compared to process innovations.

Organizational innovations do not include: changes in the managing strategy that are not accompanied by significant organizational changes, the introduction of new technology used only on a company's division (e.g. in production). In most of the cases these are process innovations.

Marketing innovations refer to significant changes in the way the company's market places accept design and packing changes for goods and services.

Marketing innovations do not include: routine and seasonal changes such as those in the garments industry; advertising, except those based on using for the first time certain advertising means.

Metodological component

During activities aiming at accomplishing the research goals, the team made up of researchers from the Romanian Institute for Economic and Social Researches and Polls (IRECSON), the Academy of Economic Studies (ASE), The Polytechnics University in Bucharest (UPB), The National Institute Research and Development for Machines and installations for agriculture and alimentary industry (INMA), The Design Institute for Automations (IPA), the Romanian Association for technological transfer and innovation (AROTT) and Corner soft Tech S.R.L have been developing a statistic inquiry in order to identify the characterizing elements of the innovation level of economic agents (SMES) in Romania.

Innovating enterprises are determinative factors of the spectacular economic and social countries' or regions' evolutions whose performances have brought them into a leading position within the international hierarchy; therefore, the analysis and the evaluation of the innovation level on an enterprise level shows itself as a necessity for communities interested in long lasting development.

Information has been gathered from various types of organizations (national research and development institutes, enterprises, entities of the innovation and technological transfer infrastructure etc) in order to describe the innovation process for under laying the characterizing method of the innovation level.

As a consequence, research is based on statistic data issued by the Romanian Institute for Polls and Economic and Social Researches (IRECSON) after applying the questionnaire for describing the innovation level of economic agents in Romania to 500 SMEs, the National Statistics Institute, Annual Report of SMEs on 2008.

Application component

According to data issued by the Annual Report of SMEs in Romania, the 2008 edition, from the total active companies in the country 98,2% have a turnover of maximum 2 million Euro and 92% of these are micro-enterprises.

Small companies (with less than 49 employees) represent almost 90% of the SMEs field.

As per the National Statistics Institute the share of small companies adopting innovations is lower than 1 to 5 (18%).

This share increases up to about 25% for medium companies and to 44% for big ones. There are no significant variations between the industry and services fields.

Compared to big companies, the product innovation (individual or in combination with other innovation products) in SMEs is less frequent than in big companies as per the SMEs Report for 2008.

This can be explained by the fact that releasing new products is generally speaking more expensive than releasing organizational or marketing innovations.

As far as the type of the released innovating process is concerned, it is interesting to mention that in most of the cases this refers to organizational innovations (between 25% and 40% of the innovating companies), more than marketing innovations (less than 5%).

This can act as a stopper for the company's development within a largely export oriented economy planning to become competitive on the EU market.

The managers' and employees' lack of marketing abilities and the consultants' shortage in the country stands as a barrier for the innovation process of Romanian SMEs.

The analysis of the main factors braking innovation within SMEs is demonstrated by the inquiry carried out by the National Statistics Institute regarding innovations during 2004-2006 interval.

These can be categorized depending on the companies' innovation status and they explain the size variations when the company has already adopted an innovation as per chart no. 2.

Policies for adopting innovation in small companies should be focussed on financial supplies and facilitating access to well trained human resources. Successful experiences should be tested such as promoting the establishment of creative sector networks (sharing innovation costs including the qualified personnel).

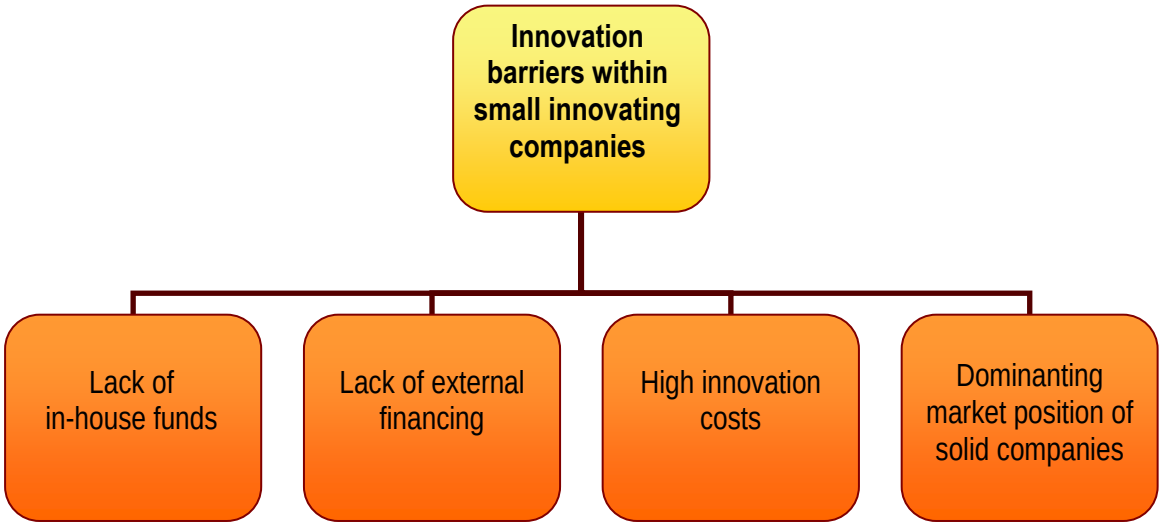

Chart 2. *Innovation barriers for small companies*

As far as average and big companies are concerned, the barriers are shown in chart 3.

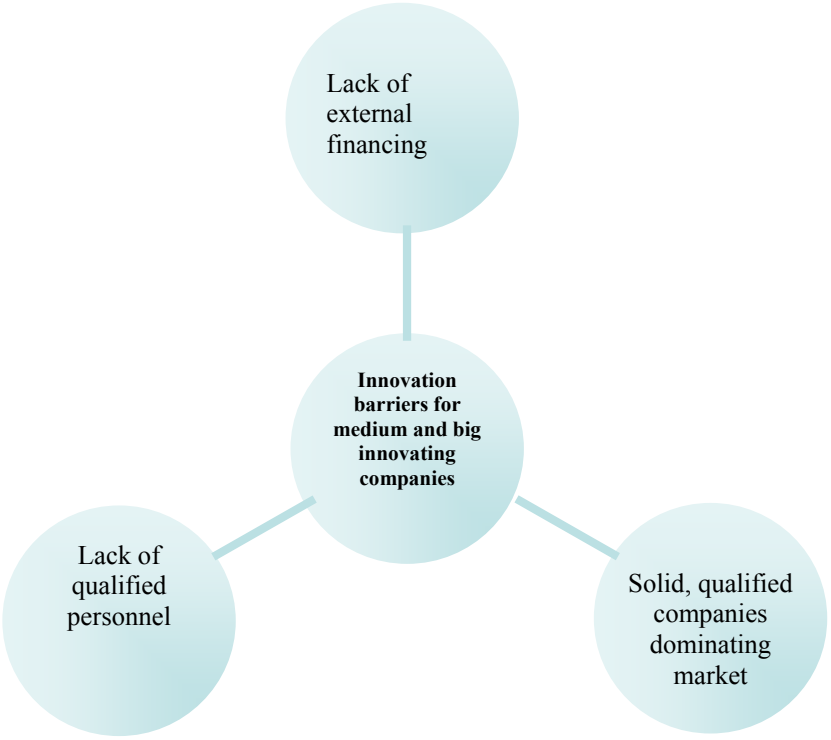

Chart 3. *Innovation barriers of medium and big companies*

In 2006, 560 SMEs have stated research and development as their main activity. Most of these were micro-enterprises.

Almost 2 thirds of SMEs acting in the research and development field are micro-enterprises.

Compared with 2003, there is a 25% increase while the employees number is almost the same this indicating towards the sector automation.

Automation has significantly increased in the same time and production has doubled over the same interval.

Micro-enterprises have obtained a 41.000 lei added value per employee, while medium companies have registered about 28.000 lei.

Micro-enterprises are on the first place also regarding the production exercise per employee (97277 lei/person) as well as on average direct exports per employee (4584 lei/person).

In the same time, the highest personnel expenses belong to average companies 22990 lei/person) while micro-enterprises spend half of this figure (11.105 lei/person).

Average companies are also the ones making the most of the investments: 306 lei out of 1000 lei added value compared with 206 lei realized by small companies.

As shown in the INS monthly statistic reports no. 1/2007 and 1/2008, the number of employees in the 'Research, development and informatics' field have registered a meaningless decrease in 2007 compared to the previous year> at the end of 2006 it amounted to 57.6 thousand and at the end of 2007 at 56.2 thousand, while the monthly average gross income for the same category of employees has increased from 2.191 lei in 2006 to 2.982 lei in 2007.

Conclusions

The level of expenses linked with research and development in Romania is still far from the targets of the Lisbon Strategy: a 0.54% of the national gross product in 2007 (a 0.46% increase compared to previous year) is very far from the 3% planned and the average 1.8% in the EU.

Only 18% of the SMEs in Romania have been involved in the innovation field during 2004 – 2006, as per the data released by the National Statistics Institute. The lack of in-house resources as well as of the attracted ones stands as a barrier to innovation.

Generally speaking, innovation processes in SMEs are mainly focussed on the company's organizational aspects than on the marketing ones.

The managers' and employees' lack of marketing abilities as well as the national consultants' shortage hinders the innovation process of Romanian SMEs.

Average companies have had the most significant contribution to the SMEs turnover in 2007, 36% of the total respectively, closely followed with a 35% share by small companies, while micro-enterprises represent 29% of the total.

The turnover has constantly increased for all size categories. However, the most significant increase compared to previous year has been awarded by the average companies.

All sectors have registered increases in the productivity indicator expressed by the turnover per employee, although there are still big sector variations as far as the labour productivity indicator is concerned.

Average companies have the highest unit price of the labour force, followed by small companies and micro-enterprises.

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THE IMPLICATIONS OF THE FISCAL AMORTIZATION ON THE PERFORMANCE INDICATORS

Lucian BUŞE
Mirela GANEA
University of Craiova

Abstract. *As an expression of consumption the fixed assets in the production process, the expenses with amortization lead, because of their deducible character, to an economy of duty. The size of this economy is function of the method of amortization used and, it influences the level of the company' results.*

Whereas, the impact of the expenses with amortization on the results of a company is reflected by the level of the performance indicators, this paper treats and presents, in a study case, the implications of the fiscal amortization on the cash flow value added, as an indicator of performance based on value creation.

Keywords: expenses with amortization; fiscality; cash flow value added.

I. Introduction

Any entity that develops economic activities and that immobilizes capital in tangible and intangible assets submitted to physical and/or moral depreciation, calculates, registers in accountancy and recovers from the fiscal point of view their depreciation by means of amortization.

Amortization is a financial process of gradual recovery of the value of the non current assets consumed during the economic process or only as a consequence of their possession in the patrimony of the company. At the same time, amortization represents a constitution process, by accumulating these values, of an amortization fund destined to the replacement of the non current assets when it expresses their economic life time, or when they reach the limits of physical and moral wear.

Thus, we can state that amortization has the role of resource for financing investments, for renewing worn-out assets, and as element of the costs, it influences the evolution of the financial results of a company. In this sense the importance of amortization is connected with its fiscal impact, respectively with the possibility to deduce expenses with amortization from the calculation basis of the profit tax, and to diminish, this way, the payment obligations to the state budget.

An efficient instrument in calculating depreciation, amortization benefits from the fiscal rules and contributing, in this way, to the development of the technical potential of the company. For this reason, it is necessary to make a schedule of the amortization expenses related to the next period, schedule which will be at the base of the decisions regarding the financial management of the company and will principally pursue the following aspect:

- *the recovery of the investments materialized in non current assets*, a higher value of the expenses with amortization will lead to a recovery of the funds invested in a smaller period of time, making possible new acquisitions or modernizations, in order to adapt the company to the new techniques and technologies more and more performant;
- *the obtainment of a smaller possible taxable result,* in order to minimize the tax due to the state and thus the cash exits from the unit for fiscal purposes.

Taking into consideration the utility of the fiscal amortization, in the next part of the paper we propose to analyze its impact on the results of the company, using as indicator for measuring performance the added value in the form of cash flow.

II. Concepts and methodology

In determining the fiscal amortization companies can apply one of the following amortization methods:

- linear amortization;
- degressive amortization;
- accelerated amortization.

The method of linear amortization. In case of this method, amortization is established through the application of the linear amortization quote at the entrance value of the amortizable fixed assets. The linear amortization quote is calculated reporting the number 100 to the normal use duration of the fixed assets, established according to the Classification Catalogue of fixed assets.

The method of degressive amortization. In case of this method, amortization is calculated by multiplying the linear amortization quotes with one of the following coefficients:

a) 1,5, if the normal duration of use of the amortizable fixed assets is between 2 and 5 years;

b) 2,0, if the normal duration of use of the amortizable fixed assets is between 5 and 10 years;

c) 2,5, if the normal duration of use of the amortizable fixed assets is bigger than 10 years.

The method of accelerated amortization. In case of this method, amortization is calculated as follows:

a) for the first year of use, amortization cannot exceed 50% from the entrance value of the fixed assets;

b) for the following years of use amortization is calculated by reporting the remained value of the amortization of the fixed assets to the normal duration of use remained for it.

In order to apply the dispositions regarding amortization, the Tax code regulates every method in case of which fixed assets is applied:

a) in case of constructions, the method of linear amortization is applied;

b) in the case of technological equipments, respectively of machines, tools and installations, as well as for computers and their peripheral equipments, the tax payer may choose the method of linear, degressive or accelerated amortization;

c) in the case of any other amortizable fixed assets, the tax payer can choose the method of linear or degressive amortization.

Besides the amortization method, in order to establish the amortization expenses it is also important the normal duration of use of the fixed assets, the economic agents having the possibility to establish the period of time in which it is fiscally deduced the acquisition cost of the assets in the limits of a variation intervals. Thus, the fiscal law offers to economic agents more freedom in scheduling amortization. The catalogue regarding the classification and establishment of the normal durations of use of the fixed assets establishing only the minimum duration and the maximum duration for each particular category of fixed assets.

Being based on the objective of accountancy to include within the current operations an expense equal to a fraction from the cost of the assets used in obtaining incomes, the amortization expenses are the expression of the consume of fixed assets in the production process, by means of which it is fiscally recognized the participation of the actives in obtaining incomes during more financial exercises.

Because of their deducible character, the amortization expenses have a direct influence on the taxable result, in the sense of its diminishing and indirect on the net result and on the performance indicators calculated based on it.

Taking into consideration the current concerns and the special interest of the company's management on the creating value process, we have considerate as being

necessary an analyze of the impact of the fiscal amortization on the cash flow value added, as an indicator based on value creation.

The cash flow value added (CFVA) is an updated net value, created in the middle of the ’90 by the Swedish economists Erik Ottosson and Fredrik Weissenrieder, according to which, the increase of a company value can originate only in the adoption of an optimum investment decision.

In order to determine this indicator, investments are classified in strategic investments and non-strategic investments. The first category of investments contains the investments made initially, from zero, while the second category groups the investments made in order to maintain the strategic ones, for this reason being treated as costs.

The determination of the cash flow value added needs the calculation of operating cash flow (OCF) and of the necessary of the operating cash flow (NOCF), the investment creating value only if the operating cash flow forwards the necessary of operating cash flow for the entire functioning period of the investment:

$$CFVA = OCF - NOCF \quad (1)$$

The modality of calculating the cash flow value added presents itself as follows:

Sales

- Operating costs

Earnings before interest, taxes and depreciations (EBITDA)

- Δ Necessary of operating working capital

- Non-strategic investments

Operating Cash flow (OCF)

- The necessary of operating cash flow (NCFO)

The cash flow value added (CFVA)

The operating cash flow (OCF) is calculated by deducing from the level of the EBITDA the variation of the necessary of working capital and the value of the non-strategic investments made by the company.

The earnings before interest, taxes and depreciations (EBITDA) represents a potential monetary surplus (potential cash flow) emitted by the operating activity of the company, established as a difference between the monetary incomes (M_I^*) and the probable monetary expenses to be made (M_E^*):

$$EBITDA = M_I - M_E \quad (2)$$

M_I^* – The monetary incomes from operating activity, contain the incomes from the sale of merchandises, the sold production and the subsidies for exploitation;

M_E^* – The monetary expenses of exploitation include the acquisition cost of the merchandises sold, the consumes resulted from third parties, the expenses with the personnel and the taxes, the fees and the assimilated effusions.

Since not all the sales incomes are effectively cashed, and not all the costs made are paid, it is necessary to correct EBITDA in order to reflect the real flow of money availabilities (real operating cash flow). In this sense from the sales incomes must be subtracted the incomes related to sales on credit (ΔScr), and from the costs must be subtracted the operating expenses not paid (ΔOdst), related to the acquisitions from suppliers on commercial credit, the salaries of the personnel and the taxes, fees and contributions registered in accountancy, but not paid. The difference between these two elements is named *the variation of the necessary of operating working capital* (ΔNOWK):

$$\Delta NOWK = \Delta Scr - \Delta Odst \quad (3)$$

where:

Scr – the value of credits (of sales on credit);

Odst – operating debts on short term (toward employees, suppliers, state).

$$\Delta NOWK - (Scr_1 - Scr_0) - (Odst_1 - Odst_0), \quad (4)$$

where:

Scr_1 – the value of the credits at the end of the year;

Scr_0 – the value of the credits at the beginning of the year;

$Odst_1$ – the operating debts on short term at the end of the year;

$Odst_0$ – the operating debts on short term at the beginning of the year.

According to the CFVA model, *non-strategic investments* are treated as costs, because they are made with the purpose to keep the value of the strategic investments, for this reason their value must be decreased to EBITDA level.

The necessary of operating cash flow (NOCF) is a real annuity, adjusted according to the effective annual inflation which must be covered by the operating cash flow.

The calculation of the necessary of operating cash flow needs the covering of the following stages (Siminică, 2008, pp. 179-180):

1. The identification of the initial payments needed by each strategic investment which is still functioning within the company;

2. The estimation of the economic life time of each strategic investment;

3. The calculation of the nominal cash flow which every strategic investment must produce in every period (year/trimester/ month), in order to obtain an updated net value equal with zero, according to a calculation not adjusted to inflation. The necessary of the exploitation cash flow is supposed to be the same in real terms every year; it results that the measure of the cash-flow from the calculation not adjusted to inflation modifies only at the same time with the result of the past inflation, if the analysis of CFVA is accomplished based on past data and according to the inflation estimated for the future for the NOCF remained.

It results that in the conditions of a zero inflation, the necessary of operating cash flow is the same every year:

$$NOCF_1 = NOCF_2 = \ldots = NOCF_n \quad (5)$$

Considering an annual inflation rate which is constant in time (i), the necessary of the operating cash flow from the year k is determined like this:

$$NOCF_k = NOCF_{k-1} \times (1+i) = NOCF_1 \times (1+i)^{k-1} \quad (6)$$

If the inflation rate registers big fluctuations in time, the previous formula can no longer be applied, being necessary the use of the inflation rate from every year of the period analyzed.

If the CFVA analyze is doing only for the futures, the NOCF of the first year for an investment with "n" years duration of use, can be calculated:

$$I = \frac{NOCF_1}{1+r} + \frac{NOCF_1(1+i)}{(1+r)^2} + \ldots + \frac{NOCF_1(1+i)^{n-1}}{(1+r)^n} = \frac{NOCF_1}{1+r} \times \frac{1-\frac{(1+i)^n}{(1+r)^n}}{1-\frac{1+i}{1+r}} =$$

$$= \frac{NOCF_1}{1-i}\left[1-\frac{(1+i)^n}{(1+r)^n}\right]$$

the NOCF of the first year will be determined:

$$NOCF = \frac{I}{\frac{1}{r-i} - \frac{\frac{(1+i)^n}{r-i}}{(1+r)^n}}$$

the NOCF for the second and the next years, will be determined:

$$NOCF_2 = NOCF_1 \times (1+i)$$

.....

$$NOCF_n = NOCF_1 \times (1+i)^{n-1}$$

III. Results

Starting from the above mentioned, we aim at analysing the efficiency of the depreciation of a fixed asset, as well as the influences thereof on the company's results and, therefore, on cash flow value added, as an indicator based on value creation.

For this purpose, we shall consider the purchase of an automatic lathe, at a purchase price of 11,900 lei (VAT included), as a strategic investment made by the analysed company.

With a duration of use of more than 1 year and an input value higher than the limit imposed by the legislation in force (1,800 lei), the company's investment may be considered an amortisable fix asset and, consequently, the analysed company may recover the purchase cost by depreciation, also being subject to the tax effect, due to the deductibility of depreciation expenditure.

For establishing annual depreciation and its implications at the level of the investment, the amortisation method generating the highest positive tax effect on cash flow has to be identified, considering both the normal duration of use of the lathe and the profit to be obtained from the use thereof, by deducting depreciation expenditure.

According to the regulations of the Tax code on depreciation (article 24, par. 6), the company's strategic investment in an automatic lathe represents technological equipment. Therefore, in establishing the annual amortisation thereof, the company may choose one of the three available depreciation methods: linear, degressive and accelerated.

As for the normal duration of use of the fixed asset, the management may choose a duration of use ranging from 8 to 12 years, because, according to the Catalogue on the classification and normal durations of operation of fixed assets, automatic lathes belong to *group 2 technical installations, means of transport, animals and plantations,* sub-group 2.1.5.2. lathes.

With a view to determining the implications of tax depreciation on the company's earnings, annual amortisation was calculated according to the three depreciation methods, with differentiation in the case of the minimum and maximum limit of the normal duration of use. The obtained results are presented in table 1:

Table 1

The Evolution of Annual Depreciation by Amortisation Methods and Durations of Operation

Year	Minimum normal duration of use			Maximum normal duration of use		
	Linear amortisation	Degressive amortisation	Accelerated amortisation	Linear amortisation	Degressive amortisation	Accelerated amortisation
1	1.250,00	2.500,00	5.000,00	833,33	2.080,00	5.000,00
2	1.250,00	1.875,00	714,29	833,33	1.647,36	454,55
3	1.250,00	1.406,25	714,29	833,33	1.304,71	454,55
4	1.250,00	1.054,69	714,29	833,33	1.033,33	454,55
5	1.250,00	791,02	714,29	833,33	818,40	454,55
6	1.250,00	791,02	714,29	833,33	648,17	454,55
7	1.250,00	791,02	714,29	833,33	513,35	454,55
8	1.250,00	791,02	714,29	833,33	406,57	454,55
9	-	-	-	833,33	387,03	454,55
10	-	-	-	833,33	387,03	454,55
11	-	-	-	833,33	387,03	454,55
12	-	-	-	833,33	387,03	454,55
Total	10.000,00	10.000,00	10.000,00	10.000,00	10.000,00	10.000,00

Pursuant to the analysis of the data obtained by calculation, we can notice that each amortisation method results in the recovery of the input value of the fixed asset, but at

different rates, which will result in a different allocation of the taxable earnings and, therefore, of the payable income tax. Thus, the linear method implies a uniform allocation of amortisation during the entire duration of operation and, hence, the allocation of the taxable earnings with constant amortisation expenditure. However, such expenditure varies with the duration of use: short duration, high expenditure (1,250 lei/year with 8-year amortisation), respectively lower expenditure for longer periods (833.33 lei/year with a 12-year amortisation of the lathe).

If the degressive method is applied, amortisation expenditure is higher in the first years of operation of the fixed asset, but descending, and linear amortisation is applied from a certain moment. By applying the accelerated amortisation method, the operation result is affected by amortisation to a higher extent during the first year of operation of fixed assets, and to a lower extent in the following years. A considerable influence on the investment recovery rate is also exerted by the normal duration of use (number of years) in the case of such methods.

Therefore, at the level of an investment, the interest in the amortisation method is mainly connected to the fact that it generates expenses to be deducted from the taxable earnings, diminishing thus the payable income tax. The tax savings thus obtained are equal to the product between the value of the recorded amortisation and the income tax quota. They depend on the level of annual amortisation expenditure and the income tax quota.

Considering a given income tax quota of 16% and enough accounting profits for deducing amortisation, the achievement of higher tax savings implies recording high amortisation expenses.

As the level of amortisation expenditure depends on the amortisation method and the normal duration of use which has been chosen and the impact thereof only shows at the moment of determining income tax, through the corresponding tax savings, we considered that an analysis of the income tax savings obtained by the company is required, with differentiation by each amortisation method separately, and, therein, by the two limits of the duration of recovery, with the obtained results being presented in table nomber 2:

Table 2

The Evolution of Tax Savings by Amortisation Methods and Durations of Operation

Year	Tax savings in the case of the lower limit			Tax savings in the case of the upper limit		
	Linear amortisation	Degressive amortisation	Accelerated amortisation	Linear amortisation	Degressive amortisation	Accelerated amortisation
1	200	400,00	800,00	133,33	332,80	800,00
2	200	300,00	114,29	133,33	263,58	72,73
3	200	225,00	114,29	133,33	208,75	72,73
4	200	168,75	114,29	133,33	165,33	72,73
5	200	126,56	114,29	133,33	130,94	72,73
6	200	126,56	114,29	133,33	103,71	72,73
7	200	126,56	114,29	133,33	82,14	72,73
8	200	126,56	114,29	133,33	65,05	72,73
9	-	-	-	133,33	61,92	72,73
10	-	-	-	133,33	61,92	72,73
11	-	-	-	133,33	61,92	72,73
12	-	-	-	133,33	61,92	72,73
Total	1.600	1.600	1.600	1.600	1.600	1.600

We may notice that, irrespective of the applied amortisation method, the annual income tax savings are higher in case the lower normal duration of use is chosen. In other words, the impact of tax depreciation is higher in the case of the minimum duration of use,

which is why we shall restrict the analysis of the impact of tax amortisation to the level of amortisation expenditure obtained given the minimum duration of use.

Thus, in case the fixed asset is depreciated in 8 years, income tax savings are higher in the first year if accelerated amortisation is used, whereas in the following years higher savings shall be recorded in the case of degressive amortisation, until linear values are applied.

However, if analysed globally for the entire period, tax savings are the same, irrespective of the amortisation method used.

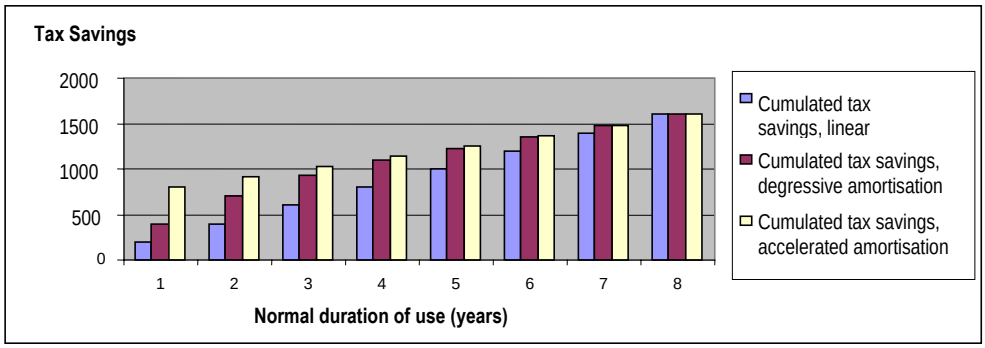

Chart 1. *The Global Evolution of Tax Savings by Amortisation Method*

For a correct quantification of the impact of tax amortisation by tax savings, we must also consider the value in time of money, as such savings determine an according decrease of the paid tax, namely of the company's outward cash flows. Determining the current values of tax savings for each year and the impact thereof on the net cash flows of the investment requires using a discount rate. We used the average rate of return on invested capital. This was determined as a weighted average between the rate of return of own capital (rate of financial return) and the rate of return of borrowed capital (interest rate), obtaining a value of 15%.

Considering the discount rate of future tax savings, the evolution of the influence of amortisation on tax savings may be shown in a chart as follows:

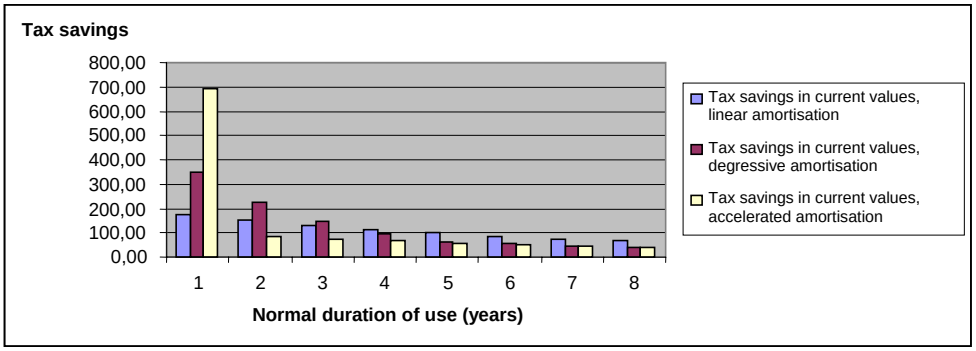

Chart 2. *The Evolution of Annual Tax Savings, by the Three Amortisation Methods, also Considering the Discount Rate*

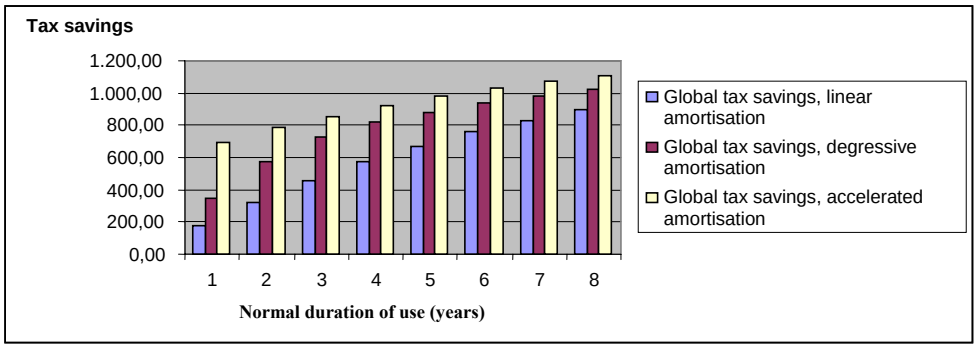

Chart 3. *Global Evolution of Tax Savings, by the Three Amortisation Methods, also Considering the Discount Rate*

According to charts 2 and 3, we can conclude that, for obtaining higher tax savings, the recommended amortisation method is the accelerated method, followed by degressive amortisation and linear amortisation in the last place.

Thus, in terms of current value, accelerated amortisation results in the highest tax benefits, as it involves the transfer to expenditure of an amount currently higher than in the case of the other amortisation methods. Given the existence of enough accounting earnings so that high amortisation expenses may be deducted, the application of the accelerated amortisation method determines, in terms of current value, an increase of net cash flows for the investment concerned.

Besides measuring the impact of tax amortisation on future net cash flows we considered that, at the level of the investment our study refers to, the analysis may be deepened by determining and quantifying the influences of every amortisation method on the value created by such investment for the company.

To this purpose, the strategic investment is considered an individual profit centre, at the level of which both generated incomes and incurred expenses may be identified. The incomes and expenses estimated to be obtained, respectively incurred for the asset involved, during the entire duration of operation thereof (a duration of economic life equal to the normal duration of use of eight years has been considered) are presented in the enclosed tables.

For determining the impact of amortisation on cash flow value added (CFVA), the level of this indicator was calculated differently for the amortisation expenditure related to every amortisation method, given that all other categories of expenses and incomes were considered constant.

The level of the discount rate (r) used in the calculation of CFVA is 15% and represents the average rate of return on invested capital determined for the analysed company, whereas the inflation rate (i) is considered to be constant during the operation of the investment, of 5% per year. The variation of the necessary working capital for operation (ΔNWCO) and non-strategic investments (Ins) which the company estimates to accomplish are also presented in the enclosed tables.

We have to state that a net operating cash flow (OCF) was considered in the determination of CFVA, by deducting the income tax from the value of the EBITDA. This adjustment of the calculation formula was used, as the influence of amortisation occurs at the moment of establishing the tax to be paid, by diminishing it, differently in the case of each method of amortisation.

Pursuant to the performed calculations, the results obtained for cash flow value added (CFVA) and the net current value of CFVA (NCV_{CFVA}) are presented in table 3:

Table 3

Cash Flow Value Added

Year	CFVA			NCV CFVA		
	Method of amortisation			Method of amortisation		
	Linear	Degressive	Accelerated	Linear	Degressive	Accelerated
0				**10.730**	**10.859**	**10.942**
1	2.522	2.722	3.122	2.193	2.367	2.715
2	1.677	1.777	1.591	1.268	1.344	1.203
3	1.877	1.902	1.791	1.234	1.250	1.177
4	1.935	1.904	1.849	1.106	1.088	1.057
5	2.592	2.519	2.507	1.289	1.252	1.246
6	3.056	2.983	2.971	1.321	1.290	1.284
7	3.245	3.172	3.160	1.220	1.192	1.188
8	3.362	3.288	3.276	1.099	1.075	1.071

Chart 4. *Evolution of CFVA Depending on the Amortisation Method*

It is found that, in all its eight years of operation, the investment subject to analysis creates value for the company and CFVA is positive.

Comparing the values of CFVA for each of the three methods of amortisation, we may notice a fluctuation of such values at the level of the period of economic life of the investment. Thus, in the first year of operation, the level of the value created by the investment is higher in the case of the accelerated method, followed by the degressive and linear methods. In the 2nd and 3rd years, CFVA is higher in the case of the degressive method, whereas, starting from the fifth year of operation, the highest level of CFVA is obtained in case of the linear amortisation method.

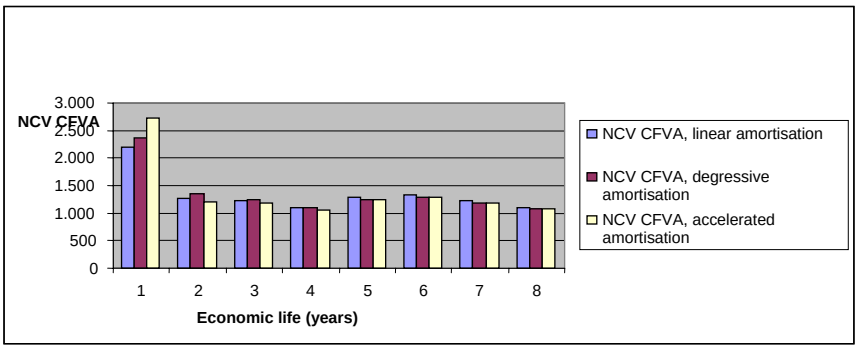

Chart 5. ***Evolution of NCV of CFVA Depending on the Amortisation Method***

As current values, we notice a similar situation, namely a positive NCV_{CFVA}, which fluctuates from one year to another, differently, by the three methods of amortisation.

Globally, at the level of the entire duration of economic life of the investment, the net current value of CFVA is highest in the case of the accelerated method (10,942 lei) and represents the added value created by the investment for shareholders, besides from the remuneration requested by them and the company's creditors.

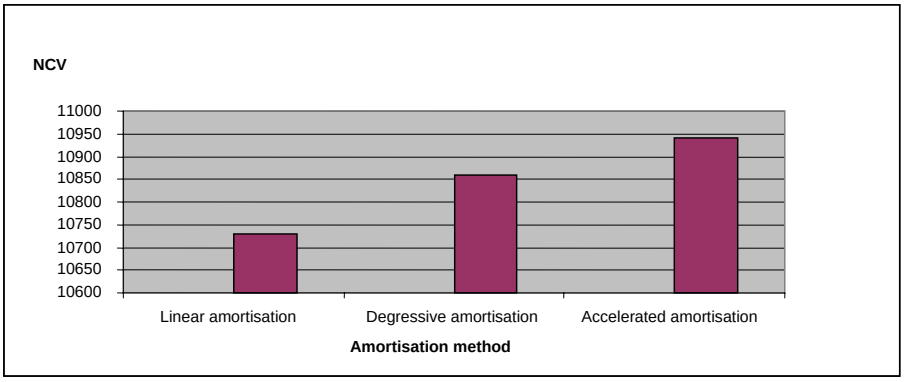

Chart 6. *Net Current Value of CFVA*

On balance, we may state that the amortisation method recommended to be used is the accelerated one, as it results in a level of the value created by the investment for shareholders, higher to that of the other two amortisation methods.

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Annex 1

The CFVA calculation in the case that linear amortization method is used:

Nr. crt.	Year Indicators	A0	A1	A2	A3	A4	A5	A6	A7	A8
1	Incomes		8.736	9.180	9.968	10.556	11.780	12.870	13.668	14.490
2	No. pieces sold		1.680	1.700	1.780	1.820	1.900	1.980	2.040	2.100
3	Sale price/pieces		5,20	5,40	5,60	5,80	6,20	6,50	6,70	6,90
4	Total expenses		4.800	5.480	5.880	6.230	6.500	6.870	7.270	7.760
4.1.	Expenses for row materials		1.400	1.600	1.720	1.780	1.850	1.980	2.200	2.350
4.2.	Expenses for consumable materials		330	420	580	720	840	890	920	960
4.3.	Expenses on energy		720	860	880	920	940	1.010	1.080	1.200
4.4.	Salaries		1.100	1.350	1.450	1.560	1.620	1.740	1.820	2.000
4.5.	Expenses whit amortization		1.250	1.250	1.250	1.250	1.250	1.250	1.250	1.250
5	Monetary expenses (4 – 4.5.)		3.550	4.230	4.630	4.980	5.250	5.620	6.020	6.510
6	EBITDA (1-5)		5.186	4.950	5.338	5.576	6.530	7.250	7.648	7.980
7	Gross profit (1-4)		3.936	3.700	4.088	4.326	5.280	6.000	6.398	6.730
8	Income tax		630	592	654	692	845	960	1.024	1.077
9	Variation of NOCF		0	500	505	510	512	515	517	520
10	Non strategic investments		100	150	170	200	230	250	270	300
11	OCF net (6-9-10-8)		4.456	3.708	4.009	4.174	4.943	5.525	5.837	6.083
12	NOCF		1.934	2.031	2.132	2.239	2.351	2.469	2.592	2.722
13	CFVA (11-12)		2.522	1.677	1.877	1.935	2.592	3.056	3.245	3.362
14	Factor of actualization		0,8696	0,7561	0,6575	0,5718	0,4972	0,4323	0,3759	0,3269
15	NCV_{OCF}	20.730	3.875	2.804	2.636	2.386	2.458	2.389	2.194	1.989
16	NCV_{NOCF}	10.000	1.682	1.536	1.402	1.280	1.169	1.067	974	890
17	NCV_{CFVA}	10.730	2.193	1.268	1.234	1.106	1.289	1.321	1.220	1.099

Annex 2

The CFVA calculation in the case that degressive amortization method is used:

Nr. crt.	Year / Indicators	A0	A1	A2	A3	A4	A5	A6	A7	A8
1	Incomes		8.736	9.180	9.968	10.556	11.780	12.870	13.668	14.490
2	No. pieces sold		1.680	1.700	1.780	1.820	1.900	1.980	2.040	2.100
3	Sale price/pieces		5,20	5,40	5,60	5,80	6,20	6,50	6,70	6,90
4	Total expenses		6.050	6.105	6.036	6.035	6.041	6.411	6.811	7.301
4.1.	Expenses for row materials		1.400	1.600	1.720	1.780	1.850	1.980	2.200	2.350
4.2.	Expenses for consumable materials		330	420	580	720	840	890	920	960
4.3.	Expenses on energy		720	860	880	920	940	1.010	1.080	1.200
4.4.	Salaries		1.100	1.350	1.450	1.560	1.620	1.740	1.820	2.000
4.5.	Expenses whit amortization		2.500	1.875,00	1.406,25	1.054,69	791,02	791,02	791,02	791,02
5	Monetary expenses (4 – 4.5.)		3.550	4.230	4.630	4.980	5.250	5.620	6.020	6.510
6	EBITDA (1-5)		5.186	4.950	5.338	5.576	6.530	7.250	7.648	7.980
7	Gross profit (1-4)		2.686	3.075	3.932	4.521	5.739	6.459	6.857	7.189
8	Income tax		430	492	629	723	918	1.033	1.097	1.150
9	Variation of NOCF		0	500	505	510	512	515	517	520
10	Non strategic investments		100	150	170	200	230	250	270	300
11	OCF net (6-9-10-8)		4.656	3.808	4.034	4.143	4.870	5.452	5.764	6.010
12	NOCF		1.934	2.031	2.132	2.239	2.351	2.469	2.592	2.722
13	CFVA (11-12)		2.722	1.777	1.902	1.904	2.519	2.983	3.172	3.288
14	Factor of actualization		0,8696	0,7561	0,6575	0,5718	0,4972	0,4323	0,3759	0,3269
15	NCV_{OCF}	20.859	4.049	2.879	2652,3679	2368,5393	2421,1326	2356,8609	2166,8569	1964,602
16	NCV_{NOCF}	10.000	1.682	1.536	1.402	1.280	1.169	1.067	974	890
17	NCV_{CFVA}	10.859	2.367	1.344	1.250	1.088	1.252	1.290	1.192	1.075

Annex 3

The CFVA calculation in the case that accelerated amortization method is used:

Nr. crt.	Year / Indicators	A0	A1	A2	A3	A4	A5	A6	A7	A8
1	**Incomes**		8.736	9.180	9.968	10.556	11.780	12.870	13.668	14.490
2	**No. pieces sold**		1.680	1.700	1.780	1.820	1.900	1.980	2.040	2.100
3	**Sale price/pieces**		5,20	5,40	5,60	5,80	6,20	6,50	6,70	6,90
4	**Total expenses**		8.550	4.944	5.344	5.694	5.964	6.334	6.734	7.224
4.1.	**Expenses for row materials**		1.400	1.600	1.720	1.780	1.850	1.980	2.200	2.350
4.2.	**Expenses for consumable materials**		330	420	580	720	840	890	920	960
4.3.	**Expenses on energy**		720	860	880	920	940	1.010	1.080	1.200
4.4.	**Salaries**		1.100	1.350	1.450	1.560	1.620	1.740	1.820	2.000
4.5.	**Expenses whit amortization**		5.000	714,29	714,29	714,29	714,29	714,29	714,29	714,29
5	**Monetary expenses (4 - 4.5.)**		3.550	4.230	4.630	4.980	5.250	5.620	6.020	6.510
6	**EBITDA (1-5)**		5.186	4.950	5.338	5.576	6.530	7.250	7.648	7.980
7	**Gross profit (1-4)**		186	4.236	4.624	4.862	5.816	6.536	6.934	7.266
8	**Income tax**		30	678	740	778	931	1.046	1.109	1.163
9	**Variation of NOCF**		0	500	505	510	512	515	517	520
10	**Non strategic investments**		100	150	170	200	230	250	270	300

Nr. crt.	Year / Indicators	A0	A1	A2	A3	A4	A5	A6	A7	A8
11	**OCF net (6-9-10-8)**		5.056	3.622	3.923	4.088	4.857	5.439	5.752	5.997
12	**NOCF**		1.934	2.031	2.132	2.239	2.351	2.469	2.592	2.722
13	**CFVA (11-12)**		3.122	1.591	1.791	1.849	2.507	2.971	3.160	3.276
14	**Factor of actualization**		0,8696	0,7561	0,6575	0,5718	0,4972	0,4323	0,3759	0,3269
15	NCV_{OCF}	20.942	4.397	2.739	2.580	2.337	2.415	2.352	2.162	1.961
16	NCV_{NOCF}	10.000	1.682	1.536	1.402	1.280	1.169	1.067	974	890
17	NCV_{CFVA}	10.942	2.715	1.203	1.177	1.057	1.246	1.284	1.188	1.071

ESTIMATION OF THE PRICE OF LAND AND ITS EFFECTS ON PRODUCT UNIT COSTS

Ioan PANĂ
Viorica PANĂ
University of Piteşti

Abstract. *This paper presents various means of evaluation and estimation of the price of agricultural land and its effects on the product unit costs and on the price of agricultural products.*

Keywords: price of land, product unit costs, agricultural exploitations, productive potential, agricultural products

JEL Classification: Q14, E37, D24.
REL Classification: 15E, 14I, 11F.

1. Introduction

Land as a factor of production is characterized by a number of features which differentiate it from the other immobilized tangible assets:

– it is irreplaceable for agriculture and silviculture activities;
– the surface of land used for agricultural purposes is limited;
– it is fixed, so it can not be moved;
– when it is well used, it is not subjected to depreciation, on the contrary, its production capacity increases.

2. Qualitative and Economic Evaluation of the Land

The land evaluation focuses on two aspects: a relative, qualitative evaluation also referred to as the land assessment and an absolute or economic evaluation of agricultural land.

Based on the research made it was established that the land assessment should be carried out according to a 100 point scale and the four main factors should be associated with the following score: the soil 0- 50 points, climate ± 20 points, hydrology ± 15 points and the relief ± 15 points (Teaci, 1970, p 67).

Based on the assessment of the provisional fertility and of the enhanced fertility the production capacity of the agricultural land could be established, thus increasing the 100 point score which is the maximum possible for natural fertility.

Following the assessment analysis 5 classes of favourability could be established for each culture, each containing 20 points, as follows:

– most favourable land I – 81-100 points;
– most favourable land II – 61- 80 points;
– favourable land I – 41-60 points;
– favourable land II – 21-40 points;
– least favourable land – 1-20 points.

The plots of land that are associated with an assessment score under 0 are classified as unproductive.

The score associated to a certain plot of land is not immutable, but it can be changed according to the intensification of the agricultural production. For instance between 1950-955

the natural assessment score for agricultural land was 42.9 points at the country level, while between 1976 -1980 it reached 55.1 points (Hartia, 1974, p 67).

The absolute or economic evaluation of agricultural land is based on the fact that a number of production factors were cumulated in time on the respective land. The costs have to be recovered by revaluating the agricultural products obtained by using the land as a means of production.

The evaluation of agricultural land was approached by several authors:

− In 1914 Mihai Şerban used two criteria to establish the value of agricultural land: For properties over 20 hectares he used as a calculation base the rent established at the county level which he multiplied by 20 years and for properties under 20 hectares he used as calculation base the price at which Casa Rural sold the land to the peasants (Şerban, 1914).

− In 1915, I. Angelescu calculates the value of the country land resources using as a criterion the net income or the production per hectare which he capitalizes based on a 5% rate (Manescu, Bucharest, 1984, pp. 85).

− N. Georgescu- Roegen in 1939 uses two calculation methods: one based on the average taxable income taken from the direct tax statistics for 1930 and thus he takes the tax to represent 5% of the average value of a hectare of land and the second method based on the prices of the various categories of land established by N. Corlateanu in 1935 which he increases by 10% as the prices had increased in the mean time (Georgescu Roegen, 1943, pp. 967-971).

− In 1990 the Agricultural Economy Institute affiliated to the Romanian Agriculture and Silviculture Sciences Academy (Hartia, 1980) calculated the value of agricultural land of the country based on its own formula which took into account the multiplied net income.

3. Establishing the Price of the Land

An accurate criterion used to calculate the value of a hectare of land, according to which the evaluation of the land for each agricultural enterprise is carried out is that based on the capitalized land rent, according to the following relation:

$$v/ha = \frac{lr \cdot 100}{Cc}$$

where:

v/ha represents the value of one hectare of land;

lr – the annual land rent per hectare;

Cc – capitalization coefficient, which is taken to be approximately equal to the interest rate.

The price of the land also varies according to the place and time when the transaction is made. The price is calculated taking into account the capitalized land rent and it can be higher or lower than such land rent according to the supply and demand ratio.

In a stable economy, the capitalization percentage is 4-5%, so the rent multiplies 20-25 times, according to the number of years worked by a person in agriculture.

For the agricultural plots of land that were withdrawn for good from agricultural use, the price of land can be determined based on the following relation:

$$Pl = \frac{lr \cdot 100}{Cc} + \frac{Vfa \cdot 100}{Cc} + Chv \cdot Ip$$

where: Pl represents the price of the agricultural land withdrawn for good from agricultural use;

lr – land rent;

Vfa – the unredeemed value of the fixed assets associated to the land;

Cc – the capitalization coefficient which is equal to the interest rate;

Chv – the costs required in order to recover a surface of unproductive land equal to the surface withdrawn from agricultural use;

Ip – the price variation index

The economic evaluation of the land must not be mistaken for the price of the land. The price of the land is an economic category imposed by practical issues, a concept used on the land market which changes according to the economic standards.

The economic evaluation of the land defines the quantification of the land value, which is absolutely necessary at a certain point, both at the macroeconomic and the microeconomic level.

The two concepts are not mutually exclusive, they rather complete each other. The price of the land is associated with the land movement, while the economic evaluation is related to the management of the land resources, as the land is the most important immobilized tangible asset in an agricultural enterprise.

The land rent is the income received by the land owner because he/she makes available or uses the land, it is an additional income of the agricultural producers that have limited natural resources in the context of a rigid or not so flexible supply of agricultural products.

The natural form of land rent takes the form of the surplus of agricultural production obtained from the plot of land in case, the high quality of the products or the seasonal character of the same and the economic rent is based on the limited supply of agricultural products which allows for a revaluation price much higher than the production cost.

The conditions underlying the rent are presented below:

– the monopole of private property on the land generating additional net income which is turned into absolute rent if the organic composition of the capital is lower than the average rent in the respective country and the added value rate is approximately the same for the main activities (fields).

– the monopole on the land as object of economy in the context of surface limitations, which determines the differential rent I (given by the difference of fertility and the location of the land in relation to the supply or sale markets or in relation to the routes of transport) and differential rent II (caused by additional successive investments in the same land surface).

– the price of the agricultural products is formed based on the costs associated to the least favourable plots of land which were cultivated in order to assure the demand of agricultural products.

The absolute rent may disappear in the context of the increase of the organic composition of the capital used in agriculture up to the level of the other economic activities. This has already been proved in the countries with a developed agriculture such as France, a country where the owner-producer status has become more and more rare, as the state took over the land from the persons that can no longer cultivate it and rented it in advantageous terms to the young farmer families.

The following relation is used to calculate the differential rate for a certain culture:

$$dr = \eta \cdot p - Ch/u(1 + \frac{r}{100})$$

where:

dr represents the differential rate for a certain culture;

η the hectare yield

p – the revaluation price for a specific product;

Ch/u – the costs associated to the surface unit;

r – the average profitability rate of the production costs.

Considering that a certain culture structure is used, the average differential rent established based on the relation below shall be taken into account:

$$\bar{dr} = \frac{\sum gi \cdot dri}{100}$$

where:

gi represents the structure of the surface according to culture;

dri – the differential rate for each culture

Another means of establishing the value of the agricultural land is based on the fact that production potential of the land is increased periodically by investments. In this case it is necessary to establish the cost per hectare and the cost associated to each point with which the production potential is increased, based on the following relation:

$$cp = \frac{Chiv}{S \cdot \Delta p}$$

where:

cp represents the cost per hectare and per each point with which the production potential is increased;

$Chiv$ – the costs associated with the investments made in order to increase of the production potential of the agricultural land;

S – the surface where investments were made in order to increase the production potential;

Δp – the increase of the production potential as a result of the investments made;

In this case the value of a hectare of land is given by the following relation:

$$v/ha = Np \cdot cp$$

where:

v/ha represents the value of one hectare of land;

Np – the production potential given by the number of points;

cp – the cost per point of the production potential.

4. Conclusions

The land evaluation has an impact on establishing the net patrimony of an agricultural company and implicitly on the structure of the immobilized assets according to the various categories and in compliance with the accountancy law.

The value of the land must not be mistaken for the price of the land which is related exclusively to the buying and selling of the land and depends on the demand and supply of the land market. However, the price is negotiated based on the value calculated using one of the relations indicated above.

The investments made in order to improve the production potential or to acquire land will be recovered in a 25 year period. These are the effects on the costs per hectare and implicitly on the cost per unit of product.

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MANAGERIAL DECISIONS BASED ON THE BREAKEVEN POINT IN AGRICULTURAL EXPLOITATIONS

Ioan PANĂ
Maria-Daniela BONDOC
University of Piteşti

Abstract. *This paper presents some characteristics of agricultural activities in both production sectors (vegetal and zootechnical) and their implications on the costs structure (fixed and variables costs) for the decision-making process on breakeven point.*

Keywords: breakeven point; costs structure; agricultural exploitations; breakeven yield, productive potential.

JEL Classification: Q14, G32, D24.
REL Classification: 15B, 14I.

1. Introduction

In vegetal agricultural exploitations, the agricultural land is the indispensable factor of production, due to the fact that it is the support for the cultivated plants, and it is also the object of work affected by man by means of the agricultural machines and equipment, while the activity in the zootechnical sector implies the existence of animals as biologic material.

The dimensions of the agricultural exploitations are given by the cultivated area expressed in hectares in the vegetal sector, and by the number of animals in the zootechnical one.

The cultivated surface and the number of livestock constitute production units drawn into the circular flow of economic activity. They act in the same direction and with the same intensity both on the consumption of resources, and therefore on the total costs, as well as on the quantities of obtained farm products, as raising factors in the agricultural activity.

The productive potential of the cultivated lands or that of the bred livestock and the technology used for the cultivation of plants or for livestock breeding influence the yield per hectare or per animal but also the production costs.

2. The estimation of the breakeven yield

In agricultural exploitations, grouping product unit costs (per hectare or animal) can be made, according to yield, in two categories: fixed costs or relatively fixed costs and variable costs. The costs that are constant in relation to the level of the yield per hectare or animal becomes variable on production unit, whilst fixed costs per production units become variable in relation to the yield.

In delimiting fixed costs in relation to the volume of activity the following aspects are taken into account:

– at the level of agricultural exploitation (common and general) management and administration costs are made that depend on the size of the exploitation and on its organizational and operational structure;

– the unit production costs (hectare or animal) depend on the technology used for cultivation or livestock breeding.

In the agricultural activity, mention can be made of the breakeven yields necessary for achieving a balance between incomes and costs or for obtaining a minimum level of return on assets or of the return on capital employed.

In determining the relations necessary for obtaining the breakeven yields, we will take into account the fact that, from one and the same culture or category of animals, besides the main product, at least one by-product is obtained that can be turned to account in order to allow for the recovery of part of the production costs.

In order to estimate the minimum yield necessary for the achievement of the breakeven point the following calculation formula is used:

$$\eta c = \frac{Chf/u - vs/u}{p - cv} \quad (1)$$

where:

Chf/u represents the relatively fixed costs per hectare or animal;

vs/u – the incomes obtained by selling the by-products obtained per hectare or from one animal;

p – the selling price of the principal product;

cv – the fixed costs per production unit and that generate variability in relation to the yield per production unit.

The fixed costs per hectare represent the equivalent value of the works of preparing the land for sowing, the sowing, the costs of the seed or planted material, the costs with the works performed for maintaining the cultures, to which the following should be added, on a case-to-case basis: the depreciation expenses related to plantations or to irrigated crops and the leasing costs, if the land is leased.

In the stockbreeding sector, the fixed costs per animal include: the depreciation of zootechnical facilities per animal that is based on the lodging capacity and the degree of usage of this capacity; the depreciation of the productive livestock; the costs with the daily feed that depend on the weight of an animal, the fodder consumption expressed in FU (feed units) per 100 kg and the cost per feed unit; the staff costs in the case of the payment per working time and that are calculated as the difference between live labour costs per farm labourer and the service rate.

The share of the management and administration indirect costs should also be added to the fixed costs per hectare or animal.

The fixed costs per production unit in the vegetal sector are related to cropping, transport, sorting storing and keeping agricultural products. In the zootechnical area, these costs include: the equivalent value of the production quota, the staff costs if the payment is made by piecework rate function of the tariff per production unit and the share of the management and administration costs.

When the farmer is also the land owner and intends collect of the rent, too, the yield necessary for the recovery of costs and obtaining the rent should be calculated. In this case the breakeven yield will be estimated using the formula:

$$\eta c = \frac{Chf/u + Rf - vs/u}{p - cv} \quad (2)$$

where:

Rf represents the ground rent, made of the absolute ground rent and the differential ground rent, and the other symbols are attributed the above-mentioned meanings.

The differential ground rent can be calculated with the help of the following relation:

$$Rd = \eta \times p - \left[Cht/u + \frac{K(Af + Ac)}{100} \right] \quad (3)$$

where:

η represents the yield per hectare;

P – the selling price of the product;

Cht/u - the total costs per surface unit;

Af – the net value of fixed assets per surface unit;

Ac – annual average balance of the circulating assets per surface unit;
K – the capitalization rate (maximum 5%).

Due to the fact that investors aim to obtain a minimum level of profitability, they need to know the breakeven yields necessary in order to achieve the set objectives.

If the purpose is to reach a minimum level of the rate of return afferent to the production costs, then the breakeven yield will result from the following formulas:

$$\eta c^{x} = \frac{Chf / u(1 + \frac{r}{100}) - vs / u}{p - cv} \tag{4}$$

$$\eta c^{x} = \frac{Chf / u(1 + \frac{r}{100}) + Rf - vs / u}{p - cv} \tag{5}$$

In which:

r represents the minimum return on capital employed that must be reached, while all the other symbols are attributed the aforementioned meanings.

Relation (4) is used if the ground rent is not taken into account, and relation (5) is used when the intention is to receive the ground rent.

If the management team aims at obtaining at least a minimum level of economic profitability, then the following relations will be used for the calculation of the breakeven yield necessary for achieving this objective:

$$\eta c^{xx} = \frac{Chf / u + \frac{Ct / u \times re}{100} - vs / u}{p - cv} \tag{6}$$

$$\eta c^{xx} = \frac{Chf / u + \frac{Ct / u \times re}{100} + Rf / vs / u}{p - cv} \tag{7}$$

where:

Ct / u represents the total capital, i.e. own capital and foreign capital, fixed and working capital on production unit (hectare or animal);

re – the return on assets (the profit rate).

The other symbols are attributed the aforementioned meaning.

Relation (6) is used if the ground/land rent is not taken into account, and relation (7) is used when the ground/land rate is taken into account.

3. The capacity utilization rate

For the management team, it is important whether the set objectives can or cannot be achieved. Therefore, it is necessary to calculate the capacity utilization rate for the breakeven, for a minimum return on capital employed for a minimum return on capital employed or in order to reach a minimum return on assets. The capacity utilization rate for the achievement of one of the above-mentioned objectives (point of balance between incomes and expenses, minimum return on capital employed or minimum return on assets) is calculated using the following relations:

$$Gup = \frac{\eta c}{\eta p} \times 100 \tag{8}$$

$$Gup^{x} = \frac{\eta c^{x}}{\eta p} \times 100 \tag{9}$$

$$Gup^{xx} = \frac{\eta c^{xx}}{\eta p} \times 100 \tag{10}$$

In which:

Gup represents the capacity utilization rate for the breakeven point;

Gup^x – the capacity utilization rate for the achievement of a minimum return of capital employed;

Gup^{xx} the capacity utilization rate for the achievement of a minimum return on assets;

ηp – potential yield expressed by the average point value (bonity) of the soil and the production per point of soil bonity.

Several situations may appear:

$Gup\langle 100$ $Gup\langle 100$

$Gup^x\langle 100$ (A) $Gup^x\rangle 100$ (B)

$Gup^{xx}\langle 100$ $Gup^{xx}\langle 100$

$Gup\langle 100$ $Gup\rangle 100$

$Gup^x\rangle 100$ (C) $Gup^x\rangle 100$ (D)

$Gup^{xx}\rangle 100$ $Gup^{xx}\rangle 100$

Situation A proves that any of the set objectives, whether it is a minimum return on capital employed or a minimum on assets, can be or achieved.

In case B, a level of production can be obtained if a minimum return on capital is ensured, but the management team will not be able to reach the contemplated return on assets.

In case C the performed production process is profitable, but lower levels of return on assets as well as of return on capital employed are obtained.

In case D, the production process runs at a loss.

For the achievement of the contemplated objectives, actions will be performed with the purpose of purchasing biologic material with a higher productive potential, adequate to the actual conditions of the unit, and works will be performed in order to enhance the productive potential of the land, the production technologies will be changed, etc.

The managerial decisions should consider the fact that the price of agricultural products varies function of their quality and earliness. Consequently, it is useful to know the minimum selling price of a product, so that the activity should be carried out either at the point of balance between incomes and costs, or for the achievement of a minimum level of profitability. This is all the more necessary as production technologies have an impact on the earliness of products and their quality, but not on the yields per hectare or per animal.

It is a well-known fact that, in order to obtain unpolluted products (inadequately referred to as ecological) it is necessary to use technologies that allow for lower yields on production unit as compared to the cases when chemical substances are used in the vegetal sector. The products that are non-polluting or those that are not genetically altered and that are used as fodders in the zootechnical sector are also more expensive. These aspects should be taken in account in the decision-making process related to the selection of the production technology.

The minimum selling price for the unpolluted products with a higher quality or obtained earlier will be estimated by one of the following formulas:

$$p = \frac{Chf/u - vs/u}{\eta} + cv \tag{11}$$

$$p = \frac{Chf/u + Rf - vs/u}{\eta} + cv \tag{12}$$

$$p^{x} = \frac{Chf / u(1 + \frac{r}{100}) - vs / u}{\eta} + cv(1 + \frac{r}{100}) \quad (13)$$

$$p^{x} = \frac{Chf / u(1 + \frac{r}{100}) + Rf - vs / u}{\eta} + cv(1 + \frac{r}{100}) \quad (14)$$

$$p^{xx} = \frac{Chf / u + \frac{Ct / u \times re}{100} - vs / u}{\eta} + cv \quad (15)$$

$$p^{xx} = \frac{Chf / u + \frac{Ct / u \times re}{100} + Rf - vs / u}{\eta} + cv \quad (16)$$

Where:

p represents the minimum price for the achievement of the balance between incomes and costs;

p^{x} the price that allows for a minimum level of return on capital;

p^{xx} the price that provides for a minimum return on assets.

