

The Wiseness of Economics

“What Economics lacks in order to subdue shocks is the functional dosage of perspectives obtained through flexible positioning with regard to the Cartesian axes of interventionism and deregulation.”

The present crisis brought back a disturbing question: why do people stay attached to failing ideas? Of course, the special corollary of the question is constructed as: why do the economists remain – or stubbornly become – partisan to theories which are defied by the crisis?

The answers to the domestic part of the dubitation pertain to the resilience of the general knowledge built on classified, dictionary-knowledge. However, dictionaries do not change easily in their general composition, their knowledge being normalized and accepted – in the deeper levels of knowledge transfer – with even century-long disparities to the scientific revolutions. The inculcation of knowledge through the schooling system is based on the principle of the unquestionable truth, destined to provide the emerging minds with clear guidelines for the understanding and with secure operators for the explanation. At the level of common knowledge the world came to be Aristotelian.

Regarding the corollary – which describes behavior at the level of scientific knowledge – the situation is more complicated. At least with regard to what is happening in the sphere of economic thinking and in the intellectual universe of the community of economic theorists (which we call theoretical economists), the complication is revealed by the crisis to be on a path different from that of the unquestionable knowledge. What have we been noticing for the three years since the crisis has been wreaking its havoc? The theoreticians keep swinging the blades of their ideas against the same worn-out shields of interventionism and deregulation. The creativity of theoretical economists gets stuck in Manichean intolerance, while the proposed solutions seek to save the eternity of the irreconcilable positions of religious consistency. The solution to the crisis seems to be of no interest (or is invisible). What comes to the fore seems to be the saving of the dual causes which have over time either invariably, or distinctively, or together generated crises.

Here, practically, all the resources – of credibility first and foremost – are being irrationally consumed. Because of them the dictionaries of Economics have routinely revised editions, according to the asymptotic evolution of one alignment or the other, in a Cartesian manner.

The false positioning of the community of theoretical economists in devising the method for solving the crisis has itself become – in the Cartesian system, with the referentials of interventionism and deregulation – a reflex for understanding and for explaining. In other words, it came to be the Gordian knot in the universe of economic cognition.

This is attested by the fact that the present crisis has double impulses at its origin: from interventionism as well as from deregulation. Even though this truth should generate reactions of correction or self-correction in the behavior of theoretical economists, what we see today is the increasingly stubborn fixation for the option of the political barricade. What Economics lacks in order to subdue shocks is the functional dosage of perspectives obtained through flexible positioning with regard to the Cartesian axes of interventionism and deregulation.

It is clear that this method of mediation cannot be escaped but with high costs. Simplification means guaranteed failure, regardless of the option for either interventionism or for deregulation. It's as if we would coerce the pendulum from not returning, in its balance, to the opposite location, and have it perform an impossible – as well as to explain – move in just one direction. The pendulum would not only cease to perform its rational function, it would stop being a pendulum but an impossible object defying the universal laws of nature.

The supreme secret of the pendulum is that it visits, at an energy cost, both axes. It does it inexorably, without partisan options and with good results in measuring time because it has no unilateral inclinations. The movement to one direction and the other is natural in achieving the goal of the balance.

Outside a physicalistic reductionism, Economics should not exhibit a behavior of constant failure, but one of augmenting the effects of wealth if it would oscillate between interventionism and deregulation, in rational doses, even from a time perspective. What is being consumed, sometimes with a tendency for excess, in one direction, would anyhow create the balancing thrust which pushes the predisposition for seeking solutions in the opposite direction, with the same energy. But it does so violently!

The stake is not in defining the directions as contrary, but as complementary, one's shortcomings being positively compensated by the other and vice-versa. The complementarity of solutions is natural to the function of the economy in the sense that the denying of one move denaturalizes the economy itself, obligating it to function through exceptions to the rules of nature and the natural, to take mortal leaps (including in a Malthusian sense).

Opting exclusively for one axis or the other turns theoretical economists into forgotten soldiers in the jungle of sentiments (decades after the conflict has ended!), and Economics into a theatre of war in which prosperity means the mass extermination of sentiments.

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Integral Analysis as System of Measurement and Management of Intellectual Capitals in Companies

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Abstract. *In the knowledge society, it is necessary to have new approaches of measurement and management for all the intangible ones that generate value, not only for companies but also for the national, regional or local territories. The most widespread methods have begun in the business area; these are support to the macro systems implemented in the last years, under the hypothesis of the knowledge as newly generator of wealth. In this context, let's sense beforehand the method of Integral Analysis as valid system for the measurement of the intangible capitals in the organizations, with advantages on his promoter: the Skandia Navigator; also, as tool for the management, planning and strategic control, advancing on the Balanced Scorecard.*

Keywords: intangible capital; scorecard; strategy, growth.

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1. Introduction

Globalization and competition require organizations to survive, not focusing exclusively on produce short-term benefits. But it should develop the capabilities to make progress in the future, although it supposes a decline in their actual income, being right way, because they invest in factors that will generate future values. This is one of the fundamental reasons why companies must develop a tool that enables them to learn from the past, questioning the present and ensure the future.

Measurement system has traditionally been the financial, primarily the developed from the accounting system (annual accounts, budgets, financial analysis...) because there was an excessive emphasis on short-term results. In this sense, companies invested too little in creating value, that is, in long term (intellectual and intangible assets) that generate future growth, as for example, process improvement, development of human resources, information technologies, database and systems as well as relations with clients and market developments. Therefore opting for a long-term vision requires a system of information you provide us measurements, which implies both financial and non-financial indicators.

But also, in a global economy in knowledge society ever magnified the strategic decisions taken by a company. There are many organizations, and particularly small and medium-sized businesses, which not arise if the strategy adopted is appropriate, if they have it, bearing in mind that strategic errors can be highly damaging for organization, and even threaten the very survival of the times. In addition, strategy could exist but not having established successfully policies to achieve them. Therefore, we have developed a method that integrates all of the above that we have been called 'Whole or Integral Analysis'.

In this work, we analyze the overcoming of the two main models of measurement and management in business by our methodology: Skandia Navigator by Edvinsson and Malone (1997) and Balanced Scorecard (BSC) by Kaplan and Norton (1997), respectively. The first, since it is a vision deterministic and closed. In second case, because strategic vision is incomplete, draw a priori strategy as optimal and not to raise its control beyond compliance on indicators.

2. Intangible capitals and integral analysis of an organization

Nowadays the enterprise management from a vision in the short and medium term focuses on having sufficient assets to facilitate development of an appropriate growth in profits and in turn generate cash flow. However, and

since a genuine long term vision must be borne in mind that there are a whole series of intangible assets such as training, improvement of client relationships, our processes, innovation, etc., which constitute the premises that favor a better position to future factors. Therefore, it is necessary to balance both visions occur so as to achieve the strategic or real value of company.

From this method that diagnose whether the organization follows the right way, we incorporated a new system of management that produces an effective decision-making process both short as long term (Figure 1). Methodology produce it is called as Integral Analysis (López and Nevado, 2006).

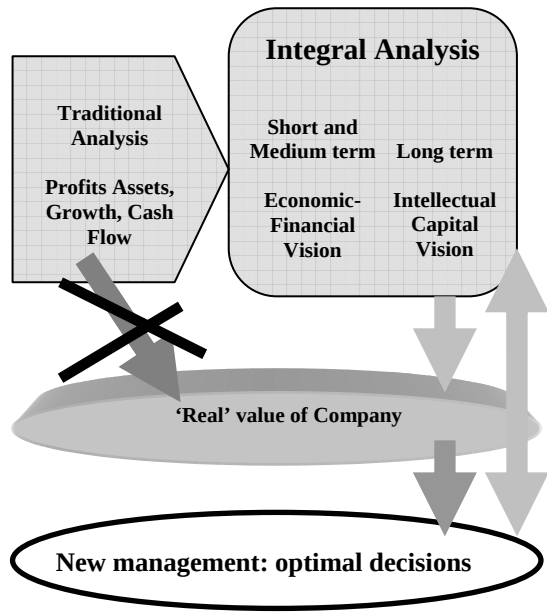


Figure 1. Evolution from traditional to integral Analysis

Thus the measurement and management system is defined as: “method of knowledge business for the development of knowledge business, i.e. this informative and management procedure covers from estimation of indicators and internal and external ratios up to quantification of other intellectual capital meters for determination of the most real value of a company. Final objective is to carry out an ‘effective management’ to reach future value and plan strategies that maximize it in long term, making a stronger position in sector where operates the company.”

Although the above concept is somewhat complex and academic, is the fruit clothing and implementation of this method, it is difficult to ignore or

better generalize the exposure of its many benefits and features. We will therefore analyze this definition by parties.

First, we said it was an informative procedure and management. Informative, because it provides information, and therefore proposes means to obtain the necessary data for decision-making and systematizes methods used in knowledge of economic-financial company and sectors where it operates. Information is reflected in indicators associated with monetary and nonmonetary perspectives (percentage scale) arising mainly from standardized sources (financial statements), informal (internal accounting) and observational survey (interview).

On the other hand, is or is not developed for the management, i.e. does not display a set of values added as simple exposure, but it offers the prospect of control and decision supported trend analysis indicators and comparative values achieved in the sector in which it operates. Thus, it is a real “control panel” for operating and controlling the company, since it incorporates a series of visions of intangible assets that enable improvement management of prospects considered as human resources, internal processes, clients, or methods of communication and business innovation.

It is also a procedure which aims at “effective management”. Whole or Integral Analysis is a management procedure which is characterized by its effectiveness. In this sense, we are referring to the scope of those results that allow us to generation of value future. Therefore, it is possible that their achievement is at the expense of investment in factors with high “cost”, but that actually they are genuine generators of value for our organization. This assimilation cost towards investment allows you to speak of efficacy in the same sense as efficiency.

Finally, it covers strategic planning towards seeking competitive advantage and better sectorial positioning that will allow to discern if the established strategy was the ideal, as well as underpinning the guidelines to follow in the future. It is therefore a useful tool for auditing strategy.

In short, some of the most relevant issues which resolve this method are:

- From results of previous financial analysis, how influence these values in the future of main accounting aggregates?
- What market share is reached and achievable in a product or service?
- What profitability is obtained in a given segment?
- What are the most efficient distribution channels, and future financial requirements?
- What are intangible assets (intellectual capital)?, and what can be done to improve its structure?
- What dynamics of knowledge presents the company, in the transformation of tacit on explicit?

- What is strategic value of a company?, and, in this line, how does it relate with intangible assets?
- How to submit and manage the intellectual capital to increase the value of a company?
- What is culture and organizational knowledge?
- How is corporate strategic planning?, in other words, what strategies should keep and which develop in medium and long term to increase the value to all *stakeholders*?

Integral Analysis is and focuses on a group of measures deliberately selected and implemented to enable to achieve and communicate a shared vision of organization strategy for the future previously recorded, getting a balance Integrator different factors necessary to achieve it. Fundamental features of method as Strategic Control System (SCS) are synthesized in trilogy of economic-financial vision, structural analysis and strategic management of intangible assets, and in models tools for estimation relationships between them and simulation (Figure 2).

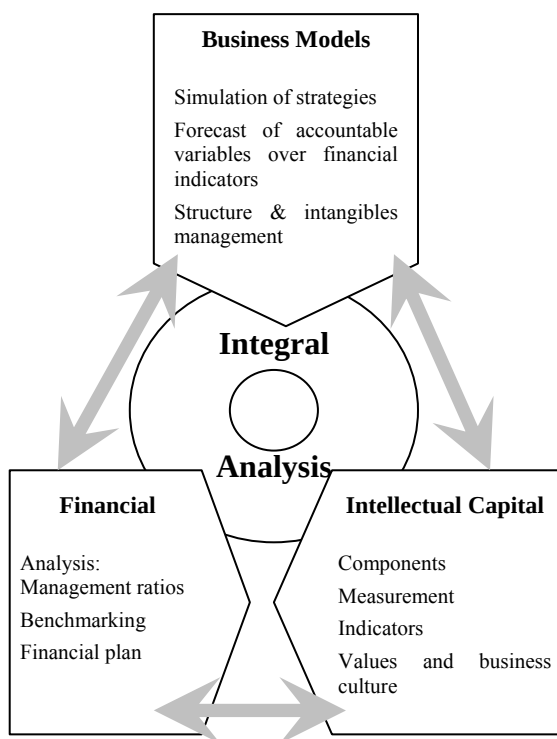


Figure 2. *Integral Analysis: visions of SCS*

3. Measure intangibles: from navigator to generator

It is necessary to use method known as Skandia Navigator by Edvinsson and Malone (1997) as inspirer of methodology presented as Integral Analysis. In this holistic system of intangible measuring, the concept of value is simultaneously inspirer and objective.

Skandia AFS is a Federation of financial organizations with headquarters in Sweden and leader in the sector. This company operates at UK, USA, Germany, Spain, Colombia, Switzerland, Luxembourg and Hong Kong. At the beginning of the 1990s, in a project to understand their real or market value, it developed a Department of Intellectual Capital, led by Leif Edvinsson. To do this, define and analyze intangible assets as variables that respond to the hidden value in accounting systems. The conclusion is that this capital is the gap between the value of books (account value) and market is willing to provide for the organization. They arguing that accounting does not respond to the market price and that is the value of intangible assets or intellectual capital which determines the difference between those values.

This way, intangible assets (human and structural) determine capital intellectual and therefore complement value system's accounting, generally positive for aggregation allows the calculation of the value of real market company, i.e., that:

$$\text{Accounting value} + \text{intellectual capital} = \text{real market value}$$

On the other hand, model of desegregation of intellectual capital is:

$$\text{Intellectual capital} = \text{human capital} + \text{structural capital}$$

Thus, they close management system of intangible assets as complement to accounting one and necessary for determination of any organization's value. This approach is the source for the system that we showed as Integral Analysis, though, from our perspective this model is not complete, and is not exact.

Before a speculative market indeed nothing model can provide, when is corrected values downward by upward movements of speculation, or the progress of the economy goes into recession cycle and correcting the value of the action in the market for non-consolidated expectations, the value of an organization can be modified even moderately, and however, these factors are not in Edvinsson' equation.