Relations 11, 13 and 15 are used when the ground/land rent is not taken into account, and relations 12, 14 and 16 will be used if the collection of the ground/land rent is contemplated.

If the market price (pp) is equal to the price calculated using the above-mentioned relations, the farmer will decide to cultivate crops, or to breed livestock based on technologies allowing for obtaining unpolluted products.

The following situations may occur:

$p \langle pp \langle pp^{x} sau\ p^{xx}$ A

$p \langle pp \rangle p^{x}$ or p^{xx} B

$p \rangle pp \langle p^{x}$ or p^{xx} C

In case A the activity that is carried out is profitable, but the contemplated rates of return cannot be reached; in case B the production has a higher level of profitability than the one estimated by the management team, and in case C losses will be recorded, which might drive farmers to renounce non-polluting technologies of production.

4. Conclusions

Although the level of profitability contemplated by the managerial team cannot be obtained, the first decision should also be chosen, due to the fact that in time, an increasing number of consumers will tend to buy unpolluted products, leading to the opportunity to increase prices as a result of the change in the offer/demand ratio in favour of farmers.

If buyers cannot afford to purchase the agricultural products for these prices, technologies using chemical substances in agriculture and genetically altered biological material will be used. The necessary quantity of food will be provided for as a priority, while its quality will have a secondary importance. With good reason, when people have to choose between bad and worse, i.e. consuming polluted products that will alter their health condition and therefore their life expectancy, on one hand, and starving to death, on the other hand, the first solution is chosen.

However, if healthy products are necessary, the products obtained based on non-polluting technologies that will not affect the quality of these agricultural products and therefore human health should be subsidized.

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STUDIES REGARDING THE FINANCIAL EQUILIBIUM OF THE COMPANY

Maria BĂTRÂNCEA
„Bogdan-Vodă" University Cluj-Napoca
Ioan BĂTRÂNCEA
„Babeş-Bolyai" University Cluj-Napoca

Abstract. *The entity's development is strongly connected to the financial equilibrium which represents a part of entity's economic equilibrium. The financial equilibrium is expressed by the equality and correlations between the necessity of resources and the possibilities of collecting these resources. This equilibrium is established by the modality using the entity's patrimony. In this paper we presented the modalities of financial equilibrium with the financing ratios.*

Keywords: working capital; steadfast ratio; global ratio; permanent capital.

1. Introduction

Even if, generally speaking, technical literature describes financial equilibrium as equality between sources and uses, the expression of financial equilibrium through the equality between incomes and expenses, reflects, we believe, the changes produced in the balance sheet as a result of the use of financial resources during the fiscal period.

A complex approach of financial equilibrium is met in the work of university professor Ion Stancu, who believes that balance sheet represents the instrument for reflecting the financial equilibrium of a company, at the end of the material reflection period (through assets) of the use of own and borrowed capital (Stancu, 1994, p. 29).

The equation of financial equilibrium is, according to the same author:

$$FR = NFR + TN$$

From this relation there results the fact that the main component of financial equilibrium is the need of working capital, indicator the value of which directly depends on turnover and may be foreseen based on the future sales policy of the management (Stancu, 1994, p.40).

From the equilibrium equation presented by the author, there results, we believe, the capacity of the company to produce cash from operating activity. On the other hand, the presentation of the relation between the requirement for working capital and sales volume, and the prediction of this need based on the commercial policy of the company, gives a dynamic character to financial equilibrium.

Stressing the dynamic character of the activity, university professor Gheorghe Manolescu (Manolescu, 1995, pp. -60-61) believes that the method of combining the flows of the three cycles (operational, investment and financial), determines the financial equilibrium of the company, articulated on a unique coin stock. A resembling opinion is that of university professor Maria Niculescu, who believes that the analysis of functional balance (dynamic financial analysis) does not pursue the investigation of the company's estate and engagements, but the understanding of their need and financing method, creating a snapshot of the unfolding of different cycles (investment, operating, financing, cash flow) (Niculescu, 1997, p. 337). A similar approach is met with two other university professors; according to them, the economic-financial equilibrium represents a system of correlations through which certain ratios are determined within and between different financial flows. It represents a premise, but also a consequence, of the normal unfolding of the activity of the company,

according to its activity type. As a premise, there have to be taken into account the objective correlations between the requirements for material resources (in a general sense) and financing possibilities (C. Stănescu, A. Işfănescu, A. Băicuşi, 1996, p. 245).

The authors of the inter-university textbook „Finanțele întreprinderilor" consider that financial equilibrium (together with monetary and foreign exchange equilibrium), as a component of economic equilibrium, has distinct ways of functioning and articulation, due to the objective existence of finances, the manifestation of money functions, financial, banking and insurance institutions during the transition to market economy period. In the case of companies, this equilibrium is sustained by the economic relations characteristic to market economy, which, through specific forms, method and techniques, participate to the formation and distribution of funds to be used by companies in order to achieve the economic processes (production, sale etc.) (Antoniu, Adochiței, Cristea, Neagoe, Dumitrescu, Ilie, 1993, p. 151). The same authors believe that, in the case of companies, there is projected an economic-financial equilibrium,… that emerges within the incomes and expenses budget and where its composing elements are based on the balancing between incomes (resources) and expenses (destinations) (idem).

University professor Florea Radu believes that economic-financial equilibrium should be understood as an ensemble of correlations formed during the capital rotation process. This equilibrium may and should be determined beforehand with the help of the financing agenda and achieved during each fiscal period (Radu, 1999, pp. 367-368). There results that the economic-financial equilibrium is seen in the context of capital rotation and it may be emphasized through the company's financing agenda.

We believe that the financial equilibrium of a company should emphasize, with the help of financing ratios, the way in which financial resources are provided, distributed and used and, on the other hand, the economic-financial results obtained from the activity performed by the company.

In this context we consider that financial equilibrium should ultimately reflect the correspondence between operating activities, investments and financing on the one hand and the cash flows required for this purpose, on the other.

2. Method and results

The financial equilibrium of the company may be emphasized with the help of a system of indicators that includes the financing ratios of the company: the steadfast ratio, the cyclic ratio and the global ratio.

2.1. Analysis of the steadfast financing ratio

The ratio of steadfast financing (RFS) reflects the way in which financial resources grouped into long term capitals cover long term assets, the indicator reflecting, in percents, *the long term financial equilibrium*, signifies the way in which steadfast assets are financed through steadfast liabilities.

$$RFS = \frac{Working\ Capital}{Fixed\ assets} \times 100$$

If RFS > 100 %, then steadfast assets are completely financed and there is recorded a surplus of long term sources, which represent the net working capital.

If RFS < 100 % then steadfast assets are only partially financed by long term sources, and the working capital is negative.

Table 1

The ratio of financing steadfast assets from steadfast resources with SC ABC SA

No.		Symbol	2000	2001	2002	2003	2004	2005	2006
1	Long-term capital	Cpm	1809697	2812788	5785411	8308908	15718589	19318351	32618050
2	Net fixed assets	Ain	2023530	2578337	5200319	7596339	16539039	20434810	22297299
3	Ratio of financing net fixed assets through long term capital	%	89,43	109,09	111,25	109,38	95,04	94,54	146,29

Source: Financial statements of SC ABC SA

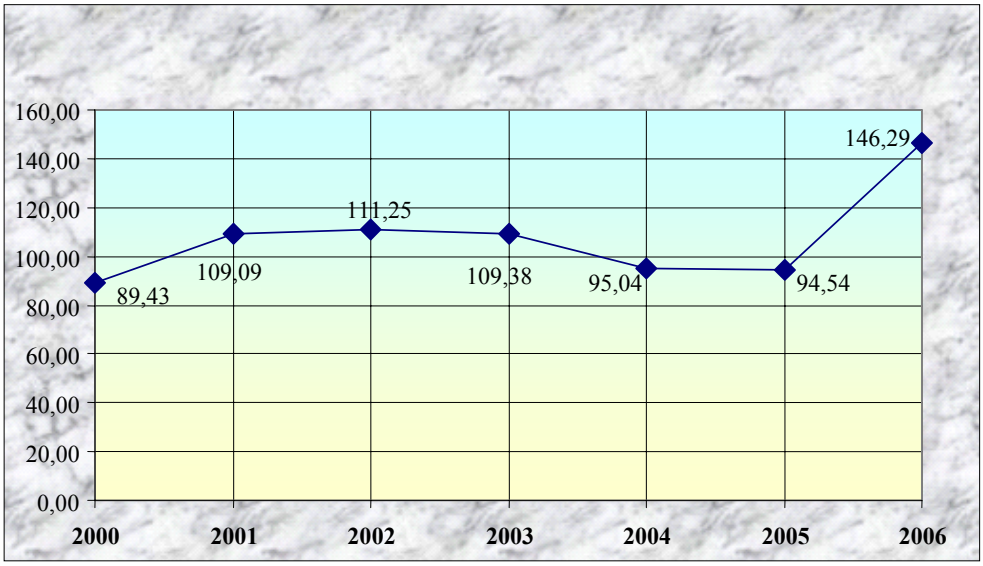

Figure 1. *Financing long term needs from long term sources with SC ABC SA*

Analyzing the data above, there results that long term requirements were fully met in 2001, 2002, 2003 and 2006 and only partially met in 2000, 2004 and 2005.

During 2000-2003, at the analyzed company, there was a surplus of steadfast financial resources, used for the financing of the operating activity. During this period, financing was based exclusively on own resources. The level of the indicator recorded increases in 2001, as compared to 2000 of 9, 09% and 11, 25% in 2002, as compared to 2001, a fact that confirms the growth, during this period, of the working capital. The trend of the indicator is an ascending one between 2000 - 2002 and 2005 – 2006 and descending during 2002-2005.

Taking into account the minimum and maximum acceptable values of 85% and, respectively, of 150% (Eros–Stark, Pantea, 2001, p.163), there can be stated that, in the case of SC ABC SA, the evolution of the indicator subscribed within these coordinates, but the values recorded in 2000, 2004 and 2005 indicate that the financial resources of the company are lower than its long term needs.

2.2. Analysis of the cyclic financing ratio

The ratio of cyclic financing (RFC) reflects the way in which financial resources gropued into short term capitals cover the uses grouped into short term assets:

$$RFC = \frac{Current\ liabilities}{Current\ assets}$$

If RFC > 1(100 %), then current assets are fully financed by current resources and there it is recorded a negative requirement for working capital.

If RFC < 1(100 %), then current assets are only partially financed by current resources and the uncovered difference is represented by the requirement for working capital

Table 2

Ratio of financing cyclic assets with cyclic resources at SC ABC SA

No.		*Symbol*	2000	2001	2002	2003	2004	2005	2006
1	Cyclic sources	Dts	926153	2010684	2424140	5520897	6761755	11442208	8269227
2	Cyclic assets	Ac	792207	2065761	3156104	6196711	7707538	13296349	18512196
3	Ratio of financing cyclic assets with cyclic resources	%	116,91	97,33	76,81	89,09	87,73	86,06	44,67

Source: Financial statements of SC ABC SA

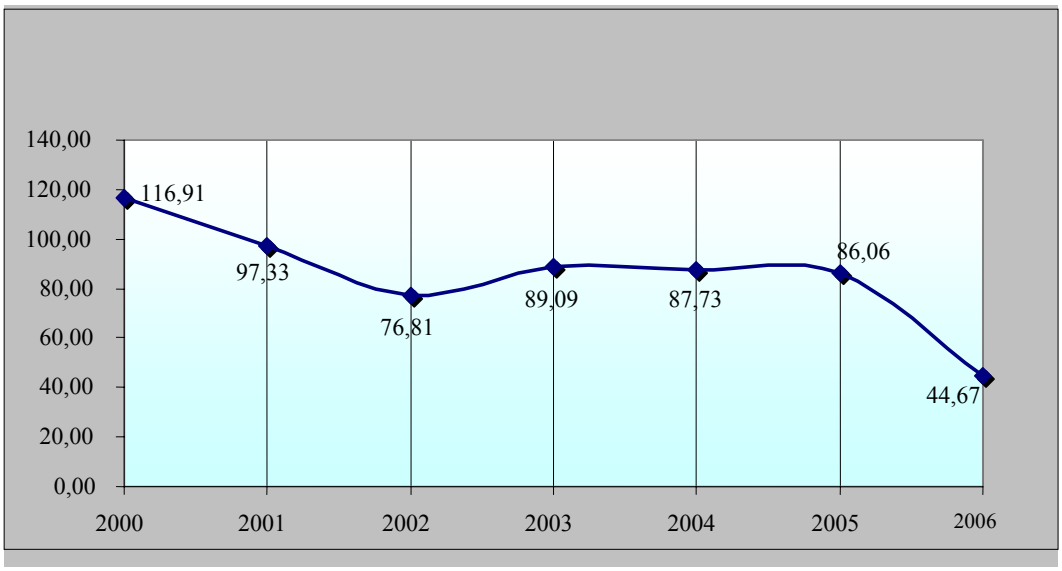

Figure 2. *Financing current needs difrom current sources at SC ABC SA*

From the data presented in table 2 and graphic representation 2, there results that the financing of current needs with current resources presented a descending evolution, from 116,91 % in 2000, to 44,67 % in 2006. Taking into account the financial safety interval of the indicator, between 50% and 115% (Eros–Stark, Pantea, 2001, p.164), there results that the indicator subscribed within the minimum limits accepted by financial practice, excepting for 2006.

Nevertheless, we believe that the constant decrease of this financing shows the worsening of the financial standing of the company, as a result of the high financial unbalance in the current period.

2.3. Analysis of global financing ratio

The global financing ratio (RFG), meaning the financing of the requirement for working capital from the working capital, shows the way in which the unused surplus of long term resources covers the uncovered cyclic needs. This ratio measures how much the requirement for working capital is covered from working capital.

$$RFG = \frac{Working\ Balance}{Required\ Working\ Balance}$$

If RFG > 1(100 %), then the requirement for working capital is fully financed by the working capital and there is a positive net cash flow.

If RFG < 1(100 %), then the requirement for working capital is partially financed by the working capital and partially from short term bank loans. There is a negative cash flow.

Table 3

Ratio of financing the requirement for working balance from the working balance at SC ABC SA

No.	Indicators	*Symbol*	2000	2001	2002	2003	2004	2005	2006
1	Net working balance	Frn	- 213833	234 451	585092	712569	- 820450	- 1116459	10320 751
2	Required working balance (4-5)	Nfr	- 133946	55077	731964	675814	945 783	1854141	10242 969
3	Ratio of financing the requirement for working balance from the net working balance	%	159,64	425,68	79,93	105,44	-86,75	-60,21	100,76

Source: Financial statements of SC ABC SA.

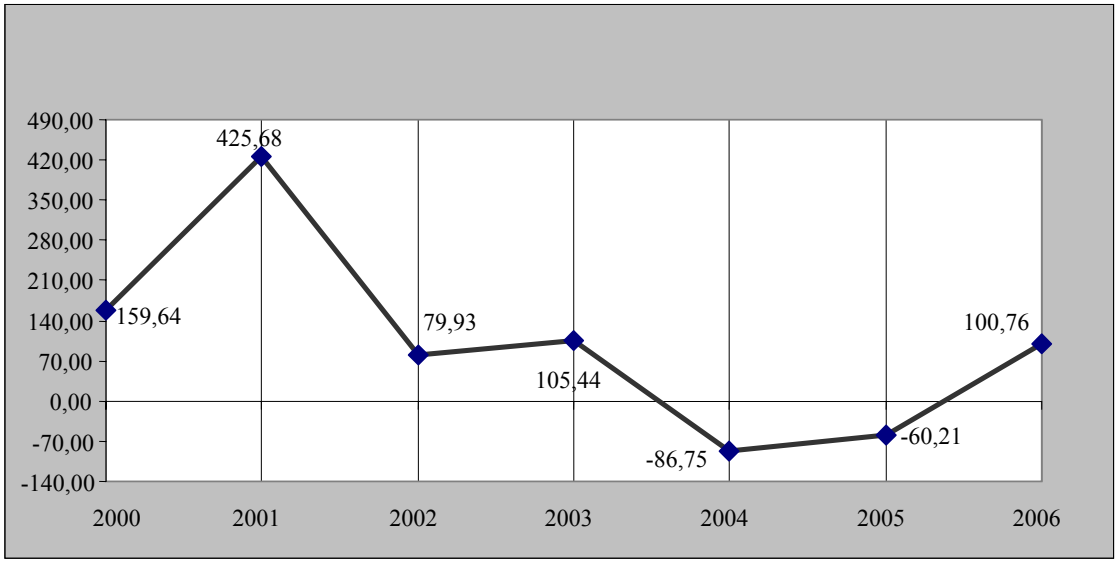

Figure 3. *Financing the requirement for working balance from the net working balance at SC ABC SA*

From the data analysis at SC ABC SA, there results that, during the entire researched period of time, the surplus of cyclic needs was only partially covered from long term

resources. Thus, during 2000/2001, in 2003 and in 2006, the values of 159,64 %, 425,68%, 105,44 and 100,76% indicate a surplus in the global covering of the needs to be finances from the total financial resources, thus resulting a manifest global financial equilibrium in a positive net cash flow. The rest of the needs to be financed that are not covered are cyclic needs and were covered from cash credits. The negative values of the indicator also indicate the fact that, during 2004/2005, SC ABC SA did not have long term resources for financing a part of its operating activity. In 2002, the analyzed company financed the requirement for working capital partially from the net working capital and partially from short term bank loans.

3. Conclusions

From the research there result several remarks:

− First, the fully financing of fixed assets from long term resources emphasizes the long term financial equilibrium of the company;

− Second, we believe that the financing of current assets used in the operating activity, from current resources, triggers and consolidates the short term financial equilibrium of the company;

− Last, but not least, we may notice that the covering of the requirement for cyclic needs from long term resources maintains and consolidates financial equilibrium of the company.

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VALUATION CONCEPTS AND THEORIES RELATED TO THE INVISIBLE PARTS OF BUSINESSES

Silvia PETRESCU
„Al.I. Cuza" University of Iaşi

Abstract. *The paper dwells on concepts related to the way in which all static company valuation approaches fail to cover the whole price value that the buyer would be willing to pay, as long as they consider a normal profitability level that only relies on material assets, rights and debts.*

Yet, an entity's overall return capacity also relies on its ability to organize and use all the human resources and material assets available, in a more or less effective manner, which means that an entity is more than a mass of assets, rights and debts, and also includes intangible „invisible" assets that bring about goodwill.

Keywords: business valuation, goodwill, subtractive- additive approaches, share, option.

Introduction

Static company valuation approaches for business continuation (adjusted net assets, adjusted book value and invested operation capitals) fail to cover the entire company value corresponding to the *price* that the buyer would be willing to pay in order to purchase it.

Adjusted net assets, adjusted book value and invested operation capitals consider, each according to their own logic, normal profitability, which is only an implicit profitability, including only a company's material assets, rights and debts. Yet, an entity's overall return capacity also relies on its ability to organize and use all the human resources and material assets available, in a more or less effective manner.

The entity should therefore have an overall return capacity proving that it is more than a mass of assets, rights and debts, and also includes intangible assets that may add value, or on the contrary diminish it.

Hence, company valuation should rely of methods based on concepts combining static and dynamic approaches related to the capitalization of earnings that may be said to be generated by the invisible part of the company (licenses, trademarks, patents, market shares etc.) via the intangible assets known under the name of Goodwill, which has various definitions.

During the twentieh century the concept of goodwill has changed significantly. If in the earlier days goodwill was thought of as the good and valuable relationships of a proprietor of a business with his customers, the present concept is broader in that it encompasses manx more intangible economic factors of a business enterprises and accountants now consider that goodwill results from the evaluation of the earning power of a business by investors.

From an accountant's perspective, goodwill appears in accounts of a company only when the company has purchased some intangible and valuable economic source. Intangible such as patents and copyrights are examples of identifiable intangible assets. On the otherhand, intangibles such as favourable government regulations, outstanding credit ratings, superior management and good labour relations are examples of indentifiable intangible assets. Goodwill comprises the complete set of unidentifiable intangible assts held by the valuated entity.

Generally, goodwill has appeared as a concept embrancing many features of a company's activities that could lead to superior earning power, such as excellent management, an oustanding workforce, effective advertising and market penetration.

In the following pages, the opinions on the definition and nature of goodwill, and the different methods for goodwill calculation from different perspectives are discussed.

1. Goodwill definitions

Goodwill (Gw) basically means a "bridge" between a company's value asset-based approach and prospective approach (Tchemeni, 1993, pp.19-21). This is a frequently used concept on company valuation before merger, transfer, consolidation and even taxation.

Goodwill may differentiate two entities operating in the same business sector, having identical asset values, which may however have different values depending on the generated value against the adjusted net assets further to resource return difference. Therefore, a company's value does not depend only on its production means, but also and especially on the management's ability to use the human resources and material assets available to generate return.

Consequently, a positive synergy between various activities, a good social environment, an effective research-development activity and a good strategy may provide additional benefits increasing a company's value. Generally speaking, this additional payoff compared to the value of the company's assets is Gw, which relies in invisible items included in the intangible assets category, whose valuation is therefore more difficult.

Intangible assets valuation is grounded on the fact that such an asset's purchase price relies greatly on the "purchase variance", that is additional value (goodwill), whose importance has actually increased lately, since more and more intangible assets have been bought, consisting of trademarks, licenses, market shares, sale networks, which need to be carefully valuated. The most common method employed for this valuation is the capitalization of earning method referring to the trademarks, licenses, intangible assets included in the *Goodwill* (Gw) concept, which, according to theoreticians, has various definition and evaluation approaches.

- Brilman and Maire stated (1988) that Goodwill includes assets whose direct valuation is virtually impossible. The higher the Goodwill value, the higher the buyer's hopes of obtaining a better profitability of the entire elements making up the company, where the intangible assets considered separately would have no value.
- According to the Association of Chartered Certified Accountants (ACCA), Gw is „the overall company value surplus to the sum of the values of tangible and intangible assets making it up". Gw is therefore a return capacity increasing the assets value on company valuation, assimilated to an intangible asset not included in the balance sheet.
- As to the modern valuation methods (especially those employed by stock exchanges), Gw is the company's ability to generate profit in a particular operation environment. The larger the market share for the company's products, the more solid and creditworthy its customers, the better its financial management and social environment, the higher the profit.
- Generally speaking, Gw is defined as a return surplus added to the company's asset-based value (Vp) to determined its overall value (Vg):

$$Vg = Vp + Gw$$

2. Goodwill determination methods

There are several concepts and theories grounding the calculation methods that may be applied for Gw determination. Therefore, there are three Gw determination methods: direct valuation, subtraction and addition method and surplus profit capitalization.

A. The *direct* approach consists of determining Gw from the viewpoint of the total investment required for its reconstruction, as the product of the net profit and a given ratio (α) calculated for identical entities, or as a turnover (CA) or cash-flow (CF) percentage:

$$Vg = ANC + Gw = ANC + \alpha \text{ x net profit; } 1 < \alpha < 3;$$
$$Vg = ANC + Gw = ANC + X\ \%\ CA;$$
$$Vg = ANC + Gw = ANC + Y\ \%\ CF$$

This method may used on an incipient business, during its launching period. When combined with the surplus profit capitalization method, this method enables one to valuate the company's intangible assets, especially sale networks and trademarks that may be determined by means of an X price premium:

X = price of the product sold with the trademark under valuation – price of the same product sold with another trademark

The trademark value is determined by Z price premium capitalization on a certain number of years, depending on the applicable standards in the company's business sector:

$$Z = (1 - i) \text{ x } (Y - \text{trademark maintenance costs})$$

where:

Y = annual price premium = X x number of products sold per year.

This method may be used when assessing a sale network of other intangible assets.

Company valuation rarely relies on turnover, except for small trade companies having price lists set by management, or for certain activities for which the market of the company under valuation needs to be analyzed from the viewpoint of the company's turnover (for instance pharmaceuticals laboratories, whose value may amount to 2-2.5 times their turnover).

B. Goodwill's *accounting* approach consists of its being the difference between the price paid for the company (V) and its asset-based value expressed by the adjusted net assets (ANC).

$$Gw = V - ANC$$

For instance, in case of merger, if the shares issued by the buyer to remunerate the shareholders of the purchased company are superior in value to the adjusted net assets (ANC), the positive difference contributed to the economic assets is actually the Goodwill, also called „*Surplus value*".(Pène, 1979, pp. 162-166).

Gw is thus the price paid by the buyer as a surplus, for the net assets and rights that he finds in the purchased company. This is a simple and realistic approach; however it only acknowledges the existence of a Goodwill that was paid without explaining it.

From accountant's perspective, goodwill appears in accounts of a company only when it has purchased some intangible and valuable economic source, as patents and copyrights, and the other as favourable government regulations, superior management, good labour relations and outstanding credit ratings.

Accounting methods for goodwill calculation are based on IFRS rules which now apply to quoted companies, that defines goodwill as "a payement made by the acquirer in anticipation of future economic benefits from assets that are not capable of being individually identified and separately recognised" (IFRS 3, paragraph 52) (Allan Caldwell, 2007).

The three qualitative characteristics most directly concerned with goodwill are: reliability, prudence and consistency. In this reason there are more concepts concerning the accounting methods for goodwill calculation:

a) *Write-off* considers goodwill not measurable and having not true future value;

b) *Capitalization* considers goodwill an important asset belonging on the balance sheet that must be capitalized;

c) *Non-Amortization* considers that capitalization of goodwill without amortization allows most advantageous financial reporting figures;

d) *Amortization* enables companies to match the cost of intangible assets over the period deemed to benefit from their acquisition.

C. The *subtractive* Goodwill method involves the opposite approach: instead of calculating Gw *ex-post* starting from the price paid by the buyer, Gw is calculated *ex-ante*, starting from an overall company value (Vg), regardless of its calculation method, from which the adjusted net assets (ANC) are subtracted:

$$Gw = Vg - ANC$$

As in the previous case, Gw is calculated by subtraction, is the *share* of the company value whose existence is acknowledged, without however accounting for it.

D. The *additive* Goodwill approach includes two categories of companies:

a) In *small or very small trade companies*, the basic value is generally made up of *inventories* and Gw more or less corresponds to the concept of *Business*, which includes: customers, inventories, corporate name, leasing rights, raw material, operation equipment, machinery and furniture, trademarks, patterns, patents, licenses and advertizing investments.

Instead of a separate valuation of these constituents, regular or fiscal standards are preferred, which vary depending on the company type and size. A percentage of the company turnover or a coefficient of its annual profit is most common, but the need to adjust the method to the specificity of each business results into a great variety of criteria. The validity of these standards relies on a large number of transactions carried out and on their simplicity, but they evolve depending on the business performance and circumstances. On the other hand, these standards mainly serve for reference purposes and their use also depends on the situation and on the relations between the parties involved in that transaction.

b) In *other companies*, the basic value is the ANC, the adjusted book value (Vs) or the invested operation capitals (CPNE), and Gw consists of the intangible assets that are not included in the basic value and that are measured by the determination of the *investments* required for their reconstruction. This practically means a capitalization as investments of the commercial and technical costs incurred that were thought to generate additional flows to the ones already included in the basic value.

Intangible commercial costs may include, for instance, the costs incurred for the commissioning of a new sale network or for an advertizing and promotion campaign for a new range of products.

Intangible technical costs may consist, for example, of extraordinary research and development expenditure, when the capitalized value of these costs depreciates after a variable period of time. The first step is to separate regular expenditure included in the basic value from Gw expenditure. These commercial and technical costs may have positive consequences in determining the return capacity, or they may cause serious concerns related to their effectiveness, resulting into decreases that may even reach 100 %.

Confusion is possible between investment expenditure or costs and investment profitability, which is the only one that matters in terms of value. Finally, extraordinary commercial and technical costs are generally decisive for the coordinated actions and it is better to determine their combined effects on the cost-benefit results than to consider the separate value of a certain expenditure component.

E. Goodwill is considered as a *capitalization of a given surplus profit* (or surplus value*)*.

This is the most frequent approach for companies of a certain size. A company has a basic value, which is its asset-based value and which enables it to enjoy a regular profitability in order to be able to remunerate all the assets involved; it may also enjoy an „economic rent" allowing it to remunerate at least partially preservation and growth investments. If the

difference between regular profitability and assets remuneration is positive, this does not only mean that asset-based value is confirmed, but also that there is a surplus profit translated in another intangible asset, which Gw calculation reconstructs. Not all companies get Gw; if, on the contrary, the difference is negative, the value of the tangible assets is not confirmed, and we speak of Badwill meaning a depreciation of the asset-based value. In this last situation, the overall company value is set further to negotiation between the parties.

On the other hand, Gw viewed this way should be different from the Business, which is added to the inventories and includes, for retailers, tangible components such as operation equipment. Since the basic value includes all the tangible constituents and even a regular profitability, Gw is the surplus profit originating in the company's ability to protect itself from competition. Here are some examples: technological superiority (patents, research team, etc.), difficulty to penetrate the business sector, geographically protected status, concessions or long-term agreements, control over certain market segments, trademark fame, privileged relations with the local government, with other companies or institutions and naturally the human factor (quality of social relations and of the managerial team).

Gw is therefore related to a specific state of affairs and should not include elements common to other companies operating in the same business sector, or an agreement between several companies to share a sector surplus profit. On the other hand, this Gw may last longer or shorter, but may not exceed the privileged situation where it originates.

The problems brought about by this economic Gw approach are, on the one hand, the determination of a regular profitability and, on the other hand, the detection and measurement of the constituents generating *surplus profit*, assuming there is Gw since the profitability obtained is higher than what the invested capital brings to the asset-based value (Vp).

If the regular profit Bp corresponds to the asset-based value Vp, then the surplus profit Sp is the difference:

$$Sp = Bp - i \times Vp$$

Goodwill is obtained by capitalizing the surplus profit of several years:

$$Gw = k \times (Bp - i \times Vp),$$

where:

i = asset-based value remunerate rate (weighted average cost of capital).

k = capitalization coefficient.

Hence, Gw is the ability to generate higher or lower benefits as compared to the „regular" remuneration of capitals invested in the company.

Starting with this general ratio, there are several Gw calculation methods, which determine the overall company value including Goodwill at its asset-based value: direct capitalized method (Anglo-Saxon method), net Goodwill rent method, European chartered accountants' method (UEEC), Barnay–Calba method, practitioners' method (German method).

F. Goodwill considered as a *purchase option* may occur in the following cases:

- The share *purchase option* is the right negotiated on the market either of buying that share at a later date at a firm contractual price, called *exercise price*, or of abandoning the contract. The buyer of the purchase option will win if the future quoted price is higher than the amount between the current quoted price and the option price (exercise price). The buyer of the purchase option will win if the future quoted price decreases below the current quoted price, less the option price, and he will incur losses if this quoted price increases.

These simplified examples show that for a significantly inferior payment to the value of the asset itself, such as the share, conditioned contracts allow taking advantage of its evolution in a certain direction in order to achieve an effective protection against movements in the opposite direction.

- The intangible assets *purchase option* (such as patents) means that the value of a patent is the price paid for keeping the right of using it for a variable duration of time, undertaking company risks, or for abandoning it at the end of the protection period. Thus, the costs are not limited to the expenditure incurred for its protection, but they must also provide protection against its use by third parties.
- Although we do not have all the variables that would enable us to calculate the value of an intangible asset considered as a purchase option, we may say that an exercise patent value corresponds to the current value of separate flows upon patent submittal and that this right is valid until a certain due date.
- Goodwill considered as a *purchase option* of the whole company may occur in the following cases:

a) *In convertible bonds*: The significance of the issue premium and convertible bond conversion premium in connection to the quoted price of the corresponding shares and the convertible bond premium in connection to their investment value raised various problems for specialists. The premium in connection to the convertible bond value is considered to be a classical bond.

The modern option theory allows convertible bonds to the construed as a combination of a classical bond and a share purchase option (Figure 1):

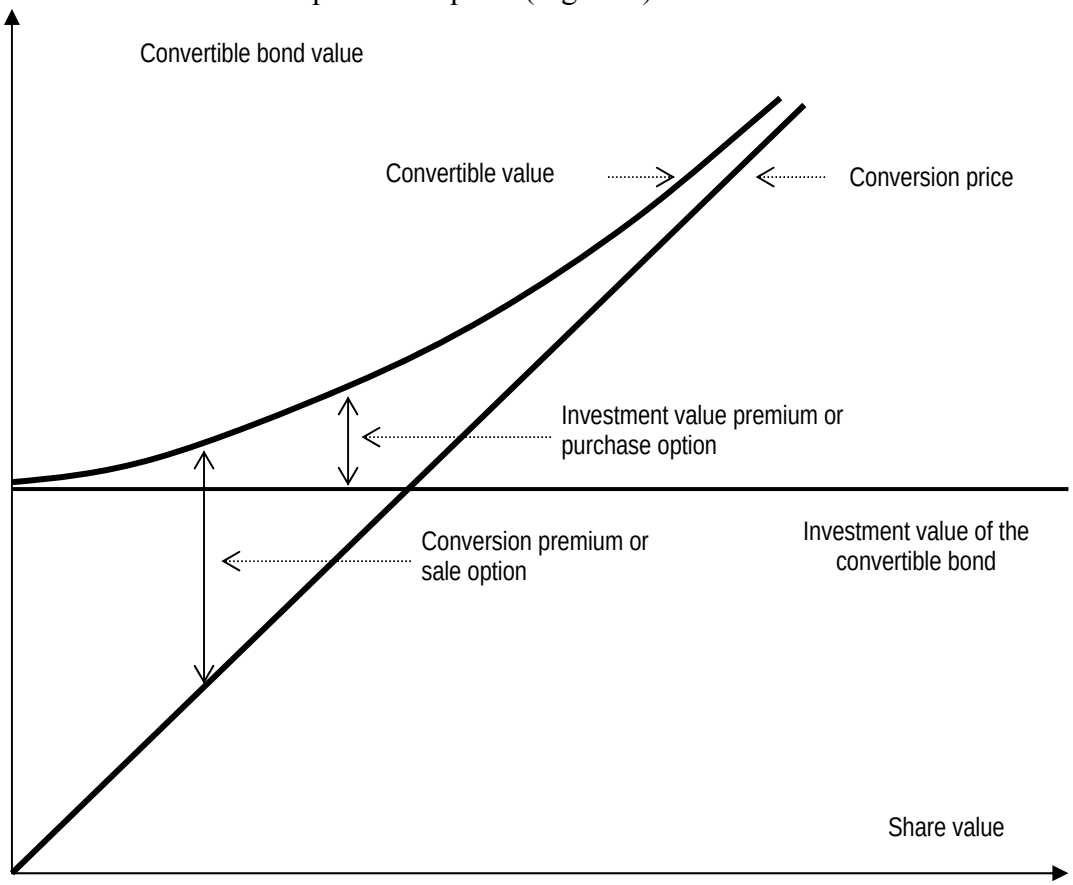

Figure 1. *Convertible bond interpretation based on options* (Pène, 1979, p. 165)

The investment value premium would thus correspond to the value of the right to choose between convertible bond refund at a given price and on a given date and the conversion into share, at a variable price. Share and convertible bond quotation theoretically allow the creation of risk-free portfolios made of the share and forward sales of convertible bonds. For convertible bonds, there are parameters allowing the calculation of the theoretical option value, that is the investment value premium.

b) The Goodwill and *convertible bond premium* analogy: in order to compare Gw to convertible bond premiums, there is one initial component, namely the company's *overall*

value, which may be said to be similar to the *quoted share price*; however, in order to reason in terms of option, we must be able to rely on a stable value (exercise option price or convertible refund price). Or, the fact that Gw is added to a basic value (ANC, adjusted book value or operation capitals), which is generally more stable than Gw, may be considered as an option. Although certain constituents allowing the concrete calculation of its option value are missing, Gw may be accepted as the price of the right of either buying a company whose value is expected to increase, or, if this value decreases, of selling its assets at a price either already known or relative and set within a reasonable deadline.

The fact that the price paid by the buyer may be higher than the company value reminds us, in the other hand, of the convertible bond, whose price is normally higher than that of the corresponding share, of the fact that the exercise share price is higher than the quoted share price upon contract conclusion. Therefore, as for the convertible investment value premium, Gw values decreases with the company value and with risk increase.

Finally, just as the purchase option and convertible conversion privilege, Gw is generally seen as temporary. Thus, Gw would have rather a financial nature than an economic one. It would correspond not only to a surplus profit, but to the right to expect and see whether a good business transaction was made or if it would be wiser to transfer the assets to third parties.

The behavior of company buyers is undoubtedly rarely similar to that of option buyers; however there are cases when companies are bought including a certain Gw, which are shortly after sold at a lower price.

Conclusions

The value of a company does not consist only of the value of its assets; it may be increased by its ability to create a surplus value called Goodwill. The general Gw calculation method principle relies on intangible assets valuation, which can only be an imperfect synonym of the concept of *business* and which is most commonly analyzed by the concept of *surplus value*.

For investment purposes, company purchase should be analyzed in terms of opportunity, just like any other investments: the invested capital should enjoy a remuneration level at least equal to its opportunity cost. The concept of Gw is actually the difference between the expected payoff of invested capitals and the profitability expected by the buyer, and the overall company value includes two components: a static components, pertaining to the asset-based value, and a dynamic component, pertaining to Goodwill.

Concerning the valuating, purchased goodwill is normally the balancing element between the purchase price of an acquired entity and the total fair value of the acquired assets, both tangible and intangible, and liabilities. Frequently, however, the goodwill represents over half of the total purchase price. This is especially true when the recognised intangible assets are undervalued, so shareholders and other stakeholders are interested to know what goodwill represents and whether a fair price is being paid for it.

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VALUE CREATION ANALYSIS. ECONOMIC VALUE ADDED

Silvia PETRESCU
Ciprian APOSTOL
„Al.I. Cuza" University of Iaşi

Abstract. *The origins of the Economic Value Added comes from Hamilton (1877) and Marshall (1890), which showed that companies can create wealth if you manage to earn more than their own capital costs and liabilities.*

Economic Value Added is an indicator for measuring performance based on real economic profits of the company product, which allows measurement of its success or failure over a period of time is useful to investors who wish to determine how well the product has value to them and can be used for comparative analysis with rapid industrial similar.

Keywords: Economic Value Added; performance; analysis; company; capital.

Introduction

Measuring performance through value creation for the shareholders in the case of quoted entities, of for owners in the case of non-quoted entities, implies, besides the traditional approach of a performance indicators analysis based on accounting criteria, taking into account other evaluation criteria of the company's ability to improve and increase its own value.

Value creation has become a central problem concerning enterprises. It is invoked mainly by shareholders, but also by managers and financial analysts, as it represents an imperative for the company, but also a key factor for justifying major decisions (for example, activity cessions, disinvestments operations, staff cutbacks, etc.).

Value creation for the company starts from obtaining a profit of the invested capitals that is higher than the cost of the resources used to finance them. Therefore, the resulted surplus represents shareholder value, which can transpose the principles of the financial theory of selecting the investments at the company's global level.

1. Indicators of value creation analysis

Value evaluation must not depend excessively on market movements, but should rather be based on two mechanisms with the highest impact:

– *Economic value added***,** which measures the value surplus created by the existent investments of the company;

– *Investment cash profitability***,** which measures the percentage rate obtained by the existent investments of the company.

Value creation for the shareholders should be constant, determining the management to lineup with the problematic objective of shareholder value, given the opinion differences in the management – shareholders relationship. If some consider that management is mandated by shareholders and has to ensure business continuity on the long run, others claim that management, elected by the shareholders as business owners, has to represent their interests by maximizing the value of the shares. It is certain that company managers need to find the most appropriate solutions for obtaining the required performance effects on the one hand, and the best individual remuneration, on the other.

The concept of performance implies new approaches relating to the company. Therefore, evaluating the performance of a company supposes analyzing several criteria, such

as: the field of activity and the company type, the management and entrepreneurial strategy, the competitive environment, the human and material resources available, using a system of indicators for performance measuring appropriate to this purpose (Petrescu S., 2008, p. 281).

When determining indicators for value creation, the main element is *value added,* which has multiple valences for measuring and evaluating performance.

In the case of companies quoted in the stock exchange, the value created for shareholders can be evaluated using a series of indicators, among which:

- Economic Value Added – EVA;
- Market Value Added – MVA;
- Cash Value Added – CVA;
- Total Shareholders Return – TSR;
- Cash Flow Return on Investment – CFROI.

2. Analysis of Economic Value Added

Economic value added is a performance measure indicator based on the real economic profit produced by the company, which allows measuring its success (failure) over a period of time, and it is useful to investors who wish to determine how well the company has produced value for them, and which can be used in rapid comparative analyses with similar industrial units.

The economic value added indicator, as an *instrument for capital allocation,* can reflect the destruction of shareholder's capital if the company does not reach a profitability rate at least equal to the medium profitability rate on the capital market, which may direct shareholders to other companies.

Economic value added is influenced more by the cost of the own capital and less by the cost of the debt, under normal conditions. Its size and variability are influenced by company growth policies, because of their lever effects and because it is more unstable than the rate of economic profitability (investment), as it is directly connected to the rate of financial profitability (of the own capital).

This indicator computed using the total capital can be modified in order to measure the value surplus brought by the own capital through the economic value added of the own capital (EVAOC), which better expresses the measure of performance in the conditions under which most companies take on loans:

$$EVAOC = (Proc - Mcoc) \times Oc = Oc \times (Fp - \overline{R})$$

Where:

Proc – profitability rate of the own capital;

Mcoc = $\overline{R}$ – medium cost of the own capital;

Oc – own capital;

Fp – financial profitability rate.

The medium cost of the own capital ($\overline{R}$) depends on the volatility coefficient of the shares (β) and on the medium profitability of the market (Pm):

$\overline{R} = Fp + \beta \times (Pm - Fp)$, where:

β = Share profitability growth (ΔSp) (%)/market index growth (ΔMi) (%), which means that:

$\Delta Sp = \beta \times \Delta Mi$

Therefore, if β = 1 per share, it means that its systematic risk is equal to that of the market.

The value of the β coefficient is statistically computed according to the relation:

$$B = \frac{n\sum Sp \times Mp - \sum Sp \times Mp}{n\sum Mp^2 - \left(\sum Mp\right)^2}$$

Where:

Sp – share profitability;
Mp – market profitability;
n – number of observations.

The origins of the economic value added can be traced to Hamilton (1877) and Marshall (1890), who showed that companies can create wealth if they manage to earn more than their own capital and debts cost them. Later, the concepts of residual income and capital cost have been revised through accounting adjustments and the concept of economic value added has been redefined by the American consultancy company Stern Stewart (1991). With its help, the company's success can be measured regarding the promotion of decision systems and financial management practices that would determine a sustainable growth of its value. It can be determined for each year of the investment lifetime by computing the *capital cost* of the net operating profit after taxes - NOPAT, respectively the *exploitation profit,* according to the relation:

EVA = Net Operating Profit After Taxes – (Capital x Capital Cost)

Net Operating Profit After Taxes (NOPAT) is determined by subtracting the tax for profit (Tp) from the exploitation result (ExR):

NOPAT = ExR – Tp = ExR – Chexp – Tp

The *capital cost* includes the cost of the own capital and the cost of debt, being the *opportunity cost* of the invested capital, which determines the way in which the company can increase its income (by investing anywhere else, with a similar risk, or through a loan).

Capital cost is a *weighted average cost* (Weighted Average Cost of Capital - WACC) of the financing sources used, determined as a weighted arithmetical means of the cost of the own capital and of the cost of the borrowed capital, according to the weight (Si) of each category and to the corresponding remuneration rate (rr):

$$WACC = \frac{\sum Si \times rr}{100} = \frac{C}{Ci} \times Rf + \frac{D}{Ci} \text{ x } i \times (1 - t)$$

Where:

C – own capital;
D – total debt;
Ci = Invested capital = C+D;
d = interest rate;
t = tax ratio

In this case, the economic value added is the real economic profit obtained by the company, it is reported to the total capital used for financing and determined through the subtraction:

EVA = (Ri – WACC) × Ci

Where:

Ri – profitability rate of the total invested capital;
Cmpc – weighted average cost of capital.

A positive economic value added indicates that the company creates value for the shareholders if the net income is higher than the remuneration expected by the financers (WACC × Ci). The cost of capital for the companies that take a minimum risk on the financial market is lower than the cost of capital for the companies that have a riskier investment strategy.

For example, economic value added is determined based on the data in Table no. 1:

Table 1

Calculus of the economic value added

No.	Indicators (lei)	Fiscal year		Indexes (%)
		Previous	Current	
1.	Exploitation result (ExR)	16.000	26.000	162,5
2.	Tax for profit (Tp) (-)	5.000	4.000	80
3.	Net income (Ni)	11.000	22.000	200
4.	Tax amount (t)(2/l)	0,31	0,15	48,39
5.	Total invested capital (Ci)	180.000	200.000	111,11
6.	Profitability of the invested capital (Pi) (3/5) (%)	6,11	11	180,03
7.	Own capital (C) - Weight in the total capital (Wtc) (%)	115.000 63,89	145.000 72,5	126,09 113,48
8.	Profitability of the own capital (Pc)(3/7)(%)	9,57	15,17	158,52
9.	Total debt (D) - Weight in the total capital (Wtd) (%)	65.000 36,11	55.000 27,5	84,62 76,16
10.	Expenses with interests	800	1.300	162,5
11.	Interest rate (d) (10/9) (%)	1,23	2,36	191,87
12.	Weighted average cost of capital (WACC) (%)	6,42	11,55	179,91
13.	*Economic value added* (EVA) (6-12) x 5	-558	-1.100	197,13

Based on the table data, the following results are computed:
$EVA_0 = (Pi_0 - WACC_0)$ x $Ci_0 = (6,11 - 6,42) \times 180.000 = -558$ lei
$EVA_1 = (Pi_1 - WACC_1)$ x $Ci_1 = (11 - 11,55) \times 200.000 = -1.100$ lei

Decomposing the indicator in influence factors expressed in absolute measures:
1. The indicator deviation Δ is the difference:
$\Delta = EVA_1 - EVA_0 = -1.100 - (-558) = -542$ lei
2. Decomposing the deviation Δ in influence factors:
$\Delta = \Delta Pi + \Delta WACC + \Delta Ci$
3. Computing the factors' influence:
First step:
$\Delta Pi = (Pi_1 - Pi_0)$ x $Ci_0 = 4,89$ x $180.000 = 8.802$ lei
$\Delta WACC = (WACC_0 - WACC_1) \times Ci_0 = -5,13 \times 180.000 = -9.234$ lei
$\Delta Ci = (Pi_1 - WACC_1) \times (Ci_1 - Ci_0) = (11 - 11,55) \times 20.000 = -110$ lei
4. Verification:
$\Delta Pi + \Delta WACC + \Delta Ci = 8.802 - 9.234 - 110 = -542$ lei $= \Delta$

Decomposing the indicator in influence factors expressed in relative measures:
1. The indicator deviation Δr:
$\Delta r = I_{EVA} - 100 = 197,13 - 100 = 97,13\%$
2. Decomposing the deviation Δr in influence factors:
$\Delta r = \Delta rPi + \Delta rWACC + \Delta rCi$
3. Computing the factors' influence:

$$\Delta rPi = \frac{\Delta Pi}{EVA_0} \times 100 = \frac{8.802}{-558} \times 100 = -1.577,42\%$$

$$\Delta rWACC = \frac{\Delta WACC}{EVA_0} \times 100 = \frac{-9.234}{-558} \times 100 = 1.654,84\%$$

$$\Delta rCi = \frac{\Delta Ci}{EVA_0} \times 100 = \frac{-110}{-558} \times 100 = 19,71\%$$

4. Verification:
$\Delta rPi + \Delta rWACC + \Delta rCi = -1.577,42 + 1.654,84 + 19,71 = 97,13\% = \Delta r$

Second step:

The weighted average cost of capital (WACC), expressed in percentage, is the medium remuneration ratio of the total capital, and is computed as follows:

$$\text{WACC} = \frac{(Scp \times Rf) + [Sd \times d \times (1 - i)]}{100}$$

Where:

Scp – the weight of the own capital;
Rf – the rate of financial profitability (of the own capital);
Sd – the weight of the debt;
d – the interest rate;
i – the tax amount.

$$\Delta\text{Scp} = \frac{(Scp_0 - Scp_1) \times Rf_0}{100} \times Ci_0 = \frac{(63,89 - 72,5) \times 9,57}{100} \text{ x } 180.000 = \text{- } 1.485 \text{ lei}$$

$$\Delta\text{Rf} = \frac{Scp_1 \times (Rf_0 - Rf_1)}{100} \times Ci_0 = \frac{72,5 \times (9,57 - 15,17)}{100} \times 180.000 = \text{- } 7.308 \text{ lei}$$

$$\Delta\text{Sd} = \frac{(Sd_0 - Sd_1) \times d_0 \times (1 - i_0)}{100} \times Ci_0 = \frac{(36,11 - 27,5) \times 1,23 \times (1 - 0,31)}{100} \times 180.000 = 132 \text{ lei}$$

$$\Delta\text{d} = \frac{Sd_1 \times (d_0 - d_1) \times (1 - i_0)}{100} \times Ci_0 = \frac{27,5 \times (1,23 - 2,36) \times (1 - 0,31)}{100} \times 180.000 = \text{- } 386 \text{ lei}$$

$$\Delta\text{i} = \frac{Sd_1 \times d_1 \times (i_1 - i_0)}{100} \times Ci_0 = \frac{27,5 \times 2,36 \times (0,15 - 0,31)}{100} \times 180.000 = \text{- } 187 \text{ lei}$$

Summing up, the equation below is verified:

ΔScp + ΔRf + ΔSd + Δd + Δi = -1.485 - 7.308 + 132 – 386 – 187 = -9.234 lei = ΔCmpc

Interpretation

The economic value added has had negative values increasing by 97,13% as a result of the increasing weighted average cost of capital, higher than the medium rate of the profitability of the total invested capital.

An increase by 100 % of the net income in the conditions of a growth of the invested capital of only 11,11% has favored the increase of the medium profitability rate (the average cost of the total capital) by 79,91%, which has augmented the economic value added.

The increase of the invested capital by 11,11%, in the conditions of a greater negative difference between the average rate of capital profitability and the weighted average cost of capital, has decreased the economic value added.

The accretion of the weighted average cost of capital, which has diminished the economic value added, was a consequence of the growing remuneration of the own capital (financial profitability rate) and of its higher weight, in the conditions of an increase in debt remuneration (through the interest rate) and of the reduction of their weight in the invested capital.

The rhythm of growth of the profitability rate of the invested capital (11% – 6,11% = 4,89%) inferior to that of the increase of the weighted average cost of capital (11,55% – 6,42% = 5,13%) has effected in reducing the economic value added, which was still negative, also because the computing formula included the accounting values of the exploitation result and of the invested capital.

3. Conclusions

The pressures on financial markets have led to the situation where shareholders are an economical constraint for the company, forcing it to fund its own capitals. In this respect, in company performance evaluations, there appeared new criteria that eventually allow maximizing the value of the shares.

To express value in monetary units created through an investment project multiply the difference between rated capacity and cost of capital by capital invested such resulting economic value added. The predictive analysis of this indicator on the long term is indispensable for defining investment and financing policies that create value. However, a significant economic value added in a fiscal year does not represent the certain expression of a policy that creates sustainable value.

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CONSIDERATIONS REGARDING THE CONCEPT AND INDICATORS OF THE ECONOMIC-FINANCIAL PERFORMANCE

Florea RADU
Marian ȚAICU
University of Pitești

Abstract. *Nowadays there is a series of controversies between specialists regarding both the definition of the company performance and its measuring. Each category of users of the financial information appreciate performance according to its objectives. The economic-financial analysis uses a complex system of indicators by means of which it measures performance, taking into consideration all the sides of the activity of the company. In the conditions of the actual economy, the main objective of the company is represented by the raise of its market value, obtaining profit being the main means of accomplishment of this objective.*

The article proposes the presentation of opinions regarding the significance of the concept of performance, the indicators system used for the appreciation of performance and the way in which the economic-financial analysis can offer to those interested the information they require for the substantiation of decisions.

Keywords: performance, efficiency, inexpensiveness, efficacy, economic-financial indicators

JEL Classification: L21, L25, M40, P17.
REL Classification: 11F, 14I.

1. Introduction

The term „performance" is used in various fields; we talk about economic, technical, sport, social performances. Etymologically, the word performance derives from the Latin „performare" which means to finalize a certain proposed activity. The meaning of the word comes however from the English "to perform" which means to accomplish something that supposes a certain ability or skill. The term "performance" is frequently used to appreciate the activity developed by a company and to evaluate its competitiveness.

The performance of the company is appreciated differently by the users of the information it offers, according to their interests. Performance can be studied from the perspective of each category of users of the accountancy information: shareholders, managers, employees, creditors, state, commercial partners.

For a long period of time the performances of the company were evaluated having into consideration only the profit, this being the basic objective of each company. At present in the first line are the interests of the shareholders and the objective related to the maximization of profit was replaced with the objective related to the maximization of the market value of the company.

The term „performance" acquires nowadays a high degree of complexity, and in order to state its content it should take into consideration more sides of the activity of the company.

2. Conceptual delimitations regarding the performance of the company

In order to define the concept of performance it is necessary to clarify the content of other two concepts: efficiency and efficacy. The terms efficiency and efficacy were used ever since antiquity. Etymologically both words come from the Latin language: efficiency derives

from *efficere* (to effectuate), and efficacy from *efficas-efficacis* (which has the desired effects).

In a general acceptation, **efficiency** is defined as the direct ratio (E) or indirect (E`) between the useful obtained effects or results (R) and the effort implied, expressed by means (M) or consumed resources:

$$Efficiency = \frac{R}{M} or \frac{M}{R} \quad (1)$$

where:

R – results obtained (effects);

M – resources or means consumed (efforts).

In the case of direct efficiency, efficiency will grow when the ratio is supra-unitary and grows in dynamics (E > 1). In case of indirect efficiency, efficiency will grow when the ratio is sub-unitary and is reduced in dynamics (E` < 1).

Some researchers also associated a temporal character to this ratio, defining efficiency as the maximum effect obtained at a certain level of the expenses and in the shortest time.

From the managerial point of view through efficiency is taken into consideration the measure in which the proposes objectives or purposes were accomplished. In this situation, managerial performance appears in the cross point between the quality of managerial results, decisions and actions and the quality of the purposes of the managerial system.

Traditionally, efficiency was evaluated based on certain financial indicators, but lately the analysis of efficiency extended toward the qualitative aspects of the activity of a company, increasing thus the importance of the non-financial indicators: customers satisfaction degree, products quality, the degree of preparation and specialization of the stuff, the market image of the company and its products and so on.

Efficiency is expressed in various forms, according to the field or activity pursued and to the nature of the effects which are obtained, being delimited the following main forms:

- productivity in order to express the efficiency to use human resources;
- efficaciousness for the appreciation of the efficiency to use fix means;
- profitableness to appreciate the capacity of the company to obtain profit;
- inexpensiveness to appreciate the savings obtained in using the resources.

Efficacy can be defined as the satisfaction level of external exigencies, respectively of customers, suppliers, employees, shareholders, state. It is considered that a company has efficacy when it manages to identify and control the interactivity between the internal and external development sources, responding as good as possible to the expectations of external partners.

Efficacy is measured with the ratio between the effective results obtained and the programmed or foreseen results. The situation is appreciated as favourable when the ratio is greater or equal to 1.

$$Efficacy = \frac{\mathrm{Re}}{Rp} \quad (2)$$

where:

Re – effective results obtained;

Rp – programmed results (foreseen).

Performance is a function of two variables, efficiency and efficacy, the combination between them reflecting the performance level of a company. While efficiency is measured through the accomplishment degree of the expectations of the internal environment of the company, efficacy reflects the accomplishment degree of external expectations.

In the specialty literature performance is defined as „a state of competitiveness of the company, reached through a level of efficacy and productivity which assures for it a lasting presence on the market" (Niculescu&Lavalette, 1999, p. 256).

In the Western specialty literature the analysis of the performances of a company is also known under the name of the performances audit or the audit of performant management based on inexpensiveness, efficacy and efficiency. Inexpensiveness reflects the reduction of consumed resources in order to accomplish a certain activity with the observance of the programmed quality conditions.

The way we stated previously, inexpensiveness and productivity are forms of efficiency. We can consider that a company is performant when it is at the same time efficient and efficacy. Thus we can graphically represent performance according to two variables: efficiency and efficacy.

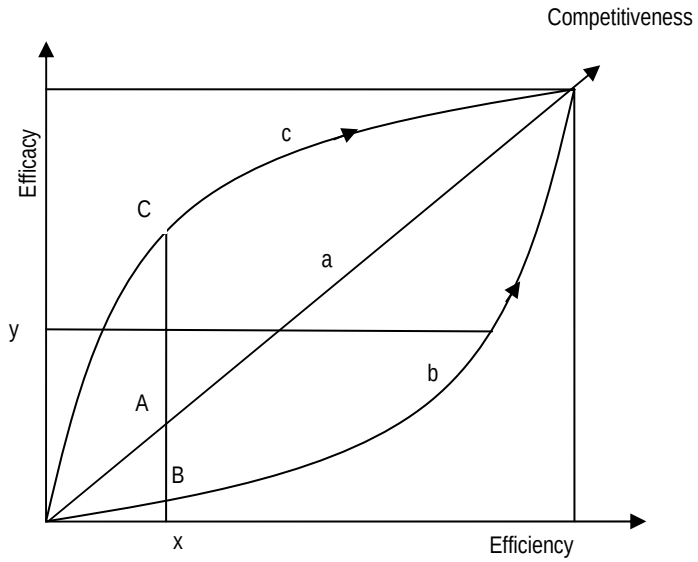

Figure 1. *Graphical representation of the concept of performance*

The „a" variant is the optimum one, because the elasticity of the efficacy toward efficiency is unitary, being obtained a balance between the two variables.

In „b" variant, named „downsizing", efficiency is more elastic in rapport with efficacy, and the obtaining rhythm of production is higher than the obtaining rhythm of results. The company registers a good use of the working capacity and of the fix means but encounters difficulties in commercializing the production on the market. The profitableness of sales has a reduced value as a consequence of high competition (demand is smaller than offer), which does not allow to practice too big sale prices or because of the raise of stocks of finite products. In this case we must pay great attention to the marketing activity, which should stir the sales of the company. This way is preferred when the company faces a difficult economic situation, trying to obtain a new balance by increasing efficiency against efficacy, fact that leads to the reduction of the results in a lower rhythm than that of the means implied for their obtaining. Most frequently this thing is obtained by reducing the personnel, measure which has favourable effects on the short term administration. On average and long term this measure will reduce however the internal development potential of the company.

The „c" variant is named „upsizing" and signifies a higher elasticity coefficient of efficacy in rapport with efficiency. The index of the results has a more accentuated dynamic than the effort index (the index of the used means). In this variant the company registers a low efficiency in using the production factors, following certain deficiencies appeared in the assurance with adequate fix means, in their maintenance and use, in the assurance with adequate personnel under the aspect of the necessary, of the qualification, of the stability or productivity of work. The company has a high volume of commercialization, a satisfactory

sales profitableness, but encounters difficulties in accomplishing the production in the projected parameters.

The objective that each company proposes is represented by „a" variant. Most companies are situated either on the curve „b" or on the curve „c" in the figure. No matter if the accent is placed on the raise of efficiency or of efficacy, the company must have as secondary objective also the raise of the other variable, on the contrary risking to confront with the degradation of the position in the environment in which evolves.

A company can be efficient but without being efficacy in the economic meaning of the term. The efficacy level represents the ratio between the results obtained and the results expected by partners and investors. Its evaluation takes place after having been identified the expectations of customers, shareholders, creditors, state, etc.

In these conditions we can state that efficacy determines efficiency and not the other way around. A company must take into consideration first of all the expectations and the requirements of the market, according to which measures the human and material potential. The obtainment of the best efficiency rates can signify the sacrifice of efficacy, this fact having negative economic and social consequences.

Companies tend to become exclusively preoccupied with the production activity, without paying the adequate attention to the consumers` requests, to the research development activity, with the purpose to renew the range of products with others more competitive. Such a behaviour has as a result products of low quality, which do not respond to the exigencies of consumers and the production on stock with the immobilization of money funds.

The raise of efficiency must not represent an innate purpose, but you should create first of all an entrance flux in the system of the company. This flux supposes material, human, financial resources and information. The existence of this flux must be conditioned by the previous obtainment of orders, that is the company should be first efficacy, responding as good as possible to the social-economic expectations of the environment.

In order to accomplish a performant activity, it is necessary that efficacy takes precedence on efficiency, this being the condition for the implementation of the technical progress and the survival of the company on the market.

A company is globally performant if it succeeds to satisfy the interests of all its partners: shareholders, employees, suppliers, customers, creditors. At present among these partners the most privileged ones are shareholders. They are those that invest and take the highest risks and subsequently the company must satisfy first of all their expectations.

For each category of partners of the company there should be specific indicators for measuring the performance of the company, indicators that should distinguish the measure in which the results of the company respond to the expectations of that particular partner.

3. The indicators of the economic-financial performance

The evaluation of the economic-financial performances of the company implies taking into consideration more quantitative and qualitative indicators, which take into consideration all the sides of the activity developed by it. The system of indicators of economic-financial performances offers managers and third parties the information they are interested in, according to the objectives pursued. This system of indicators allows the discovery of the strong and weak points of the activity of the company, of the measures that must be taken in order to improve the performances in the future and constitutes the support for the elaboration of the provisions regarding the evolution of the results.

The indicators through which the economic-financial performances of a company are appreciated have an important role in the process of analysis and diagnosis of the developed activity, because they quantify in a financial or non financial form the finality of the activity developed.

The measuring of the economic-financial performance is necessary for:

− the knowledge of the results obtained;

− the comparison of the results with the objectives proposed;

− the justification of employing further resources;

− the analysis of the contribution of each employee or department at the result of

− the company;

− comparisons between the results obtained by the company in different periods, between the results of different subunits, between the results of the analyzed company and those obtained by other companies;

− the elaboration of the diagnosis of the company and establishing future action directions;

In order to appreciate the economic-financial performance of the company, the

economic-financial analysis uses a system of indicators that contains the following categories:

− indicators for appreciating the results of the production and commercialization activity (the production of the exercise, business number, added value);

− indicators of efficiency to use human resources (annual, daily and hourly work productivity);

− indicators of efficiency to use fix means (average efficaciousness on an equipment, hourly average efficaciousness, production at 1000 fix active monetary units);

− indicators of the efficiency to use material resources (specific consumes on categories of rough matters and materials, average efficaciousness in using rough matters and materials);

− efficiency rates or the level of total expenses and on categories of expenses that accrue to 1000 lei incomes or business number;

− margins of profitability and profitableness rates;

− efficiency rates to use the patrimony, also named administration or rotation rates of the actives and capitals of the company.

Between these indicators more correlations of efficiency and balance can be established, through which the economic-financial situation of a company can be appreciated in a complex way, being distinguished the strong or weak points of the activity, as well as the measures that can be taken in order to regulate and improve performances in the future.

4. The analysis of performances based on intermediary administration balance accounts

In order to analyze the performance of the company, an important role is given to the indicators contained in the table of the intermediary administration balance accounts which present themselves like this:

Table 1

Table of administration intermediary balance accounts

Incomes	Expenses	Administration Intermediary Balance Account
1	2	3 = 1 - 2
Sales of merchandises	The cost of the sold merchandises	**Commercial margin**
Sold production + Stocked production + Immobilizations production		**The production of the exercise (Qe)**
Qe + Commercial margin	Consumes from third parties	**Added value (Va)**
Va + Exploitation subsidies	Other taxes and fees (without tax on profit and VAT)	**Gross surplus from exploitation (EBE)**

Incomes	Expenses	Administration Intermediary Balance Account
1	2	3 = 1 - 2
	Expenses with the personnel	
EBE + Incomes from exploitation provisions + Other exploitation incomes	Damping and exploitation provisions Other exploitation expenses	**Exploitation result (RE)**
RE + Financial incomes	Financial expenses	**Current result (Rc)**
Extraordinary incomes	Extraordinary expenses	**Extraordinary result (Rex)**
Total result (Rt) = = Rc + Rex	Profit tax	**Net result of the exercise after taxation (profit or net losses)**

The commercial margin is a measure of performances of the commercial companies or the performances of the commercial activities of the non commercial companies. This indicator measures the surplus of value obtained over the cost of the sold merchandises.

The production of the exercise reflects under value form the total result of the productive activity of a company for a certain period of time and contains:

− the value of the production sold during the exercise, expressed in sale prices without VAT;

− the value of the stocked production, which comprises the stocks of finite products, half-finished products and unfinished production, evaluated at production costs and determined as difference between the size of these stocks at the end of the year and their size at the beginning of the year;

− the value of the immobilized production which represents the corporal and non corporal immobilizations accomplished in own administration, as well as the internal consume of the half finished and finished products, evaluated in production costs.

The production of the exercise presents certain disadvantages because it contains elements with a heterogeneous content, which are evaluated both in selling prices and in production costs. Due to this we cannot accomplish the correct delimitation of the rapport between life and materialized work and neither can we exactly establish the own effort implied in the realization of the production program and in the increase of the economic-financial performances of the company.

Added value allows the more correct appreciation of the wealth created through the capitalization of material, human and financial resources of the company. Added value expresses the contribution of each company in the creation of the gross internal product, allows the more correct appreciation of the economic efficiency, stimulates the reduction of the material expenses, the efficient use of the production means and of the work capacity.

Added value remunerates:

− technical capitals, through damping;

− internal capitals through the net result;

− the borrowed capitals through the financial expenses;

− the employees through the personnel expenses;

− the state through taxes and duties.

The exploitation gross surplus expresses the gross economic result which is obtained from the exploitation activity of the company. It is an intermediary administration balance account which connects the administration indicators to the traditional profitableness indicators.

The exploitation gross surplus is not influenced by the damping politic and of establishment of the provisions, by the financial politic and by the fiscal politic, being thus exempted of the distortions that affect traditional accountancy indicators, although it cannot eliminate the distortions derived from the evaluation manner of stocks. This indicator has a more homogeneous content than the indicators contained in the tables of financial fluxes and

contributes to the creation of a connection between the analysis of the economic results and the analysis of the financial fluxes.

Due to the homogeneity of its content, the exploitation gross surplus is an indicator often used to compare economic-financial performances of the companies and in the construction of more rates of profitableness. It appears both in the situations presented by different institutions and companies of information and economic analysis, both in the countries that use the Anglo-Saxon accountancy system and in the countries that use the French system.

The exploitation gross surplus represents an essential component within certain indicators newly created to express the financial-economic performances of companies, like the added value in the form of cash flow (Cash Value Added).

The exploitation result represents the most important component of the total result and is agreed by investors in order to characterize the economic profitableness of the financed activity. The calculation of this indicator can be achieved in two modalities:

a) based on the profit and loss account, as a difference between the exploitation incomes and the exploitation expenses;

b) based on the situation of the administration intermediary balance accounts.

The exploitation result measures the performance of the production and commercialization activity of the company.

The financial result shows the positive or negative contribution of the financial operations of the company to the accountancy result.

The extraordinary result distinguishes the contribution of the extraordinary events to the creation of the accountancy result.

The gross or total result measures the total performance of the company obtained through those three activities: exploitation, financial and extraordinary.

The Romanian accounting system does not provide the obligation to elaborate the situation of the administration intermediary balance accounts. For the analysis process this situation is however very useful because it contains the main indicators through which the results of the production and commercialization activity are appreciated (commercial margin, the production of exercise, added value), as well as the profitableness situation expressed through the exploitation gross surplus, the exploitation result, the financial result, the current result, the extraordinary result, the total gross result and the net result of the exercise.

5. Modern indicators for measuring performance

The classical indicators for measuring performance have the disadvantage that they offer information about the historical performance obtained by the company. These indicators do not take into consideration the cost of the capital invested but distinguish only the results of its use. Subsequently, if we limit just to the use of the classical indicators we can meet companies which obtain performances but which do not create value but consume the existing one.

The modern indicators for measuring performance take into consideration the concept of value creation. The company creates value when it assures the remuneration of the capital at a profitableness rate that exceeds its cost. With the help of the modern indicators for measuring the performance of the company, it is quite simple to express performance from the point of view of shareholders and quite difficult from the point of view of the other partners of the company.

The Stern Stewart consultancy office proposed as indicators for measuring performance the added economic value (EVA) and the market added value (MVA). Boston Consulting Group and HOLT Value Associates of Chicago promoted the indicators profitableness of shares – TSR *(*eng. *Total Shareholder Return)* and the profitableness rate of cash flows – CFROI *(eng. Cash Flow Return on Investment*). Applied Finance Group promoted the economic margin EM (eng. *Economic Margin*).

EVA (added economic value) appears as a value surplus which spreads from the profit related to the exploitation activity resulted after the covering of expenses regarding the invested capitals. In other words, with the help of this indicator it is established if the company obtains benefits superior to the real cost of the used capital.

$$EVA = \text{Re}n - Cci \quad (3)$$

where:

Ren – net operating profit after taxes;

Cci – the cost of invested capitals.

It is possible for a company to report profit through the profit and loss account but by the calculation of EVA to result that we do not talk about a real profit.

By the calculation of EVA it can be noticed that the company did not obtain a real profit and that actually the company develops its activity with losses. In this case wealth is not being created the way it results from the financial situations but it consumes the existing one.

The capital that the company possesses must be remunerated, its use not being free of charge. The real profit of the company is obtained only after all the costs of using the own capital and the borrowed capital are covered.

EVA can have positive or negative values mathematically speaking. The positive value of this indicator shows wealth in the value expression created in the period for which it was calculated, and the negative value shows destroyed wealth.

The use of EVA for measuring performance presents a series of advantages but also disadvantages.

The use of EVA indicator is advantageous because:

− it reflects the real economic profit obtained by the company and not the fiscal one;

− can be calculated both at the level of the entire company and at the level of the subunit, according to the existing information needs;

− presents conceptual simplicity;

− can represent a means of motivation of the company managers. They can be awarded allowances according to the value of EVA. The bigger the value of EVA is, the higher the allowances received are.

The limits of using EVA result from the following aspects:

− the evaluation of the performances of the company is made from the point of view of investors. The way we showed previously, a performant company is that one which responds both to the expectations of the internal environment and of the external one.

− the indicator cannot be used on short term in case of the activity sectors in which investments are made on long term;

− the application of this indicator is made difficult by the great number of accountancy adjusting which are necessary and by the lack of a unitary methodology.

We indicate that the indicator EVA is a trademark of the Stern Stewart office.

The market added value (MVA) measures the newly created value and is determined as a difference between the total market value of the company and the accountancy value of capitals and debts. The total market value of the company is expressed through the market value of the own capitals and debts.

$$MVA = Market\ val\ ue - Inves\ ted\ capita\ l \quad (4)$$

MVA can have a value:

− positive and means the creation of wealth for shareholders by increasing the value of the capitals invested by them;

− negative and means the reduction of the value of the stock capitalization under the value of the own capitals of the company. In this case not only wealth was not created for shareholders, but a part of the existing wealth at the investment date was destroyed.

- The market added value has a series of disadvantages because:
- it does not take into consideration the opportunity cost of the invested capital and neither the sums distributed to shareholders;
- it cannot be calculated but at company level and not at the level of a division .

6. The company partners and performance

Financial performance is desired by all the participants to the company life. Worldwide efforts have been made in order to establish the form of certain financial situations that could reflect the performance of the company.

Managers are interested in the level of performance reached by the company because their activity is appreciated according to it. In the management contract a certain level can be provided for various indicators, according to which the manager will be paid. In case the manager is also a shareholder of the enterprise, its interest to obtain performance raises.

For a long period performance was appreciated only in connection with the level of profit obtained. For the owners of the company, in the actual conditions, the main objective is represented by the maximization of their fortune by means of raising the market value of the company. This objective does not exclude profit obtaining, on the contrary, profit obtaining represents the main factor that contributes to the growth of the company market value. The owners of the company are privileged from the point of view of obtaining information regarding the performance of the company and the value that it creates. The current investors, but also the potential ones, perceive performance in connection with the profitableness of their investment and with the risks they encounter.

The banks and financial creditors pursue that the company reimburses on time the debts and related interests and perceive performance in connection with its solvability.

Customers are interested in the stability of the company and in the quality of the products it offers.

Employees are interested in the stability and profitableness of the company. They often pursue to obtain an immediate remuneration as high as possible, and from this point of view they enter in conflict with the profitableness objectives on short term. They pursue the capacity of the company to also offer them in the future work places and professional opportunities. Only an increased profitableness on long term allows for the number of work places to be maintained and increased, and offers the perspective of certain salary increases in the future.

The state and its institutions cashes in the form of taxes and duties part of the incomes the company obtains. A growth of the financial performances of the company will generate a growth of the incomes at the state budget and at the local budgets. At the same time the state is interested in the development of the company because this way the possibility to create new work places appears. A performant company and which makes exports contributes to the equilibration of the balance of external payments.

The indicators pursued by the social partners of the company for the appreciation of its performance can be synthesized in Table 2.

Table 2

The indicators pursued by the company partners

Company partners	Indicators pursued (financial and non financial)
Owners	The profit, the efficaciousness of actions, PER(price earning ratio), EVA, MVA, the perennity of the company;
Managers	Efficiency indicators, indicators for appreciating the results of the activity, indicators for appreciating the results, the perennity of the company
Banks and financial creditors	Solvability, liquidity, cash-flow, trust
Customers	Quality of products and services, delivery terms, added value to the customer
Employees	The level of salaries and non - money benefits, the certainty of the work place, professional opportunities, work conditions, moral satisfactions.
State	Lack of overdue debits

7. Conclusions

Performance is appreciated according to the objectives proposed previously. We cannot appreciate performance in the absence of certain objectives clearly established. The objectives can be expressed quantitatively or qualitatively, and they must have an accomplishment term. The planning activity requires obligatorily the measuring activity, in order to supply information to the management to adopt decisions for the improvement of performance. Thus performance can be regarded in connection with the way of accomplishment or overcoming the strategic objectives. The performance of the company must be appreciated according to the level of these objectives. Closely related to this aspect, we must consider the fact that in case the established objectives were modest, their reaching or even overcoming represents a modest performance.

It is considered performant the company which manages to create value for its shareholders, and this takes place when profitableness of the invested capital is superior to the cost of the financing sources used. It is not sufficient that the company has profit for it to create value.

Performance measuring is a necessary condition for the development of a company, but not sufficient. Performance measuring must be one of the components of the performance management.

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MATRIX APPROACH OF STRATEGIC POSITIONING IN THE HOSPITALITY INDUSTRY

Monica PETCU
Iulia DAVID-SOBOLEVSCHI
Bucharest Academy of Economic Studies

Abstract. *The diversity of environmental conditions that characterize the locations of some geographical structure of global enterprises or of those with extensive territorial divisions, impose the reiteration of the strategic analysis at the level of each component structure in order to avoid inadequate investment policies and the adoption of specific strategies for each situation, individually. In this context, we propose a matrix approach of the strategic positioning of the reception structures belonging to a travel company with national distribution developed on the basis of some composite indices that aggregate the performance on two coordinates, synthesizing its own capabilities and the attractiveness of the site, generating opportunities and constraints that shall guide the decision making process.*

Keywords: strategic positioning; matrix; performance; attractiveness; composite index.

JEL Classification: C43, L21, L83, D21.

Introduction

The hospitality industry is one of the most dynamic phenomena of the contemporary society with a global and emphasized vocation. „Tourism is an individual and social balance factor, a source of fulfilment which must develop in harmony with the human, natural and cultural environment and enrol in a context of sustainable development" [1] within an appropriate strategic process.

Tourism develops specific strong conditionality on the quality of the natural environment and the general and local infrastructure, safety, social stability, food safety as the population's level of prosperity. Considering tourism as a key factor in implementing the European policies for sustainable development of the local areas and communities as well as of every person's, of stabilization of the workforce, creates opportunities for increased tourism and increased revenue for the enterprises in the hospitality industry on the coordinates of the stated conditionality.

Approaching tourism as a system and as a component of the macro-environment, as a holon, enables both the accurate assessment of its current status as well as its future developments based on the fundamental and sustainable trends splitting of the environmental factors. „The general theory of the systems offers a conceptual approach and dialectics which states the priority of the wholesomeness over its constituent parts. These parts are dynamically interrelated and cannot be understood in isolation from the entirety they belong to and which determines their very nature" [2]. Interacting in a particular environment, the objects, the attributes and the relations of the tourism system are combined in operations as a response to the changes of the metasystem where it matches even its own components, which induce influences over the wholesomeness or the parts thereof. „What is significant is not the condition of a component in relative balance, but the process by which the system adapts itself to a change intervened in its own condition or in its environment, whereas imbalances create problems that management must resolve" [2]. Changes occurring in the field of

tourism are the resultant of the structure, of the status and of the operating mode of the macro-environment it includes and also its own. By its multiple interdependencies with the environment and by the specific conditionality, the level of development of tourism is one of the most eloquent representations of the state metasystem's status in its entirety. Absorbing the out-puts of various holonic components, the hospitality industry activities induce a multiplying effect on the economy level as a whole.

Both the level of globalization of the sector and the geographical dispersion of a tourism enterprise are important benchmarks for the assessment of the potential of the areas of location, of competition, and also the key factors of success.

Enterprise maintaining and developing include the harmonization of the market opportunities with the enterprise's resources and skills, the substantiation of strategies aiming at ensuring the balancing of the enterprise's capabilities with the environmental conditions. An approach therein shall be based on the SWOT analysis and circumscribes the exigent and precise introspection of the endogenous and exogenous factors, i.e. both the strengths (enterprise's internal capabilities) and weaknesses, as well as external circumstances that may have a favourable (opportunities) and unfavourable (constraints) influence, the conclusive essence consisting of identifying the key factors of success in order to attain its objectives [3].

Ensuring success requires the tour operator to identify the differentiation elements that support advantage in the market competition, defining entities into losers and winners. Each market or industry has its own success key factors. Their correct identification plays a particularly important role, enabling companies to define their market strategy based on the relevant benchmarks of the sector they operate in.

In the tourism sector, irrespective of the tourism market components covered by a travel company (leisure and recreation tourism, spa tourism, circumstance tourism), the key factors of success are:

− the differentiation of tourism products from the competition's products through additional attractiveness given both in the environment and by own offer;

− the competitiveness of the tourist packages offered, generated by the quality-price ratio; on the Romanian tourism market, marked by strong seasonality, the pick season enabled large deviations on short term, the repercussions of this policy are present now by the massif orientation of the clients on foreign tourism markets;

− diversity of tourism and complementary services as well as the presentation of integrated products to ensure all facilities in the same package during the stay, from the departure to destination until returning home;

− flexibility and adaptability to the trends of the demand;

− constant and sustainable promotion of the products on the market, identifying the defining characteristics that distinguish them from the competition's;

− image improving by introducing the quality management systems to enable a systematic and rigorous control of the performance based on a constant introspection of the degree of satisfying the customer's expectations.

The diversity of the environmental conditions that characterize the locations of some geographical structures of some companies with extensive portfolios of activities, require the reiteration of the strategic analyses on each component in order to avoid inadequate generalizations and adopt specific strategies for each situation individually.

This approach proposes to develop a matrix model of analyzing the strategic positioning of reception tourism structures from an enterprise with broad national distribution in order to adopt some proper decisions and establish the priorities in targeting its investment effort.

The relevant coordinates in analysis are:

− the performance achieved by each structure, representing a consequence of their own capabilities in interaction with the exogenous factors;

− the attractiveness of the resort they are located in, expressed by tourism essential key factors, which enable the assessment of opportunities and of the constraints arising from the proximal.

1. Evaluation of the reception structures' performance

The evaluation of the tourism reception structures' performance of tourism is performed on a composite index, determined by the aggregation of some indicators considered relevant for the sector of activity: operational yield, profitability, liquidity, quality factors of the activity.

Indicator	Calculation formula	Signification
accommodation capacity use index (ACUI)	$ACUI = \frac{NIR}{CCTF} \times 100$ Where: NIR= number or nights; CCTF=tourism capacity in operation. CCTF = no. of accommodation places x no. of operation days	relevant indicator for assessing both the attractiveness of the products offered and the operation yield of the installed capacity. A high value of this indicator emphasizes the expenses efficiency, where tourism implies a high share of the fixed expenses
Commercial profitability rate (RC)	$RC = \frac{Gross\ Profit}{Turnover} \times 100$	significant indicator in evaluating the enterprise's performance evaluation, the management's quality is validated by the recognition of its products by the market
profit/place-accommodation day (PLA)	$PLA = \frac{Gross\ Profit}{CCTF}$	indicator of characterization of efficiency using the capacity in service. This indicator is complementary to the rate of profitability, highlighting the correlation effect-investment effort
work productivity (WP)	$WP = \frac{Turnover}{Average\ no.\ of\ emplozees}$	complex and dynamic economic class expressing the human resource capacity to create a specific value in a time unit
current liquidity rate (CLR)	$WP = \frac{Current\ assets}{Current\ debts}$	expresses the degree of short-term solvency and the degree that the current liabilities are covered by the conversion of current assets into cash, corresponding to the periods of chargeability
service offer (SO)	It shall be evaluated on the basis of five quality criteria that are considered relevant: - classification of the receipt structures; - equipment status and diversity of public food services; - equipment status and diversity of the treatment services; - other existing equipment (conference rooms, sports fields, animation and entertainment elements); - level of valorisation of the regional tourism potential by programs. The evaluation of the service offer is made on the basis of an average mark determined by assigning a mark between 1 and 5 to each criterion, considering them equally important.	quality factor of the activity, reveals the way in which managers exploit their own opportunities, of the resorts and of the surroundings and build up appropriate tourism products for the customer segments they address to

The selection of these indicators is based on the following:

− there were chosen rates of profitability, of management and balance in order to highlight the managerial effectiveness in an appropriate reference system, thus eliminating the problems of comparability of indicators in absolute size;

− ensuring a level of utilization of the capacity that is the main lever of increasing tourism efficiency. Placing the reception structures in different regions implies different

effects of seasonality. Considering the capacity in operation, by adjusting the installed capacity with the operation duration, ensures the elimination of the seasonality incidence, enabling comparison;

− the financial situation of the enterprises operating in the tourism sector depends particularly on the level of the generated profitability. This is ensured by the existing endowment, by the degree and by the efficiency of its use;

− the favourable gap between the duration of collection of the receivables and the payment duration of the obligations provides comfortable liquidity, the tourism companies recording negative values of the necessary working capital;

− a relevant indicator in evaluating the enterprise's performance in general is the degree of indebtedness. The orientation of the achieved approach on the specificity of the analyzed company in order to substantiate the allocation strategy of resources between their own reception structures, required relevant indicators for the factual situation, in this case the company shows an insignificant degree of indebtedness, of 0.5%;

− profit per place-day creates a fair basis for comparison between the structures with different sizes of the installed capacity and different times of operation;

− supplying tourism services involves numerous manpower, partly qualified labour and the productivity of the labour is relevant. Labour productivity in tourism is strongly affected by exogenous factors such as: the area's tourism attraction, the intensity and the structure of the tourism traffic, climatic conditions, circumstantial factors. [4] Complementarily, we mention the dependence of the labour efficiency on the prices, differentiated according to the category of the reception structures, to the form of tourism, to seasonality as well as the technical and organizational level;

− the service offer, by its quality and diversity expresses the potentiality of addressing various segments of customers and determines the size and the intensity of the tourism flow, the more uniform use of the capacities, flatting seasonality.

At the level of the analyzed enterprise, the indicators achieved during a financial year on each receipt structure are presented in the following table:

Tourism reception structure	Index of using the accommodation capacity %	Commercial profitability rate* %	Profit/place-accommodation day lei/place	Labour productivity lei/employee	Current liquidity rate	Service offer
S1	55.08	24.59	3.22	70,403.58	3.80	3.50
S2	64.87	35.42	12.76	75,932.03	4.10	4.00
S3	67.93	32.24	12.66	69,213.48	3.63	4.00
S4	59.10	11.12	2.18	57,043.40	3.00	3.00
S5	50.43	22.46	5.45	65,974.10	3.11	4.00
S6	66.12	30.32	12.14	71,765.97	3.96	3.50
S7	69.73	31.38	11.19	68,699.96	3.70	3.00
S8	17.90			31,740.42	3.73	4.00
S9	80.45	17.30	8.17	54,250.35	4.00	3.00
S10	38.20	13.34	3.08	55,892.98	4.05	3.00
S11	65.18	11.58	4.98	54,265.43	4.00	2.50
S12	55.55	28.83	9.93	62,197.90	3.95	3.00
S13	74.41	11.49	4.36	46,420.11	3.60	3.50
S14	17.81			55,650.60	2.90	1.00
S15	34.10	0.16	0.01	41,060.59	3.85	3.00
Total	**52.91**	**21.83**	**4,90**	**61,590.71**	**3.90**	**48.00**

* structures: S8 and S14 record losses.

In order to calculate the composite index of performance evaluation:

a) there was used a system of conversion into positioning indexes of individual values of the indicators according to the media category average on company level,

eliminating the incidence of their expression in different units of measurement; b) appropriate significance coefficients have been established:

Indicator	Index of use of accommodation capacities	Commercial profitability rate	Profit/place – accommodation day	Labour productivity	Current liquidity rate	Service offer
Coefficient of signification	0.2	0.2	0.15	0.15	0.1	0.2

Under these conditions, the performance evaluation index (PEI) shall be determined on the basis of the formula:

$$PEI = 0,2 \times IP_{IUCC} + 0,2 \times IP_{RC} + 0,15 \times IP_{PLC} + 0,15 \times IP_{PM} + 0,1 \times IP_{RLC} + 0,2 \times IP_{OS}$$

where:

IP_{IUCC} – positioning index of the level of using the accommodation capacities;

IP_{RC} – positioning index of the commercial profitability rate;

IP_{PLC} – positioning index of the profit on accommodation place;

IP_{PM} – positioning index of average productivity of labour;

IP_{RLC} – positioning index of the current liquidity rate;

IP_{OS} – positioning index of the service offer.

Tourism reception structures	Positioning indexes						Performance evaluation index
	Index of using the accommodation capacities %	Commercial profitability rate %	Profit/place – accommodation day lei/place	Labour productivity /employee	Current liquidity rate	Service offer	
S1	1.04	1.13	0.66	1.14	0.97	1.09	1.02
S2	1.23	1.62	2.60	1.23	1.05	1.25	1.50
S3	1.28	1.48	2.58	1.12	0.93	1.25	1.45
S4	1.12	0.51	0.44	0.93	0.77	0.94	0.80
S5	0.95	1.03	1.11	1.07	0.80	1.25	1.05
S6	1.25	1.39	2.48	1.17	1.02	1.09	1.39
S7	1,32	1.44	2.28	1.12	0.95	0.94	1.34
S8	0.34			0.90	0.74	0.31	0.34
S9	1.52	0.79	1.67	0.88	1.03	0.94	1.13
S10	0.72	0.61	0.63	0.91	1.04	0.94	0.79
S11	1.23	0.53	1.02	0.88	1.03	0.78	0.90
S12	1.05	1.32	2.03	1.01	1.01	0.94	1.22
S13	1.41	0.53	0.89	0.75	0.92	1.09	0.94
S14	0.34			0.52	0.96	1.25	0.49
S15	0.64	0.01	0.00	0.67	0.99	0.94	0.52

From the data analysis one may notice that two of the tourism reception structures present performance on the level of average (S1 and S5), seven structures record performances below the average on enterprise and six structures above this average.

The best performance is registered by S2, which shows super-unitary values of the positioning indices of all the indicators considered, generating the highest rate of commercial profitability, rate of current liquidity, local gain, and the highest labour productivity. The occupancy level is 11.96 percentage points higher than the average on enterprise, as the magnitude of the variation is 62.64 percentage points.

Although we were tempted to consider the information provided by the local profit - accommodation day as redundant, thus emphasizing the importance of the profit in performance evaluation and realizing the direct relationship between the turnover – number

of accommodation places, we consider relevant the inclusion of this indicator in this system to explain atypical situations. In this respect we mention that although usually, the structures which present super-unitary positioning indexes of the commercial profitability rate record similar positionings for the profit on accommodation places, there are exceptions, as in the case of structures as for S1, S9 and S11. This situation is explained in a different way; thus for S9 and S11 the super-unitary size of the positioning index of the profit on accommodation place compared to the sub-unitary one in case of the profitability is determined much more over the indices average of the use of the accommodation capacity, while for S1, we mention some prices much lower than the average on enterprise, a result of the commercial policy promoted (the competitive position is obtained on the basis of the low cost).

2. Evaluation of the attractiveness of the resort the reception structures are located in

In order to evaluate the attractiveness of the resort the reception structures are located in, we considered the following criteria relevant, with significant incidence of the tourism flow volume and intensity:

- image and reputation of the resort;
- resort's degree of comfort (quality standard of the reception structures, of the existing facilities: commercial spaces, post office etc);
- entertainment possibilities;
- access to the resort;
- tourism attractions (cultural and anthropic patrimony).

To assess the attractiveness of the resort the reception structures are locate din, each criterion is given a mark from 1 to 5. Thus, the final mark, determined as the simple arithmetic average (it is considered that these criteria present the same degree of significance), is placed between the range of 5-25, the median of the values of the resorts attractiveness being 15.

Tourism reception structures	Resort image	Resort comfort	Entertainment	Access	Tourism attractions	Note
S1	1	2	2	2	1	**8**
S2	3	3	3	4	3	**16**
S3	4	3	3	4	3	**17**
S4	3	3	5	5	4	**20**
S5	4	3	4	4	3	**18**
S6	3	3	3	4	3	**16**
S7	5	4	4	5	4	**22**
S8	2	1	1	1	2	**7**
S9	1	1	3	1	3	**9**
S10	4	3	2	4	3	**16**
S11	5	4	5	5	5	**24**
S12	4	3	3	3	3	**16**
S13	3	2	3	3	5	**16**
S14	2	3	5	2	2	**14**
S15	3	3	2	2	3	**13**

Most structures are placed above the 15 average of the interval, five of them being placed below this average. In these five cases, the development strategies of the enterprise are also dependent on the investment policies of the local authorities, regardless the efforts it makes in the absence of some appropriate environment measures, significantly better results will not be obtained.

In addition, the following shall be mentioned:

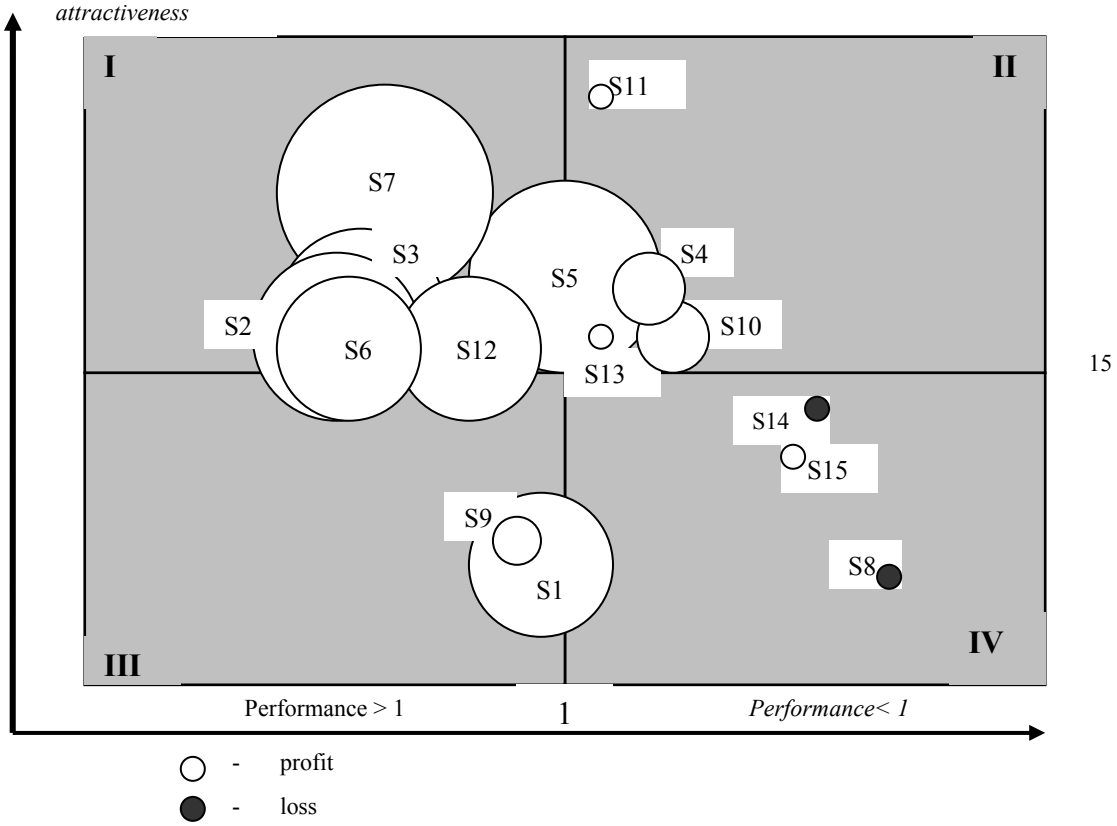
- all structures are located in traditional spas, with cure natural factors whose positive action is recognized;

− all spas are more or less affected by a chronic sub-investment process which led to the depreciation of some endowments initially achieved with parsimony;

− the access in most spas is rendered difficult by poor roads and means of common transportation, some of them dealing even with additional difficulties;

− the structures locations reside in low attractiveness spas and are conditioned in their efforts of obtaining higher performance and by the investment effort in the country's and that area's infrastructure.

According to the value of the composite index of individual performance and the marking of the reports' attractiveness they are located into, the reception structures were positioned in the four quadrants of the matrix. The representation size of each structure was assigned according to the size of the profit, two structures recording losses (S8 and S14).



Delimitations within the matrix with applicability on the level of the analyzed company reveal the following situations:

- **Quadrant I**

General characteristics: shows the highest regional attractiveness and the best performance, highlighting the fact that the structures located in attractive resorts also produce the best results under proper exploitation conditions of the environment opportunities.

Analyzed quadrant: in this quadrant six of the fifteen analyzed structures are positioned. Three of them are noticeable: S2, although it is positioned in an average attractiveness area (16), it obtains the highest performance (1.50); S7, which presents the greatest attraction of the quadrant and the highest level of composite index of performance and S5 which although has the largest installed capacity in an attractive area, it obtains an average performance as a result of less effective management.

The strategies that have to be adopted for these structures are development strategies based on attracting new segments of clients and the extension of the activity outside season.

- **Quadrant II**

General characteristics: in these cases there are not exploited the opportunities of the environment, the reception structures showing below average performance; under the conditions of a limited demand, there is the hazard of elimination from the market by the competitors;

Analyzed quadrant: in this quadrant there are placed four structures characterized by location into high attractiveness resorts, which, themselves obtained below average performance. We mention the reduced volumes of the profit mass for S11 and S13, due both to the small capacities installed ant the price police, the capacity use indexes being over the average in both cases,

Strategies: for these structures, the investment effort is critical in order to increase the capacity, to improve performance and to adopt some proper marketing programs to push them into quadrant I. Normally the company should allocate the resources output by the reception structures positioned in quadrant III with superior performance but with places in low-attractiveness areas.

- **Quadrant III**

General characteristics: it is the most interesting quadrant, those structures succeeding despite the low level of attractiveness, to obtain over-average performance;

Analyzed quadrant: in this quadrant there are placed the S1 and S9 reception structure; management skills and proper marketing are remarkable; additionally we emphasize that for S1 the performance resides especially in the strict monitoring of the expenses and for S9 in the superior use of the capacities;

The recommended *strategies* are deemed to stabilize and maintain the clients by the quality of the service, the development clearly depending on the exogenous factors that are more difficult to include;

- **Quadrant IV**

General characteristics: is characterized by a low attractiveness environment that also affects the company's performance;

Analyzed case: the structures placed in this quadrant record losses (S8, S14) except for one (S15) which succeeds in obtaining a minimum profit; S8, placed in a very low attractiveness area, has the fewest chances of performance; on the other hand, S14 has real chances to increase especially by exploiting the entertainment possibility by the orientation to the interested segments of clients, by offering more flexible and better adapted tourism product; unless more forces are included in the rehabilitation of S8 and S15 it is likely that own investment in the entertainment components may not be enough and a withdrawal strategy may be more recommended.

Hence, the recommended *strategies* are of maintenance or withdrawal.

The business strategy is focused on how the company achieves strategic advantages in relation with its competition. Establishing competitive advantages involves the competition analysis (identification of key competitors, assessing strengths and weaknesses, strategies and their reactions, choosing the competitors that may be attacked and those who should be avoided) and the elaboration of the competition strategy model (distinct positioning towards competitors and obtaining the most solid competitive advantage) [5].

Conclusions

Positioning the entities on strategic matrixes developed on relevant coordinates, conditioned by proper determinants, presents the advantages of the easy substantiation of the conclusive strategic options. Complementary, this approach enables the evaluation of atypical situations, placed in a context defined by contradictory characteristics that may affect the homeostasis of the systems.

The main strategic lines that the company may adopt depending on the conducted strategic analysis are:

− ***stability strategies*** that suggest the fact that the entity will continue running the same activity to the same level, supposing that the environment shall not modify significantly in the near future;

− ***increasing strategies*** as a result of a mixture of factors: aggregated financial resources, its products and services, the conditions of its external environment as wall as the capacities of the management team;

− ***strategies of withdrawal*** from the activity that are necessary when the current strategy did not assure the attainment of the established strategic objectives.

The matrix approach used shows that within a company holding portfolios of entities, the strategic options are differentiated being customized according to the concreteness of the defining parameters.

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THE RELEVANCE OF CONSOLIDATING THE FINANCIAL STATEMENTS WITHIN THE GROUP OF COMPANIES' DECISION-MAKING PROCESS

Iulia DAVID-SOBOLEVSCHI
Monica PETCU
Bucharest Academy of Economic Studies

Abstract. *Knowing the individual data presented in the annual financial statements of companies that are included in the group, is not sufficient in order to provide the necessary information for various users, regardless of their nature (shareholders or partners, potential investors, banking system, etc.). The purpose of the consolidated financial statements is to issue complementary, relevant, and objective information referring to the overall entity. Thus, one can identify the specific indicators which characterize performance and the financial position that are useful in the decision-making process concerning the establishment and the allocation of the capital on the groups of companies.*

Keywords: group; performance; relevance; financing; global investment.

a. The group of companies – genesis and characteristics in the present context

The activity undertaken by companies nowadays is marked by an extremely dynamic economic environment, characterized mainly by increased economic, scientific, technical and educational competitiveness, by the extension and acceleration of communication, by the promotion of certain requirements and new criteria for the validation of the quality of the products and services, but also by the deepening of the economic and scientific and technical cooperation(1). At the same time significant changes occurring in the economic environment are generated or potentiated by the actions and activities carried out by the group of companies. The genesis of the Group resides in the enterprise's development strategies. The amplification and the diversification of the companies' activities, resulting in the need for expanding on a global market, require rigorous reasoning over the organizational optimum from two major alternatives: keeping an integrative structure of functional departments involved, on specific area, in each subunit/component or creating subsidiaries, with legal personality, under the control of a parent company and that reserves major decisions by economic mechanisms. As purely industrial business, as they are at the beginning, large companies end up being progressively converted into centres of financial management by creating a new organizational form – the groups of companies.

On the other hand, independent companies whose development strategy requires major investments or whose specific production and distribution as well as market maintenance and expansion enable complementarities in order to render the activity more efficient is associated in groups with common interests, thus increasing their ability of survival and development in a competitive and global environment. The vertical or horizontal integrations and the achievement of some overall chains of value are likely to increase the margin for the entirety and each component and to facilitate the access to the increasingly limited and contested resources.

The group is an enterprise conducting its business through the companies they control. As an economic entity, the group of companies has its own objectives and strategies, whose results are analyzed in a unitary and centralized way(2). The concept of group inevitably brings about the concept of power and control. A group is a particular case of accounting personality without legal recognition. The absence of legal personality of the

group involves the denial of the concept of patrimony and social commitment but also its inability to call to court, to be set in liquidation or judicial redress.

b. Consolidated financial statements – basic information source to characterize the economic and financial status of the group of companies

The transposition state of the group's economic and financial status, providing significant information on the financial position, the health status of the mother company or of its related or associate companies - mothers and societies that are dependent or associated are provided through the analysis of data outcome from the accounting consolidation. The interest on the size and on the components of the accounts in the group appears mostly from the need to describe the economic and financial reality of the whole group in as precise a manner as possible. Knowing and analyzing the information presented in the annual financial reports only for the companies belonging to the group, taken individually, proves to be insufficient for the provision to third parties and in particular to the shareholders of the group, of significant, necessary and sufficient information for the decision-making process. The consolidation ensures the presentation of all receivables and debts to third parties exterior to the group. For example in the individual financial statements of the mother company, there are mentioned the amounts given or taken on loan from other companies within the group. In consolidated cases, these receivables and debts are eliminated; the real receivables and debts towards third parties are presented only by the consolidation. Also, the economic and financial results recorded by the mother company may be exceptional, while the results reported by other companies in the group may raise questions regarding the business continuity. Conversely, the economic and financial situation of the mother company may highlight a delicate situation, although the financial equilibrium of all the companies within the group is satisfactory. By consolidation it is ensured the correct presentation of the size and of the turnover structure achieved by the whole group and the same for the results as it shows each business's share of the results in order to obtain the main control If this purchase is made for a very high price, it emphasizes the a purchase price of the due equity quota. In this case, the consolidation enables the assessment of the fact whether the investment related to the purchase of such securities is consistent with the financial results and with the results of the group. All of these elements and others that can be added thereto offer the possibility of determining the true performance of the group and its future. An overview of the management elements of group enterprises is more eloquent than each one individually.

The role of the consolidated financial statements is to provide the necessary information both within the group in the decision making process, and for the environment outside the group. Data processing for the preparation of the consolidated financial statements enables better knowing the activities of the companies within the group and at the same time it develops a better connection therewith. Thus, the basis of the internal control activity is set, viewed as a system of provisions of forecasting and finding, which contributes to the competent knowledge and management of all the companies in the group. Internal control ensures the protection and the intact preservation of the global patrimony, and the correct implementation of the management decisions, encouraging performance improvement. Within the internal control, using the consolidation techniques enables the harmonization of the financial and accounting information belonging to different companies within the group and on this basis it ensures a normalization of the concepts and definitions. Also, it ensures an improvement of the methods of evaluation and presentation of the financial statements as well as a normalization of information flow and f proper procedures, all this resulting in the improvement of the group's management and of the management performance. A common language is provided that makes it possible to obtain identical and reliable information comparable between companies in the group.

The consolidation of the financial ensures the necessary information to provide for some specific analyses of the results recorded within the group on types of activities, which are absolutely necessary to identify activities with high results and to separate them from those with low results. Equally, the information provided by the consolidated financial statements enable the comparison on each type of activity of the result with the undertaken effort to achieve this result, the characterization of power and overall profitability of the group against other groups. Information can be identified and used in order to characterize the evolution of the results on geographical areas and of the turnover, profit, overall investments, on branches of activity or on geographical areas.

The consolidated financial statements enable the estimation of the group's future activity, thus ensuring information that is absolutely necessary for the decision making process by: the volume of estimated activity on activities, the provisional consolidated financial forecast table and the calculation of the provisional consolidated self-financing capacity calculation. Based on the budgeted information the management of the group and of the subsidiaries can:

- define and set the options regarding the main directions of development;
- analyze and choose the best sources of financing;
- rationally distribute the available resources among companies in the group;
- ensure proper coordination of the activity at group level.

The individual financial statements of the parent company and its subsidiaries are unable to provide information except in an imperfect manner, to the users interested in the financial position of the group, in the patrimony status, results, and its cost-effectiveness. The consolidated documents enable the characterization of the activity and of the group's status in a global way regarding the financial structure and profitability. Analyzing the consolidated structure according to the percentage of participation, it can be noticed that the principal interests of the group's situation and activity meets:

- either a true integrative structure whose legal components created for various reasons (financial, commercial, tax) are only apparently independent structures (e.g. a production company that has marketing subsidiaries);
- either the financial power of a holding company;
- either effective economic and financial powers created by links between the participating companies at the same set of activities more or less coordinated.

As regards the external users of the information provided by the consolidated financial statements, in order to demonstrate their quality and the relevance compared to the information provided by the individual financial situations of the companies in the group, we can use some examples. The balance sheet of the parent company the titles of participation are recorded to the historical cost, which does not enable the knowledge of how this investment evolved; also one cannot track the status of the assets owned subsidiaries and cannot assess the financing ways either. The results account of the parent companies integrates only the received dividends, which can often be very different from the results share of the companies that would correspond to parent companies. Nevertheless, in the assessment of stock size and the outcome of each company within the group, there is the subsidiaries and participants table that ensures this information. But, the existence of such information only for the mother company is not sufficient for someone from outside who analyzes the information. From this information, an external user cannot conclude by analyzing the profit and loss account of the parent company whether the turnover fully corresponds to the sales to third party companies for the group or whether, partly, it is a transfer of stocks or results between companies in the group.

By consolidation these drawbacks of the individual financial situations are eliminated, enabling full and real information for any interested user outside the group. By presenting a

verified and published overview of the information, the group economic and financial information satisfies a greater number of users, as follows:

- financers of the companies in the group - banks or various institutions that grant loans. The consolidated financial statements enable the maintenance of the balance by adjusting the loans to the real needs and to the possibilities for repayment of the group and more reasonable assessment of the possible hazards. Where the lender is the parent company itself, the consolidated statements will indicate the specification of the possible support that the parent company can bring along, in case of its difficulty;
- by the consolidated statements, shareholders obtain information related especially to the net result of the group, the global and on-objectives self financing capacity and, therefore, may make an analysis of the investments made in shares held within the group;
- and therefore they may make an analysis of the investments made in the shares held within the group;
- financial analysts can appreciate in a different manner indicators of: profitability, investment capacity, the business volume etc.
- interested third parties, particularly the group's employees, customers, suppliers, will be able to find in the consolidated statements, the important elements regarding the relevance of the group, to its capacity and financial potential.

Therefore the consolidated statements ensure relevant and complementary information to external users regarding the whole entity. Only the consolidated results can provide the result and the turnover as well as the profitability of the investment and the overall indebtedness of the group. All these are possible because the individual statements of the companies in the group cannot be identified or assessed, outside the assembly and all transactions between the parent company and the subsidiary or between subsidiaries of the same group. Operations such as sale-purchase in the group, transfer of assets, assessment of a company's indebtedness according to its loan ability and not according to its needs, the gap between the recording of a profit and its distribution which are included in the individual statements, are examined globally in the consolidated statements, enabling to know:

- the group's investment and global debt;
- the group's financing and its global evolution (own sources, short and long term debts);
- the true own sources also considering the self-owned shares;
- the relations between the evolution of the financial structure of the group and the evolution of the assets (covering the non-current assets by permanent capital);
- the relation between profit and turnover and the profitability of equity at group level;
- accounting value of the subsidiaries – which sometimes determines adjustments for depreciations to the consolidated balance sheet of the mother-company.

Consolidation enables the companies' managers to assess the present situation and at the same time meet the forecast needs for the future. The consolidated situations enable the presentation of overall information, treated in accordance with certain accounting implications and tax rules in order to achieve fairer discernment regarding the economic reality. The group can improve its management through better knowledge of the results, it can control the multiple activities of the controlled companies with the help of reliable information, it can also diagnose the first difficulties that may appear, and it can assess the development of certain branches of activity in relation to others. It is much easier to figure the different chosen orientations either to distribute availabilities more judiciously or to take decisions on investments.

c. Limits of the consolidated financial statements as an instrument of management and information

The consolidated financial statements, as management and information tools, constitute a support for more accurate analysis and assessment of the financial position and performance of the group and of any component, which, through the assembly, presents some weaknesses that users must not disregard:

- the consolidated statements are most often subject to a basic convention of accountings, namely the convention of the ***historical costs***, therefore, using them ***does not solve the problem of the inflation effects regarding the evaluation of the patrimony***;
- the consolidated situations are ***quite difficult to undergo some comparison studies with other groups***, especially when activities are various;
- ***multi-annual series of indicators appear as difficult to interpret***, whereas groups are not rigid assemblies, they can bear changes of increase or restriction of the perimeter from one year to another, so that ***information may not always be comparable over time***;
- the consolidated financial statements ***mask the individual financing structure highlighting only global obligations and hiding weaknesses***.

One of the major deficiencies in terms of consolidated statements is that each user of the information seeks to find it in this picture of this group, only that the nature of this information is not always the same. Exceptional situations and issues which do not arise from the figures of the balance sheet and of the consolidated results account have to be justified in a consolidate annex.

The limits of the consolidated financial statements can be summarized as follow:

− the information flow between mother-company and its subsidiaries is sometimes hard;

− the lack of time expression (the consolidation is an additional task for the chief accountant and the financial director different from the settlement of the social accounts and of the tax duties);

− the aspects related to training (the consolidation process is very technical and complex);

− the variations of the consolidation perimeter;

− it is a great difficulty for the comparability of information from one exercise to the other;

− for a financial analysis, the consolidated accounts are not always uniform among different groups, where accounting options are different;

− related to the diversity of certain groups' activities there is a low level of the sector information;

− the need of complementary specific knowledge;

− the picture of a situation is always static, established at a given moment, while the reality of the group is at all times dynamic and evolutionary;

− a globalization can sometimes hide some restructuring problems that are not visible yet.

Conclusion

Regardless of the limits and difficulties during the preparation and the use of the consolidated financial statements in the context of the current economic system based ever more on the internationalization of trading, but also on the integration in the global economic space, the supply and the analysis of the information provided by them becomes an unthinkable reality. Among the significant globalization representatives, we can notice the large groups with international scope with influence on not only activities localization and the flow of exchanges but also on the States or on the Governments. In a world where the

technical progress causes a considerable advance, unthinkable so far, in terms of communications, the public adopt more and more an international perspective and the financial statements are increasingly presented in an international context.

Notes

(1) Tiron Tudor A. – Consolidarea conturilor, Tribuna Economică Print House, Bucharest, 2000

(2) Manole POPA - Operațiunile de trezorerie în cadrul grupurilor de societăți în lumina art. 272 din Legea societăților comerciale, Revista Română De Drept Al Afacerilor, issue 3 of May 30th 2008

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FINANCIAL ANALYSIS *VERSUS* EXTRA-FINANCIAL ANALYSIS IN MEASURING THE PERFORMANCE OF THE SUSTAINABLE ORGANIZATION

Marilena MIRONIUC
„Al.I. Cuza" University of Iaşi

Abstract. *The internationalization of economy through business delocalization, crises, and turbulences of financial markets, the change of the consumers' profile caused by the emergence of the segment of consumers sensitive to ecological topics, the dematerialization of economy, are some of the phenomena that have determined new visions on economical development at worldwide level. The statement of the principles of sustainable development has nowadays subjected organizations to the critical eye of a society ever more careful about ethical values. Specialized literature mentions the declared bankruptcy of „organizational government" mechanisms based exclusively on strictly financial values, and the necessity to „govern companies" through a multi-partner approach, by reconciling the interests of all the stakeholders, based on social responsibility and on pertinent communication that integrates financial, social, and environmental information. The communication requirements that appeared following these changes make the measurement of organizational performance not exclusively related to the criteria of financial self-analysis, but performed in a global manner, through both financial and non-financial criteria, with the latter derived from possessing immaterial assets and from the social awareness of companies. Therefore, financial analysis is subject to a process of renewal, through the emergence and integration of a new component, the extra-financial analysis. Together, these two types of analysis will be able to provide the financial community answers related to: the economical impact of environmental and social elements, risk factors, social and environmental opportunities, and the causes of the difference between the market value and the economic value of an organization (its goodwill). The difficulty in performing an extra-financial analysis comes from the lack of homogeneity of the practice in the field, from the fact that the reporting system of sustainable development remains a voluntary approach, from the absence of international norms regarding socially responsible investments, and from the existence of extra-financial indicators that are very poorly normalized.*

Keywords: social responsibility; immaterial capital; global performance; extra-financial analysis.

JEL Classiffication: M14.
REL Classiffication: 10A, 14A, 15D.

1. Introduction

The practices related to producing financial-accounting information and to analyzing economic and financial performance have evolved over time. The affirmation of the principles of sustainable development and social responsibility imposes an attempt to integrate economical information with social and environmental information in sustainable development reports, whose contents are yet imperfect. Therefore, the companies' dialog with the external environment is encouraged, through which the former become receptive to the stakeholders' expectations and orient their decision processes according to these expectations. Moreover, a new management system is promoted, based on the companies' attitude to act in a transparent manner in their relation with the business partners, focused on ensuring credibility in communicating information, with an accent on evidencing the

connection that exists between the three fundamental components of sustainable development: economic, social, and environmental *(the Triple Bottom Line)*.

2. Multi-stakeholder responsibility, immaterial capital, and global performance in analyzing the sustainable enterprise

Measuring organizational performance seemed, until recently, the exclusive preoccupation on financial analysis and its specific criteria, namely: traditional accounting an financial criteria, criteria derived from the theory of value creation for the shareholders (*Economic Value Added*, *Market Value Added*), cash-flow criteria, stock exchange criteria, etc. (Mironiuc, Bedrule Grigoruță, 2007b, pp. 1-22). The pressures of the financial market have undoubtedly leaded to privileging communication in terms of financial values. But numerous phenomena that have affected the global economy during the last decades (business internationalization and delocalization, crises and turbulences on the financial markets, the shift in the consumers' profiles through the appearance of the consumer segment sensitive to ecological topics, the dematerialization of economy) have determined new visions on the economical development at a worldwide level and have exposed organizations to the critical eye of a society ever more concerned with ethical values.

The communication demands appeared because these changes require for organizational performance to be measured in a global manner, through both financial and non-financial (extra-financial) criteria. Non-financial (extra-financial) criteria are concerned with orienting the company on the long term, and they derive from the *social responsibility* of the company and from the *value of its immaterial capital*.

The social responsibility of the company is a subject appeared as an effect of the pressures of international bodies and public opinion in favor of economic and social regulations that would support: sustainable development, constituting socially responsible investment funds, respecting human rights, rationally managing the planet's resources, fair commercial practices (Le Roy, Marchesnay, 2005, p. 59). This responsibility, before being legal, is a moral one, towards all those to whom the company is connected: from customers/ consumers to future generations, from providers to employees, from citizens to shareholders, and from creditors to control authorities.

The European Commission has had the pertinent initiative to create a definition of organizational social responsibility, common at a European level, published in the Green Book of the European Commission (2001), entitled "Promoting a European frame for the social responsibility of organizations". According to it, the social responsibility of companies is "the voluntary integration of social and environmental aspects in commercial operations and in the company's connections with the interested business partners" (Bianchini, 2004, pp. 1-7). Therefore, social responsibility of companies is a voluntary behavior of the business world, not imposed by law, and above the legal obligations imposed by every country, which needs to be integrated in the company's strategy in order to guarantee a responsible business management. In 2002, the European Commission proposes a strategy for promoting responsible entrepreneurship, based on: stressing the positive impact that social responsibility has on the business environment and the community in general, developing the exchange of experience and good practices regarding social responsibility, promoting social responsibility in small and medium enterprises. In March 2006, the European Commission aimed to transform Europe in an excellence center in social responsibility, forming the "Alliance for corporate social responsibility", uniting socially responsible companies already active, with the aim to contribute to designing the European strategy for economic growth and job creation (Stancu, Orzan, 2006, pp. 1-13).

Beyond the common European discourse, the corporate social responsibility practices evolve differently from one country to another, according to the economic and social specificity of each region, and to the succession of joining the European Union. Recent research shows that, unlike the American doctrine, which has approached the problem of

social responsibility focusing on customers seen as the main stakeholders, in Europe attention is given differently to ethical issues and to moral conflicts generated by corporate social responsibility practices (in the United Kingdom), to environmental problems (in Northern countries), and to social aspects (in Southern European countries) (Marchetti, 2006, p. 51).

At a more analytical look, the reasons behind developing a responsible behavior and that have implicitly determined the complementary introduction of non-financial criteria in measuring company performance are the following:

- *Economy internationalization and business delocalization*

After more than a decade, it was noticed that contrary to expectations, globalization is not a remedy. Global market and the greater role of foreign capital investments in structuring the new global economy do not automatically determine a more balanced distribution of wealth, but sometimes dramatically amplify economic and social disparities at an international level. Multi-national companies with headquarters in developed countries but that produce and buy raw materials in/from developing countries use the companies in these latter countries as sub-providers of cheap material resources and work force. The advantageous costs in developing countries, compared to that in developed countries, is partially due to the absence of social and environmental standards required by the advanced countries and to the stakeholders protection norms (*social dumping*) (Sacconi, 2003, p. 5). The absence of regulations in these fields or their ineffective application represent favorable conditions for multi-national companies that may export significant percentages of the local profits obtained through transactions with these countries, recently integrated on the global market. Together with the transfer, not always successful, of this economic development model towards the developing countries, a cultural transfer has also occurred. The involvement of multi-national companies in developing welfare policies, environmental protection policies, and employee rights in developing countries is *the expression of their responsible behavior*, but also a stake for lowering the pressures in the origin countries of these multi-national corporations, by reducing cost competition. Therefore, globalization is an accelerated process of economic integration, whose consequences are reflected upon sustainable development and that requires large companies to introduce social corrections in their activity. In order to create sustainable value, companies must learn to seek success for all stakeholders and imperatively respect the environment, without their future to become uncertain on the short term and compromised on the medium term.

The analysis of sustainable enterprises needs to take into account the fact that the social responsibility philosophy is not contrary to the concept of efficiency because it does not aim to remove profit from the equation of the dynamics of economy and society. Corporate contribution to sustainable development does not consist in what a company does with 1% of its profit, but rather with how it obtains 99% of this profit. If, for example, through the goods/ services it produces, the company has negative effects on health and allocates 1% of its profit to the individuals to whom it caused these adverse effects, its impact from the viewpoint of social responsibility is negative. Profit remains the necessary condition for ensuring sustainable development, but society requires transparency concerning the way it was acquired. There are studies that demonstrate that acknowledging a company as socially responsible has profitability and relational effects that can create certain competitive advantages. This strategy of managing negative externalities by internalizing them creates the premises for a non-distorted presentation of performance and for consolidating the company's relationship with its stakeholders (Mironiuc, 2008c, pp. 1-22).

- *Financial scandals and the discretionary power of managers*

In the last decade, the global financial market has been marked by serious *crises and turbulences* caused by the discovery of less honest actions of the administrators of important companies, who have faked accounts and manipulated classified information in order to demonstrate performance levels able to support the value of the titles that were supposed to become attractive for investors. The uncontrolled development of financial innovations,

especially of by-products, has contributed to dematerializing the company's operations and has favored „creative" accounting practices, meant to confuse those who analyze financial statements (Le Roy, Marchesnay, 2005, p. 47). „Corporate governance" mechanisms have proven insufficient to reduce the risks of financial catastrophes. The mentioned crises have largely been the result of managers' and administrators' power abuse, to the detriment of other subjects. The *stock-options* technique and manager compensation according to their performance have not been able to fully align the interests of delegated administrators with those of the shareholders and have caused numerous prejudices for minority shareholders, who were not part of the managers' control group, for all business partners, for consumers, and for the community in which these companies functioned. The series of crises started with the spectacular bankruptcy of the gigantic energy group Enron Corporation, followed by that of WorldCom (the most important collapse in the history of the United States), Tyco International, Qwest, Xerox, and Lehman Brothers, from the American series, Vivendi Universal, Ahold, and Parmalat, in Europe (Feleagă, 2006, p. 66). These financial scandals have generated a crisis of confidence in the reliability of the information provided by accounting, which does not include all the facets of performance, and have stressed *the dissociation between accounting, ethics, and manager responsibility* (Phillips, 2003, p. 75). In order to restore the confidence in the well functioning of the financial market, in the companies in developed countries a decisive role is given to company administrators that are independent from shareholders and managers, which also contributes to improving the quality of financial-accounting information. Financial information acts as a public good, and its role goes beyond keeping track of past transactions and evaluating the company's patrimony. It plays an essential role in drawing business contracts, in the process of value creation for shareholders, in the context of „corporate social governance", contributing to representing the relationships that are formed between the company and the totality of stakeholders. The initiatives meant to consolidate corporate social responsibility are intended to promote „business ethics". In these circumstances, in the companies that adopt a socially responsible behavior, a fairness reputation is created between those who operate within them, and this behavior tends to become a distinctive feature of their own identity and an element of their culture.

- *The shift in the consumers' profile*

The evolution of information technologies, and respectively the possibility to exchange information in real time, at a low cost, has allowed an ever larger number of persons to have access to information and to request more transparency concerning corporate behavior. This has contributed to a shift in the profile of potential consumers. The passive receptor consumer type (*consumer-customer*) of corporate offers is replaced by an active subject who wants to consume critically (*consumer-citizen*), and who wishes to know the social costs of obtaining the products/ services consumed (Bianchini, 2004, pp. 1-7). The appearance of a consumer segment sensitive to environmental issues stimulates the development of innovative products and technologies, with a reduced impact on the environment. The ecologic quality of products has become a weapon for commercial success, through which competition at an international level uses the applications of environmental policy to create competitive advantages, after comparing the social-cultural pluses and the minuses recorded as a result of supplementary costs implied by clean industries and anti-pollutant technologies. In the same context, there appears the concept of *eco-marketing*, as an instrument for: promoting commercial policies for import, oriented towards the transfer of eco-technologies, considered inputs carrying the necessary competences for reducing or limiting the level of pollution in certain areas; enlarging the eco-products market by promoting patents, licenses, and ecological labels; setting restrictions concerning the export/import of dangerous wastes; attracting foreign capitals with the purpose of consolidating national productions of ecological goods and services (Cămăşoiu, Rudăreanu, 1999, p. 76).

- *Optimization inter- and intra-generations*

In the global economic system, there can be noticed a reverse evolution between *natural capital, which decreases*, and *human capital, which abounds*. At an international level, the opinions regarding the causes of environmental degradation are numerous and dynamic, but the majority converge towards considering that pollution originates in the pressures determined by *population growth* and by the level of the *consumption* of the relatively limited *resources* of the ecosystem (Turner, Pearce, *et. al.*, 2003, p. 54). Humanity has proven up to a certain point ignorant, then incapable of mobilizing intelligence and resources for re-establishing the ecological balance. From the perspective of sustainable development, it is necessary to state ethical principles and *inter- and intra-generations* optimization, promoting solidarity, mutual care, and tolerance, so as not to diminish the possibilities of present and future generations to use the natural resources necessary for the preservation of life quality. As a consequence, present generations have to transmit to future generations a stock of resources not inferior to that they possess. Environmental ethics implies *a social contract between generations* and it is the obligation of each nation to include in its culture aspects that support and protect the environment (Gunn, 1994, p. 283), so that sustainable development becomes a way of life. Sustainable development researchers try to deduce how much human behavior needs to change so that the objective of inter- and intra-generations equity is met. Environmental ethics is characterized by a sense of responsibility and is connected to respecting human rights. Sensitivity for saving the natural environment is, without a doubt, considered a component of the socio-cultural sub-system.