Moreover, identification of intangible assets on a battery of indicators can not be exact, there is an percentage of error committed in the process, as well as a

lack of knowledge of all variables involved in the generation of an intangible that determine its randomness in essence and that responds to an amount that we can refine conceptually as non explicit capital. Thus, integral market value for an organization is now defined as:

$$\text{Accounting value} + \text{intellectual capital} + \\ + \text{measurement errors} + \text{speculative factors} = \text{Integral market value}$$

And moreover:

$$\text{Intellectual capital} = \text{human capital} + \text{structural capital} + \text{non explicit capital}$$

Thus, Edvinsson vision is completed with Integral Analysis and we can show the system not only of measurement, but also of identifying and separating the factors derived from knowledge management of market ones that respond not controllable variables by the organization. Furthermore, the system for measuring the intellectual capital allows now to check the degree of certainty of result, and may, where appropriate, rethink indicators that determine the calculation factor human and structural system.

On the other hand, if we focus on how to measure intangible assets, these models are based on the activation of certain items referred to as an expense in accounting information system. Thus, a company makes an expense when you get a real consideration of outside, i.e. when collecting goods or services. Thus incurs an expense with labor workers, training, uses software tools acquired from third parties, hires a campaign advertising, etc. Amount of these goods and services reduces benefits and accounted it operates negatively and decreased the organization value. In this sense, we understand an intangible asset as any element that has an intangible nature (usually without substance or physical essence) and it has ability to generate future economic benefits that can be controlled by company.

In this way, approach of Edvinsson's multiplicative process that delimits an intangible from the product between an absolute indicator (an expense in accounting in many times) and the level of efficiency or utilization of the same one, will not make but “activate” any items of expense in the degree of utilization of the management of knowledge incorporated by organization, that is to say, to redefine the expense in a low quantity being the rest an investment or intangible assets. For example, if a training course is € 1.000, and use or efficiency level of this course is 30%, only € 300 will be activated, the rest will have “correctly” considered as a countable expense.

Synthetically, this is Navigator by Edvinsson method. We have developed it mathematically for the proposed measurement of Integral Analysis, but supports the idea of activation costs as real investment and, therefore, intangible assets that will bring closer organizational market value estimate.

Thus, deterministic Navigator by Edvinsson (equation 1) is restated as a stochastic generator (Integral Analysis), according to equation 2.

$$MV - BV = C_h \times i_h + C_s \times i_s \quad (1)$$

$$(MV - BV)_t = \beta(C_h \times i_h)_t + \gamma(C_s \times i_s)_t + \delta(C_{ne} \times i_{ne})_t + u_t \quad (2)$$

Where MV and BV are market value and books or accountant value, respectively C is the absolute indicator, generally a expenditure capable to be activated in relative terms in the amount indicated by “I” (in percentage scale); being “h”, indicative of human, “s”, the structural or non-human, and “ne” non explicit. On the other hand, β , γ , δ are coefficients that quantified the relationship with extra countable value or the difference between market value and books value, and t collects a set of observations over time, usually, frequency used for generator has been annual or semi-annual. Finally, random variable u, collects not controllable, speculative and market factors as well as errors of measurement, introducing null average, constant variance and no correlation.

As we can see, we have developed from Skandia Navigator a management information system. It admits stochastic approach, temporal vision and it is an open system of measurement and management that we have been called intangible generator in Analysis Integral System.

4. Management of intellectual capital: from “control panel” to simulator

In recent years, *Balanced Scorecard* concept has arisen in management area (BSC). It is published by Kaplan and Norton (1992). In its origins, main novelty was establishment of four perspectives that are vital to development of any organization, analyze the results obtained in them without giving them higher priority to each other. Subsequently it has evolved as a comprehensive strategic tool (1996). BSC translates the mission and strategy on objectives and indicators organized in four perspectives: financial, client, internal processes, training and growth, which allow a balance between objectives in the short and long term, wished results and inductors of action of these results, and finally between objective harder measures and softer and subjective ones.

Therefore, there is a vision and a strategy explicit in the basis of the four perspectives, and for each are made strategic objectives, indicators and action plans. BSC is not only a record of results, but also an indication of wished results illustrating business plan and mission of the various units (departments) of the company.

A series of steps which would start by setting, vision and mission of the company are necessary for its preparation. Subsequently, we have to identify key factors and internal and external analysis to define strategic objectives for each of the four perspectives. Indicators are then chosen for those who are able to focus on strategic objectives. Thus, BSC globally will be generated. From global one, it will be removed by different departments, trying that everyone goes getting involved in it. To do this, set a policy of incentives linked to the achievement of objectives, formulating standard for each indicator.

This process does not have a clearly defined end, since to get information on the deviations between budgeted goals and the reality of each indicator can be ongoing corrective actions that may affect any of the described steps.

According to exposition, we see that BSC has similarities with Integral Analysis proposed. There are some equivalence between perspectives and intellectual capital components. For example, training and growth = human capital and innovation; internal processes = capital processes; and client = client or relational capital.

Apart from this, BSC model includes finance perspective that represents an enabler agent to attract and train the best people to improve processes and, where necessary, improve the relationship with clients. This perspective is also present in Integral Analysis, because it is considered essential. But unlike static character seen in BSC, Integral Analysis starts a dynamic process by comparison with sector and financial simulations.

From our point of view, both methods are not incompatible, they complement each other. However, Integral Analysis is broader, among other reasons, we comment on the following:

- Breakdown with maximum detail develop indicators, with the “activation” spending (see previous paragraph) point that other models are ignored, and how obtain information for quantification of indicators (organizational database).
- Have a battery of indicators that inform us of the progress of the company, including an alerts system with a dynamic approach, providing a tool for projecting or simulate actions towards future from present, consider its appropriateness and control benefits. It has a feedback system, which facilitates the management and control to

indicate whether translates the performance of strategic in profit or loss.

- Provides a quantification of intangible assets value. Allows management of the factors that lead to a generation of future value, planning strategies and policies that maximize this value in long term, i.e. establishing the correlation between strategy and intangible assets, indicating which should be strengthened or where to avoid that they are “saturated” (over-dimension).
- Integral Analysis, although their objective is not valuation of a company (discontinuous and extraordinary fact), since has no mission to integrate into intellectual capital the present value of future profits of the company, but to see the ability to generate them and if the capabilities that you currently have are being well managed. However, this method allows estimating a reference value of the company in activity (continuous fact), integrating all the achievements and available information by the organization that cause a gap with the asset amount offered from accounting (BV). It therefore would carry out a valuation of intangible assets that can be useful not only for the management but also as information on the organization assessment, for example, in a fusion quantifying potential of intangible assets.
- Integral Analysis is a management tool for organizations, allowing a strategic audit as policy simulator. Other way, determine if selected strategy is appropriate. It is not relevant in BSC, it suppose that is the best strategy (Figure 3). There, Integral Analysis provides information about if strategy is the right one or we must modify it, indicating at same time alternative strategy and the roadmap to attain it (strategic planning).

From this point of view, it facilitates the audit strategy, already that through three visions of Integral Analysis (financial, business models and intellectual capital) is achieved have an approximation right to the company's strategy and determine if it is correct or not. To do this, it is observed the economic and financial position of the company and its sector, questionnaires are developed and performed interviews with a dual purpose, getting of indicators and knowledge of corporate culture is one of the bases of an audit of this kind, since culture facilitates strategic implementation. Subsequently, the part of undertaking which incorporates, allows you to establish a model that fits and is representative of your organization, from the equation 2, so that we get information *ex post* of simulations in order to facilitate decision-making supported structure intellectual capital models of intangible estimated (β , γ , δ). Thus determines whether the strategies adopted are correct and introduces a

strategic design the employer himself control step by step, through the benefits, even if they are worth about what we had of strategic start of simulation.

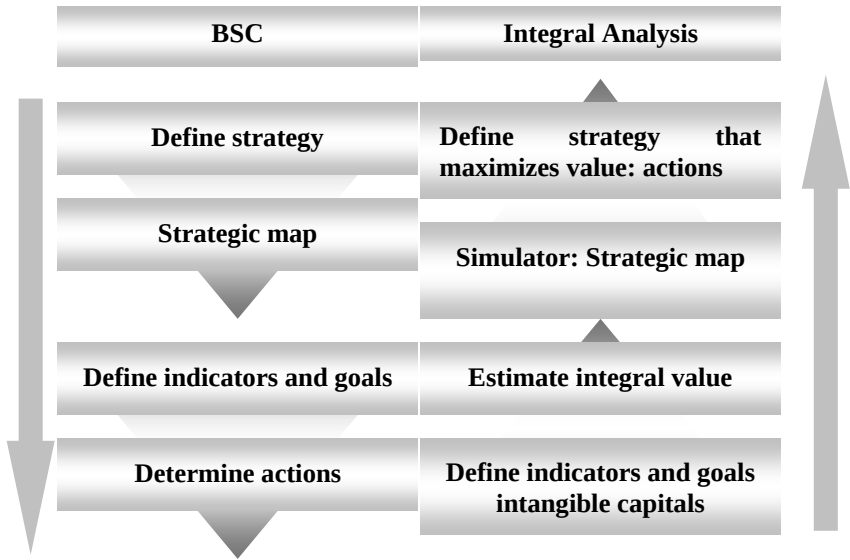


Figure 3. BSC and Integral Analysis as tools for strategy

In summary, *Balanced Scorecard* and *Integral Analysis* are complementary tools for strategic management since both consider similar perspectives. However, last one allows planning strategies based on the results of the organization as support and modify them instantly and dynamic, measuring even feedbacks of system.

5. Conclusions

In the knowledge that we find ourselves immersed society we need new information systems to enable better management of resources both within the enterprise as macroeconomic. Thus arise methodologies based indicators primarily targeted towards intellectual capital measurement models, or scorecards. Both systems are complementary and can be applied to both areas but with modifications.

In this respect, proposed model (*Integral Analysis*) allows to measure and manage key responsible for intangible capital growth of organizations or countries. This model provides advantages over the other two models of reference literature: *Skandia Navigator* and *Balanced Scorecard*. Regarding the

first, this one provides a management model and admits the stochastic, temporary vision and presents open measurement system accuracy. On the second, it explains how to develop indicators with a system of warning dynamic casts or simulates actions towards the future, considering their adequacy and controlling their benefits. Also provides a quantification of the value of intangible capital and correlates with the strategy, indicating which should be strengthened or where to avoid that they are over dimensioned.

References

- Edvinsson, L., Malone, M.S. (1997). *Intellectual Capital. Realizing your company's true value by finding its hidden brainpower*, New York: Harper Collins Publishers, Inc.
- European Commission (2003). *European Innovation Scoreboard: Technical Paper, No 3: Regional Innovation Performance*, Brussels: EU regions
- Kaplan, R.S., Norton, D.S., "The balanced scorecard-measures that drive performance". *Harvard Business Review*, 1992, Septiembre-October
- Kaplan, R.S., Norton, D.S. (1997). *Cuadro de mando integral*. Barcelona, Gestión 2000
- Kaplan, R.S., Norton, D.S. (2000). *Cómo utilizar el cuadro de mando integral*, Barcelona: Gestión 2000
- López, V.R., Nevado, D., "Gestione y controle el valor integral de su empresa. Análisis", *Integral: Modelos, Informes Financieros y Capital Intelectual para rediseñar la Estrategia*. Madrid: Díaz de Santos
- López, V.R., Nevado, D., "Análisis Integral como sistema de medición y gestión de capitales intangibles en organizaciones y territorios", *Estudios de Economía Aplicada*. Vol. 26-2, 2008, Agosto
- López, V.R., Nevado, D., Baños, J., "Convergencia en la UE27: divergencias en capital humano y tecnológico", *Actas Congreso AEER*, 2007, León: XXXIII RER
- López, V.R., Nevado, D. Baños, J. (2008). *Indicador sintético de capital intelectual: humano y estructural (I+D+i). Un factor de competitividad*
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State versus Market. Some arguments to surpass the “mirror approach”

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Abstract. *The State, viewed as an exponent of constraint, in opposition to the Market, free by definition, represents the tough nucleus of the theoretical space dedicated to the State in the economic science. What we intend in this paper is to discover how, when looking for the “right measure” of the State’s involvement in economy - the State versus Market “mirror approach” - has conquered the economists, and to bring some arguments to look forward for a new approach, believable when the economic-financial crisis brings back under discussion the State-Market polemic, and suitable for the “multi- level governance” reality.*

Keywords: State versus Market; public choice; market’s failures; optimum-efficiency-equilibrium identity; public action.

JEL Codes: B13, B15, B25, H10.

REL Codes: 1D, 1F, 1H, 13A.

Introduction

Starting from the Plato-Aristotle antique debate looking for the model of the “ideal” State, to answer in the best way to the moral ideal of “common good”, any social science, and not only, is stocking debates and is still looking for answers to the questions regarding the State. No other interpretation like that of Aristotle’s, according to which the State is an indispensable necessity to man as a social being, seems to have such a general consensus. The most common definitions characterise the State in accordance with three essential aspects: the territory, the population and the power (the authority or the constraint). Thus, the State is defined as “a delineated territory, occupied by a stable population, led by a political organization with the role to constraint” (Monchablon, 1991, p. 16), or “the State leads a territory defined population, its influence being exercised at the national” (Hobsbawn, 1997, p. 81), etc.

Yet, is this an identification faithful to the 21st century reality when we are the witnesses of the decentralization and fragmentation of the power of the Nation-State (Parrado Diez, 2005), which has gradually lost the legitimate hierarchically organized authority and the authority exclusive in the decision making process, sharing it and exercising it in common with different partners: international, supranational institutions, regional and local structures, private players, non-governmental organizations etc., thus creating different levels of governance - “multi-level governance” (Marks, Hooghe, 2001) – and a new type of State – “Multi-level State”: supranational, national, regional, local etc. level?

If we were to trust Fernand Braudel, who considers that, in the process of its evolution, the State has remained “what has always been, a fascicule of functions, of different powers; only its means of action change, its major duties remain the same: to be listened to, to exercise close or distance control over the economic life, to participate to the spiritual life” (Braudel, 1985, pp.194-196), there are no major differences from one age to another regarding the duties of the State, which changes, from one century to another, is only the impact of power, the State’s authority on the individual or the degree, the measure of the constraint. Yet, it is this process of looking for the „right measure” that suggests that currently there is no theoretical space common to so many sciences and being the subject of so many debates, polemics and controversies such is the State, a thing holding true both for the end of the last century and for the beginning of the current century.

The famous definition of the State belonging to Max Weber – “that agency within the society that has the monopoly of legitimate constraint” (Weber, 1947, p. 156), leads most appropriately, in our opinion, to the essence

of debates, polemics and inter-disciplinary controversies regarding the State: the State-individual relation or the freedom-constraint relation.

The economic science, as any social science, is part of the debates regarding the State. The State, viewed as an exponent of constraint, in opposition to the Market, by definition, free, represents the tough nucleus of the theoretical space dedicated to the State in the economic science.

In our opinion, the State *versus* Market - “mirror approach” manner has conquered the economists in the second half of the last century as an answer to the very palpable and worrying reality of the increase of the public sector difficulty in the free market economies, due to this called “mixed economies”, and to the insisting requests to reform the public sector. Based on all these reforms there has been the control and interception of the expansion of the State supplying material security – called by the economic theory, in accordance with its evolution, the Providence State⁽¹⁾ (Gray, 1998, p. 96) , the Social State⁽²⁾ (Burdeau, 1970) or “Welfare State” – and which has become, as a result of the requests insisting more and more on the increase of the responsibility regarding the risks of injustice of the capitalist system, a “two-legged colossus” (Dogan, Pelassy, 1992) and the tendency to decentralize and homogenize its power and to hyper-nationalize the society (Dogan, Pelassy, 1992, p. 211). The reforms of the public sector have determined in the sphere of economic thinking a readjustment of the State-Market relation in the broader context of the State – economy – society relation. Wishing to stay away from the left ideologies and to put ahead of traditional approach of the State, as an exogenous factor of the economic mechanism, endowed with power, authority, constraint instruments, will, hostile to the free market or, on the contrary, reparatory, protective, beneficent on its field, the economists have totally credited the neoclassicism and the neo-liberalism and have convincingly embraced a normative-instrumental approach of the State – Market compromise – State *versus* Market- “mirror approach”. We intend, in what follows, to shortly present the coordinates of this approach, which, we have to admit, has got our attention in the past due to its logics, symmetry and the apparent harmony and to which we felt profoundly attached (Dodescu, 2000).

The State *versus* Market - “the mirror approach”

Due to neo-liberalism, institutionalism and especially the Public Choice School, State *versus* Market - “mirror approach” is centred around some analysis directions such as: the analysis of public production by analogy with

the private production; the economic analysis of political confrontation, of public choice and political institutions by similitude with the confrontation of the economic players on the market etc.

Starting from the initiations operated in the economic thinking by Wickseil, Condorcet, Black, Arrow, Schumpeter, the institutional approach of collective choices, due to Downs, Buchanan and Tullock, analyses the way in which the divergent interests of the public politics are conciliated through the political institutions. The economic approach of the political process made by Downs has as result a theory of government analogous to the theory of markets, in terms of the behaviour of political parties oriented to the maximization of the elective support (Downs, 1957); and the one made by Buchanan and Tullock – a theory of collective option similar to the theory of private option (Buchanan, Tullock, 1995). Starting from the premise that any public action (public policies, public services, regulations etc.) is the result of a public decision making process and is distinguished from a private law action through the fact that it is subordinated to the general interest; it presents continuity and it allows the equal access to people or groups of people that has in view, practically, an expansion of the economy analysis field on the political phenomena has taken place. The tendency to approach the public sector in a close correlation with the political institutions, emphasising the real rules to make decisions, the nature of the decision making process and not the normative aspect of public options (Brown, Jackson, 1990, p. 14), has gradually led to a manner to approach the public actions in the mirror with the private one, that is, “the import” in the public economy of the public sector being approached in the mirror with the private sector, adopting in the case of these sectors opposed global hypotheses: the private sector ensures the economic efficiency through the allocation system of the competition market; the public sector ensures the social equity or justice, through the allocation system based on the involvement of the State in economy, and, subsequently, it has led to the analysis of public production by analogy with the private production. According to the public production criterion (Iancu, 1998), the public sector can be identified with the production system of goods and public services in a sense which contains, on one side, the formation process of supply and demand of public goods, and on the other side, the institutional system specific to it (public property over wealth, public decision, mechanism to accomplish the public interest etc.). Implicitly, the market’s “dysfunctions” and the State’s “dysfunctions” are placed on the pans of the same balance and the rule of the “least evil” determines the criteria of the public action and the limits of the State-Market compromise.

The reference system taken into consideration when discussing the involvement of the State in economy within the neoclassical „mirrored” approach is the market with perfect competition, ideal system of competition characterised by the absolute inexistence of the possibilities to influence the price for the participant economic subjects. The neoclassical economics has demonstrated that the market with perfect competition ensures the optimum-efficiency-equilibrium identity. Starting from these premises, the working of the free market based on a mechanism of imperfect competition presents, to certain extents, “failures”, “limits”, “gaps” or even “bankruptcies” (in what concerns us, we prefer the term “dysfunctions”) whose result is the removal of economy from the optimum-efficiency-equilibrium-identity and which motivates the existence of a compensatory mechanism of the public action. Cataloguing the multiple roles that the State plays in economy (non-merchandise collective service supplier, resource allocator, income redistributors, legal arbiter, stabiliser, regulator etc.) and synthesising, from the point of view of the objectives had in mind, the State’s repertoire contains, in our opinion, the following leading roles: the allocative role, subordinated to the “efficiency” objective; the distributive role, subordinated to the “equity” objective, and the regulating role, subordinated to the “equilibrium” objective (Dodescu, 2000, pp. 91-94).

The specificity of the mirror approach consists in the fact that the starting point of the discussion concerning any of the State’s roles presented above is the limit, the dysfunction of the Market requiring the compensatory mechanism of the public action. Preferring the term

“Market’s dysfunctions”, this analysis considers that their nomenclature contains: allocation dysfunctions, distributions dysfunctions and regulating dysfunctions. In the category of allocation dysfunctions there are all the situations when the conditions necessary to optimally allocate the resources (efficiency in the Pareto sense) do not exist partially or totally. They manifest themselves through prices which do not express the costs or the marginal utilities, through disequilibrium between supply and demand. Their causes are: the imperfect information, the monopolization of supply or demand, the existence of natural or technical monopoly, the public or collective goods and the externalities. The distribution dysfunctions manifest through the unequal distribution of the national income, considered inequitable or unfair. The causes of economic disparities (disparity of efficiency, luck, investment in human capital, unequal remuneration of the production factors, the origin or the family situation, economic discriminations) are, in many cases, over the limits of the market and of the voluntary exchanges, but they are tied, yet

indirectly, to these. The regulating dysfunctions come from the market's inability to arbitrate the imperfect competition's game and from the inexistence of its self-regulating capacity. To the extent to which these dysfunctions cannot be compensated through voluntary solutions, the State's involvement is justified (Dodescu, 2000, pp. 94-137).

Yet, it would be wrong to admit that the public sector worked without mistakes, that the problems concerning the resource allocation, the national income distribution or the economic equilibrium, once given to the State, and they would solve immediately. The State versus Market - "mirror approach" forces to classify the "State's dysfunctions" in mirror with the "Market's dysfunctions" (Dodescu, 2000, pp. 209- 220).

The presentation of the State's dysfunctions must be preceded by a few theoretical premises provided by the institutional approach of the public sector which presents the working of the political systems by analogy with the Markets' working: the production of public services or policies is analysed like the production of a private good by confronting the supply-demand and the supply of public actions; the individuals (the citizens) are the exponents of the demand; the party or the coalition in power, the government and the public administration provide the supply; the citizens have in view the maximization of the individual's utility through diminishing the constraints imposed by the public utility – financial obligations combination; the politicians and the bureaucrats have in view personal objectives, being forced to totally or partially satisfy the demand in order to accomplish them (Buchanan, Tullock, 1995). Consequently, in the category of public sector particularities creating dysfunctions there are: the transparency of information on the public services market; the lack of the connection between the value of a public service and its cost; difficulties in evaluating the production and the public sector's services; the inexistence of the control of the public activity efficiency; the dependence on the political system and the bureaucratic apparatus (Weber, 1991).

The State - Market comparison is situating the State in an inferior position regarding the allocative efficiency and the supply-demand adjustment mechanism. The public action meant to correct the dysfunctions on the market, implies, in its turn, dysfunctions. A first category is represented by those called by Buchanan and Tullock – "external costs", which manifest both at the level of resource allocation (the resources will have the tendency to be inefficiently allocated due to the objective option mechanism) and at the redistribution level ("redistributive elements" result from the sub-unanimity rule characterising the collective decision making process) (Buchanan, Tullock, 1997) and derive from the essence of the collective option process in

the case of majority-vote rule because the minority of the electors is forced to accept actions that cannot prevent and damages for which it cannot pretend compensations. The external costs determined by the public sector are similar to the external negative effects of the market. Just like the external costs, there can be, as a result of the public action, “external benefits” by analogy to the external positive effects. The external benefits and costs – specific to the public sector, present a series of particularities: they cannot be monetized; they do not manifest themselves spontaneously, some of them are simple transfers between the economic agents (Weber, 1991, pp. 252-253). Those occurring at the level of resource allocation – “allocational resources” – create opportunities for mutually advantageous exchanges between individuals and (if they neglect the costs of organizing the necessary arrangements) the possibility to “internalize” them. The existence of the political barter and of the compensatory (bribe) yet determines the agglomeration of these externalities. The redistributive externalities have the tendency to call off when, at the individual level, the entire series of possible redistributive transfers is taken into consideration.

Consequently, in mirror with the Market’s dysfunctions, the nomenclature of State’s dysfunctions contains: allocation dysfunctions, manifested just like in the case of the Market through prices not expressing the costs or the marginal utilities and supply-demand disequilibrium, which is external costs and benefits (allocational and redistributive externalities). Comparing the Market’s dysfunctions to the State’s dysfunctions, it is clear that a set of criteria allowing the optimal determination of the State’s involvement margin in economy is difficult to define. In a first stage, a State - Market arbitration criterion must be defined. Derived from Pareto’s optimal criterion and the Hicks-Kaldor compensation test, the Market - State arbitration criterion shows that the State should be preferred to the Market if the welfare loss that the public action generates is inferior to the welfare loss determined by the Market’s dysfunctions. This criterion is based on Samuelson’s theory (derived from Bentham’s utilitarianism philosophy), according to which the State has in view the maximization of a “social welfare objective-function”. In choosing Market or State, the most important problem is based on the ascribing of the main responsibility to the making decision process, either the nationalization of the private activity or the privatization of the public activity. If the Market is chosen, the resource allocation and redistribution decisions will be made in a decentralized manner, based on price. If, on the contrary, the solution is the State, the degree of nationalization depends on two more supplementary choices: the public

production or the private production that is the free allocation or the sale of the public service. The limits of applying the equivalence principle in the case of public services are yet closely tied to their collective character, to their indivisibility. The funding through public prices is excluded in the case of pure collective goods (national security, political and judicial institutions etc.) and possible in the case of mixed collective goods complying with conditions like: moderate indivisibility of the offer, exclusion possibilities, reasonable exclusion cost, reasonable external effects (public transport; water, electricity distribution; mail and telecommunications etc.). There is also the situation when the external effects of the collective goods justify the partial undertaking of their funding by the State: the streets, parks, museums, sport fields etc. Yet, only a part of the collective goods which could be financed through public prices are financed in this way. Even in the latter case, the disadvantage is the setting up of the price rather in accordance to some objectives established by the political decision making process than in a decentralized manner, through the Market. In the second stage, it is necessary a general choice criterion from a series of possible alternatives of public action. According to it, a public action (public service, economic policy, public project etc.) ensures an improvement of the collective welfare if the total amount of money that the positively affected economic agents are willing to pay (those registering any type of benefits) does not exceed the amount of money those negatively affected are willing to accept as a compensation (those bearing external costs – allocational and redistributive externalities). Generally, a public action does not simultaneously satisfy the “efficiency” objective and the “equity” objective. Therefore, when choosing the “efficiency” or “equity” objective as a priority, a choice held by the political decision making process, it precedes the evaluation of the contribution of a public action to the improvement of the collective welfare. If the objective chosen is “equity”, the public action must be subordinated to the just or equitable distribution criterion chosen through the political decision making process. The ranking of the action alternatives and the choice of the optimal variance will comply with the choice criterion specific to the equity objective, derived from the general criterion of choice: a public action determines an improvement in the collective welfare in accordance with the equity objective if the benefits involved in the income redistribution plan exceed the costs. The integration of the economic rationality in the political decision making process is not, usually, possible beyond this level if the priority objective is the equitable distribution/redistribution of incomes. In return, the “efficiency” objective allows the development and application of some “rationalization

strategies”, which can direct the public decision towards the most efficient actions. The starting point is the choice criterion specific to the efficiency objective: a public action determines an improvement in the collective welfare in accordance with the efficiency objective if it leads to an improvement of the productive and/or allocative efficiency and, consequently, to an increase of the global consumerism. In what follows, the problem of choice is reduced to the ranking of the action alternation in accordance with the involved net benefit, a ranking for which the public economics has imported from the private sector the cost-benefit analysis, an analysis which complies with the initial condition of rationality in the public decision making process referring to the public actions (Atkinson, Stiglitz, 1980, Brown, Jackson, 1990, Weber, 1991).

A few arguments to surpass State versus Market - “mirror approach”

The logics, but especially the symmetry of State–Market – “mirror approach” have conquered the economists who, under the appearance of obliteration from ideologies and the construction of a normative-instrumental approach of the Market-State compromise, have gradually slipped to another ideology, that born from the exaggeration of the free Market’s virtues and from the petrification in the perfect competition model as a system of reference.

The theoretical model of the State born from here, far from the State hostile to free Market, but also from the beneficent State on the latter’s field, makes us think to the phenomenon of negative discrimination. The State – much too blamed in the past – “a nothing good for nothing” – is marginally delineated, starting from the assumption that the free Market is perfect. In this context, George Soros’ rhetorical question – “if the markets are so efficient, why do they always collapse?” (cited by Morris, 2010, p. 19), reminds us of J.M. Keynes’ observations regarding the postulates of the classical economics of *laissez-faire*.

The current economic-financial crisis brings back in discussion the State-Market polemic. The fight is, actually, between the ideologies and doctrines – right versus left, liberalism versus socialism, neo-liberalism versus neo-keynesism etc., in short, again, the State versus the Market or, more exactly, the Market versus the State. Just like its famous predecessor – the Great Depression, 1929-1933, the current crisis brings again to attention the war of alternatives - capitalism versus socialism, as scenarios of social organization to keep or to replace with, respectively of role distribution – minimal State and maximal Market versus minimal Market and maximal

State, of instruments – natural versus rational; market versus plan, of finalities – wealth control versus power control, of weaknesses – the markets – inherently unstable (Soros, 1999); the regulations – inherently imperfect (Morris, 2010, p. 39), again, in the synthesis, the Market versus the State. Totally in agreement with Professor Dinu Marin's statement, we consider that neither the "invader State", nor "the deregulated Market" save us from the crisis, both of them fail as control instruments, "ending in devouring everything" - "the State suffocates the individual initiative in the name of social welfare, the Market centrifugates the inefficient society in the name of individual prosperity" (Dinu, 2010, pp. 333-335).