In order to stress the importance of immaterial capital for corporate development, some authors consider that *the focus of corporate performance analyses* should be *the processes of accumulation and/or usage of immaterial resources*, especially those that are not recorded in the balance sheet, therefore called "invisible immaterial resources" or "intellectual capital" of the company, but that influence the values written in the balance sheet (Coda, 1995, p. 110).

The consumption of material goods remains a strong engine of the economy producing goods and services, but having a destructive effect upon resources, until their exhaustion. For this reason, during the past two decades, *the economy of developed countries evolves towards dematerialization (knowledge economy)*, a path towards the sustainable development of the Western model (Fustec, Marois, 2006, p. 161). A shift has occurred from the economic system where the competitive advantages mainly depended on material and financial resources managed and controlled by companies to an economic system where performance is more and more conditioned by the complex of immaterial resources created through the previous corporate activity or to which they have access (the less or more numerous and loyal customers, skills and experience of the staff, rapidity in developing new products, managing and promoting brands, the quality of the services provided to the customers, trust relationships between the company and the financers etc.). The global economic system is therefore on the way of becoming one of „technological ideas and innovations", where the potential of corporate „intellectual capital", represented by: organizational knowledge and skills (organizational capital), staff loyalty and cohesion (human capital), company credibility (relational capital) (Table 1), becomes a competitive lever for economic survival.

Stock market gives this capital an ever-higher value. Stock price goes up while the value of the immaterial capital of a company is not diminished and it is not reproduced by rival companies. Corporate value is and will become more and more immaterial because economy itself follows this trend. The superiority of market value compared to the accounting value of a company (its goodwill) is often explained by the fact that it possesses and develops immaterial capital. By valuing this type of capital, it is possible to reduce or substitute the other means necessary to create wealth (human resources, technical means, financial resources etc.) (Toffler, 1995, p. 74.).

Corporate immaterial capital mainly exists because of the employees, who are "the most valued good" of the company, as they have the competences and skills that primarily belong to each individual and then to the company. If an organization as a significant customer portfolio or a recognized brand, it is due to its specialization in marketing; if a new product includes numerous knowledge and innovations, it is due to the company's researchers and engineers etc.

Table 1

Identifying the „invisible intangible resources"

Functional area	„Intellectual capital" of the company		
	Organizational capital *(knowledge and skills)*	**Human capital** *(staff loyalty and cohesion)*	**Relational capital** *(Company credibility)*
Production Research - Development	Promoting innovative technologies; The ability to reduce production costs; Professional creativity in the constant improving of productive processes.	Full involvement of then staff in the problems related to product quality.	The ability to attract talents in the research, development and production activities.
Marketing	The ability to notice the clients' needs; Efficient brand management and promotion.	The ability to increase territorial distribution; Identifying the most profitable sales networks.	Customer trust and fidelity; Brand prestige.
Financial	The ability to operate on a capital market.	The ability of the financial department staff to meet the corporate requirements regarding the foundations of the financial policy.	The degree of trust recognized by credit institutions; Shareholder solidity and stability; Debt reserve.
Management	Quality of the management system; Professionalism of top personnel, developed through training courses; The ability to communicate with social "actors"; Contacts with opinion leaders.	Management cohesion regarding a fundamental strategic orientation; Identification of the staff with the managerial and organizational philosophy of the company; Team work skills; The ability to motivate employees.	Reputation of the management team; Identifying the collaboration opportunities with the partners; Attitude of the union and public administration representatives towards the company.

Source: Processed based on Cravera, A., Zambon, S., *http://www.grupponova.it/conv_int.htm*

Work contracts give the company the right to control the competences of its employees in a limited way, and staff mobility requires managers to be prudent when trying to base their strategy on staff-specific competences. Studies demonstrate that the value generated by corporate human capital is often higher than 50% of the value created by corporate immaterial capital, and a partial loss of human capital can have catastrophic consequences on the competitive advantages and on the corporate market value (Del Bello, Gasperini, 2006, p. 87).

It is obvious that the changes that occur in the global society require enterprises to be socially responsible, preoccupied with excellency, social value, and investments in intelligence, in the larger context of knowledge management.

3. Analysis and communication of extra-financial information

The major attention given to social problems, attributing a moral signification to the business partners' actions, have created the premises for rethinking the management model of

large companies and for shifting from a single-view responsibility, concerned solely with creating value for shareholders, to multi-stakeholder responsibility models. „Corporate governance" through a multi-partner approach has benefic effects expressed through the conciliation of the interests of partners who possess the knowledge and competences that form strategic resources for the company (immaterial capital) and that contribute to competitive advantages, value creation, and sustainable development. A vicious circle is formed, as an advanced social responsibility policy is the guarantee for valuable immaterial capital.

Sustainable development needs a system for measuring, evaluating, and decision-making that would take into account the inter-dependencies between economic, social, and environmental factors, which would reveal the dynamics of „invisible immaterial resources", so that the results recorded in the balance sheets and the company's value are not distorted.

In the context of the changes in global economy, the analysis methodology evolves. Therefore, financial analysis needs to complementarily and progressively integrate the component of the extra-financial analysis. It is based on a stakeholder approach, it quantifies non-financial (extra-financial) performance derived from corporate social responsibility and from valuing the immaterial capital that concentrates a large part of the opportunities for corporate growth and development. Together, these two types of analysis will provide the financial community with answers about: the economic impact of environmental and social aspects; risk factors; social and environmental opportunities; the cause of the difference between the corporate market and economic value (Table 2).

Table 2

The company's relationship with its stakeholders in the vision of financial and extra-financial analysis

		Objectives/ Key questions	Customers	Employees	Shareholders	Providers	Environment
Financial analysis		**Performance**	Sales figure	Work productivity/ staff expenses	Financial profitability/ Shares rate of return	Expenses for external supply and provisions	Added costs
		Financial position	Commercial account receivables NFCE growth	Employee participation for profit Shareholder status of employees	Capital contribution/ Employee compensation (dividends/ reserve profit)	Commercial debts NFCE decrease	Resource diminution /debts for environmental investments
		Risk	Risk of lack of liquidity	Fluctuation and conflicts in work relations	Financial risk/ insolvability risk	Out of stock risk	Financial risk / Exploitation risk/ Environmental risk
Extra-financial analysis	**Corporate social responsibility**	**What does the company do in favor of its partners?**	Quality-price Satisfaction Ethics/ balanced contractual relations	Jobs Motivation Work hygiene and security conditions	"Corporate governance" ensuring: administrator independence / respecting shareholder rights/ information transparency	Ethics/ fair contractual relations	Eco-compatible behavior through: Environmental protection/ Preservation of natural resources / precautions/ ISR

		Objectives/ Key questions	Customers	Employees	Shareholders	Providers	Environment
	Immaterial capital	**What is the partners' value for the company?**	Trust and loyalty Brand reputation and prestige Developing the most sustainable sales networks	Staff loyalty and cohesion to the managerial, organizational, and corporate philosophy Competence/ creativity/ experience	Stability/ pertinence Ability to operate on the capital market /reserves for debts /confidence from credit institutions	Solidity of relational capital Quality/ social manufacturing conditions Activity sustainability	Eco-compatible values Resources necessary for maintaining life quality

Source: Processed based on Fustec, A., Marois, B., *Valoriser le capital immatériel de l'entreprise*, 2006.

Corporate social responsibility is not only a constraint for the company to react ethically, socially, and ecologically correctly, but also has the connotation of a strategic objective for the organization, able to guarantee the acceptance of the civil society for the actions it performs in its economic environment (Mironiuc, 2008c, pp. 1-22). Extra-financial analysis needs to communicate the degree of achieving the social responsibility objectives in order to obtain an answer from the stakeholders, in terms of profit and image, concerning the investments made to this purpose.

The characteristics of the elements that compose immaterial capital require that the extra-financial analysis does not omit the fact that the speed of depreciation of the elements composing immaterial capital is variable and has different influences on the sustainable preservation of competitive advantages. For example, patent value is reduced in time, as new technological innovations appear, while brand value is more stable, and company reputation is on the long run. The analysis also has to keep into account that some elements of immaterial capital are specific to a single company (technological knowledge, brands, etc.) and lose their value once they are transferred to another company, while others, such as company reputation, although very precious for a specific company, may have no market value for another. The differentiation and impossibility of transfer of immaterial resources towards rivals have favorable implications on corporate value, especially if these resources require considerable time and effort to be obtained, compared to corporate assets.

At the same time, for a correct evaluation of the performance obtained from possessing immaterial capital, extra-financial analysis needs to take into account the fact that this capital is the result of past expenses (with research, professional training, technology investments, marketing, etc.), called investments for the future, which will generate economic benefits in a given exploitation context.

The analysis of extra-financial performance is tightly connected to the appearance of a socially responsible investment market („ethical investments"), a niche market, on which a growing number of international institutional investors activate, a majority of which are European, convinced that investing in the companies from the states that respect social and environmental norms, they will have an active role in the sustainable development process, and the investments return and title volatility will have favorable influences.

Specialized literature presents several approaches of extra-financial analysis, according to the investors' expectations, namely: extra-financial analysis from an „exclusion approach" based on using investment exclusion criteria from controversial activity sectors (tobacco, weaponry, alcohol, games, nuclear etc.) or non-responsible sectors (exploiting minors, performing tests on animals, using pesticides etc.); extra-financial analysis in a „performance approach" is performed starting from the definition of positive criteria for selecting investments („*best in class*") and aims at identifying financial super-performance sources on the medium and long term, by developing in companies the best practices

concerning: human resource management, providing work conditions, compensation policy; environmental risks management; respecting product quality; innovational ability; patronage policy, etc; extra-financial analysis in a „risk-opportunities approach" has the role to provide those who manage investment funds with a complete view on the extra-financial risks and opportunities presented by the companies who own titles

At the beginning of the years 2000, extra-financial rating agencies have appeared in the world's developed countries (Vigeo-France, ELRiS - UK, SiRi Company-Switzerland, Ethibel-Belgium, Innoves-USA), which evaluate and grade social, environmental, and governance responsibility of the large quoted companies. The large international extra-financial rating agencies have developed partnerships with the societies that fundament stock indices (Financial Times, Dow Jones) in order to create indices that reunite the companies that obtain the best scores on the social, environmental, and governance level (Dow Jones Sustainability Indices – DJSI; FTSE4GOOD; ASPI Eurozone). These indices are used by medium companies to communicate with the financial community or as benchmarks for comparing performance. Banks, in turn, have developed internal teams for extra-financial analysis that have the role to provide information to the societies that manage funds in order to promote socially responsible investments.

Extra-financial analysis does not work exclusively for the investors on financial markets; it also measures the ability of local communities to apply the principles of sustainable development and the progresses recorded in this direction, aspects that may condition the obtainment of credits or the access to European funds.

The methodology of extra-financial analysis presupposes a multi-stage approach:

- *Stage 1:* Collecting and preparing basic information communicated through: social balances, balance sheets, budgets, dashboards, NGOs, unions, media, specific questionnaires, discussions with company policy-makers etc.;
- *Stage 2:* Identifying the objectives of sustainable development and the key actors involved;
- *Stage 3*: Establishing rating starting from defining the profile of sustainable development according to the policies and principles acknowledged as meant to improve sustainable development performance and based on: *environmental criteria* (the existence of environmental management systems certified according to ISO 14001 category norms, product eco-design, protection of natural resources and biodiversity, waste management, environmental requirements of the providers, landscaping, transport, etc.), social criteria (dialog with 3rd parties, career management, restructuring management, health/ security conditions, union freedom and collective negotiation, openness for minorities and affected persons, respecting fundamental rights, contributing to local development etc.), and governance criteria that allow shareholders to know that the enterprises from which they have shares are governed according to their own interests (3rd party relationship management, participative management, competence and composition of the administration council, administrators' independence, manager compensation, respecting shareholders' rights and the principle „one share equals one vote equals one dividend", information transparency, respecting minority shareholders, internal control quality etc.).
- *Stage 4:* Conclusions and recommendations for improving performance.

In fact, designing extra-financial performance measuring systems and guaranteeing the quality of such information is difficult to achieve. This difficulty arises from the fact that: the reporting system of sustainable development (the stakeholder's report) remains a voluntary action, extra-financial indicators are very little normalized, international norms regarding socially responsible investments are lacking, and there is no homogenous practice/methodology in the field of extra-financial analysis. Moreover, the costs implied by organizing a system for recording the economic, social, and environmental information can represent an impediment for companies that wish to communicate their sustainable development performance. At the same time, communicating sustainable development

performance can prove harmful for the companies that achieve it, when elements of their strategy are divulged, which are the source of competitive advantages over rivals. Because of these aspects, there is yet no consensus at an international level concerning the content of the report and the standard indicators for the general evaluation of the progress of sustainable development. Specialists consider that this consensus is difficult to attain because of the variety of the natural conditions, of the different levels of economic, social, and cultural progress of the world's countries. Selecting the performance indicators for development sustainability, which should meet the requirements for external communication and internal management control, is still subjective, correlated with different corporate objectives, with the expectations of the actors involved in designing and receiving the information concerning sustainable development performance (Janicot, 2007, p. 49).

The most advanced initiative in the direction of creating a credible sustainable development reporting system, used by organizations of any size, sector of activity, and country, is the *Global Reporting Initiative* (*GRI*). This initiative was launched in 1997 by the non-governmental organization "*Coalition for Environmentally Responsible Economies*" and the United Nations Environmental Program (Reynaud, 2006: p. 139) and had the support of numerous stakeholders interested in organizational sustainable development transparency. GRI counted on the collaboration of a large number of experts belonging to these stakeholder categories who, after a series of consultations, have worked for continuously improving the contents of the *Reporting Framework*, designed in 1997. In 2000, GRI defined the elements that the sustainable development report has to include, namely: company description; company strategy; sustainable development policy, referring to the management systems of economic, sociable, and environmental aspects and to the relationships with the stakeholders; environmental, social, and economic performance indicators, as well as integrated development indicators. This report has to ensure the fair and detailed representation of the sustainable development performance of an organization, including both its positive and negative impacts. The report can be used for: benchmark analysis and sustainable development performance evaluation in relation with the performance required by laws, norms, codes, performance standards, and voluntary initiatives; demonstrating the manner in which the organization influences and is influenced by sustainable development expectations; comparing sustainable development performance with that of other organizations that operate in the same activity sector, or dynamically.

Starting with 2002, *GRI* has a permanent office in Amsterdam. Its objective is to improve reporting quality concerning sustainable development, and to make it comparably rigorous and credible with financial reports. Most principles specific to international financial reporting standards are taken by *GRI* and adapted for analyzing corporate sustainable development performance. *GRI*'s success, inclusively among small and medium enterprises, is explained through the fact that it suggests an international structured and flexible frame of indicators for sustainable development, unlike the initiatives promoted by other bodies, which refer to a specific activity sector or to particular social problems. The performance indicators designed by *GRI* are sub-divided into:

- *Economic performance indicators* that reflect the economic dimension of sustainable development, as well as the company's impact on the economic condition of its own stakeholders and on the economic systems at a local, national, and global level.

These indicators describe *capital flows* between the different stakeholders (economic value directly generated and distributed, employee compensation, the report between the medium salary and the local minimum salary, undistributed profit, financers and state compensation, corporate opportunities determined by climatic changes, funds received from the public administration, expenses with local providers, making the staff more responsible etc.) and *the main organizational impacts on society* (donations and other community investments, investments in infrastructure and public utilities, analysis and description of the

indirect economic impacts considered generated externalities, the weight of responsible managers in the local community etc.).

- *Environmental performance indicators* refer to the environmental dimension of sustainable development and to the impact of the organization on the natural systems (ecosystem, air, and water), through inputs (raw materials, energy, water etc.), outputs (product, services, emissions, waste), and environmental investments.

The information necessary for evaluating environmental performance needs to concern: significant environmental aspects, the environmental policy, environmental nonconformities, responsibility in managing environmental aspects, training the staff in environmental issues, monitoring environmental aspects with a significant impact, preventive and corrective actions concerning the environment, certifications and auditing of the environmental management system within the organization, successes, lacks, environmental risks, environmental strategy, etc. Indicators are grouped according to environmental aspects as follows:

- Raw materials: raw materials used per product unit; the weight of recyclable materials in the total of materials used;
- Energy: direct and indirect energy consumption, per primary energy sources; energy savings obtained by preserving and increasing its efficient usage; initiatives for creating products and services that consume little energy; initiatives for reducing indirect energy consumption;
- Water: the total water consumption per sources; significant water sources; the percentage of reused and recycled water;
- *Biodiversity: the surface of owned, leased, or managed lands in protected areas; description of the major impacts of activities, products, and services on the protected areas; protected habitats; strategies for managing protected areas; the number of protected species in the protected areas of the organization;*
- Emissions, waste: total direct and indirect gas emissions with a greenhouse effect per product unit; initiatives for reducing gas emissions with a greenhouse effect and results obtained; emissions of harmful substances per product unit; nitrogen and sulphur dioxide and other air emissions per product unit; wastewater and re-usage (recycling) methods; weight of the dangerous waste that is imported, exported, transported, and treated; aquatic fauna and flora and habitats largely destroyed by wastewater and emissions caused by the organization;
- Products and services: initiatives for limiting the impacts of the organization's products/ services on the environment; the report between sold products and the quantity of packages/ recycled and reused materials, per category;
- Conformity: the value of significant fines and the number of non-monetary sanctions for non-compliance to environmental regulations;
- Transport: the significant environmental impact caused by the transport of used goods/materials per organizational activity and per staff travel;
- The general aspect: expenses and investments for the protection of the environment, per type.

- *Social performance indicators* reflect the impact of the organization on the social systems where it functions, and are sub-divided into:

- Performance indicators concerning work practices and conditions: the occupational aspect, work health and safety, training;
- Performance indicators concerning human rights: non-discrimination, free association, minors' labor, the rights of the indigenous population;
- Performance indicators concerning society: collectivity, corruption, political contribution, conformity;
- Performance indicators concerning product responsibility: consumer health and safety, product labeling, marketing-communication, conformity (Mironiuc, 2008d, p. 220).

In March 2009, the leaders of the business sector and civil society, members of the executive council of the *Global Reporting Initiative*, have published a document *(The Amsterdam Declaration on Transparency and Reporting)* in which they requested governments to take actions for care "rehabilitating world economy", considering that one of the determinant factors of the economic crisis was the lack of corporate transparency, by:

- Introducing policies through which companies should report on their environmental, social, and corporate governance performance;
- Promoting reporting systems for the public sector (companies owned by the state, governmental pensions funds, and governmental investment agencies);
- Integrating the degree of social responsibility of the companies into the financial reporting system.

Because of the economic crisis, companies are tempted to reduce investments in the field of sustainable development. Specialists recommend companies to re-evaluate their intentions, as investors are attracted by responsible companies, which have a long-term strategy, a strong corporate governance system, solid risk management practices, and investments in green innovations.

4. Social responsibility and extra-financial analysis at their beginning in Romania

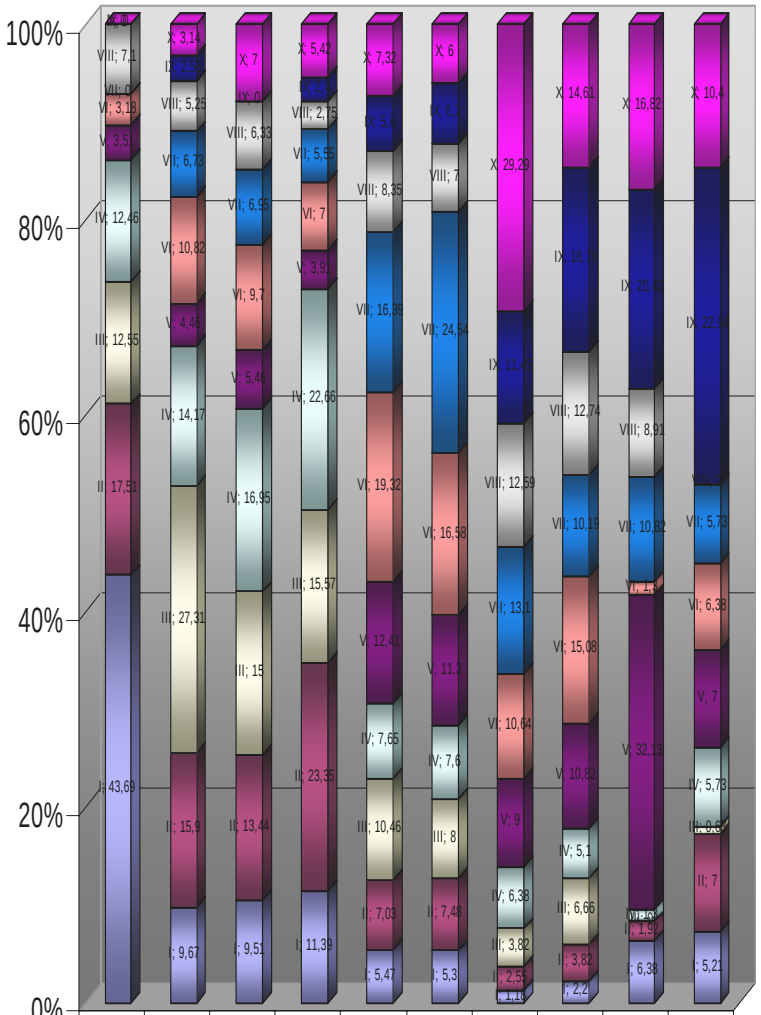
Corporate social responsibility is only at the beginning in Romania, which is why extra-financial analysis follows the same tendency. Companies that adapt their business strategy to the changes and that integrate sustainable development in their strategy are yet a minority. We can notice that Romanian companies quoted in the stock exchange, which rival on the international market and which have benefited from the transfer of the good practices in social responsibility from the multinational companies that have invested in Romania (Petrom S.A., Vodafone Romsnia S.A., Holcim Romania S.A., Raiffeisen Bank Romania, Grup UniCredit, Lukoil Romania, Orange Romania) are the most involved in community life, having a proactive behavior in this direction. Their strategies systematically and voluntarily include objectives, resources, and conditions meant to continuously improve the social and environmental impact of their activity. These companies are the first that operated changes in their organizational structures in order to locate the responsibilities of the environmental function and the attributions of eco-managers who have the mission to formulate environmental and sociable policies, to monitor the evolution of norms and to comply with environmental standards, and to communicate with the stakeholders about their socially responsible behavior. Most of them, but especially companies that operate in the fields of energy, chemistry, pharmacy, etc., have implemented and certified, according to specific international standards, integrated management systems „Quality – Environment – Safety" (ISO 9001; ISO 14001; OHSAS 18001; SA 8000; AA 1000; ISO 26000) and communicate with the stakeholders about their performance, so as to have an answer, in terms of profit and image, to the investments made to this purpose.

Small and medium enterprises show, with few exceptions, a passive behavior concerning sustainable development. They are either indifferent to the management of their own environmental and social performance and perceive such actions as a constraint causing added costs, or they adopt a minimum responsible behavior, imposed by the law. These companies do not have constant voluntary initiatives to protect the environment, except after they have been subject to environmental incidents or catastrophes. They are willing to make a minimum investment in social actions, so as to ensure their functionality. In most cases, companies with social and environmental initiatives act as such occasionally, locally and independently from the corporate strategy. Therefore, their actions essentially answer to philanthropic activity.

An empirical study applied between 2006-2007 on a sample of 157 companies (6.37% companies quoted in the stock exchange in category I, 38.93% medium companies, and 51.70% micro companies), most of them from the North-East region, in order to evaluate

their degree of social responsibility, confirms the strong stability of traditional financial-accounting criteria compared to extra-financial criteria for evaluating organizational performance (Figure 1) (Mironiuc, 2008c, pp. 1-22). The analyzed subjects have been requested to rank ten performance criteria/indicators according to their importance for organizational perspectives and financial communication, namely:

„Rank the importance (using figures from 1 to 10, 1 = the most important) of the following indicators, from the perspective of your organization: a) profit; b) balanced relation with 3rd parties; c) turn-over; d) profitability; e) market share; f) liquidity and solvency; g) social initiatives (job creation and work safety, involvement in community life, sponsorships etc.); h) company image; k) stock market price; l) prestige of the management team".



	Profit	Balanced relation with 3rd	Turn-over	Profitability	Market share	Liquidity and solvency	Social initiatives	Company image	Stock market price	Prestige of the manageme
X	0	3,14	7	5,42	7,32	6	29,29	14,61	16,82	10,4
IX	0	2,55	0	2,4	5,6	6,2	11,45	18,78	20,42	22,94
VIII	7,1	5,25	6,33	2,75	8,35	7	12,59	12,74	8,91	0
VII	0	6,73	6,95	5,55	16,39	24,54	13,1	10,19	10,82	5,73
VI	3,18	10,82	9,7	7	19,32	16,58	10,64	15,08	1,3	6,38
V	3,51	4,46	5,46	3,91	12,41	11,3	9	10,82	32,13	7
IV	12,46	14,17	16,95	22,66	7,65	7,6	6,38	5,1	1,3	5,73
III	12,55	27,31	15	15,57	10,46	8	3,82	6,66	0	0,63
II	17,51	15,9	13,44	23,35	7,03	7,48	2,55	3,82	1,92	7
I	43,69	9,67	9,51	11,39	5,47	5,3	1,18	2,2	6,38	5,21

Figure 1. *The importance of the performance indicators*

According to the data in Figure 1., it is apparent that, in order to evaluate organizational performance and perspectives, the most relevant criteria are: profit (by 43.69% of the questioned subjects); profitability (11.39%); balanced contractual relation with 3rd parties (9.67%); sales figure (9.51%); stock market price (6.38%); market share (5.47%); liquidity and solvency (5.30%); prestige of the management team (5.21%); company image (2.20%); social initiatives (by only 1.18% of the questioned subjects). There can also be noticed that 29.29% of the questioned subjects place the criterion „social initiatives" on the 10th position out of 10.

Despite the limited information valences for financial communication, traditional financial-accounting performance indicators are predominant in the practice of the questioned subjects and most frequently communicated compared to extra-financial criteria: social initiatives (job creation and work safety, involvement in community life, sponsorships, etc.), company image, prestige of the management team, which are the least communicated and used in order to reflect performance, especially in small and medium enterprises.

A positive fact is that the evolution of the Romanian business environment, the openness towards global economy, and the growing role of the civil society tend to change the mentality and perception of the individuals who give more attention to the principles of environmental preservation, human rights, and safety of work conditions, etc.

4. Conclusions

In order to ensure long-term competitiveness, nowadays companies cannot ignore a series of external factors, such as: the evolution of regulations, media pressures, stakeholders' suggestions, pressures from the rating agencies, etc. Companies must integrate in their development strategy responsibilities that cover all fields: business ethics, reducing the impact in the environment, relationships with their partners, human resource management, developments and innovations. These aspects, susceptible to generate financial risks, tend to represent new benchmarks in evaluating the performance of sustainable companies, subscribed in a logic that cannot have an exclusively financial-accounting nature.

The multiplication of extra-financial rating agencies is the expression of the fact that companies are nowadays exposed to the critical eye of society with respect to their behavior as citizens, and that they need to take into account the opinions of a public more and more attentive with ethical values, who reacts against excesses and social and environmental externalities.

The partnership conception of the governance of sustainable companies causes the manners of analyzing and quantifying performance to be in the impossibility to stay behind the new realities. Therefore, financial analysis complementarily and progressively integrates the extra-financial analysis component. It is based on a stakeholder approach, quantifies non-financial (extra-financial) performance derived from corporate social responsibility and values the immaterial capital that concentrates a large part of the growing and developing opportunities of the company. Together, these two types of analysis will answer to the financial community with respect to: the economic impact of environmental and social aspects; risk factors, social and environmental opportunities; the causes of the discrepancies between the market value and the economic value of the company. The difficulty in making an extra-financial analysis mainly comes from the fact that the reporting system of sustainable development remains a voluntary action, and from the lack of homogeneity of the practices in the field.

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ADAPTATION OF PRODUCTION TECHNOLOGIES WITH THE AIM TO INCREASE THE QUALITY OF THE AGRICULTURAL PRODUCTION AND THE RESPECT TOWARDS THE ENVIRONMENTAL NORMS

Adrian ANICA-POPA
Irina Daniela CIŞMAŞU
Bucharest Academy of Economic Studies

Abstract. *The respect of the EU norms from the environment and agricultural production quality angles of view impose the search for the optimum variants to plant them. The present study aims the identification of the correlations between the production technologies and the agricultural companies' performances. The article presents some considerations regarding the production cost, the quality of production and the performance indicators. Based on the research results, some conclusions are described, related to the influence of the production technology on the production costs and on the performances of the agricultural farms, along with the future research directions.*

Keywords: agricultural farms; quality of production; performances; production cost.

Introduction

When the alignment of Romania with the European standards is derived from the agricultural point of view, the practice of a developed agriculture is absolutely necessary. In the latter there are mandatory some methods and techniques for intensification (based on the effective allocation of factors) and even ecological, that suppose rationality and control on what is administered in the agricultural production and breeding. Al these lead to the gradual improvement of the present production systems. Taking into account the present status of the production systems from agricultural exploitations in our country regarding the orientation of the structures and the technologies used (number and type of works, means used, seeds, the biological quality of the livestock, the foraging mode, the nutrient content of the fodder etc.) it is imposed the analysis of resources and modalities to provide them, necessary to achieve a superior level of quality, from all the points of view.

The act of taking some economic decisions regarding the production and distribution of products realized inside the agricultural exploitations is influenced by a multitude of factors. Amongst them, we can include too: the pollution control, the national priorities, moral and political factors and even the climatic conditions. Each one of these factors can be quantified or not. Each factor has a certain value and it is up to the analyst's decision the identification and measurement of a greater number of factors of influence.

An overview on the agriculture

The wheat is a key factor for the control of global inflation. The perspective of the increase of the wheat production could prevent tensions generated by the lack of food in many regions of the world, that were severely hit by the increase of the production cost for the main alimentary production, including the bread. Among the main factors that provoked the present food crisis are the unfavorable meteorological conditions and the increase of the weight of arable land used for cultures of bio fuels.

At global level, the European Union holds the first place in the production of wheat, followed by China and India.

Table 1

Distribution of the world's wheat production in 2007 by the main producer countries (mil. tons)

Name	2002	2003	2004	2005	2006	2007	2008*
European Union	133,6	111,7	149,4	135,4	126,7	121,0	124,7
Romania	4,4	2,5	7,8	7,0	5,5	2,9	3,1
China	90,3	86,5	91,6	96,3	104,5	109,9	104,0
India	72,8	65,1	72,1	72,0	69,4	74,9	69,3
United States of America	44,1	63,8	58,7	57,1	57,3	53,6	49,3
Russia	50,6	34,1	45,4	47,6	45,0	49,4	44,9
Canada	16,2	23,6	25,9	25,6	27,3	20,6	25,2
Pakistan	18,2	19,2	19,5	21,6	21,3	23,5	21,7
Turkey	19,5	19,0	21,0	21,0	20,0	17,7	17,5
Argentina	12,3	14,5	14,6	16,0	14,0	14,0	15,2
Iran	12,5	13,4	14,0	14,5	14,5	15,0	14,8
Total world production	**574,7**	**560,3**	**633,3**	**628,7**	**605,9**	**607,0**	**725,0**

*) estimations
Source: FAOSTAT - Food and Agriculture Organization of the United Nations.

Inside the European Union, 2,40% of the wheat production of 2007 was provided by Romania.

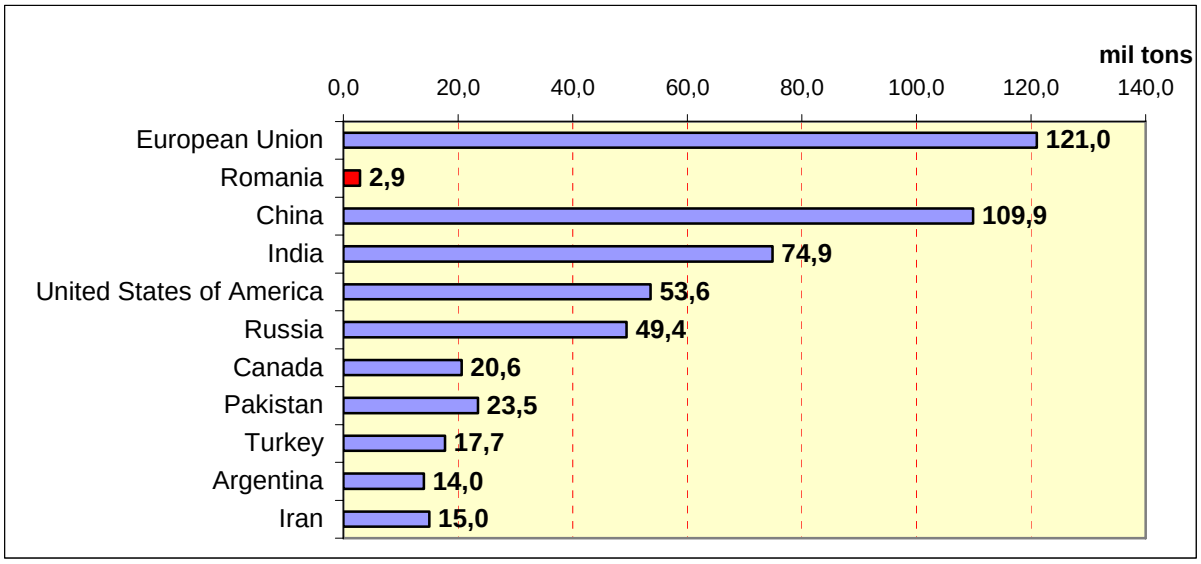

Figure 1. *Wheat production in 2007 on the main producer countries*

The placement of Romania, as well as of other countries in Europe, in the temperate-continental clime area, leads to the fact that seasonality is determined, in the first row, by the climatic conditions. For the Romanian exploitations, it can be ascertained the major influence of the seasonality on the production realized, and implicitly on the unit production costs, on the obtained turnover, and finally on the profit of the exploitation. The reduction of total const, and primarily of the fixed ones during the season, that are distributed per product unit does not reflect a more rational use of the consumed resources and implicitly a real saving. The seasonality has a series of negative effects on the use of resources of any type, these being more overtaxed during the season and incompletely used outside the season.

By definition, the quality comprises the ensemble of properties and characteristics of a product or service that confers to it the aptitudes to satisfy the expressed of implicit needs.

In the case of agricultural production the quality is hard to be defined, because its usages are multiple and each on of these needs specific technological categories.

In the European Union, the sustainable development in agriculture is characterized by:

- the production of highly qualitative and sufficient food products, that is to respond to the expectations of the society;
- the assurance of the viability of the agricultural exploitations;
- protection of the surrounding environment;
- the maintenance of the natural resources in the present status.

Table 2

Usage of fertilizers in agriculture (thousand tons)

Name	2002	2003	2004	2005	2006	2007	2008*
Chemical fertilizers (active substance)	326	362	380	461	363	387	385
- Nitrogenous	239	252	270	299	252	265	269
- Phosphates	73	95	94	138	94	103	98
- Potassic	14	15	16	24	17	19	18
Natural fertilizers	15746	17262	17749	16570	14900	13498	13786

*) estimations

Source: *Romanian Statistic Yearbook,* 2008.

The realization of some highly qualitative agricultural products has as premise a biological agriculture, that is to be based on the increase of the organic matter content of the soil, through the use of the national fertilizers (stable garbage, green fertilizers, turbidity, stable garbage mush). This type of agriculture can be successfully practiced in the agricultural exploitations that have a bovine zoo technical sector.

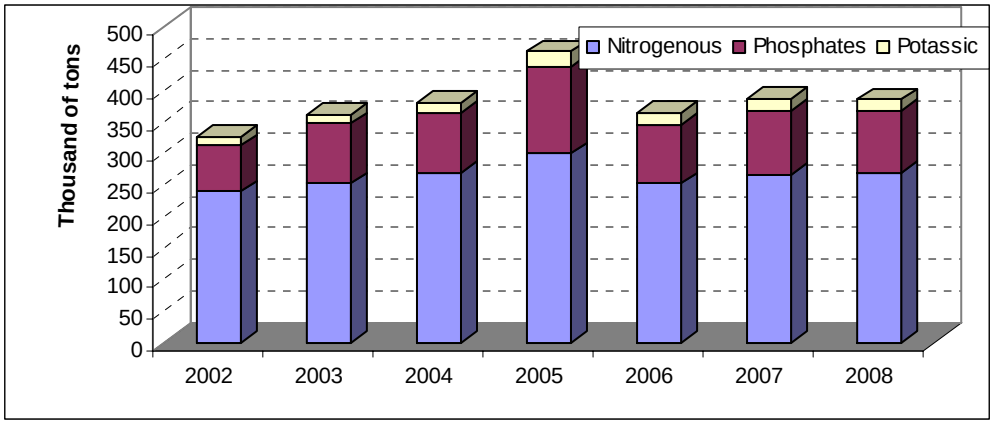

Figure 2. *Usage of fertilizers in agriculture in 2002-2008*

Table 3

The main technical and economical indicators related to the agricultural sector

Indicators	MU	2002	2003	2004	2005	2006	2007	2008*
Cultivated surface, of which:	Thousands ha	9.002	8.881	8.528	8.468	7.884	7.777	7.877
- Cereals for berries, of which	Thousands ha	6.038	5.542	6.265	5.866	5.114	5.129	5.237
- Wheat	Thousands ha	2.298	1.735	2.296	2.476	2.013	1.975	2.079
Annual production of cereals for berries, of which	Thousand tons	14.357	12.964	24.403	19.346	15.759	7.815	12.343
- Wheat	Thousand tons	4.421	2.479	7.812	7.341	5.526	3.045	5.689
Average production of wheat per ha	Kg	1.924	1.429	3.403	2.965	2.746	1.542	2.737

*) estimations

Source: *Romanian Statistic Yearbook,* 2008.

Form the point of view of the wheat production, the main usages are found in the sectors of milling and panification, production of biscuits and pasta, fabrication of starch and gluten, fodder for the livestock, alimentary alcohol, bio-ethanol etc.

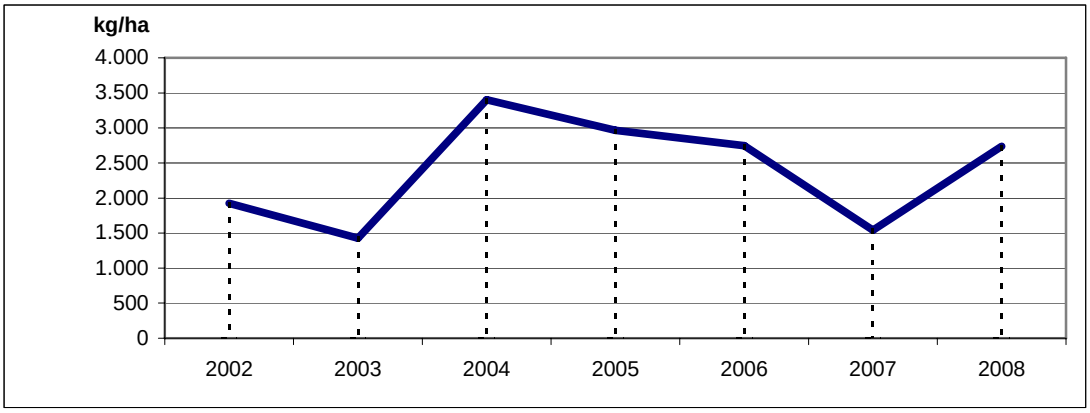

Figure 3. *The average production of wheat per ha in 2002-2008*

The specialists consider that the sectors that are most affected by the financial crisis, are the constructions, the real estate developers and the agriculture. The bad effects appear due to the fact that the agriculture is under financed, crumbled and with aged technology. Among the most affected sectors is the zootechnics, because its activity is influenced by the increasing costs of the utilities. The effects of the economic crisis will be felt prevalently on medium and long terms, and mostly at the rural level, thus deepening the currently recorded disparities, between the Romanian agricultural sector and the European countries one. The crisis of the agricultural products prices, already felt on an European plan, will led to the decrease of the profit, and respectively to the de-capitalization of the agriculturist, that will not be able to cover its production costs.

In fall 2008 only 50% og the surfaces for fall cultures were seeded.

Regardless the destination of the wheat production, one of the traced indicators refers to the quality indexes, each one with specific requirements regarding the protein content and its composition. In general, the wheat producers must make a compromise between the agronomic quality and the technologic quality of the harvest.

The qualitative criteria of wheat and flour refer to:

− The commercial quality, that views the relationships between the characteristics of a wheat sample and the qualitative restrictions of the buyer, imposed through contract and can evolve according to the availabilities of the market, number of customers and pressure of the price;

− The regulated quality, defined by administrative manner, that amalgamates the ensemble of qualitative elements that makes the sample healthy and marketable, thus permitting the avoidance of releasing on the market of products that are inadequate for human or animal consumption;

− The industrial quality, the only one that takes into consideration the ensemble of objective elements and that depends on the wheat and flour behavior during the process of transformation and consumption from the agriculturist to the consumer;

− The intrinsic quality that refers to the hereditary patrimony of a kind, that represents the primary factor of variation for the quality;

− The hygienic or sanitary quality, that guarantees the absence of pathogen products in the berries and in the derivatives (micro-organisms, toxins, chemical product wastes used in various treatments);

− The nutritive quality, the cereal products must constitute the basis of the alimentary pyramid, elaborated by the US Department of Agriculture, based on human epidemiologic and physiologic studies.

Implementation of new technologies and the increase of the agricultural production

The integrate technologies contribute at the preservation of the surrounding environment and the realization of safe and highly qualitative products. These technologies aim towards the sustainable management of the highly productive exploitations, through the better use of the biological mechanisms of the culture systems. The increase of agricultural production and of its quality does not exclude the use of fertilizers and pesticides, but is based mainly on the limitation of the usage of chemical substances and of more natural methods regarding the protection of the cultures, than the ones used in the intensive agriculture.

Renouncing at the specific technologies for plans cultivation represents a problem found at the level of Romanian agricultural farms. In this sense, we exemplify the mentioned above through the presentation of the actual performances recorded by a firm in the industry, whose activity object is the cultivation of cereals. Even if the turnover and the profit record sustained increases in 3006-2008, there are of interest the evolutions of the expenses' efficiency and of the profitability ratios.

The risk regarding the quality of products will be reduced, the varieties and hybrids cultivated by the society being chosen together with the customers, in respect of their needs regarding the quality and characteristic of the production.

The functioning of the agricultural exploitation is based on a series of "inputs" represented by material (seeds, fertilizers etc.), human, financial, informational, technological, scientific elements that, inside the executive or operational subsystem, are transformed in vegetal products, services, information etc, that reflect the results achieved and represent their output.

The price policy is focused on the maximization of the price-quality report, to ensure a high potential and an increasing or constant cash flow, necessary to attenuate the specific variations that are affecting the demand for these products. The establishment of the prices is realized taking into account the production costs involved, the purchasing power of the population, but also the impact that the evolution of the currency exchange ratio has on the inputs (insecticide, pesticide etc.).

The activity development in 2007 and 2008 through acquisition of equipments has attracted an increase of the agricultural production, a slight increase of the quality, but also a significant increase of the operating expenses, a situation that is considered normal taking into account the change of the production technologies.

Table 4

Evolution of the expenses' efficiency in 2006-2008

Indicators	2006	2007	2008
Operating expenses per 1.000 lei turnover	977,05	961,39	927,01
Material expenses per 1.000 lei turnover	362,44	354,33	375,86
Personnel expenses per 1.000 lei turnover	58,84	189,50	193,83

At the level of the operating expenses, it has been recorded an increase of the efficiency, from 977,05 lei in 2006 to 927,01 lei per 1000 lei turnover in 2008. in 2008, due to the different action of the factors of influence, it is ascertained a decrease of the level of material expenses per 1.000 lei turnover with 21,52 lei. The personnel expenses per 1.000 lei turnover have recorded ascending evolutions in 2006-2008. in 2008, the salaries related expenses have grown at 193,83 lei per 1.000 lei turnover. The average annual productivity of the labor force has increased with 13.76% in 2008, while the annual average salary increased with 16,31 in 2008. This situation can be considered abnormal, but the salary increases were meant to stimulate the personnel existing in the firm.

In the contractual reports, the most profitable way is chosen, in order to obtain the lowest costs. The acquisition is realized from internal producers, private societies. The acquisition is realized in coordination with the quantitative and qualitative necessity and with the assortment of products.

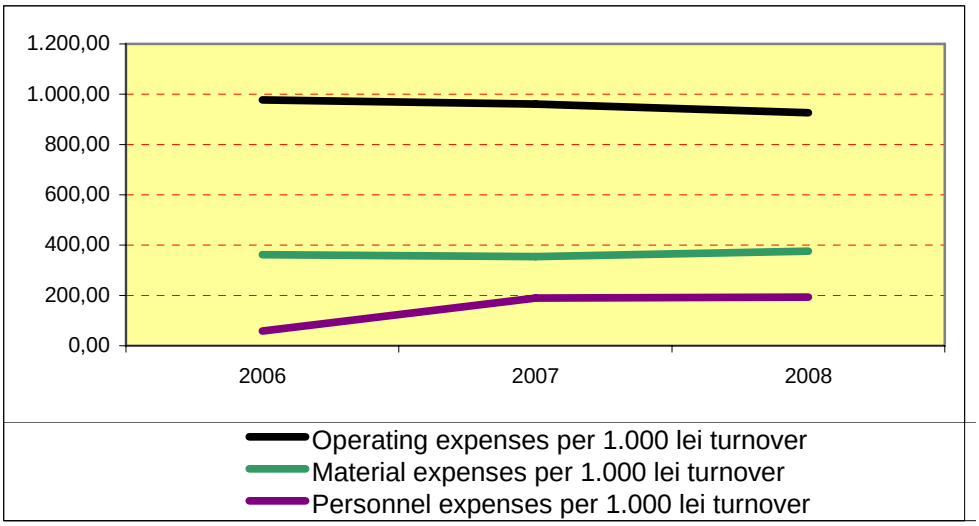

Figure 4. *Evolution of the efficiency of the expenses in 2006-2008*

Table 5

Evolution of the profitability ratios in 2006-2008

Indicators	2006	2007	2008
Commercial profitability	2,30%	3,86%	7,30%
Profitability of consumed resources	2,35%	4,02%	7,87%

The evolution of the profitability ratios has recorded an ascending trend in 2006-2008, following, mainly, the increase of the operating expenses in an inferior rhythm than the operating incomes.

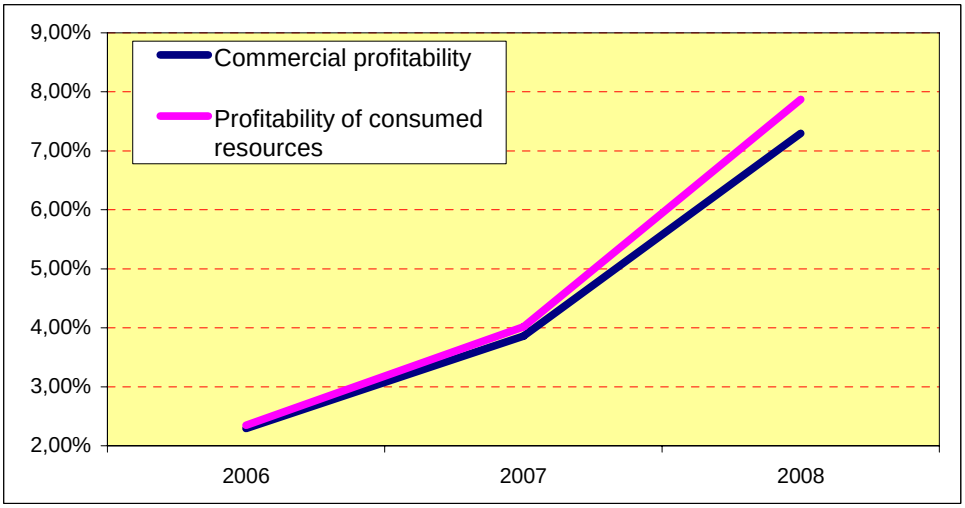

Figure 5. *Evolution of the profitability ratios in 2006-2008*

The material expenses have into view the necessary of seeds, fertilizers, pesticides, fuel, spare parts, and other expenses as well.

Table 6

Volume and structure of the complete costs

Expenses	Value – lei		Weight	
	Old technology	New technology	Old technology	New technology
Seed	54.000,00	54.000,00	25,89%	13,23%
Fertilizers	86.950,00	107.730,00	41,69%	26,39%
Chemical treatment	2.070,00	10.350,00	0,99%	2,54%
Irrigations	0,00	180.000,00	0,00%	44,09%
Gasoline	51.763,83	42.084,41	24,82%	10,31%
Personnel	3.121,40	2.645,25	1,50%	0,65%
Partners	976,00	738,28	0,47%	0,18%
Indirect expenses	9.700,89	10.708,22	4,65%	2,62%
Total	208.582,11	408.256,16	100%	100%

The success of a culture depends on the compliance with the specific culture technology. Among the defining elements we outline:

- Rotation of cultures;
- Fertilization through the use of stable garbage or of the chemical substances based on phosphor and potassium;
- The soil works, respecting the agricultural calendar;
- The superior quality seed, certified, with a high biological and cultural value, respecting the following conditions: purity above 98%, germination capacity over 90%, healthy, humidity below 14%. The seed must be treated with fungicides to protect it against the main diseases and if it is possible, with insecticides also.
- The sowing that must be included in the optimal époque.

Through the introduction of the new technologies, changes are observed regarding the structure of the production cost, through the reduction of the costs related to seeds, but the increase of the irrigation and fertilizers expenses. The fertilization of the wheat culture is realized with respect to the nutritive substances existing in the soil, the necessary nutritive substances for the reliable development of the plants, and also the water supply.

Table 7

The main indicators of the agricultural production

Indicators	Measuring unit	Old technology	New technology
Surface	Ha	225,00	225,00
Total production	Tons	450,00	1.057,50
Production per ha.	Tons/Ha	2,00	4,70
Complete unit cost	Lei/ton	463,52	386,06
Unit selling price	Lei/ton	500,00	500,00

Subsequently, the usage of performance technologies have as effect the increase of the average production per ha and implicitly of the total production of the farm. The immediate effects of these modifications reverberate on the unit cost that assumes a save of over 75 lei/ton, which is approximately 17%

Through the usage of the new technologies, it will be achieved an increase of the average production per ha, from approximately 2,0 tons in present to 4,7 tons, that is a spore of approximately 2,35 times. Furthermore, the increase of the average production per ha will allow the achievement of some supplementary incomes, with a consumed resources profitability ratio much superior to the one traditionally obtained.

The use of natural fertilizers allows the compliance with the European standard according to the Directive 91/676/CEE transposed in the national law through HG 964/2000 regarding the prevention of the water pollution with nitrates derived from agricultural

sources. The implementation of this standard is not realized only through simple investments, but mostly through the implementation of a set of technical and technological measures that view all the aspects of the agricultural exploitation and to which will contribute, directly or indirectly, all the machineries and equipments inside it.

Table 8

The profitability ratios at farm level

Indicators	Old technology	New technology
Commercial profitability ratio	7.30%	22.79%
Consumed resources profitability ratio	7.87%	29.51%

In the conditions in which the costs per irrigated hectare are 1,815 lei, it results a gain per each hectare of 535 lei that is the agricultural farm will have a profit of 23%.

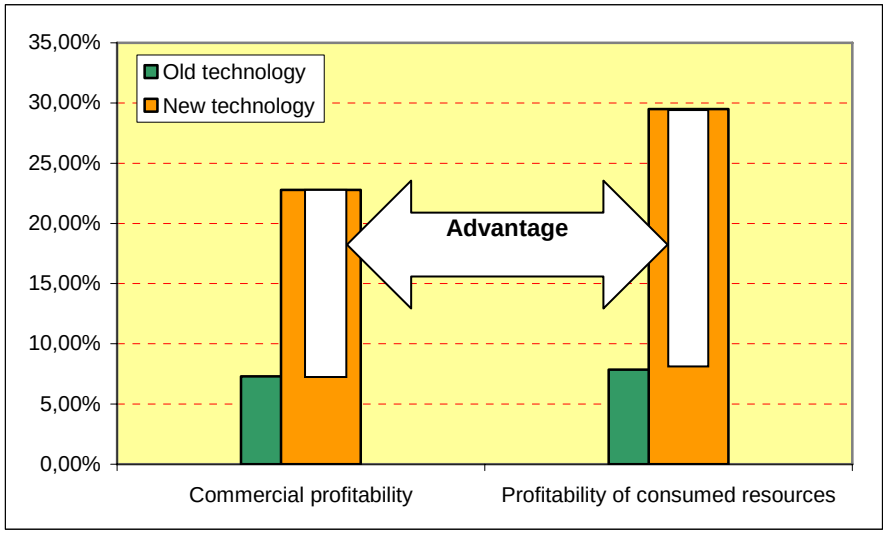

Figure 6. *Profitability ratio at farm level according to the two production technologies*

A little less production is achieved if the soil is not irrigated, for an average production of 2,000 kg per hectare, that is capitalized at a price of 0.50l lei/kg, the income is 1,000 lei, the expenses are 927 lei/ha and the profit margin per hectare is 7.3%.

Along with the economical effects visible through the production cost, it is achieved an increase of the quality of the agricultural production, a fact that determinates its superior capitalization.

The possibilities of rejuvenation for the Romanian agriculture aim at the achievement of approximately 13 billions of euro, from the European Union, in the next four years, the money being allocated mostly for the rural development. However, there are emphasized certain obstacles determined by the increase of the credit prices and the absence of the support mechanisms for the agriculturists in rural area. All of these will led to the impossibility to access European funds and to reduced investments in the rural environment due to the fact that the producers will not have at their disposal the sums needed to assure the co-financing of the projects.

Conclusions

Starting from the actual status of the production systems from the agricultural exploitations in our country and the orientation of the structures and technologies used, it is imposed the analysis of the resources and modalities to assure them, necessary to reach a superior qualitative level and an increase of the economic performances.

The replacement of the wheat cultures with others, with a superior performance, that do not necessitate high costs and that can be capitalized on the market, i.e. the production of rape, has determined the decrease of the wheat production to half versus 2004. In these conditions Romania contributes to the European production of wheat with 2.4% in 2008 to more than 5% in 2004 versus the 2004 values, there is not recorded a drastic reduction of the area cultivated with wheat, but the quantity of final product per hectare diminished with approximately 20%. Therefore, it is imposed the orientation that modern production technologies, the compliance with the agricultural calendar, the use of natural fertilizers and the reconstruction of the irrigation system, without which any agricultural exploitation is not capable of achieving satisfactory results.

Through the comparative analysis of the two systems applied at the level of an agricultural firm there can be identified the major differences resulted at the level of the production costs, profit, commercial profitability ratio and consumed resources profitability ratio.

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THE DIAGNOSIS ANALYSIS OF REGIONAL INNOVATION-APPROACHES AND OPINION

Anca Maria HRISTEA
Bucharest Academy of Economic Studies

Abstract. *The communitary strategic orientations that the European institutions promoted since Octomber 2006 have at their base the fact that research and innovation have a direct contribution at the prosperity and the welfare of the individual and of the community. The main objective of the research and technological development policy promoted by the European Union is that in the following years this regional group to become the most competitive economy based on knowledge in the world. The studies have shown that the density of the local networks of knowledge and their degree of involvement in the making of a plus of wealth in the region could have a decisive contribution at the dynamism and the competivity of the enterprises, of the business enviromenent, in general.*

Keywords: region; innovation; strategy; methodology; diagnosis; analysis.

The promotion of the innovation policy at a regional level imposes a permanent diagnosis of the mechanisms of carrying out the system of regional innovation in such a manner that the efforts are focused on the incontestable priorities, that are the makers of added value and that we should give up the effort to decypher the meaningless details that lead to no future effects.

In the European programms of rising the competivity at a regional level and of occupying the work force the regions are often the managers of a global subvention for whose use the European Comission recommends the making of diagnosises that emphasises the strong and the weak points of the territories through the perspective of the innovation so that the consolidation of some effective innovative strategies is reached in connection to the European stakes.

Romanian projects regarding the regional innovation through the scientific approach that they have in mind try to give the local managers and to the specialists from research, education, a robust methodology of territorial diagnosis and the instruments necessary for steering and innovative management.

The systemic approach, creative concept of innovation

In literature it is shown that *knowledge networks* represent a collective factor of economic performance and one of the most important axes of the modern politics of innovation. The notion of "society based on knowledge" has become in the last years a concept that is common to all the states that are members of the European Union. Each economic agent, manager, researcher or employee comes into contact with numerous entities in the spehere of his own unit or in other units that are situated in the same geographical area or in other regions/ countries. From the experience of the developed countries it was noticed that the efficacity and the productivity of each economic agent depends largely on the number and intensity of these connections that become more efficient when the geographical proxemity is higher; because of this one of the main objectives of the European communitary politics is the development of innovation at a regional level. Frequently, the utility and the clarity of the scientific information is lost when their transmission is not made directly, through dialog, but by using informatic techniques of communication, because either the message or its content is altered. For this reason, in the making and following the putting into

practice of some innovative projects the meetings "face to face" are preffered. Innovation is an interactive process. For this purpose, the production of knowledge is necessary, but not sufficient for innovation, it creates potential that has meaning only if it exists as final demand. The production of knowledge must be capitalized through the constant interaction between producers, enterpreneurs, users or intermediaries of knowledge and the public institutions.

The fundamental role of knowledge when we talk about societies, institutions of higher education and research can be described through the image of "triple helix" (science – industry, industry – state, state – science) that is perceived as being the DNA of the economic tissue and of innovation. According to the circumstances, the universities, the industries and the public organisms can play different roles in the innovation process, around the three great actors, science – state – industry, gravitates a large variety of institutional networks. The collective decisions are the result of the complex institutional arrangements between local and national partners, in which the public collectivities play a dominant influence.

A frequent phenomenon that we can find in the modern democracies is the plurality of actors in making the politics of regional innovation. Many times they are situated on rival positions. This is why a correct institutional government of the innovation process means the creation of an equilibrium between the autonomy, cooperation and rivalry of the actors involved. In order to assure the development on the long run of the economical regions, the institutional government has to set the „rules of the game" in the so-called institutional „coopetion" (cooperation-competition); one must make the difference between the subjects that are the object of codecisions and that mean the coordination in activity, and the ones that assure the territorial dynamic through a form of rival politics. The rules of the game indicate the directions on which one can act as to obtain the maximum of effect. French literature and the literature of other European states recommends a demarcation of the action fields of the regional actors as it follows:

- Common fields: diagnosis, vision, the big axis of politics, the management of difficult priorities;
- Coordinated fields: financial and fiscal aid, incubators, the public scientific parks, the transfer organisms of technology that is financed by public fundings;
- Rival fields: the duties of the factories, the counseling in innovation and technique, the financing of the factories, the private incubators, and other actions that have effects through private efforts.

The defining of the regional policies of innovation means the deep knowing of how the regional economy works and the economical evaluation of the existing public strategies.

Regional systems of innovation, strategic diagnostic field

The role of the diagnostic analysis at a regional level is to identify the strong and weak points that are specific to the innovation process; it has to be methodical and to go beyond the mere enumeration of the statistical general elements (research staff, added value, investments, research expenses, number of patents) or of the list of universities, research centres, incubators, without being accompanied by argumented and scientific based commentaries.

The conclusions drawn from the analysis of a region must be completed by the diagnosis of the global stakes that are specific to the region, through the examination of the microeconomic dynamism of the actors of the innovation systems, by the appreciation of their capacity to generate knowledge and to turn it into new products and services or in "business models" (innovative) through the evaluation of the acces to capital.

The diagnosis analysis in the field of innovation at regional level is a must and it has to have three main dimensions:

-The analysis of the global components based on the indicators of economic activity and of the innovation potential;

- The analysis of the actors and of the networks of the regional system of innovation;
- The description of the functioning of the innovation government process and of the establishing the strategic priorities.

The deep description of the importance and of the dynamics of the main groups of activities allows the positioning of the specialization of the region as a strong or weak point and the making of the strategic activity clusters on which studies will be made afterwards and action programs will be implemented. The diagnosis analysis will aim at the "macroeconomic" elements of the regional system of innovation, that will be classified in the following categories: general indicators of the economic activity, human resources, financial resourses, data about the innovation environement, "innovation" outputs, the dynamics of innovation.

The diagnosis is the systematic analysis of the regional activity, under different aspects, through the identification of the main indicators that can offer information about the degree of innovation of the region and by the making of comparisons between regions or the European environements, of other countries etc. The diagnosis analysis imposes the putting into practice of an ensemble of quantitative and qualitative methods among which a high degre of use will have:

- Statistical methods: indices, concentration coeficient Gini, growth rates, specific weight, medium rythms etc;
- The score functions;
- The evaluation ratings;
- Profiles technique;
- Decomposing, grouping and comparing;
- Swot analysis;
- Pareto method;
- Questionaries and surveys.

As general lines the diagnosis means the going through the following stages:

- the identification of the purpose of the innovation analysis at a regional level;
- the determination of the influence factors, of the chance relations betwwen these and of the methods – quantitative and qualitative – that can be applied;
- the analysis of the results and their interpretation according to region;
- proposing an action plan at a regional level;
- establishing the regional innovation strategy;
- presenting an informatic model about the evaluation of the innovation degree at a regional level.

The diagnosis will end by emphasasing the strong and weak points in a synthesis and the conclusions will lead to the making of innovation strategies of the region.

Comparison, as a qualitative method of diagnosis analysis, is best to be made by connecting the results of the region with the data of other regions and European countries. No indicator has scientific value if it is not compared in time and/or in space.