As Milton Friedman thought that the history "took it on the wrong way" when the politicians were eating John Maynard Keynes' hand, the spiritual father of New Deal and of Welfare State (Klein, 2008), after the shock of the Great Depression, today, Friedman and Hayek's technocrat and conservative version of capitalism (Friedman, 2009), the spiritual parents of "Reaganomics" as a doctrine applied in the United States of America, respectively of "Thatcherism" in Great Britain, blamed to be the source of another "wrong line" which has led to the "New economy of inequality" and to "A New Deal"(Krugman, 2010), to globalization, the free market's fundamentalism, to the ascension of a fundamentalist form of capitalism – the corporatism (Klein, 2008, p. 22).

Just as spectacular as K.P. Popper's critique of Marxist socialism, as a form of totalitarianism, a socialism which has not led to a perfect world in the Central and Eastern Europe and to the gradual stint of the State's functions, but, on the contrary, to different interventionist systems based on the expansion of the State's functions, "the terror culminating with the enforcement of state terror regime" (Courtois cited by Klein, 2008, p. 23), the governance as dictatorship and the inability of politics in front of economy being the consequences most often invoked of the economic theory of Marx's State (Popper, 1993), today it is foreshadowed the critique of the Chicago School of capitalism, surprisingly blamed by authors like John Perkins, Naomi Klein or the Nobel in Economics, 2008, Paul Krugman, for exercising different forms of coercion (the reduction of civil liberties, mass imprisonments, even torture (Klein, 2008, pp. 18-19) in Asia, Latin America, Middle East or Africa, in the name of democracy and free market, gradually slipping to the „imperialist dictatorship" of the "corporatocracy" (Krugman, 2009, Perkins, 2008, Perkins, 2009) and manifesting through the transfer of the most valuable state assets to the great private firms in parallel with the growth of social inequality "between the fabulously rich parvenus and the

poor who are at their *ad libitum*” (Klein, 2008, p. 22), the explosion of public debts in parallel with the intensification of the market’s panic (Krugman, 2009, p. 133), the increase of the expenditure for the national security in parallel with the increase of uncertainty, collapses at the market, terrorist attacks, wars etc. In parallel with the growth of the feeling that things are above themselves (Greenspan, 2008), the Market’s “invisible hand” is transformed into a “fist” for which, until yesterday, only the State could be blamed?! If until yesterday, we were asking ourselves whether the State’s expansion had become a fatal feature of civilization or an indispensable feature? (Silver, 1980), the same question seems now valid for the expansion of the free Market.

For that matter, the two facets of one and the same coin reveal to us: the fundamentalist ideology, born to hide the truth, as any other ideology, but requesting more than any other, in the lights of history stage, absolute power or free hand to install or implement the unique perfect system in its intellectual property.

Is it not the current crisis, as a response to the previous one, a sufficiently convincing argument to give up to the State-Market mirror approach? We believe that it is. Invariably, any crisis looks for those culpable – then the State was blamed, now the Market is blamed and, invariably, we get to the question: What is wrong in “(our) economic way of thinking”? Even we are separated by almost one century from the moment when they were written, J. M. Keynes’ words are so timely in order to reflect the imprisonment of our thinking in the “parallel axiom” – “the theorists resemble geometers in a non-Euclidean world who, discovering that in experience straight lines apparently parallel often meet, rebuke the lines for not keeping straight – as the only remedy for the unfortunate collisions which are occurring” (Keynes, 2009, p. 75).

A lateral thinking exercise, suggested by Eduard De Bono (De Bono, 2009), leads us, beyond the identification of the main elements of the problem, to the necessity to approach the State and the Market from different perspectives, renouncing to rigid, mechanical thinking and opening ourselves to the ideas presenting a small probability of success in solving the problem. Following the cinematographic progress, from the first silent film to the 3D cinematographic masterpiece – “Avatar”, we observe the enormous change of perspective which has occurred by changing the approach of the actor-camera relation, from the understanding of the fact that it is not the actor who must stay in front of the camera, but the camera can go around and catch the actors acting to the subsequent ubiquity of the camera and the creation of the illusion

of the film goer to effectively participate to the film. This example can inspire us to get out of the imprisonment of “parallel axiom” in the approach of the State-Market relation. What is wrong, in the end? It is the fact that we ask ourselves whether we can oppose the State to the Market!

Can the State disappear, leaving place for the free Market? Obviously not, the paradigm of State’s disappearance has not been confirmed, history has invalidated the theory – the Marxist programme of State’s disappearance has been transformed in “an avatar of the State... simply as that” (Châtelet, Pisier, 1994, p. 190). We declare ourselves in agreement with Professor Aurel Negucioiu’s statement – “The State did not appear with the human society, life or forms of life existed without the State, but it has a worthy age of thousands of years” (Negucioiu, 2010), moreover, the necessity of State’s existence and of its involvement in economy is proved by history. We quote, in what follows, Professor Aurel Negucioiu’s argument-questions: “Who can take the State’s place in the period of globalization, integration or crisis? Did the Single European Market or other common markets, as systems of regulated competition, appear and evolve spontaneously, without the State’s involvement or consciously, with the direct involvement of the State/States? Can the Market be the only mechanism to ensure the growth and the development if it gives the information that we need for today and not for tomorrow?” (Negucioiu, 2010).

Is the market with perfect competition the ideal system ensuring the optimum-efficiency-equilibrium identity? Yes, it is, but only when complying with a set of conditions which are not complied with in reality, as there are no perfect systems in nature. The Market theory and the free market economy model resulting from it are best detected by Adam Smith, as a system which is self-organizer and self-regulator, by the interaction of small buyers and sellers (the baker, the butcher, the brewer etc.) who make decisions based on their needs and interests, interests which let free will lead to optimal results from a social point of view, to natural order, making useless the State’s interference in this mechanism. Yes, it holds true, the smaller the necessity that the State gets involved, the better the Market guards itself, but this thing is conditioned by the relations of reciprocal trust and preoccupations of the baker, the butcher, the brewer etc., of the small entrepreneurs as a “compensatory force” to the power of the big firm, in J.K. Galbraith’s words, of the innovative or creative entrepreneurs of Joseph Schumpeter or Peter Druker, of small and middle sized enterprise and innovative economy, as the European Union perceive them today. It is worth noting here that Charles Handy’s “message of differences” – the Italians call family businesses what the British call small

and middle sized enterprises, because the Italians, he thinks, do not necessarily what that their businesses grow, but last for their families, while the British cannot think that they can survive, without growing, because they want to sell to other big firms and not to hand down the family business (Handy, 2007a, p. 193). We agree with Charles Handy’s opinion that the businesses seen through the Italians’ eyes make the Markets and the Communities more responsible, at least at the local, regional level, and we add David Korten’s opinion that “the Markets work best in a community which proves preoccupation” (Korten, 2009, p. 41). Besides, Adam Smith did not perceive the Market outside a moral community, did not understand freedom separated from responsibility (Handy, 2007b). The selfishness of Smith’s small producer or buyer is harmless in a system in which there are sufficiently enough and indistinguishably small producers or buyers to influence the price. Things are completely different, yet, when the selfishness of the small producer is replaced by the culture of the big firm or corporation’s greed, in Charles Handy’s words – “the flea” in front of the “elephant” (Handy, 2007a). The elephants and fleas’ free Market, far from Adam Smith’s construction, leads to the unregulated disorder instead of “natural order”, which allows the big and the rich to monopolize the resources and the profits, ignoring the social and environment consequences. For it determines a concentration of economic power for which no account is given, this rapacious capitalism of the “elephants” fail, suffocating the freedom, in the name of freedom, just like socialism, due to the concentration of the political power, led to the spectacular failure of the social justice, in the name of it.

Which can be then the way to overcome these illusions? Just like Alice in Wonderland, we will choose the Way of Heart. We will follow David Korten’s meaningful suggestion to choose the simplest and least arguable way – “the Main Highway”, the way of the real wealth and not that of the phantom wealth (Korten, 2009). We choose an economic system and a political system which do not disperse the power, centring on the Man. Besides the State-Market mirror approach, we suggest the “3D vision”, not the “3D illusion” – the Man – as part of the film, integrated together with the Market-State. The Man as a “flea” and not as an “elephant” in economy, that is Smith’s entrepreneur, free and responsible, Schumpeter’s innovative and creative entrepreneur, involved in the production of real goods and services useful to the Community, first of all, local, in the sustainable regional and local development, conceived as that development of the children and future generations, the Man as a player on a Market not separated from the moral Community. The Man as a “flea” and not as an “elephant” in the society, that

is the Man – a citizen with the right to vote (Handy, 2007c), free to choose, but capable to sanction the irresponsibility of those chosen regarding his current or future life, his family's faith and his Community, a player of a State not separated from the Community, a Community, rather familial, local, regional, euro-regional even, than global, in the last, the Man who matters.

Beyond the “crisis of vision” of modern economic thinking (Heilbroner, Milberg, 1995), in search of getting out from the imprisonment of the old ideas (Munday, 1999), paraphrasing Todd Buchholz – discovering new ideas from dead economists, and getting rid of the old doctrines (Krugman, 2009), in search of the logic of “good capitalism” (Baumol, Litan, Schramm, 2009) of the 21st century – Robert Heilbroner's that “terra incognita” (Heilbroner, 1985, Heilbroner, 1993), we cannot end otherwise but promising that we will not stop searching, agreeing with our Professor Aurel Negucioiu's goad: “we must find what the philosophers call Measure, and in economics it is Order” (Negucioiu, 2010).

Notes

- ⁽¹⁾ In Gray's opinion, the term of Providence State has rather become a cliché of the economic theory than a term with a precise meaning. For it accumulates a large variety of dispersed public actions such as: health national services, State pensions, unemployment benefits, State houses, free education, social services etc. “it does not have any animating rational principle and no authentic justification” (Gray, 1998, pp. 96-97).
- ⁽²⁾ The progressive enlargement of the role of State is suggestive presented by George Burdeau as follows: the Spectator State – the Tutor State – the Providence State – the Social State (Burdeau, 1970).

References

- Atkinson, A., Stiglitz J.E. (1980). *Lectures on Public Economics*, McGraw-Hill, New York
- Baumol, W.J., Litan, Robert E., Schramm, C.J. (2009). *Capitalismul bun, capitalismul rău și economia dezvoltării și a prosperității*, Editura Polirom, Iași
- Braudel, F. (1985). *Jocurile schimbului*, vol. II, Editura Meridiane, București
- Brown, C.W., Jackson, P.M. (1990). *Public Sector Economics*, Basil Blackwell, Cambridge
- Buchanan, J., Tullock, G. (1995). *Calculul consensului. Fundamente logice ale democrației constituționale*, Editura Expert, București

- Buchanan, J.M. (1997). *Limitele libertății. Între anarhie și Leviathan*, Editura Institutul European, Iași,
- Burdeau, G. (1970). *L'Etat*, Seuil, Paris
- Châtelet, Fr., Pisier, Évelyne (1994). *Concepțiile politice ale secolului XX*, Editura Humanitas, București
- Courtois, S., *Black Book of Communism* apud. Klein, Naomi (2008). *Doctrina socului: nașterea capitalismului dezastrelor*, Editura Vellant, București
- De Bono, Ed. (2009). *Cursul de gândire: instrumente eficiente pentru a vă transforma modul de gândire*, Editura Curtea Veche, București
- Dinu, M. (2010). *Economia de dicționar. Exerciții de îndemânare epistemică*, Editura Economică, București
- Dodescu, Anca (2000). *Statul și economia de piață*, Editura Economică, București
- Dogan, M., Pelassy, D. (1992). *Economia mixtă – jumătate capitalistă, jumătate socialistă*, Editura Alternative, București
- Downs, A. (1957). *An Economic Theory of Democracy*, Harper and Bros., New York
- Friedman, M. (2009). *Libertatea de a alege: o declarație personală*, Editura Publica, București
- Gray, J. (1998). *Dincolo de liberalism și conservatorism*, Editura All, București
- Greenspan, A. (2008). *Era turbulenței: aventuri într-o lume nouă*, Editura Publica, București
- Handy, Ch. (2007a). *Elefantul și puricele: o gândire nouă pentru o lume nouă*, Editura Codecs, București
- Handy, Ch. (2007b). *Pelerina goală: o gândire nouă pentru o lume nouă*, Editura Codecs, București
- Handy, Ch. (2007c). *Epoca irațiunii: o gândire nouă pentru o lume nouă*, Editura Codecs, București
- Heilbroner, R., Milberg, W. (1995). *The crisis of vision in modern economic thought*, Cambridge University Press, Cambridge
- Heilbroner, R.L. (1993). *21st century capitalism*, W.W. Norton & Company Ltd., London
- Heilbroner, R.L. (1985). *The nature and logic of capitalism*, Norton & Company Ltd.; London
- Hobsbaw, E.J. (1997). *Națiuni și naționalism din 1780 până în prezent*, Editura Arc, Chișinău
- Iancu, A. (1998). *Bazele teoriei politicii economice*, Editura All, București
- Keynes, J.M. (2009). *Teoria generală a ocupării forței de muncă, a dobânzii și a banilor*, Editura Publica, București
- Klein, Naomi (2008). *Doctrina socului: nașterea capitalismului dezastrelor*, Editura Vellant, București
- Korten, D.C. (2009). *Proiectul noii economii. De la bogăția fantomă la bogăția reală*, Editura Antet, București
- Krugman, P. (2010). *Conștiința unui liberal*, Editura Publica, București,
- Krugman, P. (2009). *Întoarcerea economiei declinului și criza din 2008*, Editura Publica, București
- Marks, G., Hooghe, L. (2001). *Types of Multi-Level Governance*, Editura Routledge, London
- Morris, Ch.R. (2010). *Criza economică și profeții ei: Warren Buffet, George Soros, Paul Volcker*, Editura Litera International, București
- Monchablon, A. (1991). *Cartea cetățeanului*, Editura Humanitas, București
- Munday, St. (1999). *Idei de avangardă în economie*, Editura Codecs, București

- Negucioiu, A., *Statul și economia în lumea de azi*, communication at the International Conference „*Current Problems of Economic Theory and Practice*”, Cluj-Napoca, „Dimitrie Cantemir” Christian University, 2010
- Perkins, J. (2009). *Istoria secretă a imperialismului american*, Editura Elit, Ploiești
- Perkins, J. (2008). *Memoriile unui asasin economic*, Editura Litera International, București
- Popper, K.P. (1993). *Societatea deschisă și dușmanii ei*, vol. II, Editura Humanitas, București
- Parrado D.S. (2005). *Sisteme administrative comparate*, Alexandru Ioan Cuza University Press, Iași
- Silver, M. (1980). *Affluence, Altruism and Atrophy. The Decline of Welfare State*, New York University Press, New York
- Soros, G. (1999). *Criza capitalismului global*, Editura Polirom, Iași
- Weber, L. (1991). *L'Etat, acteur économique*, Economica, Paris
- Weber, M. (1947). *Theory of Social and Economic Organization*, Free Press, New York

Evaluation of Unacademic Behaviour and its Implications on Economic and Social Development

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Abstract. *The estimation of corruption and its effects on the social and economic development of a country is a difficult task. A series of studies have estimated the effects of corruption on the economic development of a sector of activity. This article presents the results obtained at the level of a sample with regard to a series of aspects related to the measurement of corruption and the identification of its causes and of the role played by certain institutions in the growth or reduction of corruption. The statistical information was obtained by means of a statistical questionnaire intended for public administration employees. The data were processed in SPSS.*

Keywords: corruption; factors that lead to the spread of corruption; civil service; statistical questionnaire; corruption impact.

JEL Codes: C00, C83.

REL Codes: 5K, 13I.

1. Introduction

The analysis of corruption is an important area of contemporary economic research. In recent years, the academic and research environment and the international organisations (among which the International Monetary Fund, the World Bank etc.) have shown increased interest in estimating the level of corruption and identifying its causes, the mechanisms through which it is spread within a system and the methods for measuring its impact on the economic and social processes in a country or development region.

Some of the main focuses of corruption-related research are the following:

- measuring the level of corruption in a country or in a certain area of activity;
- identifying the causes that generate corruption in a public system. Among the most important ones are political, juridical, historical, social, cultural and economic factors;
- estimating its effects on the level of development of a sector of activity;
- identifying the relation between the level of corruption and the value system in a society.

2. Presentation of the data series used

In order to obtain the necessary information for evaluating corruption and its implications on aspects related to economic and social development, a sample-based research was designed. The sample included 550 employees working in local public administration, a sample that is representative at national level. The maximum accepted error is $\pm 2\%$. The questionnaires were completed in November 2009.

These statistical questionnaires enabled the collection of information about the following important aspects related to public administration:

- Quality of management in public administration institutions;
- Civil service reform;
- Reform in public administration;
- Corruption and its implications on economic and social development;
- Bureaucracy, meritocracy and economic development;
- Various information characterising the sample: age, vocational training, type of institution etc.

Most of the questions included in the questionnaire are closed questions. The primary variables for some important aspects related to the analysis of corruption – variables defined based on the questions within the questionnaire – are presented next. For each variable the measurement scale used is defined and the statistical indicators calculated based on the sample level data are presented.

The following important aspects are taken into consideration for the analysis of corruption:

- The measurement of the level of corruption;
- The identification of the causes of corruption;
- The evolution of corruption over a time period;
- The impact of corruption on important areas of activity;
- The contribution of some elements to the reduction of corruption;
- The characteristics of public procurement and its impact on corruption.

3. Measurement of the level of corruption

Based on the information obtained from the questionnaire, seven primary variables are defined for measuring corruption at the level of some sectors of activity. They are defined as follows:

- For assessing the level of corruption in general:
 $CORG : N \rightarrow \{1,2,3,4,5\}$;
- For estimating corruption in education: $CORE : N \rightarrow \{1,2,3,4,5\}$;
- For estimating corruption in the health system:
 $CORS : N \rightarrow \{1,2,3,4,5\}$;
- For estimating corruption in politics: $CORP : N \rightarrow \{1,2,3,4,5\}$;
- For estimating corruption in local public administration:
 $CORL : N \rightarrow \{1,2,3,4,5\}$;
- For estimating corruption in central public administration:
 $CORC : N \rightarrow \{1,2,3,4,5\}$;
- For estimating corruption in one's own institution:
 $CORI : N \rightarrow \{1,2,3,4,5\}$.

In order to define these variables, a measurement scale with natural values from 1 (Generalised corruption) to 5 (There is no corruption) was used. The distribution of the values of the seven variables at the level of the sample is presented in Table 1.

Table 1

Distribution of the answers received

	1 (Generalised corruption)	2	3	4	5 (There is no corruption)	NR
1. In general	18.0	34.9	30.2	13.0	3.7	0.2
2. Education	5.9	25.6	45.3	18.7	4.5	0.0
3. Health	15.2	36.2	32.7	11.5	3.9	0.6
4. Politics	30.4	35.6	19.5	8.7	5.2	0.6
5. Local public administration	9.3	23.6	37.1	20.6	9.3	0.2
6. Central public administration	13.0	32.3	32.3	14.1	7.8	0.6
7. In your institution	5.9	8.7	19.3	35.1	31.0	0.0

For the seven primary variables the indicators that characterise the mean level and the variation and form of the distribution are calculated. The results obtained are presented in Table 2.

Table 2

Level of corruption by area of activity at national level

	Level of corruption on a scale from 1 to 5
1. In general	2.5
2. Education	2.9
3. Health	2.5
4. Politics	2.2
5. Local public administration	3.0
6. Central public administration	2.7
7. In your institution	3.7
8. CORR	2.8

By using the seven primary variables, the COR aggregate variable is defined based on the application below:

$$\text{CORR} : N \rightarrow [1,5], \text{CORR} = \frac{1}{7}(\text{CORG} + \text{CORE} + \text{CORS} + \\ + \text{CORP} + \text{CORL} + \text{CORC} + \text{CORI})$$

The mean level of the COR variable is presented in Table 2. The distribution of the values of this variable is presented in the graph in Figure 1.

The mean values in the above table show the following:

- There is a high level of corruption. The mean value 2.8 is close to the value 3 which indicates a pretty high level of corruption;
- The people employed in administration estimate that the level of corruption in politics is very high;
- The size of corruption at the level of one's institution is apparently much smaller.

Due to this reason it is recommended that corruption at national level be calculated only on the basis of the estimates made for a field the respondent does not belong to. Thus the level of corruption is calculated only on the basis of the following variables: CORG, CORE, CORS, CORP and CORC. A mean value of 2.5 is obtained.

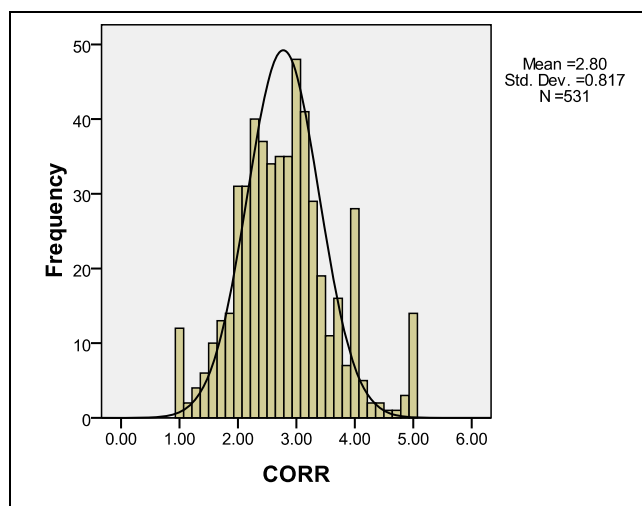


Figure 1. *Distribution of the CORR variable*

4. Causes of corruption

For an identification of the main factors that contribute to maintaining a high level of corruption in the public sector, six elements were taken into account in the questionnaire intended for public sector employees. Based on the information obtained from the questionnaire, six primary variables are defined:

1. the CL variable evaluates the degree to which the legal framework favours corruption;
2. in order to evaluate the extent to which the salary system encourages corruption, the SS variable is defined;
3. the morality of civil servants may represent an important factor favouring corruption. In this respect, the MF variable is defined;
4. the economic environment may favour a high level of corruption in public administration. In order to evaluate the contribution of this factor to favouring corruption, the PE variable is defined;

- 5. as politicians may represent an important element favouring corruption, the PP primary variable is defined in the study in order to assess their impact on corruption;
- 6. the behaviour of citizens may favour or reduce corruption. For the evaluation of this factor the CC variable is used.

The six variables are defined based on the following application:

$$CL, SS, MF, PE, PP, CC : N \rightarrow \{1,2,3,4,5\}$$

The same measurement scale is used for these variables. The scale is defined as follows: 1 – it does not favour corruption at all, 2 – it favours it to a small extent, 3 – it favours it to a moderate extent, 4 – it favours it to a pretty large extent; 5 – it favours it to a large extent.

For an overall evaluation of the contribution of the elements considered to an increase in the level of corruption, the EFC variable is defined based on the following application:

$$EFC : N \rightarrow [1,5], EFC = \frac{1}{6}[CL + SS + MF + PE + PP + CC]$$

The distributions of the values of the six primary variables are presented in Table 3.

Table 3

Distribution of the values of the CL, SS, MF, PE, PP and CC variables

	5	4	3	2	1	NR
CL	12.6	13.0	28.9	29.7	14.7	1.1
SS	8.0	9.8	18.4	32.5	30.8	0.6
MF	11.3	15.4	34.1	22.6	15.6	0.9
PE	12.2	15.8	34.0	26.3	11.1	0.6
PP	11.7	11.3	26.2	25.6	24.3	0.9
CC	13.0	23.6	35.6	20.0	6.9	0.9

For the primary variables defined above as well as for the EFC aggregate variable, the mean values are calculated. The results obtained are presented in Table 4 and Figure 2. The distribution of the values of the EFC variable is presented in the graph in Figure 3.

Table 4

Means of the CL, SS, MF, PE, PP and CC variables

	Level of corruption on a scale from 1 to 5
1. Legal framework	3.2
2. Salary system	3.7
3. Morality of civil servants	3.2
4. Pressure exerted by the economic environment	3.1
5. Pressure exerted by the political system	3.4
6. Citizens' behaviour	2.8
7. EFC	3.2

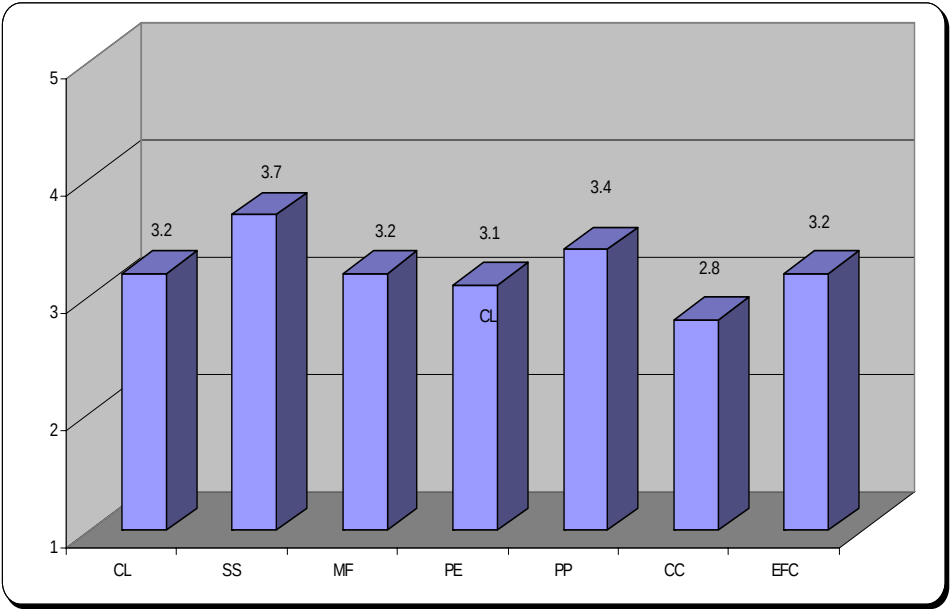


Figure 2. Means of the CL, SS, MF, PE, PP, CC and EFC variables

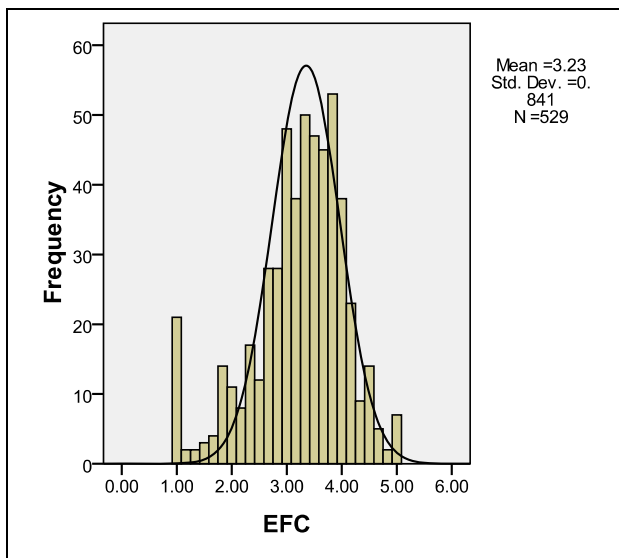


Figure 3. *Distribution of the EFC variable*

5. Evolution of corruption

In order to evaluate people's perception of the current level of corruption as compared to the past period, a question was introduced in the questionnaire. A measurement scale with five values was used to measure their opinions: 1 – the level of corruption has increased to a large extent, 2 – the level of corruption has increased to a moderate extent, 3 – the level of corruption hasn't changed significantly, 4 – the level of corruption has decreased to a moderate extent and 5 – the level of corruption has decreased to a significant extent. Based on the information obtained by asking this question to the people in the sample, the PCT variable is defined:

$$PCT : N \rightarrow \{1,2,3,4,5\}$$

The distribution of the values of this variable is presented in Table 5 and in the graph in Figure 4.

In order to evaluate people's anticipations of the evolution of corruption, the following variable is defined:

$$ACV : N \rightarrow \{1,2,3,4,5\}$$

For the definition of this variable a measurement scale with five values was used: 1 – the level of corruption will increase to a large extent, 2 – the level of corruption will increase to a moderate extent, 3 – the level of corruption will not change, 4 – the level of corruption will decrease to a moderate level and 5 – the level of corruption will decrease significantly.

The distribution of the values of this variable is presented in Table 5 and in the graph in Figure 4.