The regions used as a compariosn base in interpreting can be Romanian (them among themselves) because the purpose of this comparison is not to classify te regions, as European Inovation Scoreboard does, not to suggest to the region managers the reproduction of a model that is considered to be the best, but it only invites to reflection strating from the data presented. The major difficulty in analysing the innovation process on a national and regional level comes mainly from the limits of the statistic aparatus and from the fact that weft of the innovation is not really well localized and thus we do not have enough data for innovation.

European Inovation Scoreboard limited the analysis to a set of 7 indicators that describe the main characteristics of innovation in the European regions: the number of the staff hired in science and technology, the degree of participation to the continuous formation of the persons with ages between 25 and 64 years old, the share of the Research-Public Development (C-D) in the region PIB, the share of Research-Private Development in the

region's PIB, the existing jobs in the manufacturing fields of low, medium and high technology (% of the total occupation), the existing jobs in the fields of high techonology of services (% of the total occupation) and the number of patents at the million of inhabitants.

The present scientific paper wants to be a synthesis of the research made by the author with the ocasion of the first stage of the project INNOREG – MODEL AND INFORMATIC PROGRAMME FOR THE DETERMINATION OF THE INNOVATION DEGREE AT THE LEVEL OF DEVELOPMENT REGIONS (INNOREG) – 2008-2011 (see explanations in the paper „Innovation – the cornerstone of the economic succes at an international and regional level"), in which the ASE partner had as a responsability the study of the diagnostic analysis in the field of innovation at a regional level.

The selection of the indicators used in the diagnosis of the region

Although the attention of the authors in the project INNOREG is to identify an important number of indicators that can provide useful information regarding the degree of innovation in Romania – at a regional level – the experience of the European states that have tried the same procedure have shown that the analysis will limit itself only to a part of them, for reasons that have to do with the finality of the diagnosis, that has as a purpose the offering of a framework, common and simple, in an operational purpose, in the terms of public policies. The proposed elements that are a part of the diagnosis are available in general in the main informational sources (Eurostat, general indicators that are identified in every region).

The obtaining of information, that allows the making of the innovation indicators, faces an obstacle: the uncertain character of the innovation process. Tradition priviledges the patents (in connection to their number and their quoting) on the one hand and the input of the research on the other hand (expenses for Research-Development, number of researchers, research staff) as being relevant landmarks in the evaluation of the innovation process. In the last years progress was recorded regarding the way of reviewing the inventions that are effectively marketed but their importance is still limited because the obtaining of information is very slow.

The problem that appears is that of determining the measure in which these differnt indicators are combined, can be subtituted or are complementary. Many of the indicators that are specific to the innovation process are re-divided often in the fields of "high tech" manufacturing in the sense that each can be used as a "latent variable of the innovative performance". The situation is in requital, much more complicated in other fields ("low tech" and services).

A study made by Autant-Bernard and N. Massard insists on 5 indicators of output that they apply on the departamental data in the case of France. The main information of output of the innovation are in their opinion: the total number of patents that have a projection in the department, the number of projections belonging to a factory that introduced innovation as a method etc.

The diagnosis of each region imposes the complementary analysis according to necessities, the research project that has to be eleborated only offers a common minimum frame of analysis and presentation, that is called to evolve in the same time with the amelioration of the statistical aparatus.

Innovation is a multiform phenomenon that can be analysed as a transformation process of the resources and that is in the same time the manifestation and the result of a certain dynamics. The French literature regarding this subject describes the different dimensions of innovation through an ensamble of components that can be analysed, each, through a set of indicators, that we enumerated above:

- General indicators of the economic activity performance: refers to the description, with the help of this subensamble of indicators of the demographic and economic global data of the region that appear more as a data base and as results of the innovation process.

- The structure of the economic activity: the structures of the activity are an „entrance" and a result; a strong orientation of the region towards „high tech" emphasises a positive performance of innovation and in the same time a favourable factor of development of new productive capacities.

- Human resources of innovation: in all the studies on innovation and teritories, the degree of preparation of the human resources is one of the most direct elements in the making of the innovation process.

- Financial resources of innovation is also an important factor in all its forms.

- Data regarding the environement – the innovation enviromenent: cultural and technical capacity of dispersing the innovations into the economy is an essential dimension that can be apreciated today through the perspective of some partial and often fragile elements.

- „Output innovation": the dynamic of the exits appears as a particular component of the regional system of innovation because the evolution of the ensamble can manifest itself under very different forms.

These subensambles create among them a system which means that each represents on the one hand the casuality elements for other subensambles and on the other hand they are the results of other components. This synergy is known and from the diagnosis analysis made at a factory level where the same indicator can represent the cause and the effect of other economic phenomena. Mutual interactions are created that generate a favorable dynamics or on the contrary there is the risc that they lose the collective competivity. For example, the „innovation" performance and dynamic of the region depends equally on the human and financial resources; but at the level of international rivalry regarding the human talents/aptitudes and the financing, the growth of the resources is connected to the attractivity of the region, thus to its performances. It is only one of the examples that shows that the economical structures are connected on the long term with other dimensions of the inovation system.

Each dimension is involved in diagnosis through an ensamble of statistics available: *diagnosis is strictly conditioned by the possibilities of the statistical aparatus*. In the majority of cases the relevancy of each of the indicators that reflect the component that we are talking about, respectively innovation, would become a debate topic vaste and sterile; one must make a selection and a determination of the measure in which they are combined and they have a common result; the main goal is to apply the innovation's components in an unitary manner for the region's ensamble.

In certain situations we will mention statistics that will be available in a near future or that are in the making right now. Foe example, we are talking about the limited present possibilities of exploating at a regional level the CIS inquests. The analysis made by this organism allow us to have precise information regarding the importance and the relevance of the innovation policy in factories. Up to now this inquest was not made through a perspective of making its results regional.

For each indicator it would be useful to make simultaneously of a:

- time analysis (for a longer period, taking into account the structural nature of the given phenomena) with the positioning of the region in connection to the medium tendency of the reference regions;

- space analysis, comparisons with similar national regions or to the European regions of reference; if it is possible the comparison will be made with at least one American state and a Canadian region. For Europe a list of regions is proposed; it refers to the regions Flandra, Basque Country, High Austria, Piemont and Midland Region from the United Kingdom.

- positionings of the researched ensamble in connection to the European regions.

The different categories of indicators proposed by the authors have as a main goal the facilitation of analysis through the framing of the results, as strong/ weak points of the region

according to a very strict description (swot analysis). For each subensamble a type of synthesis will be made under the form of an apreciation of the potential of the region, that is rated on a quantitative scale, from 1 to 5, mainly through comparisons with reference European regions; the interpretations will allow the emphasis of the possible and prioritary actions in connection to the findings made.

The analysis of the strategic priorities at the regional level

The methods used for the analysis of the strategic public options are very different. The strategic and bugetary decisions in general are the result of experience and inspiration of the specialist teams involved. A big importance in the making of the regional innovation strategy it has the demonstration of the share that the reasoning manner have regarding the quantitative methods. The specaility literature recommends to the public managers the specification of the personal criteria of selection and starting from this the manner in which they can build the "basic strategy". After the processing of the information it is suggested to reflect upon the way of governing and of steering of the putting into practice of the innovation strategy in order to find viable amelioration ways. The notion of strategy, well-known in the military field, was taken and even imposed to the factories starting with the '70s in order to mark better the action way in an environement with rapid shiftings and that is dominated by uncertainties on all plans. The strategic approach meant the determination of the activities that „were considered to be the most interesting ones" for the enterprises.

The startegic vision imposes itself nowdays even in the public collectivities, states or regions that should identify te major stakes of the entity, the action course, the priority fields or the way in which public resources should be focused and how to identify the directions towards which it is necessary to accomplish the convergence of the local actors' visions.

The central objective of the regional strategy is the economic development on the long term. Competivity and the economic growth often appear as secondary compared to the objectives that are considered to be major for the region: the growth of the degree of occupation of the work force and the assurance of the social fairness. Innovation is perceived sometimes as being involved in the deepening of the social inequalities and as favouring a limited number of entrepreneurs and employees. International studies show the fact that at an international level there is a certain hesitation among the population regarding the growth of the economy as an effect of the innovation. Some authors think that innovation determines the growth of the technicalness degree and that it diminishes the role of the human work. A simple example shows that in the last decade only by the informatization of the German bank system the number of employees was reduced by 70%. In a similar manner other fields gave up their work force in favor of technology in order to cut down expenses. Other authors consider that innovation on the one hand diminishes the work demand in certain areas but it is also an important generator of new professions and jobs through the creation of new activity fields. The truth will be learned in time; at a global level poverty is still a devastating scourge.

The instruments of the regional politics of innovation end their efficacity

The innovation politics has as its disposal many instruments some of which we enumerate here:

- *Actions at the physical resources level:*

- Stimulating savings and investments as well as the actions that will determine the region's attractivity for „external" investments;

- Attracting investements in education and research for:

- infrastructure;

- endowing the universities and the research organisms;

- challanges for improving the quality of the research and of the universitary production;

- *Actions to develop the entrepreneurial dynamism*:

- Actions that tend to facilitate the innovative entrepreneurs and their judicial and fiscal environement that depends mainly on the state;

- Direct and indirect financial support;

- Supporting the creation and the growth of the innovative enterprises, owing to the infrastructure, as scientific parks, incubators or technopoles;

- *Actions regarding the interactions of knowledge between the economic actors:*

- Cells that will support the sipn-off in the private universities or research center, to support the seed capital (amorçage) or of the risk capital.

- Supporting the dynamics of the innovation phenomena at the level of the economic "tissue", especially through actions of counselling regarding the profit of the IMM, actions to stimulate the demand for knowledge, actions of transfer of knowledge after the institutionalization of the higher education;

- Supporting/developing an ensamble of private intermediaries;

- Supporting the inovation poles policies (or of competitivity) and of the "clusters"

- *Actions of "policy intelligence"* what is the equivalent of actions conduct type for the improvement of the efficacity of the ways of putting into practice, at the level of defining the policies and at the level of ther following.

There is a real debate regarding the economic efficacity of many of these instruments; the dominant conclusions are that public institutions that have the right to make a decision must ask themselves „what efficacity I expect from the instruments used?", because it depends on the microeconomic circumstances and data: the selectivity and the identification process of the enterprises that support innovation, managing the competence and the efficient functioning of the knowledge infrastructures, and even the simple material realisation of the equipment in cause.

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INNOVATION – THE CORNERSTONE OF ECONOMIC SUCCES AT REGIONAL AND INTERNATIONAL LEVEL

Anca Maria HRISTEA
Bucarest Academy of Economic Studies

Abstract. *In a world that is in a permanent change, in which the interdependencies between the states are more and more obvious and the rivalry and the inequalities between the nations deepen, one of the main objectives of the actual era wishes to be the growth of the competitively and innovation degree at a microeconomic level and at a regional and international level. The innovation process means the conversion of new knowledge into economic and social benefits, as a result of some complex interactions between numerous actors in a system that is formed of an environement (local, regional and national) that has productive firms, research institutes, and networks through which all these come into contact.*

Keywords: region; innovation; rivalry; methodology; diagnosis; evaluation.

Globalisation – a game with a positive sum?

The globalization of the economies accentuated the rivalry between territories, states and regions. The geo-economical siftings recorded in the last years, the delocalization and delocalization of the activities can be found in a redistribution of the economic actors on the rivalry scene and even more, in a deepening of the differences between the rich and the poor states. The world leaders as the USA and Japan have to face a strong rivalry in the innovation field from states that a few decades ago were used as cheap work force. The technology transfer from the rich countries to such countries represented eventually the launching stone to the new world that seem to appear. If in 1990 the production of high technology of China was less than 10% of the production of the USA, in 2000 it comes to about half it.

Some authors believe that the great world platforms of innovation must adapt really quickly and they must discover new breaches in order to fight the new big demographic powers – China, India or Brazil – that have the potential to develop in all the fields. The particular character of the economical growth without precedent of some countries as China or India make that on the medium term to see changes in the international environement and the developed countries as the USA and numerous European countries to be threatened by the Asian tigers. The importance of the "reserve troops" that is the human resource, respectively the hundreds of millions of Chinese and Indians that are capable to adapt to change and to reach a high degree of education is obvious. The rise of the efficacity in the two states and the orientation towards technological innovation generates advantages that can be compared and emphasized by the Ricardian theory in the fight of the entities for supremacy.

Starting from this reasons the European states consider it to be crucial the problem that refers to the definition and the putting into practice of a effective collective strategies, that limits these siftings and that will support Europe in improving its position on the world market in this field. Economic rivalry represents today the base of a „permanent war of the siftings" and no leader position can be considered sure and durable. Today's winners can become tomorrow's losers. Innovation is considered to be the key to prosperity for the enterprises and the geographical teritories.

Stimulating creativity and innovation at European level

The new tendencies at world level aim at the involvement in a big measure of the scientific potential in all the productive fields. In this context the Operational Programms 2007-2013 regarding the Structural European Funds have as a priority the innovation's development according to the Lisbon Strategy. These represent a special oportunity that aims to stimulate technological and non-technological innovation in enterprises and the teritorial diagnosis analysis have the role to determine the regional potential of innovation, the way and the importance of the public financing, national and communitary, that one has as his disposal. In one of her speeches Danuta Hubner, the European Comissary for the Problems of Regional Policy, said that regional strategies must favour the investements in the field of the research and techonological development, of innovation, of the human capital and of the entrepreneurial spirit and to analyse the extent to which these investments answer to the specific needs of economical development of each region.

The communitary strategic orientations that the European Council adopted in Octomber 2006 regarding the innovation and the research offers to the cohesion policy a double role: on the one hand it has to support the regions in the putting into practice of the action plans and of the regional innovation strategies that aim at the growth of the rivalry of the invoolved entities and of the European Union, as a whole. On the other hand it has to contribute at the growth of the capacity of scientific research and innovation in the region up to a level that will allow the participation to the transnational projects of research.

The international studies have shown that the density and the vitality of the local networks of knowledge contribute in a significant manner to the dynamism and the competitivity of the enterprises and that they give an essential role to the local policies and especially to the regional ones of economical development. From the research made the author of the present paper noticed that the regional authorities, especially the ones from Romania, need a very sophisticated and permanent diagnosis of the mechanisms that set into motion the "regional innovation machine" with the purpose to focus the efforts on the incontestable priorities that create richness. The durable development through innovation is based on the intensification of the regional activity for the business environement, through the attraction of talents and the development of the access to knowledge and opportunities. More atention should be given to the regional keeping and improving the human capital, to promoting the cooperation between companies, to the facilitation of the harmonization of knowledge with the international market and to supporting the obtaining of the intellectual property rights. For the stimulation of the rivalry of the economical regional system one will have in mind the diminishing of the significant technological difference by facilitating the acquisition of equipment, technology and services. Regarding the educational system we have in mind the development of doctorate and post-doctorate programms made in association with the business environement.

The regions are often the managers of some global subventions made in the regional rivalry and the occupation of the work force programms. In this context, the European Comission emphasises the fact that during the 2007-2013 programms the made diagnosis should focus on the strong and weak points of the teritories from the point of view of innovation so that the consolidation of an effective innovation strategy is reached, a strategy that is pertinent in connection to the European stakes.

The scientific approach that is intented towards the making of an informatic model of evaluating the innovation degree at a regional level wants to give for the regional managers and to the research and education specialists a robust methodology of teritorial diagnosis and of innovative management.

A recent study made at European level show that Europe started to catch up with difference that separates it from its main rivals, USA and Japan, at performance level into the innovation field. The first place goes to Switzerland, followed by Sweden, Finland, Germany, Denmark and The United Kingdom. All these six countries are situated better than other

European states and than the UE, as a whole. We must notice that the new states that became members recorded the biggest success, especially Cypres, Romania and Bulgaria, although their performaces are below the European average. The tendencies are emphasised by the dashboard of European innovation for 2008. In the 8th edition of the raport published by the European Innovation Scoreboard, that appeared in January 2009, made by Maastricht Economic and Social Research and Training Centre on Innovation and Technology, was measured the performance of the states that are memebrs of the European Union under the innovation aspect. According to this publication, the differences of performance in innovation divide the UE countries into 4 groups:

Group 1. Switzerland, Sweden, Finland, Germany, Denmark and The United Kingdom – the leaders when it comes to innovation, with performances that are high above the UE average; *Group 2.* Austria, Ireland, Luxembourg, Belgium, France that are on the second place, with performances that are above the average of the UE;

Group 3. Cypres, Iceland, Estonia, Slovenia, Czech Republic, Norway, Spain, Portugal, Greece, Italy, that are considered to be modetare innovators, with performances regarding the innovation under the UE average;

Group 4. Malta, Hungary, Slovakia, Poland, Lithuania, Croatia, Romania, Latvia, Bulgaria, Turkey are the countries that are about the make up the differences, with performances regarding the innovation that are very low in connection to the UE average. Bulgaria and Romania are the countries that have the fastest rhythm of improving their performances.

Created on the data that existed before the start of the economic crisis the study uses 29 indicators for evaluating the level of innovation of a country. Innovation is considered to be the main factor for the stimulation of the the economical growth and the main way in which we can prevent some risks – for example the changes of the climate. Among the indicators we can find the popularity of the scientific and techincal studies made by the universities, the number of patents, the risisng of the funds given to the research, the availability of the risk capital for the new companies and the share that the exports of high technology have. The situation from the UE has evolved a lot in the past 5 years. Although it is still behind the USA and Japan, the differences tend to diminish from year to year. It is also situated pretty well compared to the emergent economies as China, India and Brazil. Yes it also has weak points. UE is behind the USA especially in the field of investments, and it is behind Japan regarding innovation in research-development and the information technology. In the same measure the companiesw from the UE spend less on non-technological innovations, as professional training, design and marketing, although they are essential elements for mentaining the competitivity. The study was published in the same time with a raport regarding the UE's performances in research-development and of the efforts to create an European research space. It indicates the fact that the number of the researchers from Europe is increasing and that the UE becomes more and more attractive for foreign researchers and for private American investments in this filed. The study also shows that the funds given to the research-development stayed at 1,84% of the PIB, less than the objective of 3% that was establised in the UE. The objective of 2009 is to promote creativity and innovation capacity. This aspect is in accordance with the Communication of the Comissy "A comprehensive regarding the innovation in the UE" that says that "without education as a central policy, innvation will stand alone. It has to promote ta\lent and creativity from the beginning." The European Year of Creativity and Innovation has as its main target the awareness of the importance of creativity and innovation for the personal, social and economical development; the spreading of the best practises to stimulate education and research. Creativity and innovation contribute to the economical prosperity and to the individual and social wellfare.

The contribution of the Economico-financial Analysis to the making of models of determination of the innovation degree

Promoting the stipulations of the Lisbon Strategy, Romanian education, as we know it today, is going through a stage of transformation, that is oriented towards the society that is based on knowledge and innovation. 2007 represented the beginning of the efforts of orientating the national policy towards the development of knowledge on durable criteria, in close connection with the European objectives for this matter. The triade education – research – business environement has become the corollary of the professional formation of the European citizen. In this context the Romanian institutions – public, private or business environements – build their development strategies on the performance and competitivity criteria. More than before innovation is the supreme condition in establishing the comparative advantage on a global level. One can notice that Romania started this approach from an underpriviledged position. Although the efforts are obvious, under an institutional aspect and under financial aspect as well, as the last statistic data show, from the point of view of innovation Romania is situated (European Innovation Scoreboard) among the last three states members of the UE. Compared to the developed countries, Romanian economic agents are still putting the research-innovation chapter on the last place when it comes to giving money. If in the developed countries the noncorporative credits have important values in the total of the given resourches, in Romania the focus is placed on the productive-material aspect. Because the evaluation of the innovation degree at the economical agents level was not a real issue up to now, being a new field, in the last three years efforts have been made to identify and select the measurement indicators. At a regional and national level the demand is higher, because the diagnosis of the innovation degree is made through the centralization of the data from the teritories.

Integrative part in this determination process, on scientific criteria of the contribution brough to the Romanian people at the development of the society based on knowledge, is the scientific activity of the Economico-financial Analysis Department. In the last years, the majority of the department's memebrs are included into the National Plan for Research, Development and Innovation – PN II through two projects, from Programme 4 – Partnerships in prioritary fileds:

- INNOINDEX – informatic model and programme to determine the innovation degree of the IMM – term 2007-2010;
- INNOREG – Informatic programme and model to determine the innovation degree at the devepolment regions – term 2008-2011

The author of the present paper is ASE principal in the second partnership project "Informatic model and programm to determine the innovation degree at the level of the development regions" (The Academy of Economical Studies is one of the eight partners), the coordinator being IRECSON. The role of the Economico-financial Analysis in the evaluation of the innovation degree is decisive because:

- any indicator of measuring the innovation must be interpreted and understood under the aspect of content;
- the evaluation of the results at IMM level or region is made by interpretations on the comparisons in time or space.

In the diagnosis analysis of the innovation degree are identified through a multitude of methods that can be applied, but selection imposes scientific argumentation; in the determination of a refined model of evaluation of the innovation degree, the role of the analist is as important as the role of the statistician, because, in theory, the model will be established on the base of identification of a score function; it results that from the total of the researched indicators only a small number will be taken into account, according to relevance. The final interpretation of the results of the reseach will be made with the help of the financial analist.

The regional, national and international diagnosis analysis means the identification of the strong and weak points of the innovation process, it has to be methodical and to exceed

the mere enumeration of the general statistical elements (staff, added value, investments, resrach expenses, number of patents) or of the list of universities, research centres, incubators, without being accompanied by commentaries that are argumented or scientifically based.

The conclusions that were drawn after the analysis of an area must be completed by the diagnostication of the global stakes that are characteristic of the regio, through an examination of the microeconomic dynamism of the innovation systems actors, by the appreciation of their capacity to generate knowledge and to transform them into new products or services, or in „business models" (innovative), by evaluating the access to capital.

The representatives of tyhe scientific world believe that in the modern economy the traditional advantages represented by the natural reosurces or by the geographical position are not the only solution for diminishing costs. The key factors of prosperity can also be the access to knowledge, talent and creativity. Innovation is a multiform process with multiple causes, as J. Schumpeter described it in his studies regarding the approach of the new combinations of production factors and their role in the economical evolution.

Innovation means, in the opinion of OCDE, the introduction on the market of a new product (thing or service) or that is changed under the aspect of its fundamental characteristics, of technical, logistic, material or immaterial nature, that can respond to the destination it was made for. Starting from this concept one can say that innovation is not a simple and obvious process and that it means the conjoined efforts of some persons, teams, institutions, that often are not in the same location. Innovation is first of all a business of the entreprenors, but the big organisations, the regional environement that stimulates creativity, research and innovation has a central part in creating wealth for the a nation. The regions and the vitality of the ecosystems play a determinant role in creating new value. The possibility to come into direct, informal and repeated contact with an important number of „producers of knowledge", researchers, university professors, financial agencies allow each firm to benefit from a positive „externality".

The most used referene today is that of the **regional innovation systems,** that are in the opinion of the specialists, a method to describe an ensamble of actors and institutions for which mutual relationships are decisive for the good functioning of the ensamble. Such a system allows the optimization of the transfers of competences and the collaboration among different actors of regional development.

The diagnosis analysis in the field of innovation at a regional level has to have three main components:

- the analysis of the global components based on the indicators of economic activity and of the innovation potential;
- the analysis of the actors and of the networks of the regional system of innovation;
- the description of the functioning of the gouvernment process of innovation and of determining the strategic priorities.

From the studied references, we can draw some conclusions regarding the position of the innovation in a strategic plan:

- Innovation is a challenge and a reality of the contemporary world;
- Most of the developed countries invest in innovation in the last years under all its forms;
- There is not a unique methodology of diagnosis analysis at regional level;
- The indicators of the evaluation of the degree of innovation are numerous and they are approached slightly different from one country to another;
- The innovation degree is more important at the level of the activity clusters;
- The role of the regional and research institutions is significant in developing innovation;
- The analysis of the innovation degree is unsignificant if we do not compare it with other regions;

- The degree of innovation means an indistructable relationship between state-industry – science;

- The qualitative analysis has an essential role in researching the studied phenomenon;

- The migration of the Romanian workforce towards Occident affects on medium and long term the performances of the country;

- Innovation determines the rise of the work productivity and the emergence of new professions, but it can diminish the degree of occupation in the fields with the highest degree of innovation;

- A negative natural output affect a people's creativity;

- The constant training and formation of the employees can be found in the rise of the innovation degree.

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THE REAL ESTATE RECESSION AND THE PERFORMANCES OF FIRMS IN ROMANIAN CONSTRUCTION INDUSTRY

Mihaela Diana OANCEA-NEGESCU
Adrian ANICA-POPA
Bucarest Academy of Economic Studies

Abstract. *In the last years, the real estate developers, the firms that offer construction materials and the construction firms have experienced a spectacular development with considerable profits. The present study aims to identify the correlations between the economic conjecture identified at national and international level and the performances of the companies in construction industry. The unfavorable effects of the economic crisis on the construction industry, on the main indicators that reflect the viability of the company were emphasized. Based on the studies that were made, several conclusions were formulated, regarding the influences of the slow of the development process for real estate projects – residential, industrial, commercial, emphasizing the sensitivity of the performance indicators in relation to the social and economic influence factors.*

Keywords: real estate market; economic crisis; construction industry; performances.

Introduction

Even if they had distinct start moments than the rest of the countries, the effects of the international financial crisis have extended on the Romanian economy too.

Before presenting the real estate sector and the construction market, we will depict some aspects regarding the economic crisis and even the recession. This way, the economic crisis is defined as a situation in which the economy of a country passes abruptly through a decrease of force, decrease usually brought forth by a financial crisis. An economy that traverses through an economic crisis will almost surely experience a GDP decrease, an evaporation of cash liquidities and an increase or decrease of prices because of inflation or supply/demand.

A severe form of economic crisis is represented by the recession. This is characterized by a general decline of the economic activity level, characterized by unemployment, depreciation of the currency, inflation, decrease of the standard of living.

In the real estate market and the construction industry, there effects have been deeply felt starting with the fourth trimester of 2008, when the real estate market, on the international financial crisis background, has recorded a block and even a reduction, with repercussions for the real estate agencies and developers. The immediate effects were felt also at the construction firms and producers construction materials level through activity decrease and implicitly through the reduction of the firms' performances.

From the studies that were effectuated and from the results recorded in spheres of activity, it has been observed that the main expansion channels of the crisis are represented by the financial one – with the collapse of the access to bank loans through the limitation of foreign financing, by the commercial one – the slow of the growth or even the reduction of exports and by the rate of exchange – the depreciation of the national currency.

In terms of market economy, any enterprise can conceive its own action policy through which it establishes the present and future directions of evolution, but also the actual modalities to perform the policy, which are to ensure its position on the market and the overall development.

In the actual context, no enterprise can afford itself to develop a profit-driven activity without having a clear perspective, on short, medium and long term, to ensure its subsistence

and the efficiency, in the conditions in which the economic environment becomes more and more complex and dynamic. The competitiveness in this environment can be influenced by both the increase of the productivity and the dynamics of the costs, with direct impact on the sale prices. Therefore, the prediction of the production costs in the construction area and their implications on the economical performances may constitute a powerful managerial instrument for the enterprises in the construction industry.

Present and future In the construction industry

With a spectacular increase in the last years, the Romanian construction industry has succeeded in dominating this sector in the EU. Starting with 2000, the Romanian construction market has begun to grow very easy but steady. In all these years, the private sector was the one to invest massively in the industry, with a weight of more than 80% from the total privately funded works.

In 2000-2005, the construction industry has recorded a growth slightly superior to the GDP's increase ratio, also being recorded an increase of the production of construction materials with an average rhythm of approximately 8%.

The construction market and the construction materials market have a pronounced seasonal character. Thus, for example, 2005 was an unfavorable year for constructions, due to the meteorological events that have not allowed the realization of a certain number of works (flooding, landslides).

The evolution of the construction market has recorded a spectacular evolution in Romania, from 7 billions of euro in 2005 to 10,5 millions of euro in 2007. From this viewpoint, it is ranked on the third place, outrun only by Poland and Czech Republic. Even if the forecasts are somber, Central Europe will continue to be an area of interest for the real estate investors, here a great deficit of new homes being recorded, mainly in countries such Poland, Romania and Bulgaria.

The strong increase recorded in 2007 by the Romanian construction sector, which advanced with 35% to 2006, being the most alert rhythm after 1990, has determined an increase with 26% of the sales for construction materials and especially cement from the local market, to a volume of 9.7 millions of tons.

In 2008, in the European Union, a reduction of 3% of the construction sector was recorded, induced by the decline of the real estate sector.

From the market analysis for the last two years, there has been ascertained a significant increase of the Romanian construction industry, its dynamic being the most powerful form the European Union[1]. But, the increase recorded in 2008, 26% to the previous year and a volume of 14.3 billions of euro has represented a reduction of 6% to the 2007/2006 dynamic.

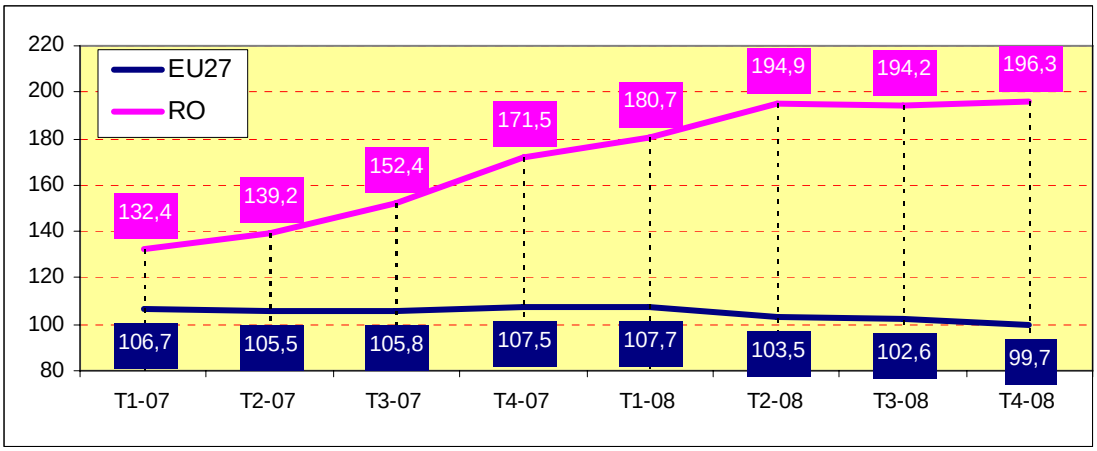

Figure 1. *Comparative evolution of the Romanian and EU construction markets*

[1] Eurostat.

Shortly, the effects of the financial crisis have begun to manifest in Romania too, especially in the constructions and construction materials sectors, starting with the second semester of 2008. Among the causes that have contributed directly on this situation the delay or canceling of various projects by investors can be found, but also the delay in payments for the works.

From the viewpoint of the production costs and implicitly of the sale prices, a slower increase of these indicators can be observed for the 2003-2008 interval. Thus, the production costs indexes record a reduction for Romania from more than 22% in 2003 to approximately 10 in 2006 and 2007, to decrease below 10% in 2008. The same indicators had a totally different evolution at the level of the European Union, the values oscillating between 3.5% and 6%, a maximum value reached in 2004.

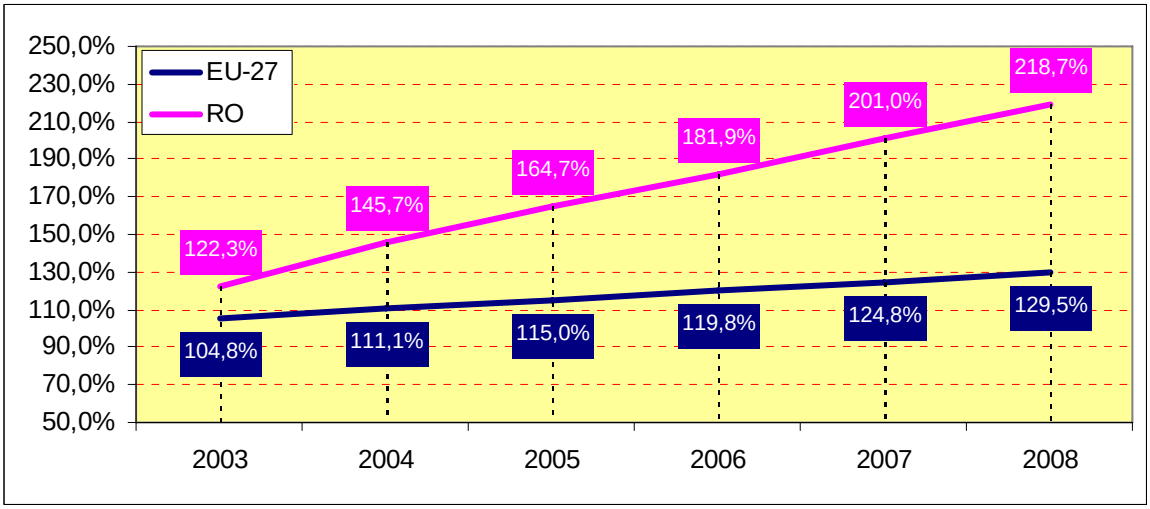

Figure 2. *Comparative evolution of the indexes of production costs in Romania and the European Union (2000=100)*

The appreciation of the performances of firms from the Romanian construction industry through the main indicators emphasizes distinct evolutions in terms of size and sign. In this sense, an analysis of the first 20 firms in the industry was performed, using the criteria based on the turnover recorded in 2007. The year 2007 was chosen because it was not influenced by the elements of the international economic crisis.

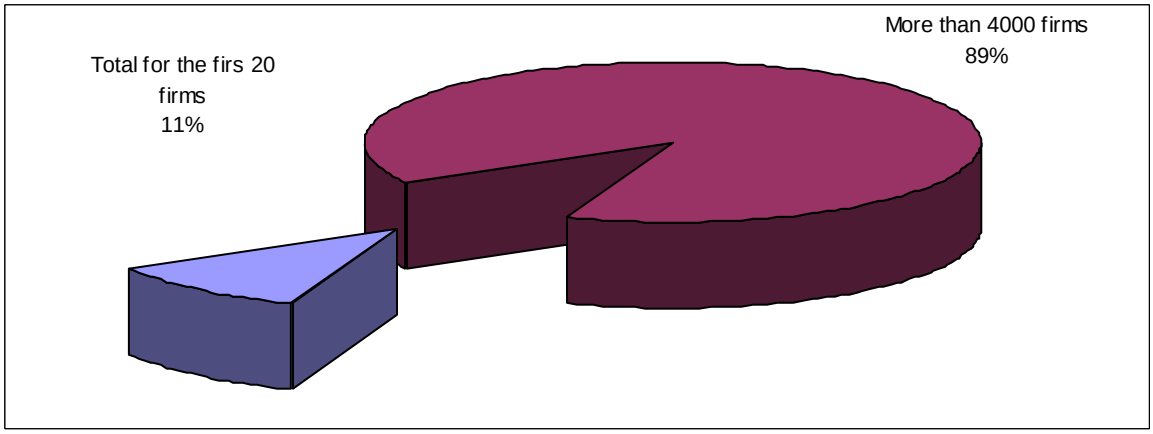

Figure 3. *Distribution of the market shares in 2007*

As it can be observed, the 20 firms in the industry have more than 11% of the total constructions in 2007. In detail, the distribution of the turnover between these firms is presented below.

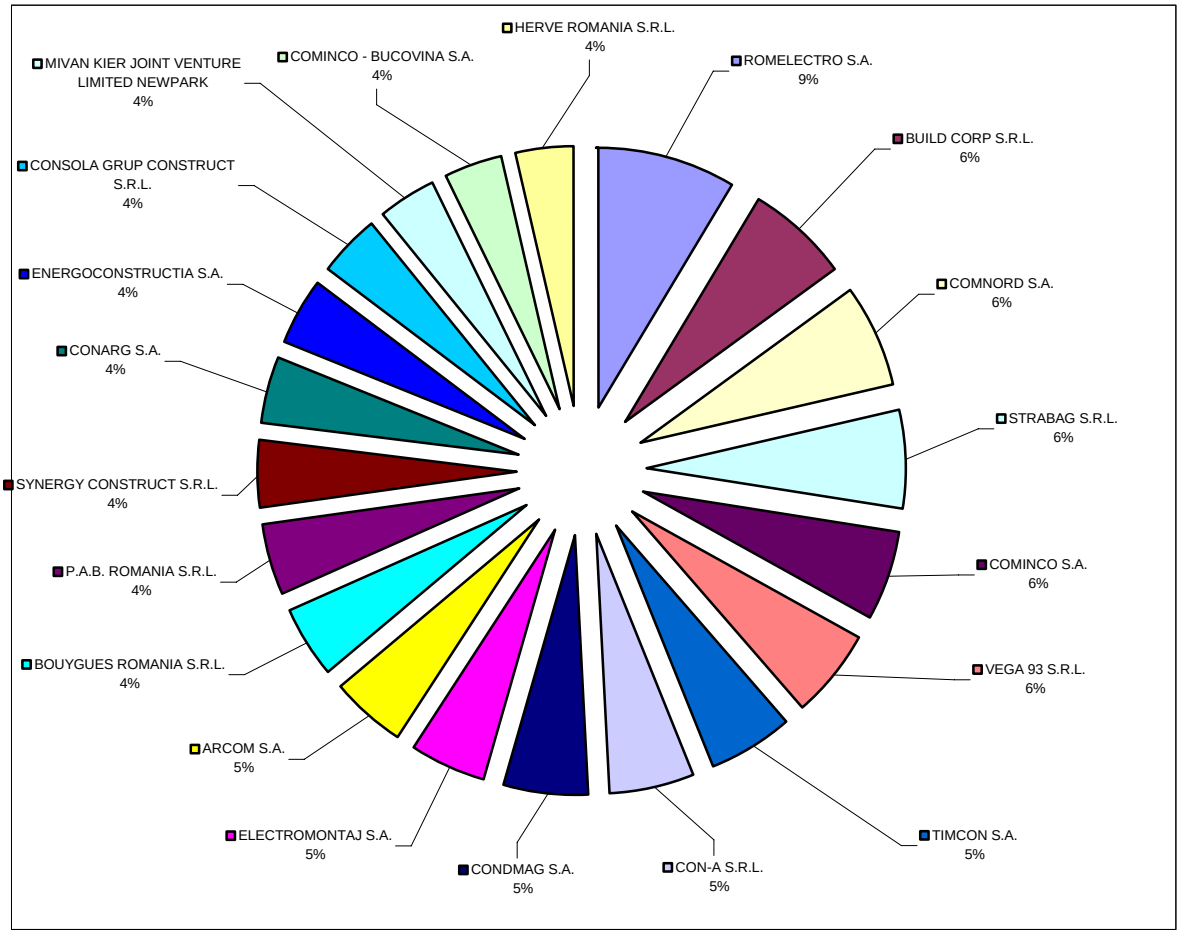

Figure 4. *Distribution of the 11% share between the main firms in the industry, 2007*

Thus, it can be observed how the market shares are uniformly allocated between the first 20 firms of the industry. The same trend maintains in 2008, based on the position achieved in the previous year.

From the point of view of the profit margins, the evolution is oscillatory for all firms, in 2005-2008.

Table 1

Profit margin in 2005-2008 (%)

No.	Company	2005	2006	2007	2008*
1	Romelectro S.A.	5,48	3,29	3,54	3,91
2	Build Corp S.R.L.	25,33	22,12	4,94	4,85
3	Comnord S.A.	6,74	9,62	8,31	8,90
4	Strabag S.R.L.	2,57	15,26	6,09	6,04
5	Cominco S.A.	0,07	0,12	1,14	1,23
6	Vega 93 S.R.L.	15,55	12,05	7,71	7,22
7	Timcon S.A.	8,61	9,52	7,30	8,26
8	Con-A S.R.L.	8,89	10,20	7,50	7,98
9	Condmag S.A.	6,80	3,44	2,17	2,35
10	Electromontaj S.A.	4,07	0,97	4,63	4,38
11	Arcom S.A.	3,53	3,50	0,29	0,30
12	Bouygues Romania S.R.L.	2,13	0,29	0,44	0,45
13	P.A.B. Romania S.R.L.	2,58	1,99	7,41	7,34
14	Synergy Construct S.R.L.	1,48	3,00	2,59	2,91
15	Conarg S.A.	3,66	12,57	3,84	4,16
16	Energoconstructia S.A.	1,97	2,15	2,48	2,30

No.	Company	2005	2006	2007	2008*
17	Consola Grup Construct S.R.L.	3,31	4,01	3,78	4,08
18	Mivan Kier Joint Venture Limited Newpark	25,54	14,05	26,00	26,25
19	Cominco - Bucovina S.A.	0,14	0,35	0,66	0,70
20	Herve Romania S.R.L.	8,35	1,21	11,31	12,06

*) partial data.

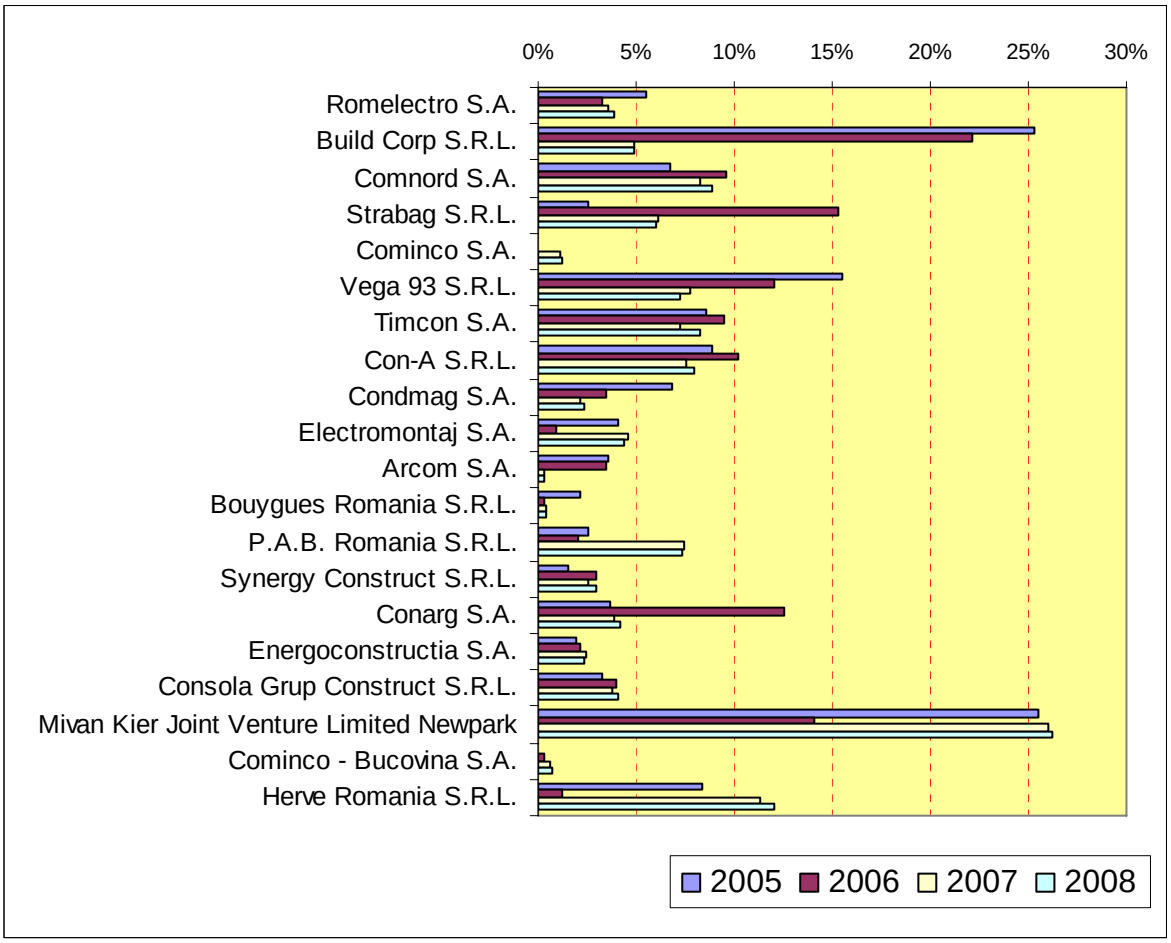

Figure 5. *Profit margin recorded in 2005-2008 by the main companies in the industry*

The decrease of the activity volume has begun in the fourth trimester of 2008 and continued in the first trimester of 2009, through the dismissal in unemployment of approximately 20,000 employees and the temporary social protection, until March 20th, 2009, of another 21,500 employees.

The main trends that can be observed in the construction industry are various. Among these can be counted the major financing difficulties and the tendency of increase for the number of bankruptcies, mainly in the construction SMEs area (95% of the companies), that are the most exposed to the risks of loan and delayed payments from customers. As it was observed from the market analysis, more than 4,000 firms share approximately 90% of the market, that leads to them holding an average of 0.03% for each firm.

Furthermore, it is observed that specific problems in obtaining loans have led to a significant decline in the construction of housings, most of the investors adopting an expectative position. The same fact is recorded for the non-residential sector, especially in the Western Europe with the possible of maintaining developments in the Eastern Europe (Poland, Czech Republic, Romania etc.)

These reductions of the civil works volumes could be compensated by national recovery programs, with a re-orientation towards the rehabilitation and repair works.

Regardless of the less grave evolutions from the next period, all the elements previously presented will impact on the temporary or permanent work places in the sector[2].

Table 2

Evolution of the productivity of labor (lei/employee)

Company	2005	2006	2007	2008*
Romelectro S.A.	3.800.695	5.108.420	4.616.176	4.580.711
Herve Romania S.R.L.	3.652.528	3.735.881	3.083.657	3.076.401
Bouygues Romania S.R.L.	444.483	1.235.313	1.471.434	1.461.255
Comnord S.A.	605.437	856.253	1.208.980	1.199.937
Mivan Kier Joint Venture Limited Newpark	364.038	222.333	1.001.600	984.499

*) partial data

From the point of view of the annual productivity of labor calculated through the turnover, it is observed a different evolution from one firm to another. To give an example, from the ranks of the 20 firms were selected those that realized in 2007 an average annual productivity of more than 1 million lei per employee, reaching the conclusion that there were situations where it has increased very much During 2005-2008, such as it happened for a company in full development - Mivan Kier Joint Venture Limited Newpark, or situations where a slight decrease is recorded - Herve Romania S.R.L. As a general trend it is ascertained the increase of the productivity of labor during 2005-2007, with a slight reduction in 2008.

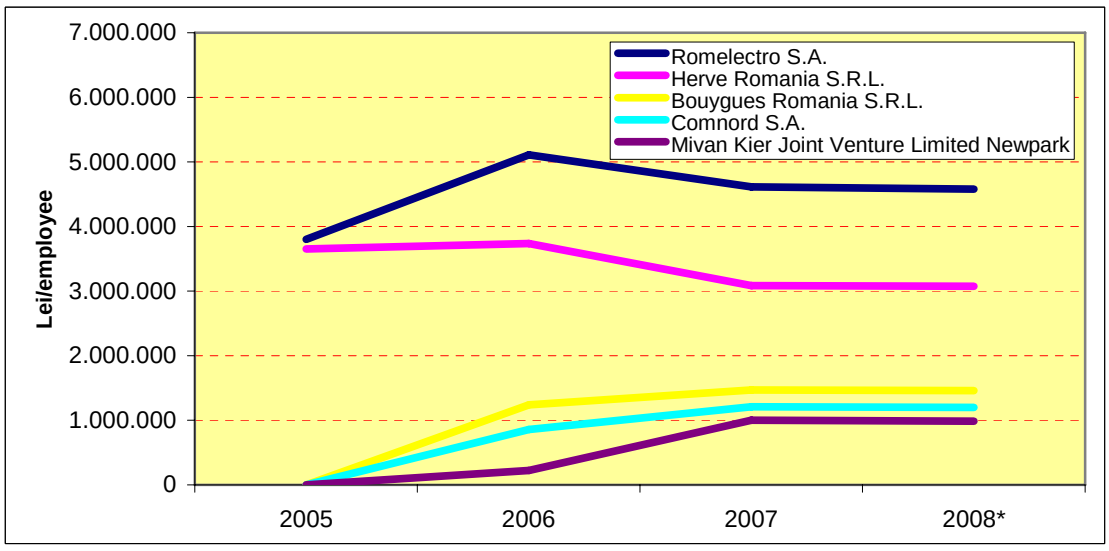

Figure 6. *Evolution of the productivity of labor in 2005-2008*

The volume of construction works has recorded, in January 2009, comparatively with December 2008, a decrease of 6,4%. By structural elements, reductions were recorded for all the components: maintenance and current repairs (-27.1%), capital repairs (-4.7%) and the new construction works (-2.2%).

According to the National Institute of Statistics, the engineering constructions decreased with 16%, the non-residential buildings with 4,4% and the residential buildings with -2.3%. In January 2009, compared with January 2008, the volume of construction works increased with 8.8%. By structural elements, increases were recorded for the new construction works (12.9%), maintenance and current repairs (0.7%). The capital repair

[2] Romanian Association of Construction Entrepreneurs, Press release regarding the situation of the construction industry in conditions of financial and economic crisis 23.03.2009, www.araco.org

works have decreased with 3.6%. By types of constructions, the volume of construction works increased for all the components: residential buildings (+28.1%), non-residential buildings (+8.2%) and engineering works (+2.2%)[3].

For 2010, it is forecasted a slow increase. In the 2011 perspective, after a recovery of the industry, it is estimated that the contract constructions market will overcome 14 billions of euro. The existence of the European funds and of the infrastructure projects will impose on the construction market an annual increase of approximately 12-15% in the next five years. The main engine of the increase is represented by the start of working at highways, rehabilitation works for airfields, ports, modernization of the county, communal and national roads, the construction of houses, spaces for offices and warehouses and, not lastly, the projects for thermal rehabilitation of the existing houses.

Implications of the real estate crisis on the performances of the firms in construction industry

In order to emphasize the effects of the real estate recession on the Romanian firms, we will analyze the indicators recorded by a company in the area. The company has an experience of more than 10 years in the area, managing to consolidate its position at regional level. The firm possesses enough material and human resources for the development of construction works.

From the viewpoint of the indicators found in the profit and loss account we can reach the conclusion that in the analyzed period the firm has recorded a slight increase of the turnover, of 13.69% in 2006, followed by a significant increase, of 41.96% in 2007, and 1.4% in 2008, on the background of a slower contract development. The net profit increased with 5.8% in 2006 versus 2005, and in 2008 it has recorded a decrease with 12.77%. The development of the activity in 2007 has attracted a significant increase of the operating expenses with 46.27%. In 2008, inside the operating expenses, the material expenses that have a weight of 62% have increased with 15%. Also, the expenses regarding the external provided works have increased with 18% and the personnel expenses have decreased with 16%. On the background of the reduction in 2008 of the operational result with 8.32% and of the increase of the financial expenses with more than 205%, the net result has decreased with 12.77% versus 2007.

The increase of the turnover in the analyzed period, mainly in 2007, reflects the expansion of the market, respectively the conquest of new markets. This increase, together with the efficiency of the expenses, led to the positive results presented above.

Table 3

Evolution of the expenses efficiency in 2005-2008

Indicators	2005	2006	2007	2008
Operating expenses per 1.000 lei turnover	869,57	875,01	861,90	886,99
Material expenses per 1.000 lei turnover	163,10	186,83	163,56	184,73
Personnel expenses per 1.000 lei turnover	36,20	44,29	46,21	38,14

At the level of the operating expenses, it has been recorded a reduction of the efficiency, from 869,57 lei in 2005 to 875,01 lei per 1.000 lei turnover in 2006 and an increase in 2007. In 2008, due to the different action of the factors of influence, it can be ascertained the increase of the level of expenses per 1.000 lei turnover with 25,09 lei. The personnel expenses per 1.000 lei turnover have recorded the same oscillatory evolution in 2005-2008. In 2008 the salaries expenses have increased at 184,73 lei per 1.000 lei turnover. The average productivity of labor has recorded an increase with 6,26% in 2006, 35,76% in

[3] www.araco.org

2007 and 8,01% in 2008, while the average annual salary increased with 30% in 2006 and respectively 42% in 2007. These salary increases were destined to stimulate the existing personnel at the firm's level. In 2008, on the background of the decline of the real estate market, it is ascertained a decrease of the annual average salary with more than 10%.

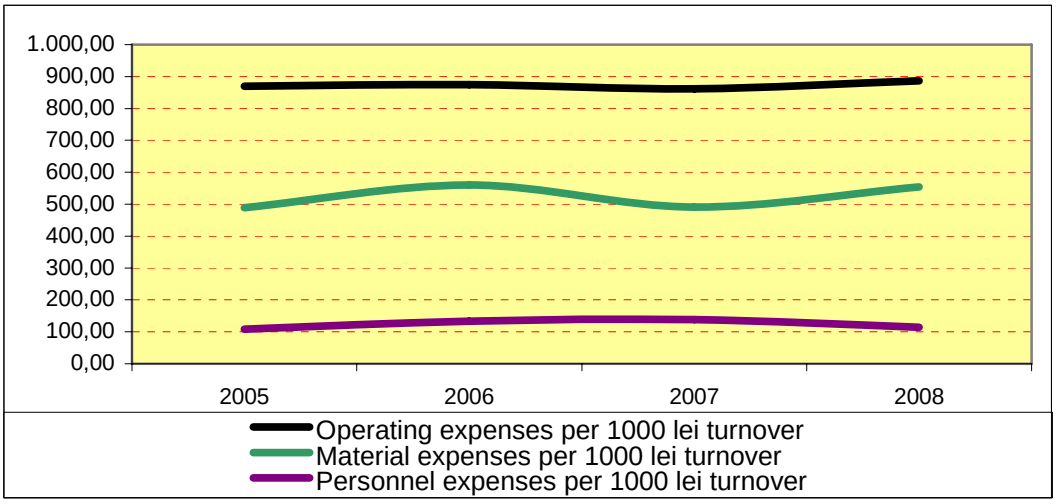

Figure 7. *Evolution of the efficiency of expenses in 2005-2008*

Table 4

Evolution of the profitability ratios in 2005-2008

Indicators	2005	2006	2007	2008
Commercial profitability	13,04%	12,50%	13,81%	11,30%
Profitability ratio of consumed resources	15,00%	14,28%	16,02%	12,74%
Economic profitability	35,78%	32,33%	27,99%	24,81%
Financial profitability	51,11%	41,45%	37,61%	31,40%

The evolution of the profitability ratios has recorded a descending trend in 2006-2008 versus the year 2005 following, in principle, the increase of the operating expenses with a superior rhythm than the operating incomes and the significant increase of the financial expenses.

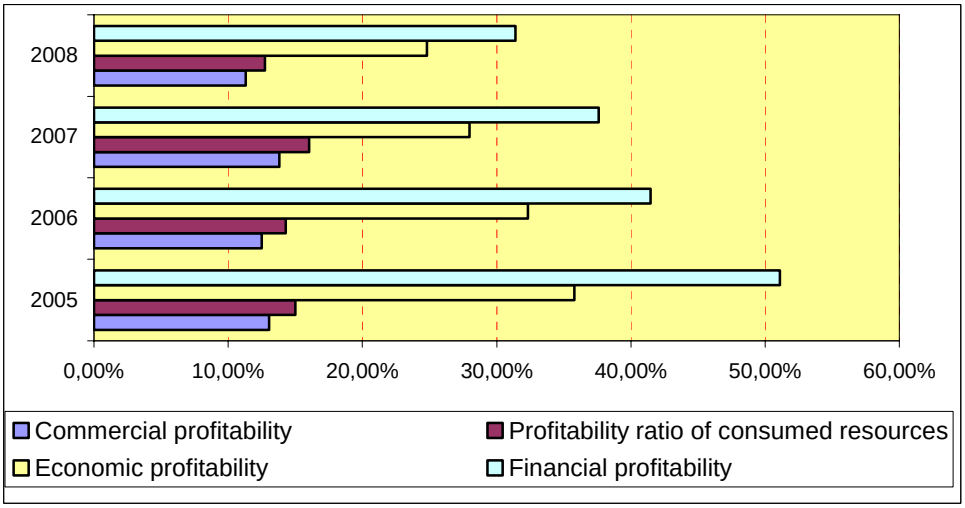

Figure 8. *Evolution of the profitability ratios in 2005-2008*

The profit represents the main component that reflects both the performance of the enterprise and the investment capacity. The variables that can act on the profit and implicitly on the profitability ratios could be: the sale price, the demand, the evolution of salaries, the productivity of labor, the cost of the raw materials.

The effects of the critical variables, modification on the estimated profit in terms of stability at 13.318 thousands lei are presented in the following table through the variation of each variable separately with an increase or decrease with 1%, 2%, 3%, 4%, 5%, all other elements remaining unchanged.

Table 5

The effects of modification of the critical variables on the profit (thousands lei)

Elements	-5%	-4%	-3%	-2%	-1%	1%	2%	3%	4%	5%
Selling price	7.426	8.604	9.782	10.961	12.139	14.496	15.674	16.853	18.031	19.209
Demand	11.365	11.755	12.146	12.536	12.927	13.708	14.099	14.489	14.880	15.270
Salaries	13.992	13.857	13.722	13.587	13.452	13.183	13.048	12.913	12.778	12.643
Productivity	12.643	12.778	12.913	13.048	13.183	13.452	13.587	13.722	13.857	13.992
Raw materials	16.583	15.930	15.277	14.624	13.971	12.664	12.011	11.358	10.705	10.052

Table 6

Percent modification of profit in concordance with modification of critical variables

Elements	-5%	-4%	-3%	-2%	-1%	1%	2%	3%	4%	5%
Selling price	-44,24	-35,39	-26,55	-17,70	-8,85	8,85	17,70	26,55	35,39	44,24
Demand	-14,66	-11,73	-8,80	-5,86	-2,93	2,93	5,86	8,80	11,73	14,66
Salaries	5,06	4,05	3,04	2,02	1,01	-1,01	-2,02	-3,04	-4,05	-5,06
Productivity	-5,06	-4,05	-3,04	-2,02	-1,01	1,01	2,02	3,04	4,05	5,06
Raw materials	24,52	19,61%	14,71	9,81	4,90	-4,90	-9,81	-14,71	-19,61	-24,52

For the analyzed enterprise we can identify the following parameters with specified type of elasticity.

Table 7

The elasticity of critical variables

Elements	Elasticity
Selling price	8,848
Demand	2,932
Salaries	-1,012
Productivity	1,012
Raw materials	-4,904

From the elasticity values presented above, results that the modification of the price variable determinates a modification of same sense but of greater amplitude of the profit. The evolution of the price in a certain direction is determined in first place by market's dynamic, by the prices offered by competitors. The reduction of the sales prices can affect more than proportionally the volume of sales, generating the decrease of the profit and the increase of the operational works.

In the same tendency is situated also the modification of the demand variable due to the fact that exists a part of production costs which are not significantly modifying. However, we must have in view the correlation between demand, the possibilities to satisfy it and the capacity of production. Taking into account that currently the capacity of production of the construction companies is above the level of the market share, it is not necessary to expand it. In the present situation, the analyzed enterprise doesn't use maximally the production

capacity and an increase of the demand by up to 5% can be covered with existing equipments.

The modification of the productivity presents a positive elasticity, but with a subunit value, which is explained through the fact that on the profit some factors act simultaneously with different action directions. On the one hand the income from the capitalization of end-products increases and on the other the amount of total expenses increases, based on variable cost but in a different proportion.

A different dynamic versus the profit has the evolution of the salary variable. The modification amplitude of that variable causes narrower amplitude of the profit modification. These are explained through the fact that they detain a smaller weight in unit cost, and implicitly in the total expenditures related to the incomes obtained from the sale of the end-products or the works realized.

Having in view the evolution of the profit and of the related expenditures it is necessary to determinate and to trace the modification of the consumed resources profitability ratio in the same conditions as the evolution of critical variables. In terms of relative stability the level of the consumed resources profitability ratio is 12.74%, but through the change of the value of the critical variables, the data presented in table below results:

Table 8

Consumed resources profitability ratio

Elements	-5%	-4%	-3%	-2%	-1%	1%	2%	3%	4%	5%
Selling price	7,10	8,23	9,36	10,49	11,61	13,87	15,00	16,12	17,25	18,38
Demand	11,30	11,60	11,89	12,18	12,46	13,02	13,29	13,56	13,82	14,08
Salaries	13,47	13,33	13,18	13,03	12,89	12,60	12,45	12,31	12,16	12,02
Productivity	12,02	12,16	12,31	12,45	12,60	12,89	13,03	13,18	13,33	13,47
Raw materials	16,38	15,63	14,90	14,17	13,45	12,04	11,35	10,67	9,99	9,33

From data analysis results that the lowest level of the consumed resources profitability ratio is recorded either in the case of selling price decrease, either in the case of increase of raw materials and energy costs in which case the indicator's value comes up to 7,10 %.

In stability terms, the analyzed enterprise records a sales profitability ratio of approximately 11.3%.

Table 9

Return of sales ratio

Elements	-5%	-4%	-3%	-2%	-1%	1%	2%	3%	4%	5%
Selling price	6,6	7,6	8,6	9,5	10,4	12,2	13,0	13,9	14,7	15,5
Demand	10,2	10,4	10,6	10,9	11,1	11,5	11,7	11,9	12,1	12,3
Salaries	11,9	11,8	11,6	11,5	11,4	11,2	11,1	11,0	10,8	10,7
Productivity	10,7	10,8	11,0	11,1	11,2	11,4	11,5	11,6	11,8	11,9
Raw materials	14,1	13,5	13,0	12,4	11,9	10,7	10,2	9,6	9,1	8,5

From the presented data, it results that the sales profitability ratio has a slower evolution than the consumed resources profitability ratio. However, the values recorded by the commercial profitability in terms of maintaining the actual situation of the real estate field will led to the record of smaller values.