Table 5

Distribution of the values of the PCT and AVV variables			
Values of the variables	The person's opinion	PCT (past)	AVV (future)
1- (--)	negative	20.0	12.6
2 - (-)		23.9	29.1
3 - (0)		39.3	39.9
4 - (+)	positive	10.9	12.6
5 - (++)		5.2	5.2
NR		0.6	0.6

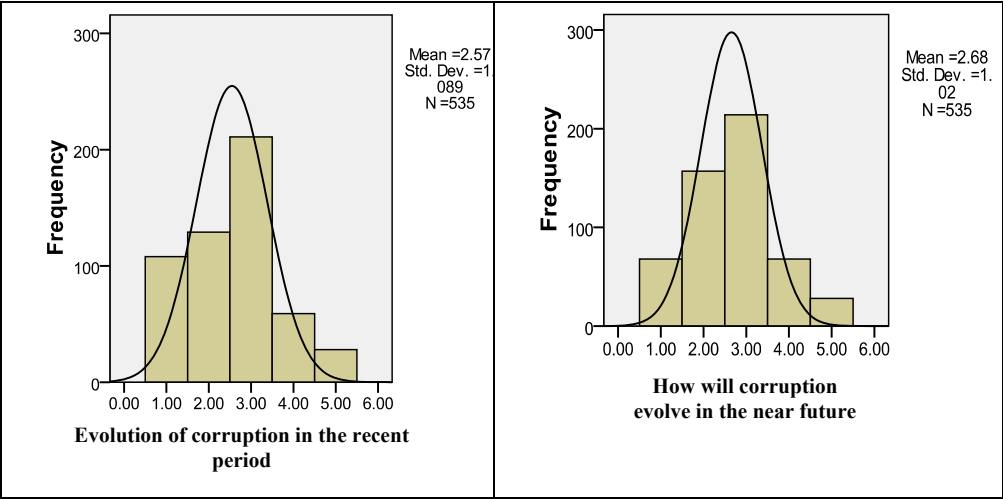


Figure 4. Distribution of the values of the PCT and AVV variables

The means and the standard deviations for the two variables are calculated. The results are:

- for the PCT variable the mean level is 2.57 and the standard deviation is 1.089;
- for the second variable a mean of 2.68 and a mean square error of 1.02 were obtained.

In order to evaluate the optimism of public administration employees with regard to the dynamics of corruption, the OPC aggregate variable is defined based on the following application:

$$OPC : N \rightarrow [-4,4], OPC = PCT - AVV$$

The distribution of the values of this variable is presented in the graph in Figure 5. The mean level of the variable is -0.11 and the standard deviation is 0.750. The mean level of this variable indicates a relatively favourable opinion with regard to the reduction of corruption as compared to the level reached in the past period. Nevertheless, it is worthy of mention that more than 65% of the persons interviewed think that there won't be a significant change in the level of corruption in the future as compared to the past period.

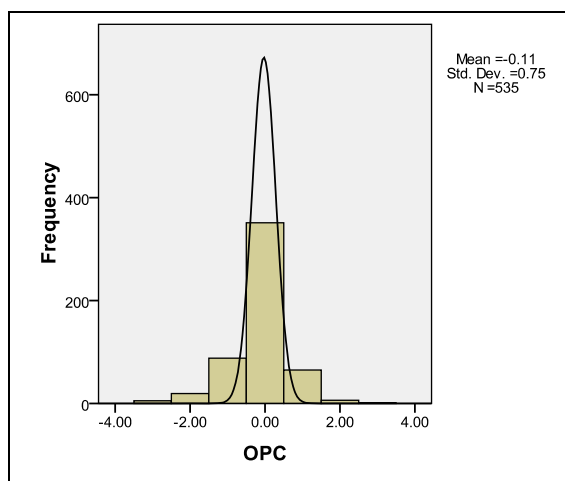


Figure 5. *Distribution of the values of the OPC variable*

6. Impact of corruption on important areas of activity

Question 5

What do you estimate to be the current influence of the level of corruption on the results in the following areas:

	Negative	Moderately negative	No influence	Moderately positive	Positive
1. Development of your locality					
2. National development in general					
3. Education					
4. Health					
5. Politics					
6. Local public administration					
7. Central public administration					

Based on the information obtained from the questionnaire, seven primary variables on the effects of corruption on the following areas are defined:

1. local development: $G_{51} : N \rightarrow \{1,2,3,4,5\}$;
2. national development: $G_{52} : N \rightarrow \{1,2,3,4,5\}$;
3. results in the education system: $G_{53} : N \rightarrow \{1,2,3,4,5\}$;
4. quality of services in the education system: $G_{54} : N \rightarrow \{1,2,3,4,5\}$;
5. politics: $G_{55} : N \rightarrow \{1,2,3,4,5\}$;
6. local public administration: $G_{56} : N \rightarrow \{1,2,3,4,5\}$;
7. central public administration: $G_{57} : N \rightarrow \{1,2,3,4,5\}$.

In order to define the seven variables, a measurement scale with five values was used: 1 – the effect is negative, 2 – the effect is moderately negative, 3 – there is no influence, 4 – the effect is moderately positive and 5 – the effect is positive.

The distribution of the values of the seven variables is presented in Table 6.

Table 6

Distribution of the values of the $G_{51}, \dots, G_{57}$ variables

Variable		Employees' assessments				
		Negative		No influence	Positive	
	NR	1	2	3	4	5
G_{51}	0.4	28.2	38.4	20.2	11.3	1.5
G_{52}	0.4	45.1	33.4	10.4	8.0	2.8
G_{53}	0.7	33.0	43.0	12.2	8.0	3.0
G_{54}	0.4	38.2	38.8	11.1	8.2	3.3
G_{55}	0.7	51.0	28.2	8.0	6.7	5.4
G_{56}	0.4	31.5	43.8	13.0	9.1	2.2
G_{57}	0.4	40.1	36.2	10.9	9.3	3.2

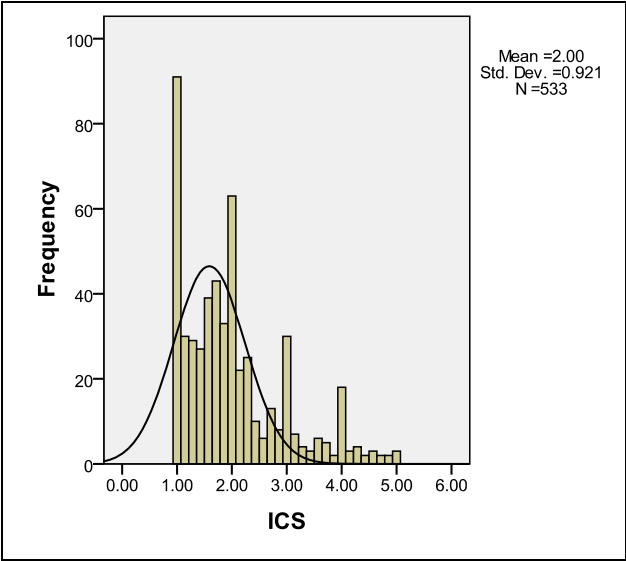


Figure 6. Distribution of the values of the ICS variable

For an overall evaluation of the effects of corruption on economic and social processes, the ICS variable is defined – the effects of corruption on the economic and social environment, as an arithmetic mean of the seven primary variables. This variable is defined based on the application below:

$$ICS : N \rightarrow [1,5], ICS = \frac{1}{7}[G_{51} + ... + G_{57}]$$

The means, the standard deviations and the indicators used to analyse the form of the distribution for the seven primary variables and the ICS aggregate variable are presented in Table 7. The evaluation of these indicators was made based on 533 individual values. A mean value of each variable below 3 shows a negative effect of corruption on each sector or on economic and social processes.

Table 7

Indicators that characterise the variables used to measure the impact of corruption on some areas of activity								
	Variables							
	G51	G52	G53	G54	G55	G56	G57	ICS
Mean	2.2	1.9	2.0	2.0	1.9	2.1	2.0	2.0
Standard deviation	1.020	1.054	1.022	1.064	1.153	1.003	1.082	0.921
Skewness	0.600	1.202	1.050	1.114	1.387	0.947	1.072	1.129
Kurtosis	-0.385	0.771	0.680	0.632	1.033	0.423	0.411	0.783

7. Contribution of some elements to the reduction of corruption

The level of corruption can be reduced through actions carried out by various institutions. The following factors are mentioned in the study: mass media, school, church, state institutions qualified to fight against corruption, the behaviour of central level politicians, the behaviour of local level politicians, the behaviour of the state’s representatives/civil servants working in central public administration, the behaviour of local level civil servants, citizens’ behaviour. For each institution a variable measuring the opinions of administration employees on the contribution of the institution concerned to the reduction of corruption is defined.

In order to define these variables, a measurement scale with five values was used: 1 – the effect is negative, 2 – the effect is moderately negative, 3 – the effect is null, 4 – the effect is moderately positive, 5 – the effect is positive.

The distributions of the variables obtained after processing the data series that include 533 values are presented in Table 8.

Table 8

Distribution of the values of the G ₆₁ ,..., G ₆₉ variables						
Variable		Employees’ assessments				
		Negative		No influence	Positive	
	NR	1	2	3	4	5
G ₆₁	0.2	9.6	13.2	11.3	41.7	23.9
G ₆₂	0.4	5.2	14.5	29.7	29.7	20.6
G ₆₃	0.4	5.9	9.1	37.1	23.6	23.9
G ₆₄	0.4	5.8	12.6	19.5	41.7	20.0
G ₆₅	0.6	25.5	23.0	20.3	20.4	10.2
G ₆₆	0.7	18.7	25.2	21.5	22.8	10.9
G ₆₇	0.6	8.7	25.2	28.2	25.6	11.7
G ₆₈	0.2	5.2	20.6	31.2	25.8	17.1
G ₆₉	0.4	5.2	21.0	28.8	28.0	16.7

For an overall evaluation of the role played by the nine elements in the reduction of corruption, the RCF aggregate variable is defined as an arithmetic mean of these nine elements:

$$RCF : N \rightarrow [1,5], RCF = \frac{1}{9}[G_{61} + ... + G_{69}]$$

A mean value of this variable below 3 indicates a negative contribution of the nine elements to the fight against corruption.

The distribution of the RCF aggregate variable is presented in the graph in Figure 7.

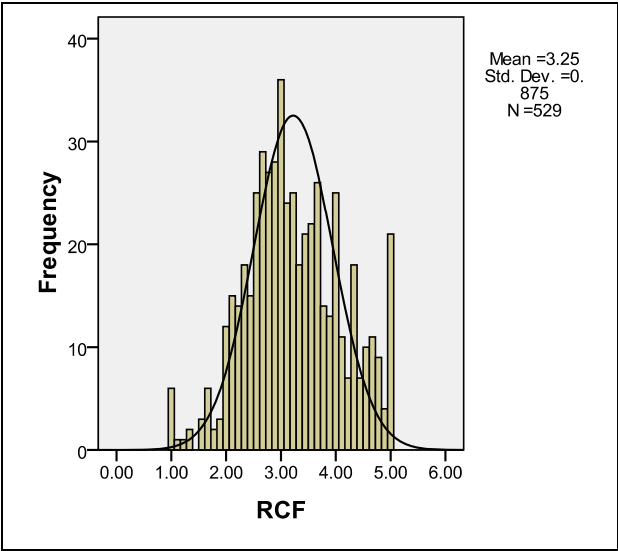


Figure 7. *Distribution of the values of the RCF variable*

The means of the nine primary variables and of the aggregate variable are presented in Table 9.

Table 9

Indicators that characterise the form of the variables used to measure the contribution of some factors to the reduction of corruption

	Variables									
	G ₆₁	G ₆₂	G ₆₃	G ₆₄	G ₆₅	G ₆₆	G ₆₇	G ₆₈	G ₆₈	RCF
Mean	3.6	3.4	3.5	3.5	2.6	2.8	3.1	3.3	3.3	3.2
Standard deviation	1.25	1.13	1.13	1.12	1.33	1.29	1.16	1.13	1.13	0.87
Skewness	-0.74	-0.32	-0.32	-0.67	0.23	0.12	0.01	-0.09	-0.13	0.87
Kurtosis	-0.53	-0.64	-0.48	-0.27	-1.15	-1.12	-0.87	-0.82	-0.83	-0.36

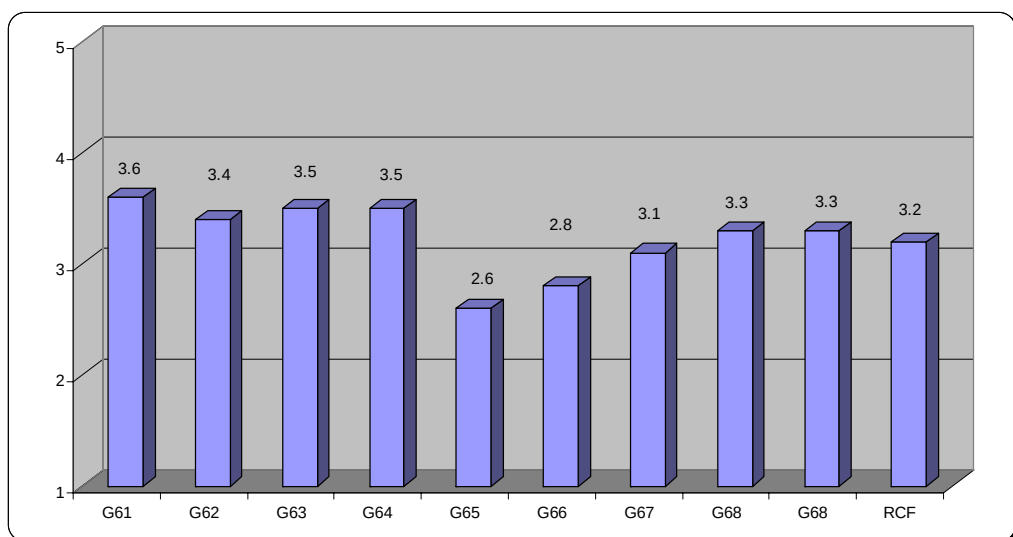


Figure 8. Mean of the variables used to measure the contribution of some factors to the reduction of corruption

The results obtained above enable us to make the following observations:

- the largest contribution to the reduction of corruption is made by the mass media. Following closely behind are the church and the institutions qualified to fight against corruption;
- at the other extreme there are the central and local level politicians who are regarded as favouring corruption;
- the civil servants working in central public administration have a neutral position in the fight against corruption.

8. Characteristics of public procurement and its impact on corruption

The evaluation of public procurement is made in relation to the following four elements:

- the way in which the public procurement process is conducted;
- the prices of the products and services purchased;
- the public procurement control system;
- the analysis of the complaints related to public procurement.

For the evaluation of the degree of satisfaction with each of these elements, a primary variable is defined using a measurement scale with five values: 1 – total discontent, 2 – a low degree of satisfaction, 3 – a moderate degree of satisfaction, 4 – a pretty high degree of satisfaction and 5 – a high degree of satisfaction.

The distributions for the four primary variables are presented in Table 10.

Table 10

Evaluation of the public procurement system on the basis of four elements

Variable	Degree of satisfaction					
	High	Pretty high	Moderate	Low	Total discontent	NR
D ₄₁	7.8	7.4	38.0	25.0	21.3	0.4
D ₄₂	7.8	12.6	38.4	25.2	15.4	0.6
D ₄₃	8.7	10.0	34.0	27.3	19.5	0.6
D ₄₄	9.6	15.8	30.8	26.7	16.3	0.7

For an overall evaluation of employees’ degree of satisfaction with the public procurement system, the ESA aggregate variable is defined as a mean of the four primary variables:

$$ESA: N \rightarrow [1,5], ESA = \frac{1}{4}[D_{41} + ... + D_{44}]$$

For the primary variables and the aggregate variable, the mean level is calculated based on 535 individual values.

Table 11

Indicators of the variables used to characterise the public procurement system

Variable	Mean	Mean square error
D ₄₁	3.4	1.140
D ₄₂	3.3	1.112
D ₄₃	3.4	1.165
D ₄₄	3.2	1.190
ESA	3.3	1.046

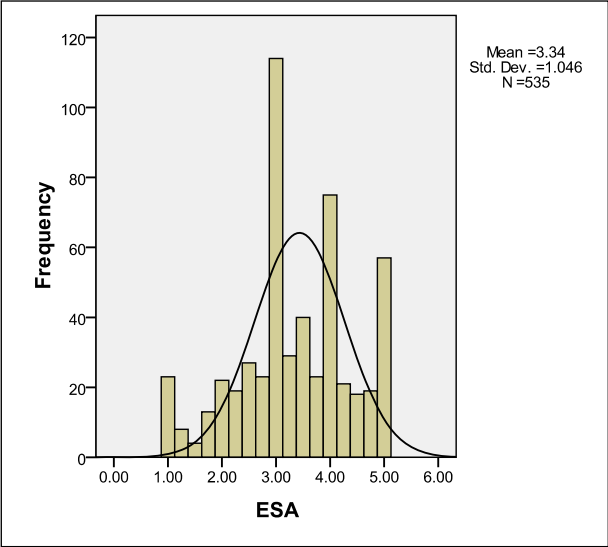


Figure 9. Distribution of the ESA variable

In order to evaluate the extent to which the current public procurement system induces corruption in the system, the following primary variable is defined:

$$D_5 : N \rightarrow \{1,2,3,4,5\}$$

In order to define this variable, a measurement scale with five values was used: 1 – the public procurement system induces corruption to a high extent, 2 – it induces corruption to a pretty high extent, 3 – it induces corruption to a moderate extent, 4 – it induces corruption to an insignificant extent and 5 – the current public procurement system does not induce corruption in the system. The distribution of the values of the D_5 variable is presented in Table 12.

Table 12

Distribution of the variable used to characterise the extent to which the public procurement system induces corruption in the system

(%)

Extent to which it induces corruption	Frequencies	Upward cumulated frequencies
To a high extent	8.9	8.9
To a pretty high extent	19.1	28.0
To a moderate extent	27.3	55.3
To a low extent	26.7	82.0
Not at all	16.9	98.9
NR	1.1	100.0

The graph in Figure 10 presents the distribution of the values of the above defined variable in order to evaluate the extent to which the current public procurement system induces corruption in the system. The mean of the variable is 3.2, and the mean square error is 1.205.

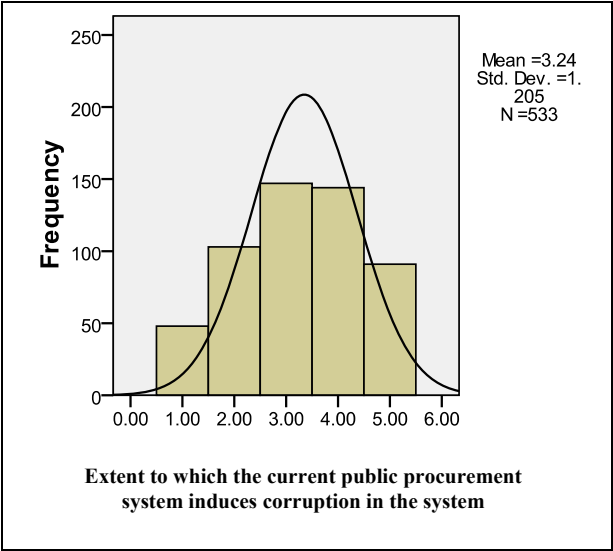


Figure 10. Distribution of the values of the D_5 variable

For the seven primary variables the mean level is calculated as a measure of the capacity of each professional category to induce corruption in the public procurement system. The means and the standard deviations are presented in Table 13. In order to calculate these indicators, 528 individual values were used.

Table 13

Statistical indicators for the $D_{61}, \dots, D_{67}$ variables

Indicator	Variable						
	D ₆₁	D ₆₂	D ₆₃	D ₆₄	D ₆₅	D ₆₆	D ₆₇
Mean	3.3	3.1	3.1	3.1	3.2	3.9	4.0
Standard deviation	1.44	1.46	1.43	1.42	1.30	1.09	1.02

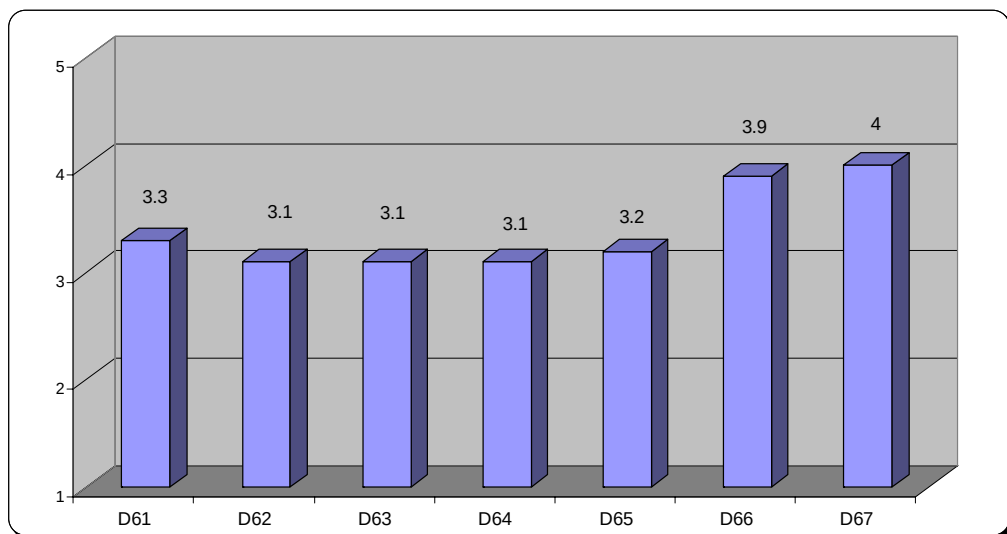


Figure 11. Means of the variables used to evaluate the extent to which certain categories of persons can induce corruption through public procurement

9. Conclusions

In order to obtain the statistical data, a statistical questionnaire was applied to a representative sample. This paper presents a series of statistics related to important aspects of the corruption phenomenon. Focus was placed on the following issues: measuring corruption at the level of some sectors of activity and at the level of the institution where the public administration employee who responded to the questionnaire works; identifying important factors that contribute to the growth of corruption; evaluating administration employees' degree of trust in the possibility of corruption being reduced within a definite time horizon; estimating the effects of corruption on important areas of activity; the extent to which certain elements contribute to the reduction of corruption; identifying certain characteristics of the public procurement system and the extent to which they contribute to the reduction or growth of corruption.

In the opinion of public administration employees, the level of corruption is still very high. Some of the most important contributing factors are the salary system, the pressure exerted by the political system and the legal framework. A series of institutions such as the mass media and the church have contributed to the reduction of corruption in society. Conversely, the behaviour of politicians has contributed to a still high level of corruption. Public procurement represents another important source for the spread of corruption.

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References

- Andrei, T., Matei, A., Oancea, B., „Modele cu ecuații simultane în studierea unor aspecte legate de corupția și performanța serviciilor din sistemul public de sănătate”, *Economie teoretică și aplicată*, nr. 1(530)/2009, pp. 3-18
- Andrei, T., Stancu, S., Nedelcu M., Matei, A., „Econometric Models Used for the Corruption Analysis”, *Economic Computation and Economic Cybernetics Studies and Research*, vol. 43, No. 1-2, 2009, pp. 101-122
- Andrei, T., Matei, A., Stancu, S., Oancea, B., „Some notes about decentralization process implications on public administration corruption in Romania”, *Prague Economic Papers*, Volume:18 (1), 2009, pp. 26-37
- Bai, Chong-En, Wei, S-J., „The Quality of the Bureaucracy and Capital Account Policies”, *World Bank Working Paper* No. 2575, 2000
- Bandura, A. (1986). *Social Foundations of Thought and Action*, Englewood Cliffs, NJ: Prentice-Hall
- Emerson, M.P., „Corruption and industrial dualism in less developed countries”, *The Journal of International Trade & Economic Development*, 2002, pp. 63-76
- Gupta, S., Davoodi, H., Tiongson, E., „Corruption and the provision of health care and educational services”, *IMF Working Paper*, No. 00/116, 2000
- Gupta, S., Luiz de Mello, Sharan, R., „Corruption and military spending”, *European Journal of Political Economy*, vol. 17, 2001, pp. 749-777
- Kaufmann, D., Kraay, A., Zoido-Lobaton, P., „Governance Matters”, *World Bank Working Paper* No. 2195, 1999
- Mauro, P., „Corruption and growth”, *Quarterly Journal of Economics*, 110, 1995, pp. 681-712
- McCabe, D.L. and Trevino, L.K., „Individual and contextual influences of academic dishonesty”, *Research in Higher Education* no. 38, 1997, pp. 379-353
- McCabe, D.L., Trevino, L.K., „Academic dishonesty: Honor codes and other contextual influences”, *Journal of Higher Education*, no. 65, 1993, pp. 520-538
- Pulvers, K., Diekhoff, G.M., „The relationship between academic dishonesty and college classroom environment”, *Research in Higher Education*, no. 40, 1999, pp. 487-498
- Rumyantseva, L. Nataliya, „Taxonomy of Corruption in Higher Education”, *Peabody Journal of Education*, 80(1), 2005, pp. 81-92
- Schleifer, A., Vishny, R., „Corruption”, *Quarterly Journal of Economics*, 59, 1993, pp. 599-617
- Teodorescu, D, Andrei, T., „Faculty and Peer Influences on Academic Integrity: College Cheating in Romania”, *Higher Education*, Springer, Volume 57, Number 3/ March, 2009, pp. 267-282
- Wei, S., „Why is corruption so much more taxing than tax? Arbitrariness kills”, *Working paper* no. 6255, 1997, National Bureau of Economic Research, Cambridge, Massachusetts
- Whitley, B.E., „Factors associated with cheating among college students: A Review”, *Research in Higher Education*, no. 39, 1998, pp. 235-274

International Double Taxation Avoidance (Domestic Legal Regulations and Fiscal Conventions Concluded by Romania)

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Abstract. *The avoidance of double taxation has been firstly introduced in the Romanian legislation in 1973. Due to the permanent development of the economic, legal, social, etc. and global environment, Romania adapted accordingly her legal tax provisions in tax law area. One of the most relevant moments is the accession of Romanian into European Union. During pre- and after accession phase Romania has adopted the mandatory European fiscal legislation. Being member of EU, Romania has indirectly amended many of its double tax treaties sparing the long process of legislative amendments, including individual renegotiation and amendment with each of the contracting EU member states.*

Keywords: taxes; fiscal area; international double taxation; fiscal conventions; external fiscal credit.

JEL Code: 5D.

REL Code: K34.

By exercising its sovereign right to impose taxes and duties, each state has regulated the issue of fiscal taxation not only for its own citizens but also for those persons (non-residents) who earn income on the territory of the state, occasionally or on a temporary basis.

The exclusive competence a state has in the fiscal area, based on which it is unrestricted with regard to establishing and collecting taxes and duties within its sovereign territory, is known as fiscal sovereignty. Thus, each state is free to establish and institute its own fiscal system, to define the taxes that make up that system, to state the tax subjects, to determine the taxation base, to set the tax quotas, to fix the payment deadlines, to grant tax reliefs, to establish fiscal sanctions, to determine means of appeal and the procedure for settling fiscal litigations etc.⁽¹⁾

This way, non-residents can be taxed twice: once in the state where they earn incomes (other than their state of residence, also called source state) and the second time in their state of residence. Moreover, it is noticeable that, as a general principle, source states most often have the tendency to apply internal taxes on the incomes of non-residents earn in this state, therefore decreasing the taxable base of the state of residence.

Or, such situations, called “international double taxation”⁽²⁾, are beneficial neither for those earning an income in a different state than their state of residence, nor for the states involved (the source state and the state of residence respectively). If they did not regulate this issue, the involved states would find themselves in a continuous conflict over their right to tax the incomes earned on their territory, over the protection that they must give to their own citizens who earn incomes in other states, and it would even brake the free development of commerce at global level.

At the same time, the developing integration in the world economy and the globalization affect the competition of taxation. This hinders the political decision maker to increase the fiscal obligations of the tax payers and has a positive impact because an efficient taxation system allows the state to provide public goods, to protect resources and to redistribute the income.

Even more than that, the investment decisions of international investors are influenced by the taxation systems. States are trying to attract foreign investments through preferential tax policies due to the need to develop their own economies through imported capital. The fiscal advantage granted by the state from which capital is imported can be eliminated by the state of residence of the investor or can lead to double taxation. Double tax exemption contains a competitive advantage and the vice-versa, and double taxation contains a competitive disadvantage for multinational companies or international investors.

Obviously, the elimination of fiscal barriers, the elimination of double taxation and the elimination of double non taxation, customs agreements, non-bureaucratic administrative solutions are the most important interdependent factors in increasing or decreasing the volume of transactions in different states.

This is the frame within which we analyse the permanent concern of the states, including Romania (1. Internal regulations; 2. Conventions concluded with other states), to avoid the international phenomenon of double taxation through juridical means, peaceful (treaties) using specific levers (3. The External Fiscal Credit). Further on, we present Romania's obligation, as a member state of the European Union, to comply with the community principle on the avoidance of the international double taxation (4).