The price of construction materials has already decreased with approximately 20-30% in the first semester of 2009, versus the similar period of 2008, due to the delay of some projects. This trend of diminishing the production costs is determined by the acquisition price reduction for the raw materials, after a period in which they had an increase trend, without a preliminary justification.

Thought repeated calculation for each value of the critical variables, it results the following probability distribution and cumulated probability distribution for the sales profitability ratio and consumed resources profitability ratio.

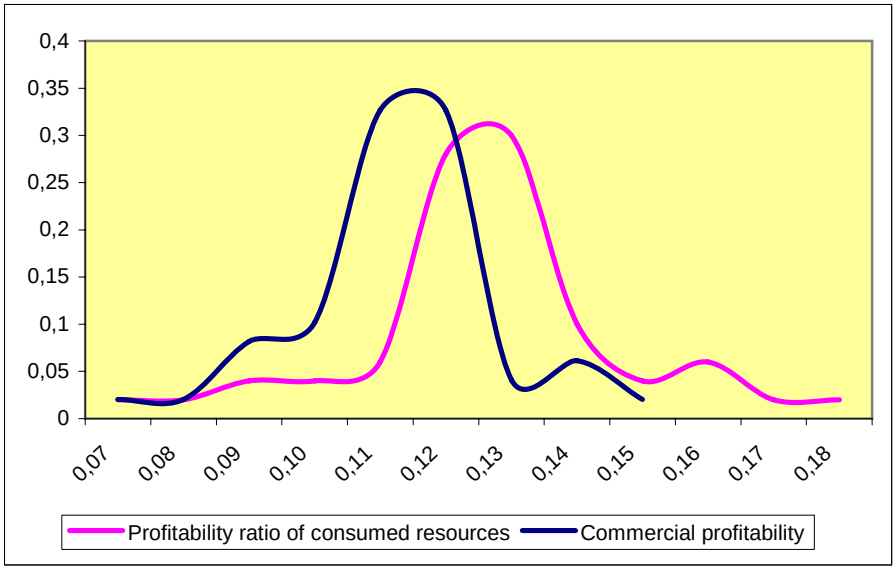

Figure 9. *Probability distribution for the sales profitability ratio and consumed resources profitability ratio*

The cumulated probability curve allows us to attribute a degree of risk, if the cumulated probability is greater or not than the reference value, which is considered as critical. Also it can be evaluated which are the probabilities for the sales profitability ratio and cost profitability ratio to be smaller than a certain value which in this case will be adopted as limit.

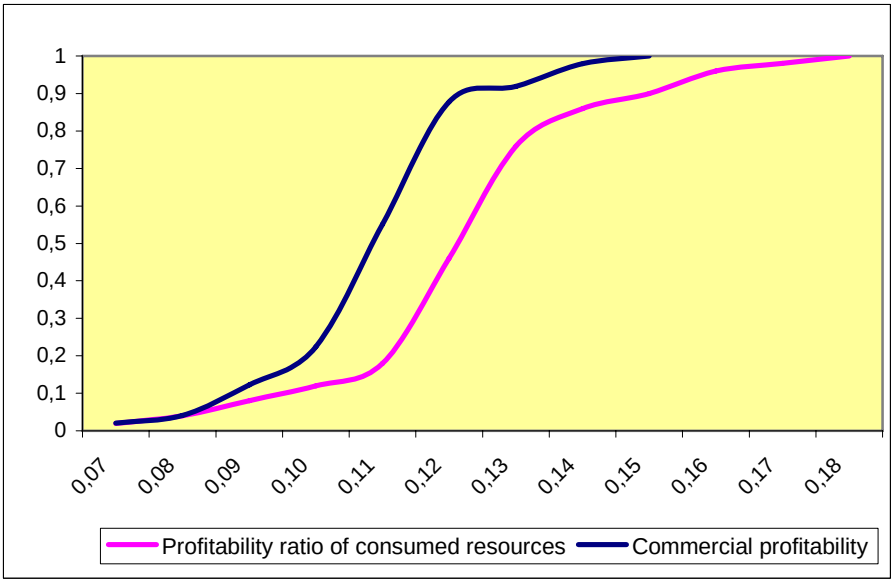

Figure 10. *Cumulated probability distribution for the sales profitability ratio and consumed resources profitability ratio*

From the data presented above, it can be observed that generally the reduction of the sales prices, as a report of the demand and supply, will led to the reduction of the turnover and implicitly of the profit and of the profitability ratios. Normally, the reduction of the raw materials costs, and not necessarily due to the decrease of the specific consumption, but due

to the reduction of acquisition prices from suppliers will have a benefic effect on the real estate market in general and implicitly on the firms in the construction industry. The producers of construction materials, and especially the cement factories, are presenting commercial profitability ratios of more than 30-40%, on the background of the internal demand for such materials.

From the salaries' point of view, any increase of those will led to a reduction of the enterprise's performance, but their increase must not be individually analyzed, but in correlation with the productivity of labor, that in most cases is much higher than the modifications of salaries.

In these conditions, some measures are imposed to be taken to rejuvenate the real estate industry and the construction industry companies: the maintain and expansion of the application area for a reduced VAT quota for the housing construction sector, the finalization of the construction projects already running, the facilitation of access to loans, the acceleration of the necessary administrative procedures in granting approvals needed by the real estate market, the grant of facilities for rehabilitating the houses etc.

Conclusions

After a continuous increase of the construction market in 2000-2008, the constructions volume in Romania has lowered in the first part of 2009 with approximately 10-15% versus the half of 2008. In these conditions the enterprises recording a high level of fixed expenses are much riskier and less flexible to the modifications of the economical environment. The sensitivity of the profit and of the profitability ratios depends both on the volume of expenses and on the level of the turnover, given by the price evolution.

From the costs' point of view a variant of recovery for construction firms would be the reduction of the production costs. These reductions are certainly based on the decrease of the prices for construction materials that have increased very much in 2005-2007, renouncing often at their export in favor of the internal sale, where the market actors imposed higher values of the prices.

From the probabilistic study results that there is a relatively high probability that the commercial profitability and the consumed resources profitability to decrease versus the values recorded until this moment

For the rejuvenation of the domain investments are necessary, or other measures meant to stimulate the construction of houses, that will have an amplified effect on the Romania's economic growth. Only through the increase of the demand the increase of the volume of work is possible and implicitly of the turnover.

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THE PRINCIPLE OF CONSISTENCY IN ENTERPRISE ASSESSMENT

Ana Maria POPESCU
Bucharest Academy of Economic Studies

Abstract. *Enterprise evaluation implies the application of professional reasoning based on the assimilation and observance of the correlations between the financial indicators and the factors that influence the value size. There are tens of such compulsory obligations, during all the stages of the evaluation process. The most important are the correlations between the financial indicators used for the application of the evaluation methods inscribed under the three approaches of value. The lack of consistency in the professional reasoning leads to the occurrence of an error in the evaluation and to the lack of credibility of the final value proposed in the evaluation report. This communication presents both the main coherences as well as the most often met errors, caused by the unacquaintance with or by the failure to apply the principle of consistency in evaluation.*

Keywords: evaluation; professional reasoning; correlations; factors.

There is a largely spread statement that assessment is more of an art than a science. According to our opinion, the assessment is the process of applying the professional argument, respectively of detailed knowledge, of explicit substantiation and of strict observance of the consistency principle, by which we understand the observance of certain correlations between the financial indicators and the factors influencing the size of the value. There are tens of such compulsory correlations, in all the phases of the assessing process. In this short article, we shall present the most important correlations and arguments, grouped in two categories, as follows:

- among the three approaches of the enterprise value; and
- within the application of the assessing methods contained in the three value approaches.

The lack of correlation of the financial indicators in the professional argument leads to errors in assessment and to lack of reliability of the final value proposed in the assessment report.

Often, even in certain assessing standards, it is underlined that the three classical approaches of the market value of an enterprise, respectively by market comparison, by income and based on (patrimonial) assets, are independent of one another. The undoubted result of such an argument is to get different, sometimes substantially different, values from the three approaches, which makes extremely difficult the process of reconciling them and of presenting a final value. In fact, the application of the consistency principal in the assessing process implies the application of the assessing approaches and methods in their interdependency. This logical requirement derives from the argument that certain value factors, taken into account in an approach, must be also be taken into account in another approach. If we act this way, ideally, similar values should result from the three approaches, and the reconciliation process will not be necessary any more.

We hereby present some coherences among the approaches, which, if strictly observed, do not generate significant differences among the values of the share capital and/or the values of the invested capitals:

- If the assessment starts with the application of the method of the corrected net assets (CNA), the resulted value of the share capital shall be unreliable, because the correct

size of the depreciation of the fixed assets, especially of the operational and external depreciations, was not accurately determined to simplify the assessor's effort, who seldom calculates a total depreciation based on the accounting indicators, and not based on those reflecting the physical state, the operational state and the loading level on the assessment date. But in the income approach (the capitalization and updating technique), the forecasting of the future income (cash flow or profit net) must reflect the real depreciation level of the fixed assets, as the size and development of the future income is strictly related to the depreciation level. For instance, if we establish that the basic equipment has a technological consume 20% bigger than the technological consume of the equivalent modern equipment (so they have technological or operational depreciation), and the forecasted use level of that equipment shall be of only 60% of their designed production capacity (so they have also external depreciation), based on these two depreciation forms, a lesser cash flow or net profit shall be forecasted than when these depreciations are absent. With other words, a low net cost for replacing the fixed assets, caused by the high depreciation level, shall generate a future income reduced as size and for a reduced useful life time.

Another flaw of the CNA method is the fact that the identifiable intangible assets and the possible trade fund are not included in the share capital value (SCV), which is not the case in the other two approaches. Therefore, if the SCV resulted from the income approach and by the market comparison is higher than the CNA, calculated based on the accounting data, the CNA method has no relevance in the reconciliation n process, this process occurring only between the results of the other two approaches. Otherwise, if the CNA is substantially higher than the SCV resulted from the other approaches, you may need to change the purpose of the assessment, and thus of the appropriate standard, respectively the assessment of the enterprise as real estate property, as the plot of land and buildings have a high value on the market, the best use principle requiring a change of the use of the patrimony.

An error of certain assessors is to try to assess certain intangible assets, discovered in the phase of juridical diagnosis, and to include them in the CNA before applying the appropriate assessing methods of the other two approaches. It is an error denoting lack of knowledge concerning the essence of the intangible assets and the necessary conditions for their assessment. For instance, there are cases when a trade mark or the trained work power of an enterprise is assessed, whose profitability rate of the share capital is far lesser than the cost of the equity, i.e. the profitability rate expected by the shareholders.

- If the assessment starts by applying the market comparison method, whose essence consists in applying certain multiples, either of the market value of the equity, or of the market value of the invested capital on certain financial variables of the enterprise in case (net profit, gross or net cash flow, EBIT, EBITDA, turnover, etc.), normally by correctly selecting the appropriate market multiples and by correcting them for certain differences between the selected comparables and the subject enterprise, the results should be similar. If there is any result substantially divergent from the others, it means that the scope of the comparables was not correctly selected, returning to a new selection of comparable enterprises.
- By applying the two methods, contained in the income approach, the resulted values should be very close to the ones resulted by applying the market comparison method. The explanation is of the same nature as a logical argument, respectively the known statement that the reverse of the capitalization and updating rate is the multiple. So, the coherence between the two approaches may be expressed as follows: if more income forms of the enterprise capitalize with appropriate capitalization rates or update with appropriate updating rates, the resulted values must be similar; and vice versa, if appropriate market multiples apply to the same income forms of the enterprise, the results must be similar with the ones from the market approach. But, to get to such similar results, it is necessary a great number of professional arguments, materialized in selecting, comparing and correcting the

capitalization and updating rates and making them suitable for the income form, as well as for the market multiples.

- A last coherence, reflecting the interdependency among the three value approaches refers to the express mention of the so-called value level, respectively if the values of the share capital, resulted from the application of the assessing methods included in the three approaches, are on control basis or minority basis. This mention is necessary to make a comparison during the reconciliation process of the type *apples with apples*. Thus, a control-based value results from the CNA method, but it is not suitable any more to apply to it a control premium, possibly only a discount for lack of liquidity (if the enterprise is not listed). By the market comparison approach with the transactions of unlisted enterprises, the result is again a control-based value. By the income approach, the result may be a control-based value, if the net cash flow or the forecasted net profit which is being updated or capitalized represents the designated, respectively corrected, levels of these indicators, because only an owner with control power has the statutory possibility to make corrections to certain items of the profit and loss account. Otherwise, by the comparison method with transactions of shares of certain listed comparable companies, the result is a value on minority basis.

The second category of coherences and arguments are specific to each and every approach.

a) In the market comparison method:

- separating the assets outside their operation and their separate assessment at the net accomplishment value (on exchange premises);
- detailed inspection of the enterprise to discover the depreciation forms of the fixed assets;
- appealing to the reassessing index technique only in special cases, as an exception;
- establishing and including also the future conditioned debts in the assessment.

b) In the market comparison method:

- appropriate explanation of the process for selecting the comparable listed and/or unlisted enterprises;
- explaining the features of the selected comparable enterprises from the same field of activity or the reason of selecting certain comparables from other fields which have the same risk features of investment;
- asking the enterprise managers about making suitable the comparable enterprises, respectively about the similarities concerning the economic and risk factors characterizing their present and future activity;
- appropriate application of the assessment multiple selected from the comparable enterprises, respectively a multiple of the market value of the invested capital, applies on the income generated by the invested capital (for example the net profit from operation or net cash flow at the disposal of the investors), and not on the income generated by the equity (for example the current net profit or net cash flow at the disposal of the shareholders).

c) In the income approach:

- Extracting the incomes and expenses generated by the assets outside operation, as well as the fortuitous incomes and expenses;
- the items of the profit and loss account, so that these corrections might be made statutorily (any correction, if a majority share package is assessed) or only certain corrections (if a minority share package is assessed);
- substantiation of the forecasting of the cash flow based on the view of the participants on the market, which might be different than the view of the enterprise management;
- explaining the selection of the explicit forecasting term;
- the model or method used to established the level of the updating rate, made suitable for the type of used cash flow, and, if the averagely balanced cost of the capital is used, as updating rate, it is also necessary the explanation of the forecasted financing

structure, determined according to the market value of the components of the invested capital, and not by their accounting value;

- if there are also intangible assets, being necessary the assignment of the income (the net cash flow or the net profit) on all the components of the invested capital, including on the identifiable intangible assets, a compulsory correlation is the equality between the averagely balanced cost of the capital, calculated based on the forecasted financing structure, and the averagely balanced cost of the assets, components of the invested capital, calculated as the averagely balanced rate of the profitability, required by the investments in all the categories of assets, including identifiable intangible assets.

To sum up, I tried to present in this material only part of the basic arguments of the enterprise assessor and to underline that the assessment is more the application of a strict argument based on solid economic knowledge, as well as the detailed substantiation of this argument in the assessment report.

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REFINED ECONOMIC VALUE ADDED – AN INDICATOR FOR MEASURING THE PERFORMANCES OF THE COMPANIES

Daniel CÎRCIUMARU
Marian SIMINICĂ
University of Craiova

Abstract. *The performances are an important objective of management and the financial analysis uses several indicators that could measure the success of an organization. But performances may have different significances for stakeholders, depending on their necessity for information. In this paper, we present an indicator for measuring the performances of the companies, the economic value added, which is of great importance for the shareholders. Starting from the classical relation of this indicator, we present too the theoretical considerations of the refined economic value added, a concept introduced by Jeffrey Bacidore. Considering these two modalities of calculating the economic value added, we carry out a comparative analysis between these variants, with an exemplification on a case study.*

Keywords: economic value added; refined economic value added; cost of equity.

JEL Classification: G11, G34.

The performance of a company is an important management objective, and the economic-financial analysis proposes, in this respect, several synthetic indicators that can reproduce the success of an organization. The performances can, however, have different meanings for different stakeholders, so that the use of certain indicators depends on the stakeholders to whom they are addressed and by the interests of informing them. Although, depending on the objectives, the management of a company may firstly put on the map the various stakeholders' interests, it can't ignore the performances required by the shareholders, materialized in increasing their wealth. Within the pale of the indicators for measuring the shareholders' performances, the ones based on the creation of value stand out in relief and, within them, the economic value added.

The economic value added (EVA) was created at the end of the '80s by the American economist Bennett Stewart, the term being registered as trademark of Stern Stewart & Co. It reflects the surplus of value created by a company from its operating activity, after covering the cost of invested capital and the profit tax. In specialized literature, there were earlier versions of this concept, such as residual profit, being considered by some authors, as effective as the EVA. These versions have been preferred due to the lower number of adjustments of the financial statements involved, in comparison with the economic value added.

The economic value added is determined as the difference between the net operating profit (NOP) and the cost of invested capital (CK) as follows:

$$EVA = NOP - CK = OP - PT - CK,$$

where:

OP – operating profit;

PT – profit tax.

Considering the ratio between the cost of invested capital and the size of invested capital as being the weighted average cost of capital, and the ratio between the net operating profit and the capital as a form of return on invested capital (RK), we obtain:

$$EVA = K \times (RK - WACC),$$

$$RK = \frac{NOP}{K}$$

and $WACC = \frac{CK}{K}$,

where:

K – capital invested in the previous year;

WACC – weighted average cost of capital;

RK – return on invested capital.

The invested capital includes all the financing sources used by the enterprise, for which it must pay remuneration. It comprises two components:

- equity (E);
- borrowed capital or financial debts (D) on short, medium and long term, which shall bear interest.

When determining the EVA, the invested capital refers to the year preceding the one for which the calculations are made.

The cost of invested capital, in absolute size, has two components:

- the cost of equity (dividends and other forms of revenue that the shareholders expect);
- the cost of borrowed capital (interests to be paid to creditors).

The weighted average cost of invested capital (WACC) is determined as a weighted average between the rate of the cost of equity (R_E) and the rate of the cost of borrowed capital or the financial debts (R_D) that is:

$$WACC = R_E \times \frac{E}{IK} + R_D \times \frac{D}{K}(1 - T);$$

$$R_E = \frac{CE}{E};$$

$$R_D = \frac{I}{D},$$

where:

T – profit tax rate;

CE – cost of equity;

I – cost of borrowed capital (interest expenses).

Given the calculation of the two rates falling within the previous relationship, the size of *WACC* can be set as follows:

$$WACC = \frac{CE}{K} + \frac{I}{K}(1 - T)..$$

The cost of equity is given by the profitability of an investment in a similar asset that has the same risk as investing in the company concerned. It can be calculated in two ways, depending of the moment of determining the EVA:

- in case of A retrospective calculation, the cost of equity is given by the opportunity cost, respectively the average profitability what could have been obtained if this capital had been invested in another business;
- in case of a forecast calculation, the cost of equity is represented by the level of profitability required or expected by shareholders.

The cost of borrowed capital depends, in particular, on the average interest rate on the economy. In case of a particular company, it is determined as an average of the interest rates for all the loans incurred in one year. In determining the actual cost of financing through loans, one should consider that using this type of resources generates financial expenses with tax deductible interests, resulting in a saving of income tax, which makes the actual cost of borrowed capitals be lower than the nominal level:

$I = D \times R_D \times (1 - T)$.

A variation of the EVA is the **refined economic value added (REVA)**. It was created by J. Bacidore in 1997 and takes into account in determining the cost of invested capital, the market value of the company, and not its book value.

The authors of this concept searched, in fact, to determine another landmark for establishing the remuneration of managers, considering that the market value (the stock exchange quotation) is not an effective parameter, given two elements:

- the multitude of factors that influence the value of a company, without having anything to do with the decisions of the management team;
- the decisions of managers situated on the lower hierarchical levels have a much lower impact on the exchange quotation than those of the CEOs, so that their wage bonus can't be determined according to the market value of the company.

Bacidore believes that the financial performance indicators used to determine the managerial compensation should, on the one hand, be correlated with the changes that appear in the shareholders' wealth, and on the other hand, should not be affected by random variations in the quotation. One of the indicators that have succeeded, in good measure, to solve this problem is the economic value added. However, the refined economic value added is a superior indicator in this regard, as ensures a better correlation with the cost of equity, since the latter is calculated by investors on market values basis rather than the book values. Thus, the market value of the company comprises two components:

- the book value of held assets;
- the net present value of current and future investment opportunities, which is not taken into account by the EVA, when determining the cost of equity.

The refined economic value added is calculated as follows:

$$REVA = NOP - CK^* = MV_k \times (RK^* - WACC^*),$$

where:

CK* - revised cost of invested capital;

WACC* - weighted average cost of capital;

MV_K – market value of invested capital;

RK* - revised rate of return on invested capital.

The market value of invested capital includes the market value of equity (stock exchange capitalization, if the firm is listed on the stock exchange) and the market value of financial debts, both determined as in the case of EVA, for the previous year.

Considering that the market value of financial debts is equal to the book value, the following changes occur against EVA:

$$WACC^* = R_E \times \frac{MV_E}{MV_K} + R_D \times \frac{D}{MV_K}(1 - T);$$

$$R_E = \frac{CE}{MV_E};$$

$$RK^* = \frac{NOP}{MV_K},$$

where:

MV_E – market value of equity.

Since, most of the time, the market value of equity is greater than the book value (sometimes, several times higher), it will attract a much higher cost of invested capital, leading to a higher pressure for the management team, to achieve a higher return on assets.

In order to exemplify, we'll present the case of four Romanian companies operating in the oil industry, listed on the Bucharest Stock Exchange: Petrom (SNP symbol), Rompetrol Rafinare (RRC), Rompetrol Well Services (PTR), Petrolexportimport (PEI). For these companies, we'll calculate the economic value added and the refined economic value added for 2007. The sources of information are the financial statements published by these companies, the web sites of the companies of financial services, the reports of National Bank of Romania.

In order to estimate ***the rate of cost of equity***, the CAPM model was used, applicable to listed companies, with the following relationship for calculation:

$$R_E = Rf + \beta \times (Rm - Rf),$$

Rf – the risk-free rate of return;

β – the beta coefficient of volatility, which measures the investment risk in a certain security;

Rm – the average return of the stock market;

(Rm - Rf) - the risk premium or the market premium.

To determine *the risk-free rate of return*, we used the interest rates paid by the financial institutions for the deposits of people and public companies in 2007. We took into account the bank deposits as they do not present risks for investors, given their coverage up to a certain limit by the Banking Guarantee Fund, and that the interest is quite close to the securities issued by the state. In the calculations, were included only long-term deposits (in RON), as the investment in a security is usually also on long term. Data taken for the beginning of 2007 (January) and the end (December), resulting in a simple arithmetic average, is presented in the following table:

Table 1

	January		**December**	
	Deposits – mill. RON –	**Interest rate**	**Deposits – mill. RON –**	**Interest rate**
Companies	383.2	7.61%	766.8	7.35%
People	1904	7.50%	2783.1	7.16%
TOTAL	2287.2		3549.9	

Source: National Bank of Romania, Monthly Reports for the year 2007, January and December, www.bnr.ro

Based on this data, the weighted average interest rate paid on the national economy in 2007 for long term bank deposits (more than 1 year) was calculated to 7.36%. Considered, further, that this is the nominal interest rate without risk that an investor calls in the year 2007.

To determine *the beta coefficient*, the following relation was used:

$$\beta_i = \frac{\text{cov}(R, Rm)}{\frac{1}{T}\sum_{t=1}^{T}(Rm_t - \overline{Rm})^2} = \frac{\sum_{t=1}^{T}(R_t - \overline{R}) \times (Rm_t - \overline{Rm})}{\sum_{t=1}^{T}(Rm_t - \overline{Rm})^2},$$

where:

cov(R, Rm) – covariance between the return of the security (R) and the return of the stock market (Rm);

t = 1, 2, ..., T - time periods for which the return of the security and of the stock market are calculated;

$\overline{R}$ - the average return of the security during the period considered;

$\overline{Rm}$ - the average market return during the period considered.

The coefficient of volatility should be calculated for a great period of time so as to be durable; in our case, it was calculated for the period 2006-2007, based on closing prices at the end of each trading week in the two years considered (Appendix 1). The weekly returns of the security were calculated as percentage changes of closing prices between the previous and the current week, and for the average return of the stock market, was used the BET-C index of all shares listed on BSE, for which was also taken the closing value at the end of each week. The data series included 51 weeks of trading of each of the two analyzed years.

Based on the methodology outlined above, the resulting values for beta coefficients are:

Table 2

Company	The beta coefficient
1. Petrom	1.04
2. Rompetrol Rafinare	1.28
3. Rompetrol Well Services	1.20
4. Petrolexportimport	0.85

A value equal to 1 of this coefficient means the same risk as the market, a value greater than 1 means a higher risk and a value below 1 a risk lower than the market. In our case, three companies present a greater risk than the market (Petrom, Rompetrol Rafinare and Rompetrol Well Services) and a company a smaller risk than the market (Petrolexportimport). In the case of Petrom, a coefficient of 1.04 means a risk which is 4% higher than the market.

The average return of the market for 2007 was calculated using the same statistical series as a percentage change between the BET-C index for the last week of trading and the index of the first week, resulting in a level of 20.89%.

Starting from this data, the cost of equity for the four companies in 2007 was calculated, resulting in the following values:

Table 3

Company	The cost of equity
1. Petrom	21.50%
2. Rompetrol Rafinare	24.73%
3. Rompetrol Well Services	23.57%
4. Petrolexportimport	18.9%

These are the required returns of the investors to make an investment in shares issued by the four companies in 2007. It is noted that the lower cost of capital is held by Petrolexportimport, which had the lowest level of beta coefficient.

The rate of interest on loans contracted from banks was determined also as an average on the national economy, given the difficulty of calculating it for each enterprise. The data required is shown in the following table:

Table 4

	January				December			
	Loans in RON*	Interest rate	Loans in EUR*	Interest rate	Loans in RON*	Interest rate	Loans in EUR*	Interest rate
Short term (< 1 year)	12,553.3	12.50%	8,155.0	7.36%	16,723.6	11.95%	11,836.1	7.31%
Medium term (1-5 years)	7,174.5	12.92%	7,284.6	7.38%	9,378.4	12.12%	11,417.6	8.15%
Long term (> 5 years)	2,938.6	11.91%	7,427.6	7.35%	6,474.8	11.13%	13,392.4	8.34%
TOTAL	**22,666.4**		**22,867.2**		**32,576.8**		**36,646.1**	

*Values expressed in mill. RON

Source: National Bank of Romania, Monthly Reports for the year 2007, January and December, www.bnr.ro

In this case too the loan balances existing at the beginning of the year (January) and at the end (December) were used and a simple arithmetic average between these was calculated. The interest rate for the loans was calculated as a weighted arithmetic average using as weights the loans expressed both in terms of currency (RON or EUR) and depending on the period (short, medium or long). Under these circumstances, the average interest rate on loans

in 2007 was 9.84%. Note that there were excluded from the analysis the loans expressed in currencies other than RON or EUR, which had a negligible share.

Using the data presented previously there was calculated the economic value added (classical and revised) for the four firms included in the study.

For the company **Petrom**, the data required to calculate EVA and REVA is presented in the following table:

Table 5

Measures	EVA	REVA
1. Equity*	11,525,897,234	31,804,000,827**
2. Financial debts*	239,128,910	239,128,910
3. Invested capital * ([1]+[2])	11,765,026,144	32,043,129,737**
4. Weight of equity in invested capital ([1]/[3])	97.97%	99.25%
5. Weight of financial debts in invested capital ([2]/[3])	2.03%	0.75%
6. Weighted average cost of capital	21.23%	21.40%
7. Operating profit	1,964,598,430	1,964,598,430
8. Profit tax	371,584,727	371,584,727
9. Net operating profit ([7]-[8])	1,593,013,703	1,593,013,703
10. Return on invested capital ([9]/[3])	13.54%	4.97%
11. EVA/REVA ([3]x([10]-[6]))	**-904,481,454**	**-5,263,673,653**

* average values from the previous year, 2006
** market values

We have to mention that the book values of equity and financial debts have been calculated as arithmetic averages of the balances at the end and beginning of the year.

See that Petrom has not used a too large volume of bank loans in 2007 (2.03% share of capital invested), so that the average cost of invested capital (21.23%) is close to the equity (21.50%). The return on invested capital was 13.54% below the weighted average cost of capital, which resulted in a negative EVA of -904,481,454 lei. To determine REVA, was used an average market value of the company in 2006, calculated as an average equity market value of each week of trading. The average cost of invested capital is 21.40%, being much higher than the return on invested capital (4.97%). In these circumstances, REVA becomes much smaller than EVA, respectively -5,263,673,653 lei. The negative EVA and REVA are determined on one hand, by the low efficiency of business operation (the return is very small, especially when determined based on market values), and on the other hand, by the lack of funding through loans, which have a much lesser cost, only 9.84% versus 21.50% for equity. This is a paradoxical situation that a company with sufficient financial resources to finance activities destroys the shareholders' wealth due to increased pressure exerted by them to get a higher remuneration. The much smaller level of REVA compared to EVA is also caused by over evaluating the company (the ratio between market and book value is 2.8), which involve a drastic reduction in return on invested capital. Thus, a management team that aims at increasing the market value of the company without increasing the operating profit will see a lesser return calculated on the market basis, which will be reflected in a negative way in REVA level.

In the case of **Rompetrol Rafinare**, the calculation of EVA and REVA for the year 2007 is presented in Table 6.

Table 6

Measures	EVA	REVA
1. Equity*	2,364,402,198	2,188,905,086**
2. Financial debts*	625,944,906	625,944,906
3. Invested capital * ([1]+[2])	2,990,347,104	2,797,396,128**
4. Weight of equity in invested capital ([1]/[3])	79.07%	78.25%
5. Weight of financial debts in invested capital ([2]/[3])	20.93%	22.38%

Measures	EVA	REVA
6. Weighted average cost of capital	21.28%	21.20%
7. Operating profit	-36,849,736	-36,849,736
8. Profit tax	0	0
9. Net operating profit ([7]-[8])	-36,849,736	-36,849,736
10. Return on invested capital ([9]/[3])	-1.23%	-1.32%
11. EVA/REVA ([3]x([10]-[6]))	**-673,207,794**	**-629,815,097**

* average values from the previous year, 2006
** market values

In this case, both EVA and REVA are negative, but REVA is slightly higher than EVA. From the table, we find that operating profit is negative for this company, so there is no question that it creates value for shareholders. The financial debts are 625 million lei, which means a share of 20.93% for EVA and 22.38% for REVA. The levels are fairly close due to a market value very close to the book value (2.19 billion lei against 2.36 billion lei, signifying a ratio of 0.93). The operating losses have generated a market value of equity lesser than the book value, leading to a higher return on invested capital and, therefore, a greater level of REVA.

For **Rompetrol Well Services**, the indicators are presented in Table 7.

Table 7

Measures	EVA	REVA
1. Equity*	48,815,326	33,757,466**
2. Financial debts*	0	0
3. Invested capital * ([1]+[2])	48,815,326	33,757,466**
4. Weight of equity in invested capital ([1]/[3])	100%	100%
5. Weight of financial debts in invested capital ([2]/[3])	0%	0%
6. Weighted average cost of capital	23.57%	23.57%
7. Operating profit	17,043,766	17,043,766
8. Profit tax	3,291,060	3,291,060
9. Net operating profit ([7]-[8])	13,752,706	13,752,706
10. Return on invested capital ([9]/[3])	28.17%	40.74%
11. EVA/REVA ([3]x([10]-[6]))	**2,247,353**	**5,796,361**

* average values from the previous year, 2006
** market values

This company has not used bank loans in the period under review, so that the weighted average cost of capital is equal to the cost of equity (23.57%) both for EVA and REVA. We find that although the company has a high operating profit, the average market value is much lower than the book value (ratio of 0.69), which is due to poor results posted in the first three quarters of 2006, which led to a lower average market value. This put REVA in advantage against EVA, with a return of 40.74% in the first case as compared with 28.17% in the second case. This is the only company of the four analyzed that has a positive value added, respectively 2.2 million lei EVA and 5.8 million lei REVA. It should be noted that the company manages to create value added in circumstances of using own funding only, that have a much more cost than the borrowed capital. We also note, in this case, a lesser common situation, i.e. a lower market value than the book one, which is usually met at companies with losses.

In the case of **Petrolexportimport,** the results are presented in Table 8.

Table 8

Measures	EVA	REVA
1. Equity*	22,797,375	62,028,184
2. Financial debts*	25,092,638***	26,480,166***
3. Invested capital * ([1]+[2])	47,890,013	88,508,350
4. Weight of equity in invested capital ([1]/[3])	47.60%	70.08%

Measures	EVA	REVA
5. Weight of financial debts in invested capital ([2]/[3])	52.40%	28.35%
6. Weighted average cost of capital	13.33%	15.59%
7. Operating profit	-2,050,540	-2,050,540
8. Profit tax	0	0
9. Net operating profit ([7]-[8])	-2,050,540	-2,050,540
10. Return on invested capital ([9]/[3])	-4.28%	-2.32%
11. EVA/REVA ([3]x([10]-[6]))	**-8,432,653**	**-15,845,639**

* average values from the previous year, 2006
** market values
*** estimated values

This company has the highest leverage of those studied, with a weight of financial debts of 52.40% for EVA and 28.35% for REVA. These high levels generate a lower weighted average cost of capital, of 13.33%, respectively 15.59%, showing the lowest cost of capital. This situation was also determined by a low cost of equity, of 18.9% only. We also notice a quite high market value of equity, with a ratio of 2.7 compared to book value. However, this company posted operating losses in 2007 of 2 million lei, which resulted in a negative value for the return on invested capital and, further, for EVA (-8,432,653 lei) and REVA (-15,845,639 lei). Surprising, in this case, is the low rate of cost of equity, as the company saw a strong reduction of operating profit in the period 2005-2007 (from 15 million to -2 million lei). In this case, we can see the limits of the way the beta coefficient was determined, this pointing out a risk below the average of the stock exchange market.

In the end, the following **conclusions** can be drawn from the previous case studies:

- only one of the analyzed companies created value added (Rompetrol Well Services);
- the results are affected by the fact that book values of equity and financial debts have been calculated as arithmetic averages of the balances at the beginning and end of the year, while market values were calculated based on weekly levels;
- the use of REVA is justified if the market and book values are very different, otherwise it has the same information value as EVA;
- REVA involves a paradox, namely growing at any price the market value of the company will lead to a decrease of the value added created;
- REVA level is affected by the impact of investors' expectations, which are reflected immediately on the market price, but not on the operating profits;
- the use of REVA instead of EVA is more advantageous for the shareholders and stimulates the managers to closely monitor the correlation operating profit – market value and not only the market value;
- REVA can not substitute EVA within the system of measures of economic and financial performances of the company.

The appreciation of the performances of the enterprises based on refined economic value added (REVA) brings additional information to investors who are the major users of this concept. However, as deduced from the case studies presented above, REVA can not substitute EVA, even if it has the great advantage of using market values for balance sheet items. Thus, EVA can be used in case of companies who have high levels of the ratio market value/book value and have a satisfactory level of operating profit, while REVA presents doubtful results for the companies where the market value is not justified by a similar operating profit. If a company has a spectacular growth of market value as a result of anticipating favorable results in the future, REVA is the first to be affected, while EVA is more stable to such shocks, while allowing the correlation of the capital with the profits obtained. However, for a mature company, where the level and profitability of the business is not spectacular, REVA can be successfully used, with better results than EVA.

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Appendix 1

The Levels of the Weekly Closing Market Prices of the Four Companies and of BET-C Index in the Period 2006-2007

2006						2007					
Date	SNP	RRC	PTR	PEI	BET-C	Date	SNP	RRC	PTR	PEI	BET-C
06.ian	0.51	0.114	0.225	158	4150.58	05.ian	0.605	0.0974	0.79	136.9	5392.21
13.ian	0.575	0.115	0.23	160	4415.73	12.ian	0.61	0.0948	0.84	133	5316.12
20.ian	0.62	0.114	0.226	160	4604.92	19.ian	0.6	0.0942	0.78	128.2	5239.21
27.ian	0.605	0.118	0.232	168.7	4602.78	26.ian	0.595	0.1	0.81	130	5339.72
03.feb	0.63	0.123	0.27	192	4850.44	02.feb	0.6	0.116	0.86	130.8	5574.01
10.feb	0.63	0.117	0.269	185.3	4919.36	09.feb	0.605	0.111	0.85	131	5580.26
17.feb	0.61	0.111	0.265	185.1	4808.94	16.feb	0.595	0.105	0.865	125	5590.74
24.feb	0.6	0.095	0.232	179	4707.14	23.feb	0.6	0.107	0.905	128	5715.3
03.mar	0.615	0.101	0.253	178	4705.41	02.mar	0.575	0.0971	1.07	121.3	5496.91
10.mar	0.59	0.0935	0.24	172	4508.33	09.mar	0.575	0.0925	1.12	120.8	5534.87
17.mar	0.59	0.087	0.22	165.6	4463.16	16.mar	0.585	0.0922	1.09	118.3	5497.97
24.mar	0.59	0.0801	0.23	165.1	4528.74	23.mar	0.58	0.1	1.21	117.4	5611.69
31.mar	0.565	0.0909	0.24	164	4457.04	30.mar	0.57	0.1	1.21	116	5560.16
07.apr	0.525	0.0918	0.242	160.3	4316.71	06.apr	0.57	0.102	1.48	116.2	5853.13
14.apr	0.535	0.096	0.25	162.5	4543.88	13.apr	0.55	0.102	1.59	116.1	5761
21.apr	0.54	0.0965	0.247	177	4537.18	20.apr	0.545	0.105	1.58	116.2	5839.69
28.apr	0.565	0.0983	0.247	175	4572.45	27.apr	0.555	0.104	1.6	116.2	5943.65
05.mai	0.555	0.0894	0.243	190	4462.93	04.mai	0.55	0.103	1.76	107.5	6053.87
12.mai	0.54	0.09	0.254	154.9	4492.65	11.mai	0.545	0.0953	1.61	106.7	5783.93
19.mai	0.51	0.08	0.08	150	4358.82	18.mai	0.53	0.0928	1.59	106.5	5843.71
26.mai	0.52	0.08	0.268	146	4366.64	25.mai	0.535	0.09	1.78	101.3	5939.12
02.iun	0.515	0.08	0.272	145	4309.02	01.iun	0.51	0.0902	1.85	117.8	5932.61
09.iun	0.505	0.0767	0.27	140	4181.71	08.iun	0.498	0.089	1.86	108.6	5923.82
16.iun	0.492	0.0687	0.26	131.2	4054.13	15.iun	0.525	0.0881	1.92	110.6	6122.83
23.iun	0.478	0.067	0.255	133.4	4035	22.iun	0.53	0.0905	2.43	110	6291.85
30.iun	0.51	0.0677	0.262	139.8	4209.62	29.iun	0.53	0.09	2.38	111	6559.52
07.iul	0.525	0.071	0.273	146	4467.74	06.iul	0.565	0.101	2.34	111.4	6906.24
14.iul	0.515	0.0742	0.267	142.2	4350.29	13.iul	0.57	0.106	1.93	111.9	7045.71
21.iul	0.52	0.081	0.289	142.1	4421.7	20.iul	0.59	0.105	1.82	118.1	7323.95
28.iul	0.56	0.089	0.323	148.2	4560.24	27.iul	0.55	0.099	1.6	110	6949.74
04.aug	0.52	0.0784	0.32	149.3	4479.64	03.aug	0.54	0.102	1.62	107.1	6966.79
11.aug	0.55	0.0834	0.32	155.3	4563.76	10.aug	0.54	0.097	1.56	106.5	7003.31
18.aug	0.545	0.815	0.305	144.8	4579.06	17.aug	0.48	0.0918	1.5	104	6453.44
25.aug	0.54	0.081	0.32	143	4519.21	24.aug	0.5	0.098	1.68	105.5	6799.53
01.sep	0.55	0.08	0.325	143.5	4559.26	31.aug	0.52	0.124	1.8	108.5	7017.55
08.sep	0.555	0.08	0.345	142.7	4647.67	07.sep	0.505	0.126	1.72	101	6933.29
15.sep	0.535	0.0826	0.345	143	4710.37	14.sep	0.5	0.116	1.7	99.7	6794.86
22.sep	0.545	0.0885	0.356	141.2	4685.96	21.sep	0.535	0.112	1.61	99.1	6791.64
29.sep	0.56	0.0902	0.399	142	4763.26	28.sep	0.5	0.107	1.52	96.7	6605.92
06.oct	0.61	0.092	0.482	143.8	5010.38	05.oct	0.545	0.12	1.66	96.5	7020.31
13.oct	0.59	0.0913	0.5	143.1	5012.18	12.oct	0.63	0.123	1.7	97	7067.54
20.oct	0.61	0.0924	0.525	142.9	5080.01	19.oct	0.5	0.118	1.62	95.3	6889
27.oct	0.6	0.0875	0.825	143	5085.64	26.oct	0.52	0.116	1.59	93.5	6902.62
03.nov	0.615	0.0849	0.72	142.5	5108.61	02.nov	0.535	0.112	1.58	94	6872.21
10.nov	0.615	0.0852	0.73	142.3	5075.5	09.nov	0.505	0.103	1.5	86	6496.37
17.nov	0.6	0.081	0.73	126.5	4973.87	16.nov	0.495	0.1	1.54	79.1	6333.12
24.nov	0.565	0.086	0.71	132.6	4918.92	23.nov	0.5	0.099	1.46	70.2	6076.01
01.dec	0.59	0.086	0.72	129	4992.99	30.nov	0.49	0.104	1.64	80.5	6278.77
08.dec	0.585	0.0917	0.72	129.1	4968.77	07.dec	0.505	0.109	1.67	84	6519.15
15.dec	0.545	0.0895	0.705	121.3	4921.63	14.dec	0.5	0.107	1.64	79	6457.97
19.dec	0.57	0.0875	0.73	123	5025.08	21.dec	0.497	0.11	1.7	75.8	6518.64

* **Source:** www.kmarket.ro, the weekly reports Puls Capital from the years 2006-2007

** the market prices are expressed in RON, and the BET-C index in points

MODERN MODELS OF GENERAL FINANCIAL DIAGNOSIS OF THE COMPANY IN THE PRESENT CONTEXT OF ECONOMIC AND FINANCIAL-ACCOUNTING GLOBALIZATION

Monica ACHIM
„Babeş- Bolyai" University of Cluj Napoca
Sorin BORLEA
„Vasile Goldiş" Western University of Arad

Abstract. *This paper intends to create a modern model of own financial diagnosis, based on the SWOT analysis method, combined with evaluation charts methods and attempting a qualitative and quantitative evaluation both of the standing and of the evolution of different economic-financial indicators that contribute to the general economic-financial standing of the company. The model is both complex and synthetic, since it is able to synthesize all the analytical information through a simple evaluation using an evaluation chart expressing both a qualitative point of view (critical point, weak point, uncertain point, strong point, forte) and a quantitative point of view (by ascribing scores from 1 to 5).*

Keywords: financial performance; diagnosis; week points; strong points; scoring; model.

JEL Classification: M10, M41,G33.

1. Introduction

In the actual context of economic globalization, time means money for every investor. The decision of investing on the capital markets of various geographical locations have to be grounded by return calculations that are both fast and efficient within an objective and professional financial diagnosis.

The notion of diagnosis comes from the Greek diagnostikos and represents someone's ability to discern. It implies the ability to analyze and comprehend performance (Deaconu, 2002, p. 30).

In general, the diagnosing process involves a „broad research of the main aspects of the activity performed by an organization, be them economic, technical, sociological, juridical and management, with the purpose of identifying the strong points and the weak points, their causes and the creation of certain recommendations to achieve perfection and development" M. Miles, 2000, p. 86).

According to other important authors, „the analysis-diagnosis implies the decomposing of an economic mechanism or phenomenon into its composing elements, the determination of its influence factors, the measurement of the factors' influence on the elements both from a static and a dynamic perspective and, eventually, the determination of the strong (forte) points and the weak points of the researched economic mechanism or phenomenon, also suggesting the practical solutions for correcting the trajectory of less functional elements" (I. Batrancea, et al., 2000, p. 6).

We believe that diagnosis may be defined as a complex research of the competitive, economic and financial aspects characterizing the activity of an organization, research that identifies the forte and weak points, their causes and that presents recommendations of excluding or reducing the negative elements and/or of enhancing the positive ones.

As a result, the general diagnosis of a company is structured in three main elements:

- *Competitive milieu diagnosis element;*
- *Economic (administrative) diagnosis element;*
- *Financial diagnosis element.*

While competitive milieu diagnosis refers to external factors, respectively to „the opportunities" and „threats" (risks) that a company encounters, the economic and financial diagnosis refers to the determination of the fortes and of the weak points in the internal economic-financial activity of the company.

The competitive milieu diagnosis has the role of determining the competitive standing of the company on the market, thus preparing the strategic responses of the company to the constraints of its external milieu. Such a diagnosis of the company's environment will take into account „the opportunities" and „risks" provided by the market, thus imaging the efforts required for its adapting to the structural changes of the environment, as well as the efforts of adequate positioning as compared to its competition.

The economic (administration) diagnosis or the economic standing diagnosis refers to the economic activity of a company, thus achieving a correlation between the efforts involved (resources) and the effects of the activity (results) from the entire activity cycle of the company and with the purpose of identifying the strong and weak points, as well as of determining the therapy for the economic recovery of the company.

The economic diagnosis answers to the internal decisional needs of the company's administration system, especially those of managers, as main internal users of micro-economic analysis.

Financial diagnosis consists, putting it synthetically, of the identification of symptoms, imbalances, determining the financial standing of the company, recommending the measures for improving the existing situation.

The International Reporting Financial Standards state that „financial analysis is the discipline though which analytical instruments are applied to financial statements and other financial data in order to interpret the tendencies and relations in a consistent and disciplined manner. Basically, the analyst handles the conversion of data into information and, therefore, he contributes to the diagnosing process the purpose of which is the research and forecast of information" (H.V. Greuning, 2005, p. 26).

We believe that *financial diagnosis* represents a group of concepts, methods, instruments that enable the approach of financial statements and other internal or external information in order to *express qualitative and/or quantitative judgments regarding a company's dynamic financial standing perspective.*

This paper intends to present the drawing up of a modern model of own financial diagnosis that would present a qualitative and quantitative evaluation of a company's general financial standing.

2. Literture review

The present's requirements of economic-financial analysis imposed the drawing up of synthetic financial diagnosis models that would satisfy within an operational period of time and with a relatively small number of calculations the requirements of different groups of users.

Thus, we may classify the great number of models existing in professional literature and in economic practice, in the following categories:

a) According to the issuing subject of these models, there are:

- *Models drawn up by banks* within the methodology for crediting decision. Here we may mention the models used and drawn up by *Romanian Trade |Bank, Transylvania Bank, Romanian Development Bank, Raiffeisen Bank* (M. Achim, 2009, pp. 419-444).
- *Models drawn up by financial counseling companies:*

− *CEMMAT* (Center of Technological Management and Transfer Bucharest) *Model* that refers to the following financial diagnosis categories: marketing, technology, quality, management, human resources (C. Mereuță, et al., 1994, p. 166);

− *Roland Berger Model* used by the foreign counseling company R.B. refers to the following elements of general diagnosis: products, competition, distribution, production, financial elements and management; using 28 representative criteria of the above mentioned diagnosis fields (I. Bătrâncea et al: 2007, pp. 120-121).

- *Models drawn up by different economics professionals:*

− *A.G.* (Alexandru Gheorghiu) *Model* presents eight essential elements of the company's activity: finances, market and competition, research-development, products, management, production, trade, personnel (Al. Gherghiu et al., 2002).

− *MEFAT* (Financial evaluation model ANDONE-TUGUI) is a model based on the scoring method and consists of the selection of ten indicators from the group of economic-financial indicators, which are to be ascribed an importance coefficient according to their significance (A. Ioan, Al. Țugui, 1999, pp. 40-41).

− Evaluation models of financial standing, generally called *Model „A" and Model „B"* (M. Bătrâncea, L-M Bătrâncea, 2006, pp. 94-104). Both models take into account the perspective of the diagnosis performed by banks for their clients being credit scoring models and are based on two qualitative models and five quantitative ones. The difference between the two models consists of the way in which these criteria are selected, taking into account collaterals, debts service, types of clients (producers or traders).

b) According to the used methodology, there are:

- *Statistic methods* based on the multiple discriminative analysis. The best known foreign statistic models of financial diagnosis are *Altman Model, Canon Holder Model, French Balance Sheet Index Model, Taffler Model, Robertson Model*).

In our country there were drawn up financial diagnosis models adapted to the Romanian emergent type economy: *Anghel Model, Cămăşoiu-Negoiescu Model, „C" Model* drawn up by analysts from Craiova University, *Băileşteanu Model* etc.

- *Non statistic or determinist models.*

These models use other techniques than the statistic ones, that is comparison, induction-deduction, analysis-synthesis, scoring, evaluation charts etc. When selecting the indicators representing a diagnosed field and when ascribing importance scores, a very important role is held by the experience and the professionalism of the financial analyst. These will help him make objective and adequate qualitative and quantitative evaluations.

2. The data base used in making the financial diagnosis

According to some professionals (Matis D., 2003, p.20), „the most representative sources of economic data and information are:

a) *economic planning* that provides about 20% of the economic information referring to a company;

b) *economic record* that provided about 20% of the economic information corresponding to a company, distributes as follows:

- 46-50% are obtained from accounting;
- 9-13% are provided by statistics;
- 11% are obtained from operative records.

c) *other sources*, such as economic-financial legislation that represent approximately 2% from the information corresponding to a company".

As it results from the above presented structure, accounting represents the main source of economic data and information, since it provides **30-35%** from the economic information corresponding to a company.

Therefore, a very important role is held by the financial statements that must be drawn up and published by all the companies. Romanian companies have to draw up annual financial statements, according to the stipulations of O.M.F.P. no. 1752/2005, taking into account the so-called „size" criteria.

If the limits of two of the following criteria are outrun (total assets: 3.650.000 Euro, net turnover: 7.300.000 Euro; average number of employees during the financial period: 50), the companies have to draw up the following:

a) Balance sheet;
b) Profit and loss account;
c) Changes of own capital statement;
d) Cash flows statement;
e) Explicative notes to annual financial statements.

The companies that, on the date of the balance sheet, do not outrun the limits of two of the before mentioned size criteria will draw up the simplifies annual statements:

a) Short balance sheet;
b) Profit and loss account;
c) Explicative notes to the simplified annual financial statements.

As an option, there may be drawn up the changes of own capital statement and/or cash flow statement.

3. General methodology of determining financial diagnosis

Financial diagnosis methodology includes a group of methods, techniques and procedures with the help of which there *are determined the strong and weak points* of financial administration in order to create a new strategy for maintaining and developing in a competitive milieu.

The interaction of financial diagnosis methodology with financial analysis methodology happens according to the inclusion relation as presented below:

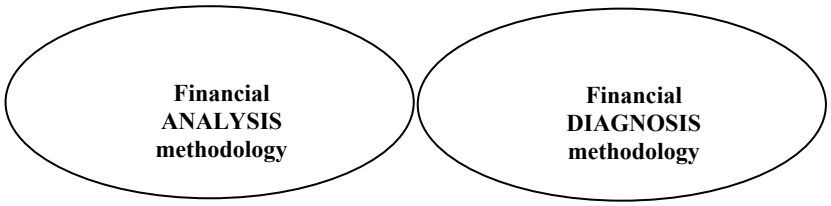

Figure 1. *Financial analysis methodology in comparison with financial diagnosis metodology*

Financial diagnosis methodology uses some of the specific methods and procedures of financial analysis, but it has additional own methods and procedures. Among the most frequently used methods of analysis-diagnosis, we may mention:

- *SWOT method (strength, weakness, opportunities and threats);*
- *Evaluation charts method;*
- *Benchmarking method;*
- *Profiles method;*
- *Combined methods.*

The most frequently used financial diagnosis methods are based on the combination of the analysis-diagnosis SWOT method (consisting of the identification of thr weak points,

strong points, opportunities and risks corresponding to a company) with evaluation charts method that presents the quantitative evaluation of the analyzed aspects.

In a synthetically manner financial analysis methodology is presenting as the figure bellow:

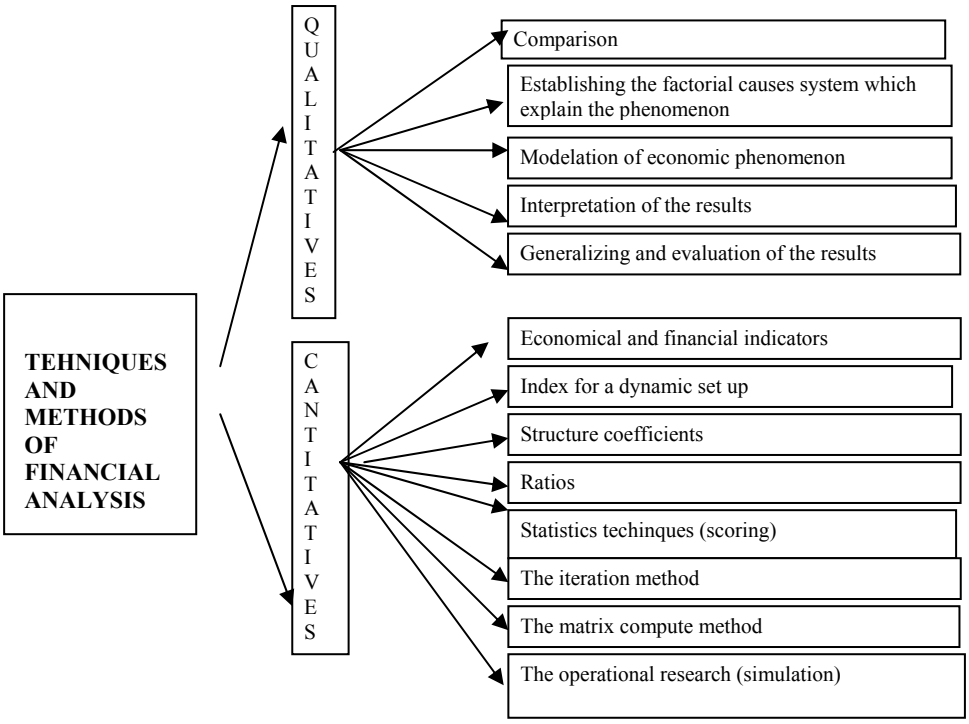

Figure 2. *Financial analysis methodology*

Starting from the content of the data base used in financial diagnosis, which is largely represented by financial statements, financial diagnosis seen as system may be structured according to the following composing elements:

- *Financial standing diagnosis based on the Accounting Balance Sheet;*
- *Performances diagnosis based on The Profit and Loss Account,*
- *Cash Flows diagnosis;*
- *Risks diagnosis;*
- *Provisional diagnosis represents the future prediction of the financial standing that would result from the set rights procedure.*

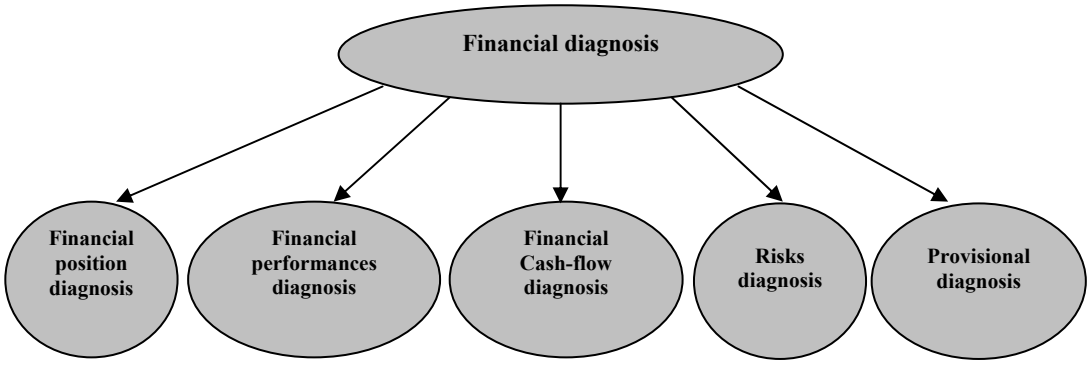

Figure 3. *Financial diagnosis system*

Financial position diagnosis may be recouped according to the *objectives* pursued by the financial position analysis into the following categories of partial financial performance diagnosis:

a) General diagnosis of financial position:
- Diagnosis of financial position evolution;
- Diagnosis of financial position structure.

b) Diagnosis of financial position equilibrium:
- Diagnosis of liquidity and solvability;
- Diagnosis of working capital;
- Diagnosis of activity indicators.

Financial standing diagnosis may be recouped according to the *objectives* pursued by the financial performance analysis into the following categories of partial financial performance diagnosis:

a) General diagnosis of financial performance;
- Diagnosis of financial performance evolution;
- Diagnosis of financial performance structure.

b) Diagnosis of financial performances based on return ratios:
- Diagnosis of commercial return ratios;
- Diagnosis of economic and financial return ratios;
- Diagnosis of stock market ratios.

Cash flows diagnosis should present the strong points and the weak points in the administration of the resources controlled by the cash flow generating company, classified on operating activities, investments and financing.

Risks diagnosis presents the strong points and the weak points regarding the level of the economic and financial risk of the company. Risk diagnosis is divided into two categories of risks:

a) Economic risk diagnosis;
b) Financial risk diagnosis.

5. Steps in making the financial diagnosis

Considering the opinions above, the making of the financial diagnosis includes the following ***steps***:

a) Selecting a sample of financial indicators representing financial standing, for example indicators referring to liquidity, solvability, financial balance, return, profitability, cash flows, risks etc.

b) Establishing the strong points and the weak points of the financial standing that was determined according to the selected criteria. They may be presented in a synthetic manner as follows:

The strong points of a company's financial standing may be the following:
- Traditional clients represent over 50% from the total number of clients of the company;
- Very good product quality;
- Positive working capital;
- Increasing rotation speed of assets;
- Liquidity and solvability within the accepted safety intervals;
- Positive leverage effect;
- Positive cash flow from operating activity;
- Increasing profits;

- Increasing added value;
- Good and increasing commercial return;
- Increasing stock market capitalization etc.

The weak points of the financial standing may be synthesized as follows:

- Lack of financial resources, a fact that may trigger the interruption of the supply;
- Current production capacity and its technical level hinder the entrance on different market segments;
- Decrease (in real terms) of the incomes obtained from important activities;
- Poor product quality;
- Performing a commercial activity with little or no profitability;
- Reduced liquidity and solvability;
- Slower increase, stagnation or even decrease of the company's value.

c) Ascribing scores from 1 to 5 for the selected representative financial criteria, as follows:

– if it is calculated only the status and the evolution tendency, the simple form of the chart as follow will be used:

Table 1

Chart for evaluate the status OR the tendency of an financial indicator

Note (N)	1	2	3	4	5
Status	Critical	Weak	Average	Good	Strong
Tendency	Sudden worsening	Slow worsening	Maintaining	Slow improvement	Sudden improvement

- if there are evaluated at the same time both the level and the tendency, there will be used the complex, matrix-like chart, as follow:

Table 2

Chart for evaluate the status AND the tendency of an financial indicator

Tendency/Status	Critical	Weak	Average	Good	Strong
Sudden improvement	3	3.5	4	4.5	5
Slow improvement	2.5	3	3.5	4	4.5
Maintaining	2	2.5	3	3.5	4
Slow worsening	1.5	2	2.5	3	3.5
Sudden worsening	1	1.5	2	2.5	3

d) Ascribing importance scores for each indicator according to the position in the evaluation chart, taking into account the type of industry.

e) The calculation of the average score and the hierarchization of companies in the market, thus highlighting the competitive advantage of each company. The average score is determined according to the relation:

$\vec{N} = \sum_{i=1}^{n} pi \times Ni$, where

- pi represents the importance estimates ascribed to each indicator;
- Ni represents the score of each indicator.

f) ***Identifying the financial diagnosis category*** based on the global financial evaluation according to the table 3:

Table 3

Chart of financial diagnosis

General status of the financial indicator	FINANCIAL DIAGNOSIS	
	Quantitative diagnosis AVERAGE SCORE	Qualitative diagnosis SWOT METHOD
Strong	5	SOLID financial diagnosis- Category A STRONG POINT
Very good	4.5	
Good	4	GOOD financial diagnosis –Category B GOOD POINT
Satisfactory	3.5	
Average-acceptable	3	AVERAGE/ACCEPTABLE financial diagnosis – Category C UNCERTAINTY
Non satisfactory	2.5	PRECARIOUS financial diagnosis –Category D WEAK POINT
Weak	2	
Very weak	1.5	CRITICAL financial diagnosis – Category E CRITICAL POINT
Critical	**1**	

As it results from the table above, according to the average score obtained, we may say that the general financial diagnosis of a company can be divided into the following categories:

- **Solid financial diagnosis – Category A** if **4<** $\vec{N}$ **< 5,** characterized by the following aspects:

− In this case the business is very good, so is the financial standing of the company;

− There is a high development potential, the position on the life cycle curve is development-maturity;

− From the creditors point of view, there exists an excellent reimbursement capacity, financial creditors have high trust in the company's potential;

− The risks implied for the different creditors of the company are very low. Loss is unlikely to occur.

- **Good financial diagnosis – Category B** if **3<** $\vec{N}$ **< 4,** characterized by the following aspects:

− In this case there is an adequate business, with possible future development;

− The position on the life cycle curve is represented by development-maturity, the required strategies are investment or neutral strategies;

− From the creditors point of view, there is a very good reimbursement capacity, payment irregularities are unlikely to occur and, if they do, they are minor and they can be rapidly solved;

− The risks implied for the different creditors of the company are very low. Loss is unlikely to occur.

- **Average/acceptable financial diagnosis – Category C** if $\vec{N} \approx$**3**, characterized by the following aspects:

− In this case the activity of the company has a few problems, the increase possibilities are uncertain and the recovery possibilities are low;

− The position on the life cycle curve is represented by launching or decline, therefore it is necessary to create either investment or cease of investment strategies;

− From the creditors point of view, there is a good reimbursement capacity, but there may occur payment irregularities;

− The risks involved are considered medium acceptable and it is necessary to have the activity constantly supervised.

▪ **Precarious financial diagnosis – Category D** if **2<** $\bar{N}$ **< 3**, characterized by the following aspects:

− In this case the activity has major problems;

− The position on the life cycle curve is represented by launching or decline, therefore it is necessary to create either investment or cease of investment strategies;

− From the creditors point of view, there are problems regarding the cash flows, a fact that may result in a precarious reimbursement capacity, highly vulnerable to external environment;

− The risks involved are considered to be high and loss may occur.

▪ **Critical financial diagnosis – Category E** obtained if **1<** $\bar{N}$ **< 2,** characterized by the following aspects:

− In this case there is a serious problem with the standing of the company, it deals with financial blockages and an imminent bankruptcy risk;

− From the creditors' point of view, the reimbursement capacity is very weak and the risks are considered to be very high. Loss is imminent.

g) Drawing up interpretations, recommendations, future action strategies in order to apply „the therapy".

During this stage there are determined the recommendations, respectively the strategic options in the context of the financial standing of the company. This issue that the analysis-diagnosis has to approach is represented by the suggestions of the diagnosis team referring to: the elimination of the causes of the weak points and of their negative symptoms; the increase of the causes generating strong points and of the positive symptoms, turning account opportunities, decreasing threats, increasing the internal global power, increasing the response capacity of the company to external challenges.

The recommendation should be accompanied by the evaluation of the efforts required for their putting into practice and the foreseen economic and functional effects.

In order to include all the elements requires in turning account recommendations these may be organized as presented below:

Table 4

The interpretations- Recommendations chart

No.	Recommendation	Causes	Additional founds needs	Main effects	Observations
0	1	2	3	4	5

6. Drawing up a synthetic model of financial diagnosis

The methodology of drawing up a financial diagnosis presented in section 4, together with the systematic steps presented in section 5 may be united in a very suggestive synthetic model of financial diagnosis, representing a systematic and user friendly tool in the diagnosis of the financial standing of an activity. Such a model is synthetically represented in table no. 5.

The diagnosis of the global financial potential, in quantitative terms, was based on a mathematical average of the partial scores obtained at the previous partial diagnoses:

$\overline{NG} = \sum_{i=1}^{4} \overline{N}ixPi$ where:

- $\overline{NG}$ represents the average global score realizing by financial state of entity;
- $\overline{Ni}$ represents the average score of each partial diagnosis determining as follow:

- $\overline{N}1$ represents the average score of financial position diagnosis;
- $\overline{N}2$ represents the average score of financial performance diagnosis;
- $\overline{N}3$ represents the average score of cash-flow diagnosis;
- $\overline{N}4$ represents the average score of risks diagnosis;

- Pi represents the importance estimates ascribed to each component of financial diagnosis indicator, in function of theirs importance in a global model framework:

- P1= 10 % represents the importance estimates ascribed to financial position component;
- P1= 30 % represents the importance estimates ascribed to financial performances component
- P1= 40% represents the importance estimates ascribed to cash-flow component;
- P1= 20 % represents the importance estimates ascribed to risks component.

The importance percentages ascribed to the representative financial indicators of the financial standing of the company represent the aggregated result of the percentages ascribed during the partial diagnoses. An explicit synthesis built on levels is presented in tables 6 and 7.

7. Conclusions

In an extremely dynamic economy, where time tends to become a very important variable in the process of decision making by the users of financial information, the rapidity of decision making depends on the creation of a as synthetic as possible financial model that would present details regarding the industry and the nature of each activity.

In the actual context of economic and financial-accounting globalization, the various categories of financial information users need representative, objective and very fast diagnosis models in order to achieve the following *objectives*, specific to each category:

✓ Estimates of the trustworthiness of those clients who require a credit (performed by banks);

✓ Establishing the present and future value of shares (performed by potential investors);

Determining the value of the company, necessary in the case of privatization, merging, liquidation, division etc. (performed by the financial analysis companies);

✓ Estimation of work place stability and financial safety (performed by employees);

✓ Putting into practice restructuration and recovery programs (performed by the state);

✓ Fiscal control (performed by the state);

✓ Providing information to macro-economic institutions (performed by The Trade and Industry Chamber, The Institute of Statistics, rating companies etc.).

We believe that the created model successfully meets the modern financial information requirements of all the users, being adapted to the informational accounting data base, harmonized with The International Standards of Financial Reporting, recently adopted by Romania. It is obvious that the model is perfectible and, therefore, we are open to all „pro" and „con" opinions, since we believe that any suggestion is most welcomed and has the role of continuously improving the science of financial analysis applied to worldwide economies and especially to Romanian economy, yet frivolous in comparison to developed economies, but with a great potential of growth.

Table 5

A synthetic model of financial diagnosis

The representatives criterias for financial state of entity	Remarks	SWOT Diagnosis	Score (1-5)	Importance (pi)*	Agregate score	Measures
Financial position				**10 %**		
Evolution and structure of assets	...	...	N1	4 %	n1xp1	...
Evolution and structure of debts and equity	...	...	N2	16 %	n2xp2	...
Liquidity	...	...	N3	20 %	n3xp3	...
General solvability	...	...	N4	2%	n4xp4	...
Financial indebt	...	...	N5	14 %	n5xp5	...
Times interest earning (TIE)	...	...	N6	4 %	n6xp6	...
Working capital	...	...	N7	8 %	n7xp7	...
Management of total assets	...	...	N8	16 %	n8xp8	...
Management of inventory	...	...	N9	9,6 %	n8xp9	...
Management of receivebles/debts	...	...	N10	6,4 %	n10xp10	...
1. Financial position diagnosis		...	-	100 % **10 %**	$\vec{N}1 = \sum_{i=1}^{n} nixpi$	...
Financial performances				**30 %**		
Evolution of financial performances	...	...	N1	10 %	n1xp1	...
Structure of financial performances	...	...	N2	10 %	n2xp2	...
Commercial profitability ratio	...	...	N3	16 %	n3xp3	...
Return on equity (ROE)	...	...	N4	12 %	n4xp4	...
Return on assets (ROA)	...	...	N5	12 %	n5xp5	...
Growth stock market ratios	...	...	N6	36 %	n6xp6	...
Dividend stock market ratios	...	...	n7	4 %	n7xp7	...
2. Financial performance diagnosis		...	-	100 % **30 %**	$\vec{N}2 = \sum_{i=1}^{n} nixpi$	...
Cash-flow				**40 %**		
Operating cash-flow	...	...	n1	30 %	n1xp1	...
Investing cash-flow	...	...	n2	20 %	n2xp2	...
Financing cash-flow	...	...	n3	10 %	n3xp3	...
Total cash-flow	...	...	n4	40 %	n4xp4	...
3. Cash-flow diagnosis		...	-	100 % 40 %	$\vec{N}3 = \sum_{i=1}^{n} nixpi$	...
Risks				**20 %**		
Break-even point	...	...	n1	30 %	n1xp1	...
Global break-even point	...	...	n2	35 %	n2xp2	...
Financial leverage	...	...	n3	35 %	n3xp3	
4. Risks diagnosis		...	-	100 % **20 %**	$\vec{N}4 = \sum_{i=1}^{n} nixpi$	...
Global diagnosis of financial potential	**Category A** **Category B** **Category C** **Category D** **Category E**			**100 %**	$\vec{N}G = 4\sum_{i=1}^{n} \overline{N}ix.$	**...**

***** The importance ascribed to financial criteria was set up based on the evaluation of authors. For this purpose, see the aggregation of component score by the hierarchy of compose levels, presented in the tables 6 and 7.

Table 6

Composing the final importance score of selected financial positions criteria

Financial position criteria and theirs importance score as a result of theirs compose by levels								Final score
Evolution and structure of financial position	20 %	Evolution and structure of assets	20 %					**4 %**
		Evolution and structure of debt and equity	80 %					**16 %**
Equilibrium of financial position	80 %	Liquidity and solvability	50 %	Liquidity	50 %			**20 %**
				Solvability	50 %	General solvability	10 %	**2%**
						Financial indebt	70 %	**14 %**
						Times interest earning	20 %	**4 %**
		Working capital	10 %					**8 %**
		Management of activity's indicators	40 %	Management of total asset	50 %			**16 %**
				Management of inventory	30 %			**9,6 %**
				Management of receivebles/debts	20 %			**6,4 %**
TOTAL								**100 %**

Table 7

Composing the final importance score of selected financial performances criteria

Financial performance criteria and theirs importance score as a result of theirs compose by levels						Final score
Evolution and structure of financial performances	20 %	Evolution of financial performances	50 %			**10 %**
		Structure of financial performances	50 %			**10 %**
Profitability ratios	80 %	Commercial profitability ratios	20 %			**16 %**
		Rentability ratios	30%	Return on assets	50 %	**12 %**
				Return on equity	50 %	**12 %**
		Stock market ratios	50 %	Of growth	90 %	**36 %**
				Of dividend	10 %	**4 %**
TOTAL						**100 %**

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MONTE CARLO SIMULATION – A QUALITATIVE METHOD ANALYSIS AND EVALUATION OF THE COMPANY'S PERFORMANCE AND RISKS

Ciprian APOSTOL
„Al.I. Cuza" University of Iaşi

Abstract. *Monte Carlo simulation is used with predilection when multidimensional problems are discussed (eg, the outcome depends on more variables or risk factors).*

The method was invented by American scientists in 1940 when it was used to simulate the trajectory of a neutron in uranium or plutonium. Monte Carlo method, the real is replaced by an artificial process. To obtain accurate results, it is essential that the random variables generated during the simulation experiments to faithfully reproduce the real random variable.

Monte Carlo simulation is one of the best methods of risk analysis.

Keywords: performance; risk;, simulation; analysis; company.

Introduction

Considering that almost any change, for the better or for the worse, implies a certain degree of risk (for instance, fluctuations in sales, a stock crisis, unpredictability of demand, cost increase on the labor market, legal changes, mergers etc.), competitiveness and effectiveness are terms frequently used nowadays in the language of decision makers. All have the same objective: to maximize profit while at the same time minimizing resource consumption, a context in which the term portfolio optimization comes into play. The more is known on potential risks, the better can business risk exposure be managed. As a result, two aspects are crucial in risk analysis: what the risk sources are and what is the risk dimension or the extent of the exposure.

Traditional risk evaluation, which uses the method of the portfolio, starts from the premise that the means and variance are good estimators of the degree of risk exposure. In certain conditions, the two parameters can lead to realistic estimates. But in the economic fields where operational costs affect the quantity provided on the market or the delay of completing a project, the manner in which results and profit are distributed does not always represent a normal standardized distribution. Two investment projects, identical from the point of view of the necessary resources, can have a completely different risk structure, and its estimation through its reduction to a single number could be irrelevant. In such situations, the use of probability distributions for each variable (input and output) individually (for example, for the price of raw materials, the volume of production, capital expenses, operational costs, etc.) provides a much more realistic estimate. Such a procedure implies, in fact, a simulation. The Monte Carlo simulation is mainly used when dealing with multidimensional problems (for instance, the result depends on several variables or risk factors).

1. Presentation of the Monte Carlo method

The Monte Carlo method generates, at random, the values of a single random variable, using:

- A random number generator uniformly distributed within the interval [0, 1] and
- The cumulated probability distribution associated to the respective random variable.

This method was invented by the American researchers from „Los Alamos National Laboratory" around 1940, when it was used to simulate the trajectory of a neutron in plutonium or uranium.

The Monte Carlo method can be defined as a modeling method for random variables used for determining the characteristics of their distribution, when these characteristics cannot be established through analytical expressions based on the theoretical functions of probability density.

In the Monte Carlo method, the real process is replaced with an artificial process. In order to obtain correct results, the random variables generated during simulation experiments should faithfully reproduce the real random variables.

2. The analysis of the company's risks and performance with Monte Carlo method

The Monte Carlo simulation is the most efficient method for risk analysis. Its actual usage implies several important stages (Iftimescu A., 2007: p. 50):

1. Developing a determinist simulation model that specifies input variables (controllable and incontrollable influence factors), output variables (results, from the point of view of retained performance criteria) and the relations between the output and input variables, which can be expressed directly or indirectly, using intermediate variables;
2. Transforming the determinist model previously built in a probabilistic one, by assigning probability distributions to the input variables that reflect incontrollable factors marked by uncertainty;
3. Expressing the relations between the probabilistic interdependent input variables (such as, for instance, the future price of a product and the predictable market share). Usually, such relations are modeled by correlation matrices between the respective random variables;
4. Performing the simulation;
5. Analyzing the simulation results and interpreting them in order to evaluate risk.

There are environments for developing risk analysis applications using the Monte Carlo simulation, for all computer types: mainframes, minicomputers, and microcomputers. The best known such software products are ***@RISK***, developed by Palisade (*http://www.palisade.com*), and ***Crystal Ball***, designed by the American company Decisioneering (*http://www.decisioneering.com*). These are, in fact, add-ins for Microsoft Excel or Lotus 1-2-3.

Even tabular computing programs include several facilities for building simple applications for Monte Carlo simulations. Microsoft Excel, for example, through the *Analysis ToolPak* add-in, provides the possibility to generate random numbers with given distributions (only discrete empirical distributions and theoretical distributions: uniform, normal, Bernoulli, binomial, Poisson distributions). However, software products designed for Monte Carlo simulations (mentioned above) are clearly superior in case of developing complex applications.

The application of the Monte Carlo simulation, as well as the software tools used to this purpose, differ significantly according to the manner in which the time variable is taken into consideration when performing the simulation experiment. When the recalculation of the simulation model, from one experience to another, is concerned with the same moment in time, the simulation is considered **static**. In this case, an output variable presented as a probability distribution will contain the possible values of the variable and the corresponding probabilities, computed for that moment in time. If the simulation model subject to experiments includes the time variable, and this variable takes on different (increasing) values from one experience to another within the same experiment, then the simulation is considered **dynamic**. An output variable expressed as its probability distribution will include, in this case, the possible values of the variable and its corresponding probabilities, computed for different moments in time.

Evaluating the investments risk is definitely the most important management field where the Monte Carlo simulation can be successfully applied in its static form.

As is known, an investment means sustainable involvement of various (material or immaterial) funds, in the hope of obtaining large enough future gains, taking into account the risks implied. The investment decision is a complex process that presupposes estimating significant parameters for any analyzed investment possibility. From these parameters, the most important are the ones below:

• The total capital invested (taking into consideration the variation of the trading capital need, determined by the future exploitation of the investment);

• The life duration of the investment;

• The residual value of the investment, that is, the value of the goods that may exist at the end of its life;

• Future gains (cash flows) that will be generated by the respective investment. These must me evaluated independently from the manner of financing the investments. Besides, the risk implied by the different gains stepped in time must be taken into consideration (profit update).

The main profitability indicator of an investment is the Net Present Value (NPV) of the cash flows generated by that investment. NPV depends on a large number of variables. Some of these variables, with an uncertain evolution, can be estimated through their probability distributions. This makes possible to use the Monte Carlo simulation to determine the separate NPV value and to measure the risk implied by an investment. David Hertz suggested for the first time this type of analysis for motivating the investment decisions.

In his approach, Hertz (1968) takes into consideration nine primary variables for computing NPV. These variables, included in the model as probability distributions, are (Iftimescu A., 2007, p. 53):

- The market size (of the initial demand);
- The sales price;
- The market growth ratio;
- The market share (that controls the physical sales volume);
- The total invested capital;
- The investment residual value;
- The variable exploitation costs;
- The fixed costs, and
- The life duration of the investment.

Certainly, in order to obtain a good risk evaluation, all five stages of the correct application of the Monte Carlo method have to be completed. The first and most important one of them is building the simulation model. It needs to express as well as possible the „internal functioning" of the investment project under analysis.

For example, **in the case of an independent capacity investment**, the cash flow over the period t can be modeled as follows:

$$Cf = (Pt \times Qt - VCt \times Qt - FCt - \frac{I_0}{n}) \times (1 - TPA) + \frac{I_0}{n}$$

where:

Cf – the cash flow over the period t;

Pt – the price per unit over the period t;

Qt – the quantity sold over the period t;

VCt – the variable costs per unit over the period t;

FCt – the global fixed costs over the period t (including capital costs different from write-off investments);

I_0 – the initial investment;

n – the life duration of the project;

TPA – the tax for profit amount.

Of course, the cash flows model can be much more complex. Variable costs can be differentiated into costs for raw materials and costs with the work force, and sold quantities can be calculated according to three exogenous variables: initial market size, market growth ratio, and provisioned market size (as suggested by Hertz). However, everything depends on the volume of available information and on the cost of this information.

Based on the cash flows computed this way, the net present value of the project is then calculated. For an investment without a significant residual value, NPV is expressed as:

$$\text{NPV} = \sum_{t=1}^{n} \frac{Ft}{(1+r)^t} - I_0 ,$$

where r is the interest rate.

Another indicator based on which pertinent evaluations can be done concerning the profitability and risks of an investment is the internal rate of return (IRR). This rate canceling net present value equalizing present value of the future cash flows with initial investment:

$$\sum_{t=1}^{n} \frac{Ft}{(1+IRR)^t} = I_0$$

For a given investment, IRR can be interpreted as follows: it is the interest rate for which, if the investment funds were borrowed, the result of the entire operation (investment plus financing) would be zero. It represents the maximum acceptable cost of capital invested, so that the project will remain effective (Mironiuc M., 2007: pp 141-143). In assessing the effectiveness of the investment project IRR is compared with the cost of capital. The project generates additional value and will be approved for implementation when the IRR is greater than the cost of capital invested.

IRR calculation can be done manually through exploratory repeated or automatically through special software.

In the case of an investment for modernization (technological improvement), the evaluation of the future cash flows has to be done based on the marginality principle. This means that:

$$\text{Ft} = (\Delta\text{GESt} - \frac{I_0}{n}) \text{ x } (1 - \text{TPA}) + \frac{I_0}{n} ,$$

where $\Delta GESt$ is the gross supplementary exploitation surplus generated by the respective investment over the period t.

Results of Monte Carlo simulation to quantify the expected average value (NPV or IRR), the average square of the irregularity and the probability that the mean falls within a certain range, leading to the following relationship for calculating the net present value average or total (NPVg).

$$\text{NPV}_\text{g} = \sum_{t=1}^{n} (NPV_t \times f_t) \text{ , where:}$$

- NPV_t – net present value generated by simulation t;
- f_t – frequency of occurrence of NPV_t.

3. Conclusions

Net present value criterion implies achieving those investments whose value is positive. This happens when the internal rate of return is higher than the weighted average cost of capital.

The Monte Carlo simulation is a complex and expensive procedure for evaluating investment projects, but it helps decision makers to better understand the origin of the risk of the investment project.

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JUDGMENTS CONCERNING THE ACCOUNTING CONTROVERSIAL OVER THE REVALUATION OF ESTATE INVESTMENTS

Raluca Andreea TRANDAFIR
Nicoleta ASALOŞ
„Ovidius" University of Constanța

Abstract. *The present work tackles as main theme the bookkeeping controversy, which is met when the two international audit standards are put face to face, especially IAS 16 that it refers to corporal immobilizations versus IAS 40, that it refers to an real investment. This work has as a goal the presentation and the differentiation of the bookkeeping controversy between the two audit international standards.*

In the first part of the work there are presented the two standards, IAS 16 ***corporal Immobilizations*** *called also the goods of the enterprise or the immobilized corporal actives is the most used term in order to refer to the corporal goods which will be used in a production unity, that will bring benefits to the enterprise for a period more than year, and an IAS 40* ***real Investment*** *is defined by IAS as real investment. The real investment is called sometimes 'passive' investment, in order to distinguish from a property managed active as it would be the corporal immobilizations, of which use it is integrated into the rest of the entity operations; and in the second part there is presented a study case, upon the new appraisement of an immobilization in order to hire it out.*

Keywords: historical cost; correct value; profit; investment; corporal immobilization.

JEL Classification: M40, M41, M42.

Judgments concerning the accounting controversial over the revaluation of estate investments

1. Aspects regarding the estate investments revaluation, according to conform IAS 16 and IAS 40

IAS 16[(1)] **Corporeal Immobilization** (called also the properties of the company or the immobilized physical assets) is the most used term in order to refer to the corporeal properties that will be used in a production unity, which are going to bring benefits to the enterprise for a period more than a year. The term is used in order to make the distinction between these assets from the not corporeal ones, which are assets for long time, which can be identified in general as not having physical consistency or of whom value is not completely identified by the physical existence of them.

There are four studies that will be used in the accountancy for the immobilized assets:

a) The amount at which the assets should be registered initially;

b) The way in which the value is going to modify as a result of the acquisition should be reflected on the accounts, both the legal matters related to the increases, and the possible value decreases due to the depreciation;

c) The value the assets are registered should be assigned as an expense for next periods;

d) The registration of the next assets assignation

IAS 40[(2)] **Real Investment** An investment in a piece of ground, building, part of a building or both, is used by the owner (or by the lodger according to a financial leasing) with the intention of obtaining house rents or for the capital assessment or for both, is defined by IAS as a real investment, a real investment is capable to generate cash flows independent from other assets held by the entity. The real investment is called sometimes „passive"

investment, in order to distinguish a property administered active as those the physical assets, of which use is integrated in the rest of the entity's operations. This feature is the one who distinguishes the real investment by the real investment used by the owner, which is the property held by the entity or by the lodger according to a financial leasing, in order to use it in their businesses (meaning for using it in the production or delivering properties or services or in administrative goals).

The revised IAS 40, in force from 2005, permits for the first time that the real rights held under the operational leasing way to be classified and book-kept as real investments. This thing can be realized if:

- The other elements of the real investment's definition (to see below) are fulfilled;
- The operational leasing is book-kept as if it would be a financial leasing according to IFRS 17 (meaning that it is converted into capital); and
- The lodger uses the correct value model established in IFRS 40 for the recognized asset.

This option of classification– of reporting the real right of the lodger as a real investment- is adequate property with property. On the other hand, IAS 40 requires that all real investments to be book-kept consistently, using or the correct value model, or the cost model. Being given these requirements, it is asserted that once an investment alternative is being chosen for a rented property, all the properties classified as real investments to be book-kept consequently, relying on the correct value.

According to IAS 40, the real investment **doesn't** include:

- The property used in the activity (meaning held for using in production or in properties or services delivering or in administrative goals, of whom accountancy is established by IAS 16);
- The property realized and extended in the name of others, of which book-keeping is presented in IAS 11;
- The property held for selling during the normal activity development, of which book-keeping is specified in IAS 2; and
- The property under construction or extension for the next use as a real investment. IAS 16 is applied to such a property till the end of the construction or extension, when it is applied IAS 40. Although, the existent real investment which is rearranged for going on with its use in the future it is qualified as a real investment.

The division of the property between the real investment and the real property used by the owner, in many cases it is obvious what it makes up a real investment in comparison with the real investment used by the owner, but also in other situations it is less clear how this distinction is made. Some real investments are not held only for rent or for the capital assessment. For example, parts of these properties could be used by the entity for production process or in administrative goals. If these parts, identified in different goals, could be sold separated, then it is requested to the entity to book-keep them separated. Although, if the parts can not be sold separated, the property would be designated as a real investment if a not significant part is held by the entity in order to use it in its activity.

For example, an entity which holds and exploits a motel and offers also services to the motel guests could not argue that it is a real investment according to IAS 40. Such kind of investment could be classified rather as a real investment used by the owner. So, we need reasoning in order to determine if a property is classified as a real investment. It is also an important factor that, in the case in which the entity draws up criteria in order to determine when to classify a property as a real investment, it is requested by this standard to being presented these criteria in the context of difficult or disputed classifications.

The property rented to a branch office or to a mother-company. The rented property to a branch office or to its mother company is considered a real investment from the entity perspective. Although, for the consolidated financial situations, from the group perspective as a whole, it won't be qualified as a real investment, because this is an unoccupied property, noticed from the level of mother-company.

2. The revaluation of tangible fixed immobilization

- The revaluation of an immobilization in order to rent -

The revaluation of an immobilization in order to rent is needed because,[(3)] the asset amounts recorded on the balance sheet are generally not indicative of current economic values or even liquidation values.

The appraisement of an investment in order to rent it – For this method it is used IAS 16, standard used also at us by the most majority of the accountancy's corporation with some exceptions for example: international Audience.

The difference from the appraisement of a real investment according to IAS 16 it will be received only in the moment of giving up or the annulment. This difference will go to the deposits and further on to some own capitals.

The difference from the appraisement of the real investment according to IAS 40 will be changed in an income 'turns about' the profit and loss account and goes to the reported result – on credit.

According to IAS 40 the difference from the appraisement is not taxed. (Account 117) IAS16 establishes two alternative approaches in order to register the immobilized assets. The first one of these is the historical cost method according to which the acquisition or the construction cost is using for the initial recognition, subdued to the devaluation during the economical life foreseen and to the possible sales in the event of a permanent valuable devaluation, in many jurisdiction, this is the only method allowed by the rules, but a number of jurisdictions, especially the ones with significant installments, allow or the complete appraisement or the selective one, and IAS 16 recognizes it, validating what they call ''the appraisement model''.

The logic of the appraisements' recognition is related both to the balance sheet and to the measure of the periodical performance foreseen in the profit and loss account.

The correct value as a base for the appraisement method, the rules stipulated as a correct value (defined as an amount for which the asset can be changed between the interested parts and with full knowledge of the case as part of a transaction developed in objective conditions) to be used in any kind of appraisement. More, the rules impose that, as soon as an entity enterprises new appraisements, these have to be continued with sufficient regularity, so that the accountancy values in any new balance sheet not to be different in a significant way in comparison with the actual correct values at that time. In other words, if the entity which reports adopts the appraisement method, can not report balance sheets which contain exceeded correct values, because this not only it would make not necessary the goal the allowed treatment, but it will make impossible the fact that the user to interpret the financial situations in a correct way.

IAS 16 suggests that the correct value is, usually, established by the valuators using justificative elements over the market.

The appraisement's application to the whole assets from the IAS 16 category provides that if any one of the assets is getting new appraisement, all the others assets from those groups or categories to be, also, reevaluated. This thing is necessary in order to prevent the presentation of a balance sheet which contains an unintelligible mixture of the historical costs or current values and to prevent the selective appraisement dedicated to the net assets maximization.

Modifications from the appraisement passed to profit, in general, the modifications from the appraisement will be reflected directly to the capitals as excess from the appraisement. If a reevaluated asset is lately subdued to devaluation, the commission for devaluation is compensated in comparison with the excess from the appraisement and only when this has been spent is passed to the outgoings. (Also in this way, if an asset registered at a historical cost has been depreciated, but it has been reevaluated lately for the historical cost because of some drastic changes from the economical situation, the commission for the

previous devaluation would go back to the profit and only the growth under the historical cost would be reflected directly in the capital).

According to the IAS 16 precautions, the value passed on the credit at the excess from the appraisement can be either cleared off at the reported result (but not by the profit or losses account) according as the asset is going to devaluate, or can be held in the exceeded account till the moment in which the asset is given up or withdrawn from the exploitation. Any liquidation is limited to an equal value with the difference between the historical cost liquidation and the one registered in the profit or losses account, on the basis of the reevaluated value.

The effects of the appraisements upon the postponed tax. When the immobilized assets are devaluated during some longer lives with the goals of financial reference than the ones for goals of fiscal reference, it will be created a tax debt postponed in the first years, which is going to decrease, than, in the next years, in general, the postponed tax foreseen is going to be measured on the basis of the instilment of the next tax foreseen applied to the temporary difference, at the moment at which this appears; if there haven't been operated some changes at the next tax installment, the structure of the current installment is going to be used as an impartial reference of these next effects estimation.

In case of the immobilized assets appraisement, it can happen that the fiscal authorities don't allow that the bigger reevaluated amounts should be devaluated in order to calculate the fiscal debts, in exchange, only the real cost started can be used for the fiscal obligations concretion. On the other hand, because the appraisements reflect a capital gain, this gain could be taxed if it would be recognized, in consequence, a postponed tax debt is foreseen to be still recognized, even if there are no links to the temporary differences that derive from the periodical registrations of the devaluation.

Notes

(1) Standardele Internationale de Raportare Financiara - *Editura CECCAR*, 2006

(2) Standardele Internationale de Raportare Financiara - *Editura CECCAR*, 2006

(3) Denisa Truica, Assessment of business performance from lenders' point of view – International Conference „Intergrative relations between the European Union Institutions and the member states", Sibiu, 2008

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THE OPERATIONAL RISK AND THE APPLICATION OF THE COST-VOLUME-PROFIT MODEL

Maria-Daniela BONDOC
Mariana BĂNUȚĂ
University of Pitești

Abstract. *One of the purposes of our paper is to provide a comprehensive survey of the operational risk, in order to understand the behaviour of costs and the impact of their structure on company's profits.*

In order to achieve the targeted profits or to analyze the operational risk, managers can use the Cost-Volume-Profit (CVP) model - one of the simplest, analytical tools.

This paper presents the basic version of the CVP model as a first step in managers' strategic decisions. A noted application of CVP is in the breakeven analysis and the operating leverage.

Keywords: breakeven point; operational risk; costs structure; CVP analysis; operational leverage.

JEL Classification: D24, D81, G32.
REL Classification: 7J, 14I.

1. Introduction

Any successful business needs a clear understanding of the financial impact that even the most common decision can have. For instance we must know what happens when the level of sales declines. How much may the level of sales decrease so that one can still get a profit? If we reduced the price in order to sell more we could wonder: how much do we have to sell in addition? What level of sales can cover the increase of the fixed costs determined by the decision taken to make publicity? The CVP analysis may be useful to find out the answers for such questions and for more others related to the breakeven point, to the structure of costs and to the operating leverage.

The decisions related to the structure of the capital used by a company are taken mainly in view of two elements: the economic risk and the financial risk of the respective company. The risk can look in different ways, each of these ways influencing more or less the economic agents' activity. For the economical and financial analysis at microeconomic level, there are some risk forms which show a great interest and which can be influenced being reduced by the actions and by the measures taken by the firms.

The strategic decisions inevitably imply a certain risk dose. The CVP analysis allows the assessment of the impact that a possible failure concerning the predicted volume of sales and production can have on the operating profit.

The risk which comes from a certain structure of the variable and fixed costs is called operational risk. The higher the weight of the operating fixed costs compared with the variable costs is, the higher the operating risk will be.

2. The Economic (Operational) Risk and Its Evaluation

The economic risk is expressed by the incapacity of the company to conform in time and with the lowest costs possible to the variations of the economical and social background and it reflects the variability of the economic income or of the operating flow depending on the operating conditions.

The incomes are influenced by the economic conditions or by the competitors' activity, by the selling price or by the volumes sold, or by both of the quantitative variables, which makes them be different from the predictions.

The operating costs are made up of fixed costs and variable costs and the higher the weight of fixed operating costs will be the more difficult will be for a company to conform its operating costs to the changes registered at the level of the sales amount. The structure of the costs, according to the weight of the fixed and variable costs, depends greatly on the respective company's field of activity.

The accumulation of some too high fixed costs might be dangerous for the enterprise economic health because unlike the variable costs, the fixed ones do not fall automatically when the production amount decreases; therefore the companies which practice too high fixed prices can register considerable losses in the periods of activities and sales reduction.

Generally, the risk can be measured through the variability confronted by the profitableness in the last exercises (Stancu, 2007, p. 768). Thus, the economic risk, or the operational risk may be measured with the help of the variation coefficient (Kv), calculated as a ratio between the standard medium deviation of the raw operational result (operating income) confronted by the predicted one (σ_{RBE}) and the operational average income (Radu et al., 2008, p. 284).

$$Kv = \frac{\sigma_{RBE}}{\overline{RBE}}.$$

The main factors which influence the operating risk are the turnover, the structure of the operating expenses and also the approach between the level of the actual output and the output corresponding to the breakeven point. Taking into account the relation between these two factors it results that the farther the effective level of output is from the breakeven point and the fixed costs are lower, the lower the operating risk becomes, and vice versa.

There is also another form of evaluating the risk and this is the profit variability depending on the enterprise's amount of activity, measured by the modulus of elasticity (Ke), respectively by the ratio between the variation of the profit and the variation of the amount of activity.

The coefficient of elasticity (Ke), called also the coefficient (the degree) of the operating leverage (CPE), is determined as a ratio between the relative modification of the operating income (RBE) and the relative modification of the physical amount of sold output (q), as follows:

$$Ke(CPE) = \frac{\Delta RBE / RBE_0}{\Delta q / q_0}$$

In the analysis process, to estimate and evaluate the operating risk one can figure out the position indicator towards the breakeven point.

This can be determined either in absolute form or in a relative form, with the help of a margin of safety (Ms) and of the safety index number (Is), as follows:

$$Ms = CA_1 - CA^{'};\ Is = \frac{CA_1}{CA^{'}} \times 100;\quad \text{or } \Delta Is = \frac{CA_1}{CA^{'}} \times 100 - 100.$$

The absolute measure indicator called also the absolute flexibility indicator, or the margin of safety expresses the deviation between the effective turnover realized in the analyzed period (CA_1) and the turnover corresponding to the breakeven point ($CA^{'}$). The larger this deviation is a greater flexibility and adaptability to the short and medium term evolution will the enterprise register in the economic sector in which it performs. Thus, a rise in this indicator denotes a reduction in the operating risk registered by a certain company and vice versa.

The company's adaptability to the changes of the economic background depends mainly on its technical and human potential quality, and on the structure of its costs, respectively on the weight of the fixed and variable costs.

Though, the decisive factor is represented by the structure of the costs within a certain company. However, if a company has a raised weight of the variable costs it is less risky than a company which presents an important weight of the fixed costs, because in the case of a conjectural reduction of the turnover, it should cover a relatively small part of the fixed costs which do not depend on the output amount and, implicitly on the company's turnover value.

The safety figure also called volatility coefficient presents the same significance as the absolute safety margin.

The values calculated for the safety margin and for the safety figure are then compared to the critical turnover or to that corresponding to the breakeven point, resulting the following accounts (Radu et al., 2008, pp.282-283).

-if the effective turnover is situated up to 10% over the critical one the company is in a risky or even decaying situation;

-if the effective turnover is up to 20% higher than the critical one the company is in a relatively stable situation;

- if the effective turnover exceeds with more than 20% the threshold of profitableness, then the company is in a comfortable or lacked of major risks situation .

3. The CVP analysis in decision making process

The CVP analysis examines the way in which the total incomes, the total costs and the operating profit perform during the changes at the production level (in the general meaning of the economic activity), in the selling price, in the variable price per unit, and/or in the fixed costs of a product (Horngren et al., 2006, p. 68).

Numerous companies of different branches noticed that even the simplest CVP analysis can be useful in taking decisions related to the strategic planning and also concerning the products features and prices.

John Scheumann, manager of the Gunn Partners Consulting Firm, thinks that to improve cost management, the organizational culture is the main factor that should be studied: "If you have a culture that is not really attuned to cost management, or not paying attention to your cost structures, you'll never get the outcome you want."

To understand why managers adopt price competition strategies when corporate cost structure is predominately fixed, it is necessary to understand the concept of operating leverage. Operating leverage is the measure of the extent to which fixed costs are being used in an organization. Using fixed costs, managers apply operating leverage to convert small changes in revenue to significant changes in profitability. The idea of operating leverage is consistent with the economies of scale concept developed by economists to describe the fact that cost per unit can be reduced by taking advantage of opportunities that become available as the size of an operation increases.

The sold output quantity for which the total incomes are equal to the total costs is called threshold of profitability; in other words this reflects the sold output quantity for which the operating income is null. The managers are interested in breakeven point because it tells them about the minimal output amount which should be sold to avoid losses.

In the specialized literature one can find three methods to determine the breakeven point: the equation method, the margin contribution method, and the graphic method.

With the purpose of using the equation method (the arithmetical calculus) to determine the breakeven point, the operating profit (operating income RBE) is expressed as follows:

RBE = operating revenues - variable costs – fixed costs

Therefore the operating income can be expressed depending on the sale price per unit (p), the variable costs per unit (cv), the number of sold units (q) and the operating fixed costs (Cf) as follows:

$$RBE = qp - qcv - Cf = q(p - cv) - Cf$$

Because in the breakeven point the operating income is null, there is an equality between the turnover and the total costs, so the previous equation becomes as follows:

$$q(p-cv)=Cf$$

The production volume (q) for reaching the breakeven point is:

$$q=\frac{Cf}{p-cv}$$

The margin contribution method is a variant of the method mentioned before and it states that the point of equilibrium is that value of the turnover for which the fixed costs are equal to the total contribution margin on the variable costs (Mv).

The unit variant of this margin (the unit margin on variable costs) expresses increased profits by selling additional units of each product. So it will help to cover the loss incurred by the enterprise until the breakeven point is reached; since then, each additional unit sold will increase profits.

This statement is valid as long as the enterprise does not exceed the level for which costs were fixed. (Albu and Albu, 2003, pp. 206-207). If the fixed costs are recovered due to the cumulative contribution of individual units of products sold, additional sales that exceed this level generate profits for the company and grow proportionately faster than the increase in sales volume. Unfortunately, this effect is also maintained if the reduction in sales causes a higher reduction in profits than reducing sales. Operational leverage can be considered a „double-edged sword" (Helfert, 2006, p. 209).

Taking into account the fact that in the point of equilibrium the operating income is null, we can determine the turnover which ensures the breakeven point, starting from the following relation:

$$Cf=Mv=CA-Cv=CA(1-\frac{Cv}{CA})$$

$$So,\ CA=\frac{Cf}{1-\frac{CV}{CA}}$$

As the fixed costs are relatively constant, the operating income will be modified depending on the variable costs margin per unit (mv) and on the transformation of the quantity of products sold.

Firstly, the margin on variable costs (difference between selling price and unit variable cost) helps to cover the fixed costs which remain unchanged on the relevant range set and then it helps to form the profit or to cover of loss, in this order (Albu and Albu, 2003, pp. 206-207).

A consequence of this correlation is the possibility to predict the increase of profits by increasing sales volume, as a product between the unit margin on variable costs (mv) and the variation of the number of products (Δq):

$$\Delta RBE=\Delta qxmv=\Delta q(p-cv)$$

The relative modification of the operating income can be determined with the help of the following relation:

$$\frac{\Delta RBE}{RBE}=\frac{\Delta q(p-cv)}{q(p-cv)-Cf}.$$

If we replace these terms while calculating the degree of operating leverage, this will be:

$$CPE=\frac{q(p-cv)}{q(p-cv)-Cf}=\frac{CA-Cv}{CA-Cv-Cf}=\frac{Mv}{RBE},$$

where Mv is the total contribution margin.

In the specialized literature (Budugan et al., 2007, pp. 438-439) the margin is defined as the difference between the selling price and a partial cost. The total margin on the variable

cost (Mv), or the gross margin is defined as the difference between the turnover or total sales (CA) and the total variable costs (Cv).

From the previous relation there results that at a certain output level, the degree of operating leverage is higher if the fixed costs are also higher .

In the case of a firm which presents a high degree of operating leverage, the changes in the output income will determine significant changes in the operating income and also a high operating risk.

The degree of operating leverage is very important to managers, as it enables them to focus on the appropriate activities. For example, when the company operates near the breakeven point, managers should focus their attention on activities that increase sales (hence, the destructive price strategy), because increased sales will have a significant impact on profitability. On the other hand, when the company operates far from the breakeven point, the focus of managers should be oriented to cost control or new product development.

4. Conclusions

The operational risk is directly proportional to the size of fixed costs and to the proximity of turnover to the breakeven point.

A firm with a high breakeven point is more risky than one with a low breakeven point. In periods of increasing sales, operating income of the leveraged firm tends to increase rapidly, as a „pay-off" for being more risky. But in periods of decreasing sales, operating income of the firm tends to decrease rapidly, that is the risk.

Firms with small amounts of fixed operating costs have low breakeven points and are therefore less risky and have low operating leverage. Variable costs in these firms tend to be high and both the contribution margin and unit contribution margin are low. In periods of increasing sales, Operating income for these firms tends to increase slowly. But in periods of decreasing sales, Operating income will tend to decrease slowly making the firm less risky.

If a company has high operating leverage, then the operating income will become very sensitive to changes in sales volume. Just a small percentage change in sales can yield a large percentage change in Operating Income. A Company with low operating leverage the reverse is true.

To draw a conclusion, CVP model helps to analyze the sensitivity of profits on the changes in selling prices, costs, volume and sales mix and it permits to evaluate the company's operational risk.

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INTELLECTUAL PROPERTY AND GLOBALIZATION – MICRO-ECONOMICAL CONSEQUENCES: ANALYSIS AND DIAGNOSIS

Alina BĂLAN
Mihaela BÎRSAN
„Ştefan cel Mare" University of Suceava

Abstract. *The modern economic analysis recognizes the information as being a factor that generates an exogenous factor necessary for the development of the economic activity, but hard enough to access, and also a premise of the economic development analysis. Therefore, lately, a growth of the strategic alliances can be observed, determined by knowledge in order to generate entrepreneurial incomes by joining the already existent knowledge or by creating new knowledge, starting with the premise that an idea is a public product without any competitor.*

This idea of economic incentives explains practically the notion of intellectual property.

The creation of a knowledge strategy adequate to the economic realities allows the firms not only survival, but also future development through their possibility of obtaining competitive advantages and respectively through the growth of their activity's efficiency on long-term.

Keywords: economic analysis; intellectual property; knowledge; economic development; competitive advantage.

REL Classification: 3C, 10B, 12C.

1. Introduction

Nowadays, a new economy is obviously under way. We are talking about an economy based on knowledge and ideas, in which the key factor of prosperity and of the appearance of new jobs is constituted by the degree of implementation of the innovation, of the new technologies in all the economic sectors. The new economy which is going to realize in the Informational Society- The Knowledge Society integrates the objectives of the sustainable development, based on:

- Social justice and equality of the chances;
- Ecological protection;
- Liberty;
- Cultural diversity and innovative development;
- The restructuration of the industry and of the business environment.

This represents practically a new stage of human civilization that allows large access to information, respectively to a new way of work and knowledge and that amplifies the possibility of economical globalization and the growth of social cohesion.

The technological support of the new society is constituted by the convergence of three sectors:

- The technology of the information;
- The technology of the communication;
- The production of digital contents.

The new style of management – business management – uses the concept of intellectual capital through which goods are identified and defined, the intangible assets – knowledge that can be transformed in income – on which the economical organization of our days depends on so much.

The intellectual capital includes four categories of intangible assets:

a) Market assets: commercial brands, commercial name, market segments, orders reserve, distribution channels, licensing contracts or franchising etc.;

b) Infrastructure assets: specific technologies, methodologies and processes that determine an economic organisation to develop its specific activity;

c) Intellectual property assets: inventions patent acts, author's rights, including packages of software programs, industrial drawings and patterns, utility patterns, product and factory brands, origin indications and denominations, integrated circuits topographies, know-how, technical secrets etc.

d) Human values: talents and professional abilities of the employees, including the simulation methods of the creativity, of the capacities of solving the problems, of developing the expertises etc.

In the economic organisation a new mentality needs to be created, to its constitution an important part being played by:

- The regime of the individual or collective creative activity capitalization;
- The objective recognition of real values.

Knowledge and not the data or the information constitutes the essence of the XXI century. Nowadays, companies started to compete basing on knowledge. Some specialists sustain that there are not significant differences between the management of the information and the management of knowledge and that the introduction of the new concept wouldn't be more than a "terminological inflation". These affirmations seem justified by the fact that there isn't a net distinction between information, communication and knowledge, although these terms are not synonyms.

At the beginning of the III millennium the national prosperity and the high individual standard of life that must be realized within the Informational Society – Knowledge Society are directly related to the efficient application of the technology and this application presupposes the capitalization of the results of the creative activity through innovation.

Thus, a world in full development cannot reach its objectives without basing on creativity, on human resourcefulness and especially without finding the modalities and the systems in order to protect and stimulate this human characteristic, exceptional instrument of the economic, social and cultural progress.

The strategic approach of the potential of the intellectual property will contribute to the development of Romanian economy, and equally to the stimulation of the creative potential, to the promotion, conservation and capitalization of the Romanian culture in the European and international context.

Thus we can affirm that the intellectual property constitutes a source of durable economic growth for the countries throughout worldwide because it is based on intelligence, imagination and innovation.

2. Economic aspects of the intellectual property

The economic theory explains the intellectual property through the economic incentive, starting with the premise that an idea is a public product without any competitor. The property and common usage of an idea contradict with the principles of the traditional economical theory.

The value of an idea will not be diminished as it is transmitted to another person. On the contrary, so that an intellectual creation becomes socially useful, it needs to be spread, communicated. Due to the fact that an idea, a creation cannot consume/lose itself definitely, the term of efficiency obtains new valences. Thus the consummation of an intellectual product allows the elicitation of positive values by many consumers at the same time, which exceeds both the cost of the reproduction and distribution (most of the time being null). The capacity of a unity within a public good to satisfy concomitantly the whole category of consumers modifies the sense of the efficiency.

The economic justification of the protection of the intellectual property does not consist in the payment of the creators for their job, but in the assurance of adequate incentives so that they continue their creation work. Due to the fact that this market type approach of the intellectual property does not respond to all the questions raised on this theme, there are also alternative attempts of solving economically the issues of the intellectual property (that the state financing, the public choice, the pay of the creators return to the producers of the materials of fixation of the creations).

If the economic approach does not rise to the challenges of the protection issues in the domain of intellectual property, the theoreticians focused their attention on philosophy more exactly on the principle of natural right and personal judgment. All motivations are in favour of the existence of a intellectual property protection, no matter if they have economic, moral nature, they have to take into consideration the fundamental difference between ideas/creations and tangible properties/goods.

3. The interconnection of the intellectual property with the globalization: significance and determination

The implications of the globalization upon the business world require a redefinition of the economic concepts and patterns.

Thus, the remodelling and the reconfiguration of the new business world have a considerable impact on some of the key economic concepts and patterns, thing that requires:

- The introduction of the multi and inter-functional teams
- The adoption of the horizontal structures and the removal of the hierarchies
- The re-engineering processes

Now, the accent has changed its orientation from the organization of labour as traditional production factor based on the division of labour towards the identification and the development of the carrier and competences management. The experience has emphasized that outperform dynamic teams can be more efficient in an environment dominated by change than big organisations or singular people can do.

The new economy must take into consideration such an approach and incorporate these new concepts within the economic science viewed as discipline. Many of the modern outperform organisations change and are not interested anymore exclusively of the maximization of the profits, but they aim at maintaining themselves in the business area, in an effective competition with other outperform organisations. Some of the organisations have changed and have eliminated formal structures, especially the pyramidal ones.

The competitive organisations consider that people become more interested in the activities that provoke their creativity and resourcefulness and that bring satisfaction; such people prove less interest for a formal socio-professional status or for the tenure of some titles with social resonance.

The economic and technologic convergence generated by the globalization changes and will continue to change the manner in which the national and transnational wealth is created.

In order to facilitate the effective spread of knowledge and innovation an important informatics structure is developed. The amplification of the convergence will have a significant impact upon the economic bases of all countries involved and/or affected by the process of globalization. The globalization modifies in a sensitive way the manner in which business work and accelerates the spread of “know-how” and of the innovation, determining the apparition of new wealth forms: individual capital, creativity and enterprising spirit.

From this perspective, the organisations must become more and more competitive. This fact requires the reformulation of the principle of the comparative advantage by suing

the concept of the competitive advantage, which is more and more suggestive in the context of globalization.

The main factors that allow Romania to become innovative take into account:

- The consistent investments as measure order in the education in general and especially in the superior education;
- A quality informational and technological basis;
- High levels of the governmental expenses afferent to research and development.

The National reform Program for the reach of the objectives of the Lisbon strategies, through Chapter 3.1 "Cunoastere si Inovare" establishes the following evolution of the total expenses for research and development:

Table 1

The evolution of the total expenses for research development

Indicator	2005	2006	2007	2009	2015
The share of the CD expenses from PUBLIC financing (Percentage GDP)	0,26%	0,38%	0,59%	0,9%	1%
The share of the expenses from PRIVATE financing (Percentage GDP)	0,24%	0,25%	0,41%	0,65%	2%
The share of the total CD expenses in GDP percentage	0,5%	0,63%	1%	1,55%	3%

Source: www.universulstiintei.googlepages.com

- Efficient laws of protection of the intellectual property to sustain the research-development activity

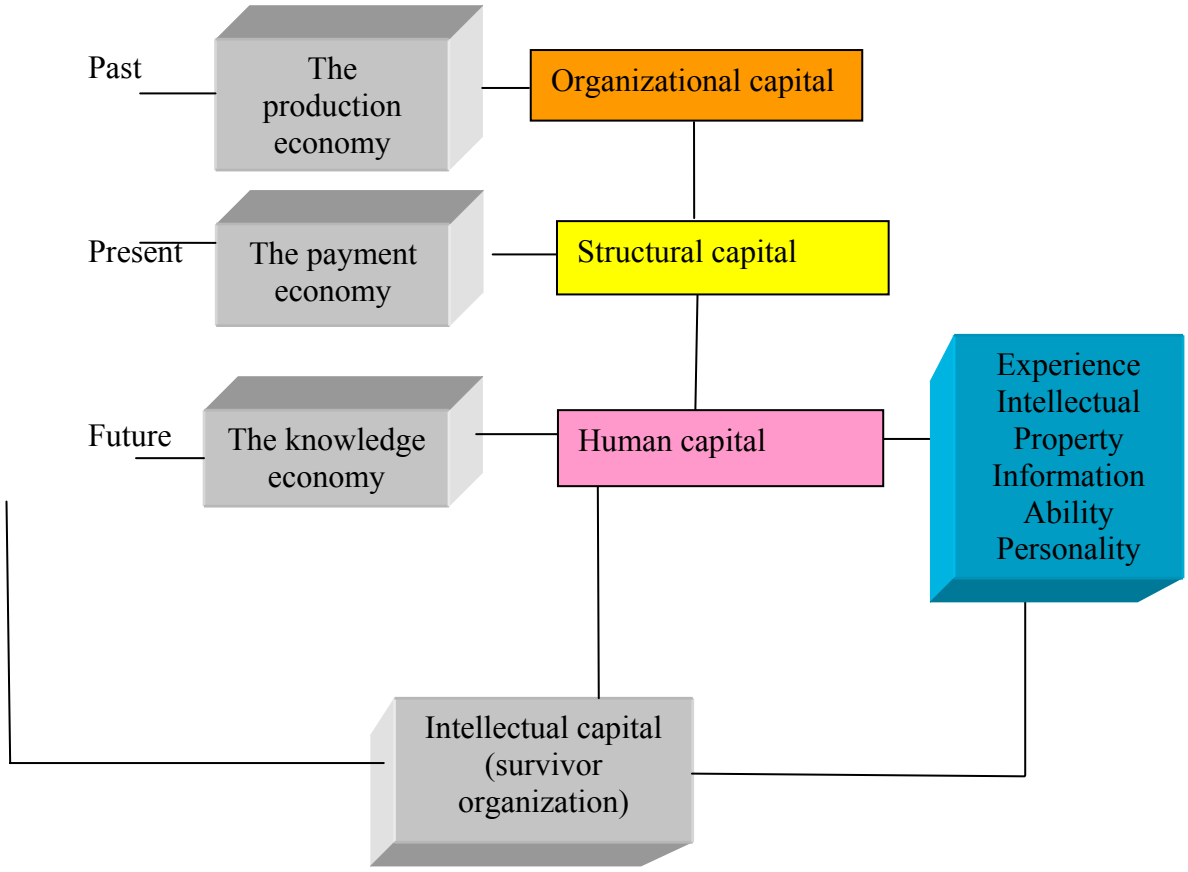
4. The intellectual property and the economic growth – analysis and diagnosis

The intellectual property can encourage the economic innovation and growth in certain conditions, and blocks it according to others. The impact of the intellectual property upon the innovation and upon economic performance is so complex that the importance of a patent system fine-tuned to ensure the maximum benefit is crucial both for the companies of a country and for the entire national economy.

Mutually, the development degree of the national economies (human resources, the endowment with outperform technologies, the education investments, the systems of intellectual property) influence directly the development of the global economy. Thus, we can affirm that the creation of intellectual capital conditions practically the performance of an economy. Therefore, in an ideal world, the more the patents are submitted, the higher the level of innovation in a country is. This one, in its turn, leads to economic growth and to more money invested in research-development – a virtuous circle that can exist only when there is a level entrance sufficiently high for the patents.

Analyzing this way, the intellectual property can be presented as a relation between past and future, meaning between the performance of a present economy and the future performances of the analyzed economy (figure 1).

In what concerns Romania, the expenses for research development were maintained relatively constant in the period 2000-2004, an increasing trend taking place until 2006 (data available on www.insse.ro).



Source: Adriana Schipoiu Burlea, „Impactul capitalului intelectual asupra performanței organizației", in *The Economic Informatics Magazine,* nr. 1 (23)/2003, p. 120.

Figure 1. *Intellectual property: present and future*

Thus we notice that in 2006 the business number in innovation at national level represented 38.8% of the total business number of which 41.1% in industry, and 36.10% in services. Thus we observe an increase of the business number in innovation with 14% than in the researched period with 2.10% (figure 2).

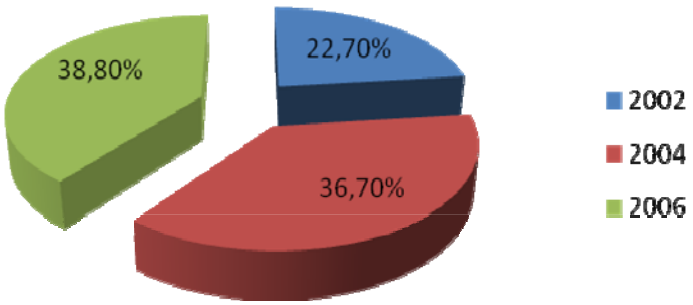


Figure 2. *The evolution of the innovation business number at national level*

At national level, 10694 protection acts of the intellectual property were issued in 2004-2006, slowly diminishing from one year to another reaching in 2007 the number of 1931, with 181 fewer than in 2006 (table 2).

Table 2

The evolution of intellectual property at national level

Specification	2006	2007	Evoluţie %
Invention pattents	502	683	136.06%
Protection acts	1511	1931	127.80%
Brands	**18971**	**22714**	119.73%
Industrial drawings and patterns	**1151**	**684**	59.43%
PI services	**4614**	**4837**	104.83%

Source: www.osim.ro

A negative trend is registered by the industrial drawings and patterns which are practically the only ones that presented a reduced interest with 40,57% in comparison with 2006.

In 2007, OSIM issued to the rights holders a number of 1931 protection acts, this one being equal with the number of protection acts issued in 2001. From the overall, 1865 was the biggest number of protection acts, which represented the liberation of diplomas and invention patents (683 invention patents and 1182 duplicates of the invention patents), followed by priority certificates, having 56 diplomas. During the year 2007, more diplomas for plant types patents were liberated -7, certificates for semiconductor products' topographies -2, as well a certificate of supplementary protection.

5. Conclusions

The crucial importance of the intellectual property has increased without any doubt over the years. The understanding of the intellectual property has become more and more an essential resource for the business decision process. This evolution has determined a desire for global knowledge of its role in business and commerce and of its way in which its impact can be quantified.

The intellectual property is important and can represent the answer to many actual problems of Romanian society. The intellectual property is an important source of incomes, ending to export more than the important industries do. The property can be a factor of economic stability.

The importance of the patent and of the intellectual legislation can determine in Romania a coherent politics in the benefit of the economy. Perhaps some economies of the state must be sustained by the budget in order to promote for example the increase of the patents' number with economic value. Professional organisations and NGO could give logistic help and the state could give in its turn financial help to those that can create.

Patents are not everything. The defence of the rights is also necessary and from this point of view, due to the fact that a process for a software patent can be very expensive, it is necessary to create by association the force to administrate and protect this intellectual capital.

In our country, an increasing number of protection tendencies of intellectual properties and especially the accentuation of the desire to obtain patents on international level can be observed, thing that will have a positive effect upon economic growth.

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THE ECONOMIC ANALYSIS AND THE IMPROVEMENT OF THE PROFESSIONAL REASONING IN THE EVALUATION OF THE PROPERTY

Mihaela BÎRSAN
Alina BĂLAN
„Ştefan cel Mare" University of Suceava

Abstract. *The economical financial analysis assures in the process of evaluation the realization of three purposes: the understanding of the relations that exist between the profit and loss elements and those related to audit, inclusively those of the tendencies manifested in the long run for the appreciation of the inherent risks in the enterprise's activity, as well as of the future financial performance perspectives; the comparison with similar enterprises in order to establish the risk and value parameters; the correction of the financial historic situations in order to estimate the economic abilities as well as the perspectives of the enterprise.*

In the context of the globalization the analyst-assessor needs to be familiarized with the norms of evaluation, accounting, financial reporting, regional and international audit, the establishment of the new concepts and methodologies that are considered to be the basis of the economic elaboration and interpretation of the financial economical reporting (equitable value, actualized value, financial assets), the depth of the evaluation norms (indirectly the accountant and audit ones) applicable in Romania in order to apply correctly the practice and to increase the quality of the professional reasoning.

Keywords: the economical financial analysis; audit, evaluation; analyst; property.

JEL Classification: D01, D80.

Introduction. Reasoning and analysis

The reasoning forms in the opinion of the specialists the strong core of thinking. In general it is considered that reasoning is a procedure through which new information is obtained by combining those already existent.

The explanatory dictionary of Romanian language gives the following definition for reasoning: „logical consecution of judgments that lead to a conclusion; chain of arguments that serve to someone when judging a matter or when sustaining a personal point of view – from French raisonnement (recreated after rationality) (DEX'98)

One of the oldest approaches on this theme is made in the Theory of knowledge of Platon according to which knowledge is realized in several stages, corresponding to its depth and to the ontological levels.

The first modality is the opinion. It is the way of knowledge accepted by the sensible world. The truth of opinion is always only probable, it is always unsure and this is why the opinion is inferior to science.

The second modality is science. It is different of the opinion by its truth and certitude. This knowledge has in its turn two forms in which priority is given to discursive knowledge, based on reasoning, specific to mathematics and to other deductive science.

Two sources of knowledge are identified: the senses and the rationality and consequently two philosophical orientations in the theory of knowledge: the empiricism and the reasoning.

The reasoning considers that an idea is true only if it is obtained rationally without any connection with experience, independence and before the appearance of any experience.

In the same context it is considered that thinking is the superior cognitive psychical process (intellectual) developed through analysis and synthesis operations, abstraction and generalization resulting as products ideas, concepts and reasoning. In another words, thinking gives to human behavior the feature of rationality.

The main operations of thinking are: the analysis, the synthesis, the comparison, the generalization, the abstraction and the materialization.

The analysis is the operation of mental looseness of the object in his component parts. The analysis begins as a practical activity of decomposition of the real object and it ends by realizing itself only on one mental plan.

The synthesis is the operation in opposition with the analysis; it consists in the union on the mental plan of the parts that lead in the end to the whole. The synthesis can be realized in the plan of the practical action.

The comparison is the operation that consists in the establishment of the differences and similarities between an object and other objects. The comparison can also be realized both on real and mental plans.

The generalization is the operation through which the properties are learned.

Knowledge is *empirical* if the information concerning the objects, facts, phenomena or unknown processes is observed by the subject aware of his sensorial organs or by means of machines and instruments.

Knowledge is *theoretical* if it is developed by reasoning and judgments emphasizing the internal connections, the causality, and the law by which the structures are developed and the processes are unrolled. It is developed from empirical knowledge through analysis, synthesis, deduction, induction, generalization and particularization.

We find the formula Reasoning - Analysis in the specialty literature as cognitive domain that assures the following competences:

- The effectuation of investigations for emphasizing some properties of the phenomena and processes
- The formulation of the conclusions able to demonstrate cause effect relations that exist between phenomena and factors of influence.
- Searching and finding some optimal solutions resulted from calculations and rational correlations.

Otherwise, Kant also equalizes these two notions:"It should exist a third way, besides the analysis (or calculation, reasoning) and experience, intuition "[Kant, 1994]

There is a pattern meant to lead to the understanding of the concept of professional understanding.

The professional reasoning has an important part in the application of the rules of fiscal management. For example, an auto dealer has in his activity object the commerce with auto pieces. He holds an auto in the patrimony which in the end damages and in order to repair it, it is required to replace a piece kept in the storage. The enterprise replaces the piece which is ulterior downloaded from the administration and which will bring an expense equal to the value of its acquisition cost. The enterprise generates in its activity an expense and we are talking about the quantification of the income properly to equilibrate its counter value. In this case, we are not talking about the effective accounting of an income, but instead the professional reasoning interferes and the things are judged through the light of the fact that if the enterprise does not fix the automobile, this one cannot realize transportation and implicitly, the process of delivering the merchandise that brings effective incomes is affected.

The professional reasoning in the evaluation of the property

The evaluation is a determination, not an exact calculation of a value made through a mathematic formula or through a precise quantification. It imposes the application of the professional reasoning of the assessor.

By determination we understand a formation process of an opinion concerning the value after the evaluation, of the professional reasoning, of the selection of a value, of the rounding of the proposed value. The verb „determination" can reach a decision, after an analysis process of some pertinent data, presupposing a professional reasoning [Adrian Crivii, Tribuna economică nr. 20, 2008].

The application of the professional reasoning increases the trust of the users regarding the result of an evaluation. [The national ethic code of the accounting specialists, 2007]. The professional reasoning is assimilated in this context to the term of spirit independence that allows the issue of an opinion without being affected by the influences that compromise the professional judgment and that allows the individual to act with integrity, to exercise his objectivity and his professional skepticism.

The opinion of the specialist resulted from the evaluation process is an expression of the evaluation or of the professional reasoning.

In FASB 9 – Business evolution, from USPAP, elaborated by Appraisal foundation it is mentioned that: „the conclusion upon the value is the result of the professional reasoning of the assessor and not necessarily the result of a mathematic process."

The evaluation activity is an action (profession) of the market economy whose public utility is imposed by the investors' interests to take transactions with different types of properties. The term property used without any specifications or identifications can refer to all or any type of properties. The Committee for the International Standards of Evaluation recognizes the following four types of property: the Real Estate property, the mobile property, (mobile goods), enterprises and financial assets [http://evexpert.ro/dictionary_ evaluare].

Therefore, the selection and the sustenance of the approaches, methods and adequate evaluation procedures depend on the professional reasoning of the assessor and on the type of evaluated property. In certain situations, it is possible that one or two approaches to be irrelevant as, in other situation there is a chance that more methods/procedures to be relevant to the same approach. In both cases, the professional reasoning of the assessor will be materialized in the explanation both of the different importance given to the results of the evaluation methods used and of the selection of the result given by a unique method, which it considers as having the greatest credibility.

Some essential elements that derive from the business evaluation standards and underline the need for professional reasoning are [Ion ANGHEL, Sorin STAN, 2007, pp. 1-14]:

- The need of using in the evaluation only those evaluation methods and procedures that are recognized, selected by the assessor depending on the purpose of the evaluation and on the hypostasis of the assessor;
- The specification and the clear description of the three approaches in the evaluation of an enterprise, respectively:
- The approach based on assets;
- The approach based on income;
- The approach by comparison.
- The reconciliation of the final value, in the case in which many methods of evaluation are used is made not by betaking the statistic appreciations (for example, a weighted mean of the obtained values), but by selecting a value within a judgment process of the assessor.

The appearance of the International Standards of Evaluation (ISE) facilitated the extension of the applications in conceptual matter and clarification that made the evaluation activity more accessible. Besides the facilitation of the communication between specialists

and business men, the international standards have also the function of terminological – conceptual clarification giving a special role to the reasoning of the one that effectuates the evaluation.

For example, the evaluation of the property is interpreted in a different way of the assets' evaluation. While the first one has a larger meaning when referring to any type of property (real estate, personal, and intellectual), belonging to physical and juridical people, the second one has a more diminished meaning, being used especially in the financial accounting report of physical and juridical people that unfold lucrative activities. Also, there is a distinction between the professional property assessor, considered a person qualified with ability and experience in the estimation of the real estate and mobile property value that belong to physical and juridical people, having as purpose a sale purchase action, guarantees for loans and mortgages, dispute, taxes, insurance, etc. and the professional assets assessor that treats the evaluation objects (lands, constructions, cars, patents, trades, commercial fund or goodwill), from the point of view of their membership to the patrimony of some organization or juridical people. Thus we can notice the conceptual progress registered along the IVS evolution, leaving from the concept of assets evaluation, which was based on the accounting system of evaluation, to the one of the property evaluation, a concept that is larger, and nowadays, to the system of the business evaluation, based on a financial approach.

The economical analysis – basis in the substantiation of the professional reasoning

The analysis is a global, systematic research, through which its researched object or subject is decomposed in its parts, these ones being ordered, researched and evaluated. An important part is also played by the connections between the elements and their integration. The analysis means information and the information constitutes the basis of the professional reasoning.

Obviously, there is a difference between information and knowledge. The information is defensive. The individual takes it and reflects it to his own system of values or, more often, of interests. The same information is reflected differently at the level of individual, depending on the personal priorities. Everyone is right and everyone can be wrong. Knowledge is though reagent, meaning that the universe reacts to the individual's actions. Knowledge is a quantitative accumulation of information; it is a process through which the sequential information becomes a whole. The understanding presupposes processing and personalization, convergence and continuity.

The need of analysis results from the fact that no science can exempt from the instrument of the analysis viewed as a method of research and knowledge of the phenomena [G.Lavalette, 1999, p.308][1]. The analysis views the thinking (materialized in judgments and reasoning) as a high degree knowledge process assuring the entrance in the depth of the things, the understanding of the logical relations that exist between these ones, their explanation and interpretation making possible the solving of the complex theoretical and practical problems.

More than that, in the managerial processes, the economical financial analysis appears as an indispensable instrument in the substantiation of the decisions. The motivation of effectuating the analysis is constituted by the satisfaction of the following two demands:

- The research of the objective reality, its knowledge and its interpretation; regarding from this perspective, we can say that the economical analysis presents a map of reality;
- The information of the social partners regarding the estate of the enterprise, the performances, the efficiency of the resource usage.

Basing upon the information offered by this approach, a diagnosis of the firm can be realized, motivated in its turn by:

- The establishment of the key variables of the development, of the correlations between these ones;

- The establishment of the recovery measures or of amelioration of the performances;
- The identification of the new sources of competitive advantage;
- The substantiation of the development strategies in a dynamic competitive environment.

The analysis and the diagnosis for the evaluation

Next, we are referring to the evaluation of the enterprise (organization, business), taking into account the fact that the evaluation of the organizations has become a current activity and not a conjuncture one and the diagnosis and the feasibility studies are the main instruments that assure the credibility of the relations between shareholders and organizations, between the economic agents and the banking institutions and different institutions of the state.

The evaluation activity presupposes a stage of preparation followed by the diagnosis analysis of the enterprise and by the evaluation itself.

This diagnosis aims exclusively at the emphasize of the parameters of operation of the enterprise, the estimation of the performances and the risks of the future activity obtaining information that can be useful for the assessor's judgment.

The evaluation of an enterprise is a complex process, which presupposes different analysis, considering that the enterprise is not only a multitude of goods hold in the patrimony, but a trend, a position within economy, taking into account the professionalism of its people, the capacity to bring profit.

This is why the economic evaluation of an enterprise does not represent only the establishment of the value of some properties or goods in its patrimony, but the determination of the enterprise's potential, of its capacity to create flows (profit, cash-flow) in the period that follows. No matter the way in which it is defined, the evaluation of an enterprise has:

- a highly accentuated economical financial character - it presupposes the detailed analysis of the financial accountant documents of the enterprise meant to be evaluated and the usage of the specific instruments in order to establish its market value.
- a highly accentuated subjective character – the value established by the assessor represents its opinion regarding the specific conditions of the enterprise and of the environment in which this one develops its activity, connected with the hypothesis and the appreciations contained in the evaluation report.

Within the practical activity of evaluation of a firm, the diagnosis must supply the information necessary for the appreciation of the previous and present situation, which constitutes a basis for the estimation of the key elements and variables that need to be taken into consideration when applying different methods of evaluation. Proceeding in this manner, the evaluation of the enterprise does not represent a mechanical application of some techniques, but it presupposes a deep appreciation of the firm's performances, the evaluation team being needed to operate with the parameters considered normal for the activity environment of the evaluated firm in comparison with those realized in the moment of the evaluation.

Based on the diagnosis of the enterprise relevant scenarios are built, scenarios that need to represent the basis of the evaluation and also some coherence tests are realized both in the diverse pieces of diagnosis and between the evaluation itself and the diagnosis. The latter appreciation confirms the idea that the diagnosis for the evaluation does not have only the role of presenting the situation of the firm at a certain moment, but to direct and to sustain the evolution scenarios of the business, the financial economical projections.

The evaluation diagnosis has a privileged role, occupying, as the specialists sustain [Marin Toma, 1996, pg.9] about 80% of the activity, being taken into consideration that this action must allow the assessor to identify the main determiners of the business' value [Daniel Manate, 2002, pg.72], all the risk factors in order to establish the evaluation hypothesis.

The finality of the diagnosis consists in the appreciation of the health estate of the enterprise, including the insolvency risk, in the hypothesis of the continuation of the enterprise's functioning, in the forecast horizon. The specialty literature abounds in multiple approaches of the firm's analysis in order to evaluate. ANEVAR recommends in his courses the SWOT analysis (Strengths, Weaknesses, Opportunities, Threats)

The survey of strong and weak points, that reveal the potential and the actual situation of the enterprise, is made through the analysis of its internal environment and the analysis and the risks are identified through the analysis of its external environment, reflecting its influence upon business.

The following types of diagnosis are taken into consideration:

a) The diagnosis of the economical environment which consists in the analysis of the national and international environment in which the enterprise acts;

b) The strategic diagnosis of the enterprise that represents the qualitative appreciation of the relations of the enterprise with its environment, of the internal organization of the production and labor, of the integration of its products in different markets etc. ;

c) The internal diagnosis or the diagnosis of the enterprise's functions, that contains:

- The diagnosis of the exploitation functions of the enterprise, which is divided in:
- Juridical diagnosis;
- Commercial diagnosis;
- Production-exploitation diagnosis;
- Personnel diagnosis;
- The diagnosis of the financial accountant functions of the enterprise or the financial accountant diagnosis.

The analysis and the improvement o the professional reasoning

Unfortunately, in Romania few financial jobs are known and promoted beyond accounting and it is very difficult to find people prepared to work in this area. I think that the profile of the person that practices this job is different of accounting: it presupposes a lot, it presupposes plenty of professional reasoning, it presupposes the knowledge and the understanding of the business (or of the part of the business to be analyzed); it requires an overview, a high speed of reaction, an increased flexibility, a high resistance to stress and short terms, a lot of creativity to generate information when there aren't always systems able to supply them.

The financial situations of a company represent the most important way through which the accountant information is at the hands of the decisional factors. This is why the companies publish their financial situations in an explicit way in order to be understood by the interested reader.

In the context of the integration of Romania in the European Union, the general frame of the accounting and financial audit improves continuously the quality of the accountant information by applying the accountant settlements according to the Directives of the European Union (the fourth Directive and the Seventh), a special accent being given to the professional reasoning.

One of the qualitative characteristics of the financial situations and that gives a sense to the utility of the accountant information is the comparability. The comparability presupposes the possibility of analysis basing on the information supplied by the financial situations in report with the evolution in time of the activity, as well as the comparison with the financial situations of the different entities belonging to the same type in order to evaluate correctly the financial position, their performances and modifications. [Hennie van Greuring, 2005]

Connected to the professional reasoning, we must mention that the objectives of the accountant profession established by the International Ethic Code, issued by the global organism of accounting IFAC (International Federation of the Accountants) accomplish the

highest standards of professionalism, they reach the highest levels o performance and they respond to the demands of public interest. In order to accomplish these objectives, the professional accountants must respect some fundamental principles based on: integrity, objectivity, independence, professional competence and goodwill, privacy, professional behavior, technical and professional norms. In this context, competence is considered to be the principle according to which all situations are treated through a professional reasoning.

The accounting professionalism will have to practice its professional reasoning in order to assure the observance of the principles for the situation they analyze. This is why the professional reasoning must be framed first into the Ethic Code issued by the empowered organisms, because the objectivity and integrity standards are very high and finally it must be framed in a consolidated multidisciplinary forming.

One of the competences taken into consideration by the educational system in the economical domain in the improvement of the accountant professionalism (according to the directions established by the Process Bologna) is, in the vision of AEFR (The Association of Economics Faculties in Romania) the capacity of analysis and economical and financial diagnosis, the explicit and the interpretation of the concepts, processes, phenomena, states, ideas and tendencies through an interpretive thinking.

Thus, in the new economical conjuncture, professionalization means "a radical redefinition of the nature of the competences that are at the basis of some effective pedagogical practices". The professionalization needs to include (besides the professional knowledge and competences) also schemes of thinking/reasoning, interpretation, tax creation, anticipation, decision.

Conclusions

The challenges with which the accountant profession deals with in the actual stage of the global economy, having an impact upon the national systems in every country, expose the accountant professionals to requirements concerning the level of knowledge, aptitudes, professional values and ethics, that are requested in order to prove professional competence.

The accountant politics including those referring to the evaluation define an accountant conception for each enterprise or public institution in the solving of the financial problems. They incorporate the principles, the basis, the conventions, the rules and the specific practices adopted by an entity in the current management of the activities of their accounting, for the creation and presentation of the financial situations.

By the financial politics the constant operation variant for each type of event needs to be clarified, starting with the fact that IAS and the Interpretations of the Permanent Committee for Interpretation offer diverse methods of solving a certain problem, alternative solutions, optional calculation, etc. Thus it is noticed that several principles and rules appear such as the „professional reasoning", the only one that allows the choice of the alternatives or „the value judgment", the latter being considered the basis of the accountant solutions.

In the absence of a specific IAS and of an interpretation of the Permanent Committee for Interpretation, the management must use the professional reasoning – according to art.22 from IAS nr. 1 – to the development of an accountant politics able to offer the most useful information to the users, financiers, controllers, and to all those that read financial situations. In the exercise of this professional reasoning the management takes into consideration:

a) The demands and the recommendations of the Accounting International Standards which refer similar and connected aspects;

b) The definitions, the criteria of recognition and evaluation for the assets, obligations, incomes and expenses stipulated in the General Frame IASC.

c) The specification of other organisms of establishment of the Standards application and the practices accepted in the sector only in the measure in which these ones are consequent (with the previous restrictions: a and b). Once established the configuration of the accountant politics, its modification is allowed only if some of its substantiation criteria are

modified by law or have as result more relevant information or more credible referring to the operations of the juridical people.

An interesting connection between reasoning and analysis is made by A.Marshall, who, in one of his approaches considers that the reasoning is very delicate in the terms of general equilibrium and he prefers an analysis in the terms of partial equilibrium. The analysis instruments disposed by Marshal are used nowadays too. One of the characteristics of his reasoning is the usage of the famous "caeteris paribus" that can be expressed this way: "What is the influence of a variation of the variable A upon variable B, knowing that the other variables that might eventually influence variable B are considered to be fixed."[Ion Pohoata, 1995]

Note

[1]Descartes issues the following precept of analysis "the division of each difficulty that I will examine in so many parts, as many as they are possible and necessary, to solve them better." (in „Discours de la methode") cited by G.Lavaette, Strategii de crestere, Economic Publishing House, Bucharest, 1999, p. 308

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THE INFLUENCE OF INDEBTEDNESS DEGREE ON COMPANIES' PERFORMANCES IN WHOLESALE TRADE

Florina MOCANU
„Valahia" University of Târgovişte

Abstract. *In the current economy, the recourse to additional funding with a fair cost tends to differentiate companies in competition. The use of borrowed capital in a greater proportion determines the augmentation of degree of risk of the companies' profits and also a rate of return estimated at a superior value. An optimal structure of capital will maximize the enterprise's value by achieving a balance between the assumed degree of risk and the estimated rate of return. The results of this study highlight the correlation between the wholesale trade companies' indebtedness degree modification, and their performance – reflected by the ROA and the ROE indicators.*

Keywords: performance, value creation, capital structure, return on assets, return on equity.

REL Classification: 11E, 10C.

1.Conceptual approaches on performance

The term performance is most often used with the meaning of superlative result of an action, over the current level, specific to the concerned sector; it summarizes the recognition of the outstanding results obtained from third parties, exceeding the usual level, easy to reach by most similar subjects.

H. Stolowy deems that performance is the realization of an activity appropriated to some expected targets which could ultimately translate by output. Also, the author distinguishes between the concepts of „performance" and „result": performance represents a relative concept because it is based on objectives and standards and the result appears as an absolute concept.

Economically, the concept of performance is associated to notions such as profitability, growth, productivity, effciency (Collasse, 2008, pp. 22-45).

Performance can be regarded as a state of competitiveness of the company, achieved by a level of effectiveness and productivity which ensures a sustainable presence on the market (Niculescu, 2005, pp. 42-50).

By referring to this sense, performance represents an unstable level of potentiality of the company, created by all that has optimized the couple value-cost and by everything that made the company competitive in a sustainable manner on its strategic segments (Lavalette, 1999, pp. 227-228). Thus, the performance becomes synonymous with competition, a performing company (or competitive) being, at the same time, an effective company (able to improve the ratio between the obtained results and the used resources) and an operative one (able to meet the expectations of all social partners).

Performance's assessment is dependent on information entered in the system of measurement and on the used instruments (Robu & Sandu, 2006, pp. 24-27). Usual financial indicators are represented by the financial rates relative to the investment's output, debt, efficiency of capital, liquidity, cash flow, stock rotation, receivables rotation. In addition to these classic indicators used in the financial analysis, there intervene also the so-called modern indicators of value creation.

The analysis of value creation is based on a system of indicators that can be grouped in (Vernimmen, 2009, pp. 681-695):

- accounting indicators. Until the mid-1980s, one used mainly *net profit* or *profit per share*, later the emphasis has been placed on the *result of exploitation* or *gross operating surplus*. A second generation of accounting indicators refer to *return on assets* (ROA) and *return on equity* (ROE), determining whether the increase of the risk is or not offset by an increase of profitability;

- indicators of hybrid nature: accounting and financial. Economic Value Added (EVA) is an operational net profit from which is deducted the opportunity cost of the invested capital, thus expressing the real economic benefits achieved by the company. Cash Flow Return On Investment (*CFROI)* is determined from the gross cash-flow emitted by the company in a period of time, from which one deduce the depreciation value and the total cost of capital used for financing;

- indicators of financial nature. *Net present value* (VAN) expresses creation/destruction of value following the allocation of resources within the company;

- stock exchange indicators. *Market value added* (MVA) is determined by comparing the market value of the company with the value of the total invested capital, highlighting the value created or destroyed for the shareholders within a certain period of time. Total Shareholder Return (TSR) is determined as the ratio between the modification of the exchange value of the share to which are added the received dividends on one hand, and the exchange value of the share at the beginning of the period, on the other.

The assessment of performances of the company based on the financial indicators is completed with the evaluation based on nonfinancial indicators that express the quality of the management, the corporate culture, the policy effectiveness of the executive management remuneration, the quality of communication with shareholders etc.

Currently, the trend is for performance evaluation based on creating value, but subordinated to the desideratum of sustainable development. The major objective in finance, respectively to create value for the suppliers of capital of the company, must represent the basic criterion of an efficient management. Besides, a firm can not maximize its value if it does not take account of the other interest groups (Jensen, 2001, pp. 8-21). Studies showed that companies that have failed to add value for their shareholders have failed to meet any other stakeholder (Wallace, 2003, pp. 120-127). Businesses that have managed to create value for their shareholders, for important periods of time are the same companies who have not hesitated to invest in innovation, to increase or create new markets, in the training and retention of staff, in the creation of close links with their customers etc.. (see the case of L'Oreal, Nokia, Apple, Toyota ...). A strategy of cost reduction can only be temporary, since it can generate sustainable value for shareholders; only companies that will be able to create value in a sustainable manner will dispose the necessary means to finance development and to remunerate and adequately prepare the employees to produce goods and services of quality, while respecting the environment.

Measuring the performance of a sample of firms from Romania through financial indicators - and also nonfinancial indicators concluded that the Romanian business performance is reflected especially through the financial indicators, respectively by their standardized size rather than by their absolute size. Once with the respective study, one could not identify a uniform system of management of value through which the indicators that define the company's performance would represent growth tools of the value of the invested capital by the shareholders (Ciobanu, 2006, pp. 181-184).

2. Maximizing value through the use to indebtedness

Capital structure policy involves balancing the degree of risk with the rate of return. Using borrowed capital to a greater proportion determines the increase of the risk's degree of the company's profits and a rate of return estimated at a higher value. Higher degree of risk associated with higher rate of indebtedness tends to decrease the market value of the shares, but estimating a higher rate of return leads to the increase of this value. Therefore, an optimal

capital structure will maximize the enterprise's value by achieving a balance between the assumed degree of risk and the expected rate of return, which will determine the maximization of the actions' price.

Regarding the opportunity to appeal to external resources for financing and their impact on the enterprise's performances, one can make the following statements:

- a company which has relatively stable sales may use borrowed capital to a higher proportion and may sustain higher fixed costs than a company with unstable sales;
- the augmentation of the share of borrowed capital is appropriate for companies with stable profit margins in sectors whose competitive structure does not allow easy entry of new competitors and the expansion of their production capacities. Although a rising industry is promising in terms of profit margin, however, this margin can significantly decrease if the number of competitors may increase very slightly;
- the use of borrowed capital is more appropriate to the firms that posses adequate assets to be used as collateral for the loans; likewise, the cost of borrowed capital will be lower for these loans adequately guaranteed;
- companies with a faster growth rate must rely more on external financing compared to the companies with a slow growth rate.

Recourse to indebtedness must be made so that the financial flexibility of the company is preserved, namely its ability to obtain capital on reasonable terms and also when the economic environment is adverse. Determining an adequate *reserve of the borrowing capacity* is primarily a matter of discerning of the managers that depend besides the factors previously mentioned, also to the forecast of the necessary funds, of the conditions on capital markets, of the managers' trust in the made forecasts and the consequences of a crisis of capital (Halper et al., 1994, pp. 630-660).

As such, financing the expansion activities of the company's actions can be achieved through a significant increase of the borrowed capital that must be repaid from generated cash flows. In the current financial crisis, which has a great impact on cash-flows and on the companies' ability to maintain the indebtedness rates at the same level as the one prevailing before the crisis, it becomes necessary analyzing in detail the operations and identifying the value of the borrowed capital that can be supported from the present cash-flows' and the short term forecasted ones.

3. The assumptions of the model considered for the case of wholesale trade companies traded within the Rasdaq Section of the Bucharest Stock Exchange

In the considered study we made a sample of 26 companies working in wholesale trade and in intermediation services in wholesale which are traded in the Rasdaq section of the Bucharest Stock Exchange. Being generally smaller companies with a relatively low equity market capitalization, we opted for assessing their performance based on the classic indicators, of accounting provenance, respectively the economic rate of return (ROA - Return on Assets) and the financial rate of return (ROE -- Return on Equity). One have tried to determine the existence or the lack of linear relationships between the changing level of indebtedness and changing economic profitability rate and the rate of financial return, based on econometric methods and software for E-views statistical analysis. Model assumptions were as follows:

a) a sample of 26 enterprises of wholesale trade whose shares are traded in the Rasdaq section of the BSE;

b) time horizon under review: 2006-2007;

c) the independent variable of the model: changing the degree of indebtedness in 2007 compared to 2006;

d) dependent variables (successively): modification of ROA and ROE in 2007 compared to 2006.

The obtained results making use of simple linear regression analysis led to the identification of the following two simple linear regressions:

$$ROA_i = 9.411317 - 0.108906 \times GI_i$$

$$ROE_i = 7.537205 + 0.058326 \times GI_i$$

where:

ROA_i - the modification of ROA

ROE_i - the modification of ROE

GI_i - the modification of the indebtedness degree

i - 2007/2006

Applying the method of least squares, as analysis technique available on the E-views application, where regression adjusting ROA, and respectively, ROE one has obtained the following results:

Dependent Variable: ROA				
Method: Least Squares				
Date: 04/16/09 Time: 11:39				
Sample: 1 26				
Included observations: 26				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GI	-0.108906	0.279633	-0.389462	0.7004
C	9.411317	5.779658	1.628352	0.1165
R-squared	0.006280	Mean dependent var		9.579769
Adjusted R-squared	-0.035125	S.D. dependent var		28.88504
S.E. of regression	29.38795	Akaike info criterion		9.672850
Sum squared resid	20727.64	Schwarz criterion		9.769627
Log likelihood	-123.7470	F-statistic		0.151680
Durbin-Watson stat	2.171608	Prob(F-statistic)		0.700369

Dependent Variable: ROE				
Method: Least Squares				
Date: 04/16/09 Time: 11:47				
Sample: 1 26				
Included observations: 26				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GI	0.058326	0.361051	0.161544	0.8730
C	7.537205	7.462483	1.010013	0.3226
R-squared	0.001086	Mean dependent var		7.446989
Adjusted R-squared	-0.040535	S.D. dependent var		37.19822
S.E. of regression	37.94465	Akaike info criterion		10.18394
Sum squared resid	34555.11	Schwarz criterion		10.28071
Log likelihood	-130.3912	F-statistic		0.026096
Durbin-Watson stat	2.024237	Prob(F-statistic)		0.873017

a) the coefficient of determination (R-squared) and the adjusted coefficient of determination (Adjusted R-squared) have the values 0.006280 and -0.035125 for the regression model adjusting ROA, respectively 0.001086 and -0.040535 for the regression adjusting ROE. Their value, situated well below the limit of 0.6 indicates a weak correlation between the two sets of variables; accordingly, we can not state that the models were well specified. The inclusion within the models of several observations could solve this problem, but the BSE's stage of development and the intervened changes in the listed companies do not allow us to do so.

b) t-Statistics and probability associated

By applying the test of significance Student-t results that estimated parameters, in both models, are not significantly different from zero, with a significance threshold of 0.05,

all their values (1.628352, -0.389462, and respectively, 1.010013, 0.161544) being smaller than the value $t_{0,05;24} = 2.064$.

A value as close to zero of the probability associated to the test indicates a high significance of the parameters concerned. In our case, the high values of the probabilities (0.1165, 0.7004, and respectively 0.3226, 0.8730) determine us to accept the hypothesis of nullity of the model's coefficients.

c) F-statistic and prob (F-statistic)

Models' plausibility analysis indicates that the F-statistic reported (0.151618 and 0.026096) are inferior to the limit $F_{0,05;1;24} = 4.26$. Also, the values (F-statistic) of 0.700369 and 0.873017 are not close to zero. As such, the obtained results are not significant for a significant threshold of 0.05, the studied models are not appropriate subjects.

4. Conclusions and recommendations

The analysis of the tests made using the E-views software indicate that there is no significant correlation between the variation of the indebtedness degree in 2007 compared to 2006 - taken as a basis for comparison - and the modification of the ROA and ROE, considered separately. As such, the presented models can not be validated.

The analysis on the profitability's progress must also be filled with the information relative to the cost of the attracted capitals. In the current financial crisis which has a great impact on cash-flows and on the companies' ability to maintain the indebtedness's rates at the same level as that prevailing before the crisis, it becomes necessary to analyze in detail the operations and to identify the borrowed capital that can be supported from the present and foreseeable in the short term cash-flows'.

Most of the times, the analyzed companies recourse to indebtedness in the absence of studies concerning the effect of financial leverage, the optimal structure of used capital, so that concerned enterprises' performances present unexpected developments.

Unfortunately, the results of the study do not provide clues to the managers or to the financial analysts concerning a direct dependence of the economic and financial profitability toward the increase/decrease of the indebtedness' degree; the predictive potential of the profitability according to the funding decisions is limited. The limits of this study are represented also by the reduced sample of data available for analysis. Therefore, further investigations are needed on greater data samples in order to identify the extent to which the capital's structure has a direct impact on companies' performance in the wholesale and eventually the developing of a forecasting model based on the respective variables.

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CREDIT RISK AT BANCA TRANSILVANIA SA IN THE ACTUAL GLOBAL CONTEXT

Mioara ȚURCAȘ
Bucharest Academy of Economic Studies

Abstract. *The purpose of this study is to identify and analyse the crediting risk of Banca Transilvania SA, on the period of time between the peak year of credit, 2008, and the present moment.*

Based on the practical experience accumulated by Banca Transilvania SA, we aimed at the identification and determination of the factors that constitute warning signs in the ongoing of the credits and which lead to failing in keeping the contract's clauses.

The results obtained after comparing the credit rate-setting valid for the surveyed period reveal the fact that the condition of credit allowance have roughened and there were created conditions for the backing of the existing credits, in view of decreasing the credit risk and maintaining a valid portfolio of credits.

Keywords: risk; credit; portfolio; the bank; monitoring.

JEL Classification: G21.

Banca Transilvania – introduction

Banca Transilvania was set up in Cluj Napoca, 15 years ago, on the initiative of some businessmen in Cluj, who wanted to create a local bank. Banca Transilvania's position was first strengthened in Cluj and then at the regional level.

At first the activity of the bank was directed towards the SMEs area, and due to market request, in a short space of time it dedicated also to the retail area. In 1997 Banca Transilvania became the first bank institution in Romania which was quoted in the Bucharest Exchange Stock. Banca Transilvania is the biggest bank with Romanian majority of equity, having the European Bank for Reconstruction and Development as a significant shareholder, which holds 15% of the social equity.

Banca Transilvania is a powerful financial group, the Financial Group Transylvania Bank, which offers integrated services on the market – banking, investments management, customers financing, leasing, transactions for movable, factoring, private pensions- through its companies: BT Asset Management S.A.I. S.A., BT Direct, BT Leasing, BT Securities, BT Finop Leasing IFN SA and the Factoring Company. In all its actions Bnaca Transilvania has the support of the European Bank for Reconstruction and Development (EBRD).

Small and Medium Enterprises represent a strategic priority for Banca Transilvania, and therefore, in our role as top supporter of Romanian entrepreneurs we are continuously engaged in bringing new specialized solutions to the market, thus constantly increasing our dedicated SME product portofolio.

The minimum requirement of equity for the credit institutions

The importance of the administration function in the equity adjustment process is underlined at the highest level through the agreed adjustment of equity, known as Basel II Agreement, under which the minimum capital requirements for the credit institutions were established with the purpose of assuring the stability of security activities and the execution of the assumed obligations through an adjustment of practically administrated equity through specific regulations and correlation between the risks to which a bank institution is submitted and the capital used for covering them.

The minimum requirement of equity for the credit institutions and investment companies is stated in the Regulation no 13/18 from 14.dec.2006 of BNR which, in Chapter II, (art. 2, alin. a) reffering to the credit risk states that institutions have to dispose of their own fund, which must be permanently at least at the same level with the amount of the following equity requirements: for the credit risk and the diminuation risk of the outstanding debt amount afferent to the whole activity, except the operations from the transactions portfolio, 8% of the all-in amount balanced risk of expositions, accounted according to the Regulation BNR-CNVM no 14/19/2006 concerning the credit risk treatment for the credit institutions and investment companies congruous to standard approach, Regulation BNR-CNVM no 15/20/2006 concerning the credit risk treatment for the credit institutions and investment firms congruous to the approach based on internal pattern of rating and/or Regulation BNR-CNVM nr. 21/26/2006 concerning the credit risk treatment afferent to the safety expositions and to the positions(1).

Banca Transilvania assures the maintaining of its own fund level which is permanently at the level of capital requirements for the protection of the credit risk, market risk and operational risk.

Banca Transilvania chooses the use of the standard approach for the determination of the minimum capital risk for the coverage of credit risk, and for the coverage of the operational risk the use of basis approach, starting with the year 2008.

According to the subsequent development peculiarities, the preparation and the accomplishment of the conditions, the bank will decide the transition period to superior levels approaches to determin the capital requirements. Beginning with the year 2014 or 2015 the bank's aim is to use the approach based on internal rating patterns to coverthe credit risk and beginning with the year 2009 or 2010 the operational risk will be covered by using the standard approach.

Credit Risk

The economical dictionary defines the credit risk as the risk assumed by the bank in case of bankruptcy of one of its clients. A bank which is strongly engaged in a company, both through capital participation, and conferred credits will confront with credit risk in case of bankruptcy. The cause of this risk is represented by the difficult economical conjuncture; the inadequate financial state of the companies, lack of supervision.

The bank can lose totally or partialy the lent capital depending on nature of the guarantees and the possibility of rendering them profitable.

The banks can take measures risk managemant: guarantees; attentive supervision of the authorized limits in granting loans; a centralized system of risks(2).

Activities with specific risks carried on in Banca Transilvania are: credit risk, market risk, liquidity risk, the interest rate risk, the exchange rate risk.

The credit risk can be: minor medium or major.

The minor risk is a reduced probability for the risks identified after the analysis to be a threat and, thereby, to determine difficulties in the development of the activity and in sustaining the debt service.

The medium risk appears when the results of the analysis are both positive and negative which may or may not be in direct interdependence; there is the probability that the identified risks to be a threat, determining difficulties in developing the activity and sustaining the debt service.

The major risk appears when after the analysis there were identified one or more negative aspects which may determine major difficulties in developing the activity and in sustaining the debt service.

I. In what the credit activity is concerned, the specific risks for the selection, analysis and approbation of credits are:

1) Promotion for approval of the credit transactions afferent to some societies with a precarious economical-financial situation and uncertain activity perspective.

2) Presentation of a fragmentary and superficial analysis, an unreal state of reimbursement capacity; not taking into account the debt degree, the reimbursement of all elements or taking into account some incomplete elements.

3) Promotion of credit files which were not identified by the branch as being groups; big exposure; the credit institution group or with inadequate guarantees. The group of clients connected according to Regulation BNR/ CNVM 16/21/14.12.2006 is defined as being any private individual or group of private individuals and/or juridical person towards which the credit institution has an exposure and: (1) which constitutes, if it is not otherwise proved, only one risk, because one of them has directly or indirectly, the control over the other one or the other ones; or (2) between which there is not a relation of control as expressed in paragraph (1), but which have to be considerated as representing one risk, because there are connections between them that if one of them would confront with financial problems, there is the probability that the other one or the other ones would confront with reimbursement difficulties.

4) promotion of credit files, notoriety private individuals or juridical people who have not been identified - reputation risk.

5) Takeover of incomplete documentation, the missing documents necessary for the analysis, not checking the taken over documents, the presentation of the members of the Committee for Credit and Risk of the Branch/the central Committee for Credit and Risk or of the Committee for Management of incomplete documentation, erroneously executed.

6) Not taking over all the significant facts opinioned by the jurist and the assessor. Not claiming on time the Legal advisor's notice, may lead to the appearance of situations in which the client is not eligible or may not derive advantage from the credit; not claiming on time the assessment may lead to the possibility of not existing sufficient guarantees. If the assessor does not perform the movement in the area, he may execute an incomplete report, not underlining the possible risks in the guarantees; not consulting the Central of Bank Risks, the Central of Payment Incidents of the Credit Office leads to not making evident other possible commitments.

7) Giving credit currency to societies which do not realize exports or imports which would permit them to adjust the selling - currency risk prices.

8) Incorrectly applying the new commissions and interests of the bank, if they have been modified; not respecting the norm and the banking policy for credit - operational risk.

9) Appearance of incomplete data, incorrect or false in what the person client solicitor of the credit is concerned or in what the person-husband or wife is concerned, identification data, data concerning the financial position or the family status of the client, data concerning the existence of other engagements.

II. Credit Potrfolio Risks

1) risk afferent to the level of remaining credit all-in portfolio

2) risk afferent to the level of credits all-in portfolio

3) risk afferent to the level of credits in total portfolio

4) risk concerning the concentration of the portfolio, the lack of an adequate dispersion of the clients portfolio (corporate, small bussines, private individuals) on activity branches.

5) The risk of exceeding the limits (in conformity with BNR regulations) in what concerns the big exposures afferent to debtor, the credit institution group, cumulated values of the exposures.

III. Activity Management Risks (risks determined by operation errors)

A. The draft errors of the documents afferent to the credits

The errors which may happen in the editing process of the credit documants may be classified as follows:

a) Minor risk errors which do not affect the position of the bank in report with the debt. We talk about the grammar errors, are excluded the ones which appear in the debtor's identification data editing, the guarantor' and the attached guarantees.

b) Major risk errors influence the bank's position in report with the debtor if they appear in the documents.

These errors may be:

- Omissions or grammar errors which appear on the debtor's identification data, on the guaranties and the guarantors attached to the credit;
- wanted or unwanted omission of the standard contract's clauses
- incorrectly or incompletely editing the specific credit clauses agreement, as they were stipulated in the decision of the Credit Committee or Management Committee.

B. Processing credits errors (credit expenses)

The errors that may appear in the process of credit expenses are major and medium risk errors which need specific monitoring.These errors are:

- Expenses errors, which represent operation errors with major risk and they refer to giving the client other amounts than the granted ones: capital expenses in different amount, different currency, different available account, without supporting documents. The errors are determined by the designated supervisor who verifies the operation in the validation moment.
- Credit entry errors, which represent medium risk operation errors and they refer to recording credits in the system, at different parameters than the ones foreseen in the documents.
- Errors determined by breaking the regulations in force, represent major risk operation errors and they refer to recording the credit in the system, before accomplishing the expenses obligations of the credit: lack of full documentation, lack of advertising guarantees, lack of insurance policy guarantees, and other unaccomplished conditions.

C. The tracking ongoing errors are the errors that may appear in the tracking ongoing credits process, they are major and medium risk errors which need a specific monitoring. They are:

- not collecting the attached claims errors and of the lend equity represents major credit risk errors and they appear when commissions and interests are not collected by the banks. The collection is automatically made by the administration informatics system if the setting was correctly made when the credit was recorded.
- Not respecting the contract's operation clauses, are medium monitoring credit risk errors. They refer to monitoring the turnover clauses, as well as the other conditions imposed by the Committee for Credit and Risk or the Management Committee.
- Not respecting the indemnity clause of credits, the advertising guarantees and the insurance against the damage risk of the material guarantees are medium monitoring credit risk errors. They refer to monitoring the structure of the guarantes, the assessed amount and the insurance policy against the damage risks, at the insurance societies approved by Banca Transilvania.

D. Risks determined by errors generated by monitoring informatics system of credits and these are:

- collection of attached debt errors;
- collection of debt errors.

Both errors are major risk errors, and are determined by an erroneous operation of the management informatic system.

E. Risks determined by the monitoring manner of the credit portfolio, guarantee banking letters and identification of unperformed investments, identification and report of large exposures and the ones annotated towards the customers who have a special relation with the Bank, its own employees and their relatives:

- identification of non-competitive credits;
- monitoring of credits portfolio evolution, on types of products;

- approach of non-competitive credits;
- identification of debtors groups;
- identification of debtors found in the institution credit group.

Monitoring this credit category determined the medium risks.

F. Risks determined by monitoring the guarantees portfolio and determination of the specific necessary risk provisions.

- monitoring of periodical assessments and reassessments of the guarantees portfolio attached to the credits. Errors that may appear in the assessment process of the guarantees attached to the credits may be classified as follows: a) minor risk errors, if they appear in the assessment report they do not damage the decision of the Bank concerning the assessed good and b) medium risk errors, which affect materially the decision of the Bank concerning the assessed good. This are market income errors (just) in establishing the value of the good or errors in determinating the progressive trend of the assessed good in the market;
- monitoring the specific risk provisions:

a) direct errors, with minor risk, determined by error and account, at the moment of determination;

b) indirect errors (determined), with major risk, determined by an eronous market value at the attached guarantees, or by eronously determined financial performance of the debtor.

G. The risks determined by the management procedure of the afferent credits. The errors which may occur in the process of keeping the afferent documents are minor risk errors due to specific conditions of preservation (treasury metallic cabinets). There is a risk concerning the documents' preservation, the deterioration possibility, the loss or the loss of the privacy character of the documents by faulty preservation.

Comparative study of the credit activity, between 2006 – 2008

The study follows the credit activity evolution from 2006 til now. The reference will be made to the credits designated to SME and authorized private individuals, family associations.

The general purpose of the study is making evident the changes which appeared in the credit activity, especially the eligibility conditions of the clients and the volume of the possible credits used by them.

This scientific demarche was realized by analyzing norms, procedures, instructions and internal credit regulations of Banca Transilvania.

At the beginning of 2006 the **micro credits** were granted to the micro companies and SME, which due to turnover, activity volume and working complexity did not need particular treatment, as in the case of corporate clients. Credit analyze process foresaw a standardized approach, its purpose being simplification and efficiency of the process, to hasten the approval/rejection decision of a small loan. This approach wanted to generate volume, assuming the correct assessment of risks.

This type of credits accomplished the dimension and guarantee condition and that is: the value up to 50.000 EUR respectively the equivalent of this amount and the guarantee of the credits up to 2.000 EUR or the equivalent RON with private individuals guarantors and between 2.001 EUR and 50.000 EUR residential immovable property, immovable properties – headquarter of the company, outlets, presentation shops, production halls, department store, inlands, maximum 3 years old vehicles, other 5 years old means of transport, tools and equipments.

Types of credits:

- credit lines
- credit for stocks and/or paying suppliers
- banking guarantee letters
- investments credits

Fast credits designated for the SME clients are products created with the purpose of permitting easy and fast access to finance this segment of customers, supplying in short notice the working capital necessary for the fluency of the current activity.

At the beginning of 2006 this category included only 1h loan, 0% interest and loan without down payment.

1h loan was granted to the clients who accomplished the following eligibility conditions:

- the turnover was under 1.500.000 RON
- the minimum functioning period was 12 months
- the last balance sheet showed the increasing turnover and recorded exploitation profit
- in the Risk Banking Centre appears the debt service A
- There were no entries in the Centre of Payments Incidents with more than three major incidents in the last 6 months and they did not possess interdiction to emit cheques.
- The financial stability of the company (it is ranked in the performance category A or B, according to internal norms concerning financial performance assessment of the clients in respect of the specific risk provisions constitution).

The loan's value was 20.000 RON and did not get over the monthly average of the turnover.

If the loan constituted a group with other firms, just one could benefit by the product.

The reimbursement term was 6 months. The credit guarantee was/is made with account charge and 1 – 3 order tickets validated by the firm's deputy.

The 0 Interest' goal is supplying with supplementary working capital, necessary for the peak payments periods originating fluency of current activity.

The eligibility conditions were identical with the conditions of the 1 h loan, adding the condition of not existing bad debts higher than seven days to other credits granted by Banca Transilvania.

The maximum credit value was 35.000 RON (this limit still exists), was/is established according to the monthly average of the client's turnover and according to other working capital credits drawn out by Banca Transilvania. The difference between 1 h loan and 0 Interest is that the destination of the credit did not need to be concretely established.

The loan without down payment permits the SMEs an easy and quick financing access supplying capital necessary for the investments. The eligibility conditions are the same as for the credit 1 h loan.

The value of the credit was maximum 50.000 RON and was put out according to the reimbursement capacity generated by the operative cash-flow(depreciation + operating profit). The credit was/is designated to investments, respectively the acquisition of fixed goods as well as for the renovation, building and immovable property extending.

The reimbursement term was of max. 60 months with a grace period of max. 3 months. The guarantee was/is by rule with the bought goods from credits and an order ticket validated by the deputy of the firm.

START UP loan for investments was/is adressing the new companies which are on the verge of starting and developing an activity, supplying with the funds for fixed investitions necessary for the activity. The value of the posible credit to access was of 35.000 RON. And the debt credit service could not overtake the maximum level of guarantee afferent for the cessed income by minimum 2 guarantors private individuals.

The reimbursement term was of max. 60 months with a grace period of max. 6 months. The guarantee of the credit was made with account mortgage, three order tickets validated by the deputies, mortgage over the bought goods from the credit and assurance on the wages of the endorsers.

In May 2006 the SME team Division creates a new product, *100% Discount,* to facilitate the coverage of the temporary treasury necessities (current payments) of the customers.

The eligibility conditions are identical with the ones from the credit 0 Interest, plus the condition that the debtor does not appear in the Centre of Paymant Incidents with more than 3 major incidents in the last 12 months.

The maximum value of the credit was/is 35.000 RON, without overtaking the monthly average turnover of the customer, according to the last balance sheet and is granted under the cover revolving, the absorptions from the cover reaching 100% of the charged documents' value.

The credit lasted/lasts 12 months and the guarantee was/is represented by the order tickets validated by the deputy/deputies of the society and the real estate guarantee on amount of money.

In May 2006 because of the credit activity development there appeared the following changes:

a) Increasing the value of 1 h loan from 20.000 RON to 30.000 RON, but not more than the monthly average turnover. With the condition that there are not larger debts than 7 days according to the calendar at other credits granted by Banca Transilvania.

b) Increasing the maximum value of the investment credit without self contribution from 50.000 RON to 100.000 RON. With the condition that there are not larger debts than 7 days according to the calendar at other credits granted by Banca Transilvania.

In 2007, the major changes were in the area of fast credits, which were actually the most demanded:

- the eligibility conditions were reinforced by the condition of verifying by the Credit Office the behaviour of the representatives of the firm towards the Bank.
- Towards monitoring the granted credits, it was introduced the condition that the solicitor should present the balance sheet afferent to the legal regulation terms.
- As a caution measure it was introduced the obligation to visit the customer's centre and draw up a visit report.
- The credits 1 h loan and 0 Interest the granting period is increased from 6 months to 12 months.
- Beginning with 2007 all pledge of tangible assets as collateral over the present and future cashing are registered in the Electronical Archive (in the case of a deduction from a third, the bank has the priority of cashing the debts first)

In 2007, the Division SME created an amount of products:

1) Real estates on the firm. This credit is designated both SME clients and corporate who accomplish the last eligibility criteria above mentioned. The credit is designated to purchase real estates.

- the maximum value of the credit was of 200.000 EUR sau the RON equivalent.
- The credit dimensioning was/is made according to the reimbursement capacity generated by the operative cash-flow, the debt service afferent to other credits drawn out for long and short term investments and of the size of the guarantees' real estate.
- The reimbursment term was of 180 months, with maximum 9 months grace period.
- The credit guarantees were/are: assurance on the account, guarantee real estate over the goods bought from the credit or others and order ticket validated by the firm's representatives. The coverage degree with guarantees was of 100%. Without the client's contribution.

2) the credit for unnamed needs. Twice the house, satisfying the unnamed needs for suplementary capital sources of the customers, necessary for the drawing up of the activity object.

- as eligibility conditions, the mentioned above are respected as the minimum working period of the company to be 24 months, and not 12 months as the other credit types and not to role O Interest and 1 h loans.

- The maximal value of the credit was of 2000.000 EUR or the equivalent in RON and represents twice the correct value (from the assessment report) of the immovable good brought into guarantee with the condition that the maximum uncovered amount not to overtake 75.000 EUR or the RON equivalent

- the reimbursment term was of maximum 240 months with a grace period of maximum 12 months, and the coverage degree with real estates guarantees was between 50% and 100%

- the guarantees are identical with the ones on Real Estates on the FIRM

3) the Full-option loan - the mortgage for juridical people (the most successfull fast credit product)

- it consists of the following shapes and destinations:

a) credit lines for financing the current activity

b) medium or long term credits of unnamed needs with mortgage (the most used form)

c) for immovable property purchases

d) stand-by credits for emittng banking guarantee letters or liberation cover banking guarantee letters, on medium or long term.

- the value of the credit was of maximum 100.000 EUR or the equivalent in RON, not overtaking 70% from the guaranteed immovable properties. The dimensioning was/is made the same as the loan Real Estates on the company.

- When the credit is granted as a credit line, it is verified the cumulation condition of the working capital credits (the cumulated value of the working capital credits will not pass the value of the full-option loan).

- The reimbursement term was/is of 12 months for the credit lines, 120 months for medium and long term credits with a grace period of maximum 12 months and maximum 48 months for the stand-by loans for the banking guarantee letters emitting or liberation cover of banking guarantee letters.

- Guarantee of the credit identical with the Real Estates on company loan.

4) The unnamed needs credit 3 years Grace period granted for satisfying certain unnamed capital needs necessary to accomplish the object of the company's activity.

- the max. value was of 200.000 EUR or the equivalent in RON. The credit dimensioning was made according to the reimbursment capacity, and the result did not overtake 75% from the total value of the immovable property brought into guarantee

- the reimbursment term was of 180 months with the grace period of 12 months for the paymant of debts and 36 months for the paymant of working capital rates.

- The guarantee of the identical credit with the credit Real Estates on Company.

5) the refunding credit was created for the relaxing of the debt service for the clients who proveed opening in relation with the bank when passing to difficult periods and who made efforts to straighten their financial situation and who can guarantee their new debt with real estates. This loan appeared as a result of the situation in which the full option credits which were to reimburse (because of unaccomplisment of the eligibility criteria at their prolongement) could not be supported by the customers.

- this type of credit refinances the quick credits without real estates guarantees and the guarantees attached to them.

- the reimbursemsnt term is of maximum 36 months in the case that the customer does not unroll an Investment credit without down payment, in the opposite case it is of 84 months.

- the guarantee of the credit is made in the same way as for the Real Estates credit on company

- the coverage degree with guaranteed reals estates is 120%

In the year 2008, until the end of the third trimestre they keep the same credit activity characteristics. The credits were approved by the Committee of credit and Risk of the Bank, accomplishing the eligibility and size conditions above mentioned for each credit alone. When overtaking the credit maximum limit or not accomplishing one of the eligibility conditions the approval/rejection of the credit was made by the Committee for Risk and Credit of the Centre or the Committee for Management.

Financial Performance Assessment for the Specific Risk Provisions

Banca Transilvania uses the following indicators for the financial performance assessment of the juridical person customers who draw out financial situations:

A. quantity indicators:

a) economical profit earning capacity - earning performance indicators which reflect the firm's capacity to generate profit with the assets which they exploit.

R_e = Rda/A x 365/Tx100, where:

Rda – the result before subtaracting the interests and the depreciations (gross result and exceptional results) plus the interest and depreciation expenses and the provisions.

A-total assets

T – the time period (in days) from the beginning of the year until the date of bordering in the financial performance category

b) current rate (%) – shows the capacity of the firm to cover the mature obligations on short period with patrimony assets which may transform in money .

R_c = As/Pe x 100, where:

As- total circular assets + immovable guarantees with liquidity under 1 year

Pe – debts which must be paid within a year

c) the obliging degree (%) shows the total debts in total labilities sheet balance and underlines that the financial risk of an economic entity grows with the debt.

G_i = D/P x 100, where:

D – total debts

P – total liabilities

d) the solvability (%) reveals the customer's equity in the equity invested in the company.

S = Cp/Cang x 100, where:

Cp = self equity

Cang = self equity + loans and financial debts

The quantity indicators is accounted due to the financial situation of the economical entities drew out and operated according to the regulations of the public finance Ministry or by autorities with similar owers from other countries.

B. Quality indicators:

a) Quality management – is assessed according to professional preparation, expertize in the area, ability, professional qualities appreciaated by the credit regulator

b) market conditions – are assessed according the stability and perspective of the bussiness, market percent owned, number of customers, marketing station location, products/services quality appreciated by the credit regulator.

The effective financial performance assessment for the not banking customers (A-E) is drawn out by bordering the values of the obtained indicators (quantity and quality) in the appreciation grid, observing that the quality indicators are no taken into account if the economical entity did not obtained points at the quantity indicator.

The performance category is mainly given by the quantity indicators, the assessed economical entity possibly passing to the superior category on the quality indicators grounds

Table 1

Performance categories of the economical entities

Quantity indicators +	Total score	0	0 -22	22 - 46	46 - 72	72 – 100
Quality indicators	Performance category	E	D	C	B	A

The internal norms provide the provisions account in the closing day of every month, and the provisions list was analysed in the Credit and Risk Committee of the Branch. To the credit classification, on the period between two drawn out of the financial situations it is kept the last determined performance category.

The determining of the provisions necessary it was taken into acount the deduction from the exposition of the bank towards the debtor of the accepted guarantees taken into account, and applying on the obtained basis of the provision coefficient, which resulted from the service debt credit classification, financial performance and the initiation of the legal procedure.

For the determination of the provisions account, the following guarantees are deduced from the bank's exposition towards the customer:

- guarantees constituted over the following amount of goods, to which we apply properly accounted coefficients to obtain the fair value: areas and set up areas, buildings, technical installations, technological equipments, machines, working installations, devices and measure installatios, control and adjustment, means of transport.
- Guarantees over the documents now in payment, proved as fair: payment order, certified cheques, documents with the terms and conditions presented in the credentials.

Periodically revision of the performance indicators is necessary according to economical and legislative evolution of the country which is maintaind in the present.

The provisioning multipliers are established after credit classification according to regulation 5/2002 of BNR, and that is:

Table 2

Provisioning multipliers afferent to the classification categories

Classification category	standard	Under observation	Under standard	doubtfull	loss
Multiplier	0	0.05	0.2	0.5	1

Developments regardless the global economic crisis impact over the credit risk in Banca Transilvania

Romania did not avoid the economic crisis. The effects are noticeable, the sudden slowing of new credits in economy generated problems in the company's usual cash flow. The blocking or stagnation of some sectors (real estates, transports, motor, and constructions) determined the temporarily crash of guarantees value, in default of transactions which will have a fair value, a market value. Despite the difficulties, the economic agents will adapt differently to the new conditions according to their aptitudes, resources and understanding. Once with the first signs of the crisis Banca Transilvania foresaw a certain deterioration of the credit portfolio quality and adopted a special, energetic atitude to limit the impact.

In october 2008, taking into account the evolutions on the financial markets and the foresights on this matter, of which:

- stagnation or slowing of whole Romanian sectors (real estates, constructions)
- tempered credit grant practiced by the majority of the comercial banks with notable effect in company's cash availability and their incapacity to refund.
- increasing the cash in cycle of the claims and multiplication of the companies unable to acquit the suppliers.
- Slower transaction of the guarantees
- Slowing the investment rhythm

- Consistent increase in price of the financing costs, with imediat effect in the socities profitability and the debt.
- The difficult international context which attached a new task to the Romanian economy because in the last few years it developed only from external funds;

A range of measures were taken, so that the SMEs could establish their priorities correctly:

- avoiding the financing of speculative real estates transactions
- avoiding the financing of real estates investments projects
- up to 60- 70 % of the fair values resulted from the proposed assessed guarantees
- avoiding the financing of unnamed needs or the pursuit of the incomes' destination.
- firm actions when real estate credits are suffering.
- limited new client credits, max. 500.000 RON.

The activity areas deeply prejudiced by the recession are: constructions, real estates. luxury products, production and motor trade.

The first worry signs are:

- Remaining budgetary obligations. Lack of interest or impossibility to acquit the budgets' obligations denotes lack of discipline of owing payments in the development of the activity, so that it is possible that the payments to the bank are treated in the same way.
- Remaining obligations to other banks, of the firm and of the shareholders as private individuals.
- Payment obligations replaced at intervals to banks or other entities.
- More frequent payment incidents or of large value.
- Litigation in role. Any litigation can degenerate in an insolvency demand which may complicate the recovery of the lent equity and of the claims attached to it.
- Stringent working equity necessities. If the verification of the Electronical Archive, Centre of Bank Risks and office credit ascertain that the shareholders have granted more credits without informing the bank, it may be the suggestion of a suplementary liquidity need for assuring eligible payments or for the starting projects which may suplementary load the debt service when the credit was granted.
- Higher owing degree (over 80%). The fact that a company, even the SMEs, banks excesively on drawn sources, and not on its own equity and on the exploiting incomes will lead in time to the increasing of the expenses with the interests and addiction towards the suppliers. In what period of time is this relation sustainable?
- The cumulation of very big claims and debts in report with the developed activity
- Large amounts of money entried on loans or fluctuation. Sometimes this amounts of money represent the owners' financing for the company's development of activity, but may also be "vanzari la negru" (illegal sales).
- Lack of communication between the contracted credits, their designation and the accounting registering of the two elements (loan and purpose)
- Frequent change of the accountant. When a company has the use of bank loans, the relation of the owners with the accountant is a strong one.
- Large personnel fluctuation. May be determined by the lack of adequate conditions or the inability of the company to pay their rightful wages.
- Significant sales fluctuations (increase or decrease) or of the expenses. The lack of explanations should be an warning signal.

Possible Solutions for the Troubled Loans. The Reorganization Credit

Banca Transilvania's objective is to establish a formal setting to analyze the changes from the real economy and the way in which the customers' activities are influenced by the crisis. The thinking process needs to be adjusted in order to preserve the quality of the credit portfolio. A good decision may be both backing the business of a customer and move back

from it. Through this policy Banca establishes the ground rules to which the selection is operated, the way in which the backing of the customers blends with a prudent attitude, advisable for this period.

The reorganization is the process in which Banca respaces out payments, modifys the structure of one or more loans or modifys the structure of the guarantees for the transactions in one of the situations below mentioned:

- Banca forsees or identifys potential problems in the unfolding activity, backing the debt service or covering with guarantees of customers' exposures.
- The customer expressly asks for this and triggers steps towards the bank
- Supposing the customer is already registering arrears towards the bank.

The reorganization facility permits the temporary relaxation of the debt service for the customers with short, medium or long term credits and which due to market conjuncture books slow growth rhythm or even a recessive business trend, but proved an open relation to the bank, making efforts to regain their financial position and of payment capacity and are clients who by the aid of this facilitation can keep up on the market and recover their activity in short notice.

According to peculiarities and characteristics of each case, there are several possible recovery solutions in what the credit reimbursement is concerned:

- the taking over of the exposure and implicitly of the finance credit good by another society (from the group) which may sustain the debt service.
- Taking over the credits through the innovation procedure
- Sale promotion under bank supervision of guaranteed real estates of suffering credits, by financing of a third juridical person or by the owner of the real estate.
- Separation advices of the activities by taking over by a new society of the functional activity, of its credits and guarantees
- Taking over the guaranteed and non-guaranteed credits difficult to sustain debt service under the form of a new credit with a lax reimbursement grafic
- Suplementating the existent credit or granting a new credit by taking over the registration, which cannot be older than 90 days at the reorganization day, in the conditions of guarantees suplementating
- Rematuring the credit rate in a time period in which the assets sale is estimated or the restarting of the activity with the customers contribution.
- Real estates guarantees reinforcement and of other nature, validation of ordere tickets, cession on the of the non-guaranteed exposures
- Granting the replaced credit product when the customer constitutes a real estate guarantee/ suplementary movable with revigoration perpective activity
- Avoiding the automatic credit extention for the fast credits for working equity, respectively their extension after carefully checking the eligibility conditions,with rates agreed by boths sides, accordingly to the real reimbursement possibilities.
- Reprompting the expiration fast loans for working capital which were automatically prolonged with equal monthly rates for establishing equity rates adjusted to the reimbursement possibilities of the customers and the reinforcement of guarantees.
- Takover or cumulate more fast loans without material guarantees with a loan with material guarantees on the strength of a current financial analysis of the customer.
- Conversion of the EURO loans in RON loans, revising and reinforcing the guarantees.
- Extention of the reimbursement terms in product limits, according to the recovery perspectivesof the company's financial situation
- As an exception, suplementary loans are granted to allow the customer the continuation of the activity, in the case of a temporary lock-up

Ways to reorganize loans:

- reschedule the due date of the current rates on a certain period – an operation which allows the bank to modify the due date for one or more loan rates before their due date, without passing over the initial loan granting period.
- Readjust the loan- operation of modification the due date for one or more loan rates before their due date, passing over the initial loan granting period.
- Reactivate the remaining rates of the loan represents changing the remaining interests' due date by adding it to the existing balance account in the reactivation date.
- Delaying interest payment by granting a grace period to pay the monthly interests for a period established by both sides and space out the cumulated payment accoording the agreed schedule.
- Reactivate the remaining annuity means adding it to the balance account of the current loan existing in the reactivation date.
- Partial or wholesale annuities readjustment by granting a grace period for annuities payment, readjustment of a per cent from the value of the annuities owed monthly

Particularities concerning the credit activity in Banca Transilvania in the year 2009, the current economical crisis

In the first trimester of this year Banca Traansilvania recorded good results although the influence of the current economical context was obvious. For 2009 BT wants to stiffen its current position, by a prudent growth, keeping comfortable liquidity indicators and adequate capital. This fact is demonstrated by the bank's behaviour in this first part of the year.

In 31.03.2009, the balance assets reached 19.566 million RON, a 15 % growth from the end of the last year. The report loans/deposits in March, 31, 2009 was mentained under unit, a 0,86 level, which demonatrates that there is a very good liquidity and a strong position on resources from the intern market.

Banca Transilvania's solvency – taking into account the financial results recorded in 2008 and the first trimester from 2009, excepting the amounts proposed as dividends-remained at a comfortable level, over 14%.

Although the all-in assets rose with 15% in the first trimester 2009, the loans did not follow the same trend, the loans demand decreased because of the international crisis and selective eligibility conditions.

Although the post provision profit increased with 65% opposite the one in the previous year, because of a very prudent and active provision policy in this economical crisis conditions, the gross profit is 1.02 million RON.

In 2009 the bank granted mostly RON loans and the currency loans were promoted as exception.

The credits are designated for the actual customers and also for the new customers, with viable activities, less influenced by the economical – financial crisis. There will be short term loans for current needs (payment of important suppliers, big penalty debts) and for investments (to finish the projects with immediate impact in the current activity).

Conclusions

In the analyzed period it was shown the evolution of loans credit to SMEs and the unheard proportions of the credit products adjusted to the customers needs.

If until the third trimester of the year 2008 the loans were easily granted (but in a responsible manner) with the approval of the Subsidiary, accomplishing the standard conditions and with the Centre's approval in the departure from loan rule conditions, but after this period the loans were granted according to the difficult working environment. In 2009, until April all loans were granted by the Management Committee, the conditions were more rigurous, without departure from rules, but in the end of the month the Subsidiary Loan Committee approved the short term loans. The portfolio quality is taken into account openly

backed by the loan reorganization program. The new loans are granted in a controlled manner, responsible, paying attention to the economical environment in order to diminish the credit risk.

The first normality signs have already been noticed, Banca Transilvania does its job delivering full banking services and financing.

Robert Rekkers, Banca Transilvania' Chief Executive Officer states: „*In 2009 we will be more than ever by our clients' side. This will be the year of resistance also for us on the background of unfavorable macro economic conditions. We will continue to be the Bank for Entrepreneurs and we will support the domestic companies and the SMEs, as well as the entire Romanian real economy.We will closely observe the quality of loan portfolio and aspects pertaining to liquidity and risk management. We will keep a watchful eye on cost reductions and try to constantly adapt to market realities"*[(3)].

Notes

(1) Regulamentul nr. 13 din 14 dec. 2006 al BNR

(2) http://www.standard.ro/dictionar

(3)Comunicat de presă Banca Transilvania din 31.03.2009, disponibil on-line pe www.bancatransilvania.ro

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