1. The regulations regarding the avoidance of the phenomenon of double taxation in Romanian law

At the moment, the international double taxation institution is regulated by the Fiscal Code provisions⁽³⁾, its Methodological Norms of Application⁽⁴⁾, as well as the international treaties ratified by Romania.

For the purpose of avoiding the double taxation, Romania uses unilateral legislative measures, as well as the legal provisions included in the bilateral fiscal conventions concluded with other states.

These two sets of juridical norms have the same purpose, that is, the avoidance of the international double taxation. At first, the two sets of legislative measures seem to exclude each other, but in practice they seem to successfully function simultaneously.

From a chronological point of view, from the point of view of the moment when the different legislative measures on the avoidance of the international double taxation were adopted in the Romanian law, the unilateral measures have been the first juridical instruments used for this purpose. After 1973, the first fiscal conventions have been signed by Romania with different states.

The international phenomenon of double taxation means the existence of a fiscal report with extraneous elements. That is, due to the fact that the taxable subject (natural or legal person) is a non-resident, it would mean that it has to be taxed on Romanian territory according to the norms of taxation of its residence state.

From the point of view of the relation between the internal fiscal law and the international one, one has to mention that the provisions of the bilateral fiscal conventions agreed by Romania prevail over the internal legal provisions in case of a dispute.

In this respect, through dispute one understands the incorrect attribution of the taxation competence, meaning that more authorities invoke such a taxation competence. In practice, such a situation often appears because of the lack of correlation between the current internal legal provisions and the stipulations of the fiscal conventions concluded by Romania in time. The reason is that, in the majority of the cases, the legal norms regulated by the convention texts on the avoidance of the double taxation are dispositions and „lead to the taxation competence «arrogation» attempts through the retention at source by the fiscal authorities of both signatory states, while our doctrine and jurisprudence are extremely poor in this matter”⁽⁵⁾.

Thus, according to the view⁽⁶⁾ of the Romanian legislator and the national tax authorities, as a rule, all the incomes earned in Romania may and must be taxed in Romania, as a state of earning these incomes. Therefore, the withholding of a certain tax quota of all the incomes earned in Romania (interests, dividends, dues, commissions, etc.) by a non-resident shall be followed by granting a tax loan in the residence state of that income beneficiary. This way, the tax paid in Romania (under certain limits and conditions) shall be removed from the tax owed in the residence state.”⁽⁷⁾

On the one hand, the Romanian Fiscal Code may be noticed to establish the priority of the conventions avoiding the double tax towards an internal law regulation, and, on the other hand, Romania has negotiated and distributed with each state the competence of taxing every income category, establishing, for instance, a maximum percentage quota of the withheld tax. By exception, if the non-resident person does not fulfil the requirements of applying the provisions of the convention concluded by his/her state with Romania, or such a convention does not exist, then only the source state (respectively Romania) may impose the income earned by the non-resident on its territory.

These principles are expressly stated by the art. 118 of the Romanian Fiscal Code, which establishes that: “... if a tax payer is resident in a country Romania has concluded a convention for avoiding the double tax with, regarding the income and capital taxes, the tax rate being applied to the taxable income earned by that tax payer from Romania may not exceed the rate provided by the convention, that shall be applied to that income. If the tax rates of the internal laws are more favourable than the ones from the conventions for avoiding the double tax, the more favourable tax rates shall apply. In order to apply the provisions of the convention avoiding the double tax, the non-resident must submit to the income payer, when earning the income, the tax residence certificate issued by the competent authority from his/her residence state.” If the tax residence certificate is not submitted within this term, the Romanian Fiscal Code provisions shall apply, which means that the non-resident shall be taxed

in Romania as a resident for the same income categories. But if the tax residence certificate is delayed, however within the five years' prescription term applicable for tax matters, from that moment the provision of the convention avoiding the double tax shall be applied and the tax regularization shall be carried out.

If tax withholdings exceeding the provisions of the convention for avoiding the double tax have been performed in Romania, the amount of the exceeding withheld tax may be reimbursed on the income beneficiary's, respectively the non-resident person's request, within the legal prescription term.

The tax residence certificate submitted during the year for which the payments are performed is also available for the first 60 calendar days of the next year, excepting the case of the residence conditions being changed.

Paraphrasing the previously mentioned legal stipulations we can deduce rules according to which non-residents of the states Romania has concluded avoidance of double taxation conventions can either explicitly claim for the tax rate stipulated in the respective convention or benefit of the most favourable rate, if the legislation of the source state provides a better rate than the one stipulated in the convention.

Under a practical view, if the non-resident person that earns taxable incomes in Romania chooses the tax rate stipulated in the convention, he/she must provide the Romanian state a proof of residence of the stipulated state (state of residence). In this way, the latter will benefit of exclusive jurisdiction tax, including the income earned in Romania (as a source state). If, however, a more favourable rate is being chosen, instead of the one stipulated in the convention, then, after paying the tax, the non-resident person must request the Romanian state (source state) the release of a document that certifies the payment obligation of the tax in this state. We must accentuate the fact that it is not clearly stated in the above mentioned law text (art. 118 Fiscal Code) if the more favourable rate is automatically applied, and thus mandatory for the Romanian tax authorities, or if it must be solicited by the non-resident. Consequently, although the given disposition may seem imperative, it must be adjusted to the text of each convention. Therefore, fortifying the disposition art. 118 Fiscal Code with the principle of prioritization of international treaty in national laws, one can conclude that the convention text expresses an exclusive capacity and not an alternative to the state of residence (in general, by indicating the word „however”), the non-resident obtaining incomes in Romania cannot choose to apply for a more favourable rate. The statute law of Supreme Court of Justice also passes regarding this matter⁽⁸⁾.

2 Conventions concluded by Romania with other states to avoid international double taxation

Although it is believed these sort of attempts have begun during early feudalism, great concerns regarding the ruling-out of international double taxation⁽⁹⁾ are known from the beginning of our century, at the same time with the development of interstate merchandise exchange.⁽¹⁰⁾

The interstate bilateral or multilateral tax treaties have the objective⁽¹¹⁾ of reducing the disadvantages of double taxation. The effects of taxation by different tax treaties are described in the international taxation theory which distinguishes between the neutrality of imported capital ("NCI") and the neutrality of exported capital ("NCE"). The legal framework governing these concepts is composed of the Global Merchandise Organization's regulations (GMO), and of the community law dispositions, or included in the conventions model of avoiding the double taxation adopted to an international level.

By concluding the conventions⁽¹²⁾ of avoiding double international taxation both contracting parties must agree upon a public international law obligation, namely, total or partial abdication of the imposition of certain materials. These conventions are subject to the rules of public international law. Basically, the conclusion of international fiscal conventions represent the carrying out of fiscal sovereignty of a state to freely agree upon the fiscal sovereignty limits according to its own economical, fiscal, social interests.

So far Romania has concluded 83 tax conventions with the EU⁽¹³⁾ members, as well as with third states, and usually uses the OECD Model-2005, or the UN Model. The favourite method for avoiding double taxation is that of ordinary crediting. There are also situations where the conventions derogate substantially from the OECD Model, such as the bilateral tax convention with the USA.⁽¹⁴⁾ Within the convention, the two states pledged themselves that their respective authorities notify reciprocally as to: any amendments to the taxation laws mentioned in the convention, adopting any of the taxes mentioned or any amendments to the laws in force or adopting new laws in the field.

Also, different from other tax conventions, the tax convention with USA details the notion of "royalty" (whether it is "cultural royalty"⁽¹⁵⁾ or "industrial royalty"⁽¹⁶⁾ or "cultural and industrial royalties"⁽¹⁷⁾).

We can also find interesting positive right standards within the Convention between the Romanian and Moldavian Governments, to avoid double taxation and prevent tax evasion pertaining to income taxes and capital taxes.⁽¹⁸⁾ Therefore, art. No. 20 of the convention prescribes seven years tax exemption⁽¹⁹⁾ for the revenues of students and practitioners, that they use for education and professional training.

A brief analysis of the tax conventions to avoid double taxation concluded between Romania and other states reveals the fact that, usually, the incomes deriving from investments as capital contribution to companies set up in the source state or deriving from granting or transferring, in any form, such securities, is done by the state of residency.

Therefore, out of the 83 conventions concluded by Romania, approximately 60 provide taxation of capital gains within the state of residency of the beneficiary of the respective capital.

Within approximately 20 bilateral tax conventions (such as those concluded with Armenia, Australia, Austria, China, North Korea, Croatia, Iceland, Israel, Malta, San Marino, France etc.) Romania acceded taxation, within the source state of the shares of a company residing in the source state, if the majority of the company's patrimony assets is formed by capital assets.

3. External tax credit

Romanian legislation regulates the "tax credit" institution in favor of the Romanian citizens that make incomes abroad. In other words, the Romanian citizens can deduct the taxes already paid abroad, from the tax due in Romania, for some incomes made in a source state.

The tax credit institution was initially regulated by Government Ordinance no. 70/1994 regarding the income tax⁽²⁰⁾ and by the Law no. 32/1991 regarding the wages tax.⁽²¹⁾

At present, the legal framework of this institution is provided by art. 31 of the Tax Law (applicable to Romanian legal persons), and, respectively, art. 91 (applicable to resident natural persons).

The "tax credit" provisions included in the afore-mentioned laws are also applied to fiscal rapports with extraneity elements as unilateral measure to avoid double taxation.⁽²²⁾ Thus, art. 31 of the Fiscal Code provides that "if a Romanian legal person obtains incomes from a foreign state through a permanent office or incomes subject to withholding tax and the incomes are taxed both in Romania and in the foreign state, the tax paid to the foreign state either directly⁽²³⁾ or indirectly by withholding and transfer by another person is deducted from the profit tax".

The deduction for the taxes paid to a foreign state in a fiscal year cannot exceed the profit tax calculated by applying the profit tax quota of 16% to the taxable profit obtained in the foreign state or to the income obtained from the foreign state.

The condition imposed by the Romanian lawmaker for the application of deduction and the avoidance of double taxation is (i) presentation of documents

that certify the payment of tax paid abroad and (ii) the existence, respectively, the application of a convention of avoidance of double taxation concluded by Romania and the foreign state concerned. This last condition has been recently introduced by amending art. 31 para. 3 of the Fiscal Code by the passage since 1st July 2010 of Emergency Ordinance no. 58/2010 for the amendment and supplementation of Law no. 571/2003 regarding the fiscal code and other fiscal financial measures.

The same rule also applies if the Romanian legal person obtains incomes from several states, and in this case the external fiscal credit is calculated by each source of income separately.

We must mention that the income deducted this way (credited) cannot be higher than the amount owed according to Romanian legislation (presently, the sole quota of 16%).

The application of the external fiscal credit generated certain questions in practice. First of all, it was questioned if for the application of provisions regarding the external credit, it implies the existence of a convention of avoidance of double taxation with the state in which the incomes were obtained and taxes were paid by the Romanian legal person.

Until 1st July 2010, Romanian legislation did not provide any express provision that imposes such a condition for the application of external fiscal credit, which led to the interpretation that this institution can be used independently from the existence of a fiscal bilateral convention and only by presenting the proof of having paid the tax abroad.

Starting from 1st July 2010, by the passage of the Emergency Ordinance no. 58/2010 for the amendment and supplementation of Law no. 571/2003 regarding the Fiscal Code and other fiscal financial measures, the condition of the existence of a convention of avoidance of double taxation concluded between Romania and the foreign state was expressly introduced in art. 91 para. 2 of Fiscal Code.

By this clarification, the Romanian lawmaker eliminated the possibility of different interpretations in case of application of external fiscal credit for legal persons of Romanian nationality, respectively the resident natural persons.

As for the resident natural persons, according to art. 91 of the Fiscal Code, for the same income and during the same taxable period, the taxpayers resident natural persons that are subject to income tax both on the territory of Romania and abroad, have the right to the deduction of the tax paid abroad from the income tax owed in Romania.

In order to grant foreign tax credit, the following conditions should be cumulatively fulfilled:

(a) the provisions of the double taxation avoidance convention concluded between Romania and the foreign State in which tax was paid;

(b) the tax paid abroad for the income earned abroad was effectively paid directly by the individual or his legal representative or by withholding by the payer of income. Foreign tax payment is proved by a justificatory document, issued by the competent authority of that foreign state;

(c) the income for which the tax credit is granted, is a part of the categories of income referred to in Art. 41

We point out still that if the resident taxpayer has paid a tax which is not regularized/taxed in Romania, then it cannot be inferred. For example, in Austria, taxpayers have paid tax on inheritance and donations until August 1st, 2008, when this tax was repealed. Another example is tax on income from the exercise of an option such as the Stock Option Plan, which is a non-taxable income in Romania.

As in the case of companies, the foreign tax credit is granted to resident individuals considering the tax paid abroad, but cannot be greater than the income tax due in Romania related to taxable income from abroad. In the situation that the taxpayer receives income from abroad in several countries, the foreign tax credit allowed to be deducted from payable tax in Romania will be calculated, according to the above procedure, for each country and each category of income. In the situation that the taxpayer pays tax rate higher than he would have paid in Romania for the same category of income, the difference also is not reimbursed.

After Romania joined the European Union, as defined in art. 124⁽²⁴⁾ of the Fiscal Code, for the income resulted from savings, obtained by the resident individuals in those Member States⁽²⁵⁾ that have specified the transition in art. 124 of the Fiscal Code, the double taxation elimination method is applied under art. 124, 2nd paragraph of the Fiscal Code.

4. Double taxation agreements in the context of Romania's EU accession

Once Romania joined the European Union, Romanian tax law had to take into consideration the EU tax law provisions. Thus, art. 293 of E.C.T. requires to Member States *"if necessary, to negotiate with each Member State the double taxation elimination within the Community for the benefit of their citizens."* From this article we can deduce that the Member States are free to choose, when necessary, the method to eliminate double taxation (by double taxation avoidance conventions or unilateral fiscal measures, etc.). The purpose of this provision is to ensure that international activities are not disadvantaged compared to the national ones. At the same time, neither discrimination, nor

double taxation resulting from the transnational character of an operation can be tolerated on the Community internal market. This shows a significant difference of approach to countries that are not members of the EU (third countries).

Thus, according to the tax conventions on avoidance of double taxation concluded with these countries, Member States should take account of the internal market requirements regarding non-discrimination⁽²⁶⁾ and of the four freedoms⁽²⁷⁾ established by the EC Treaty. In other words, according to art. 10 (2) of the EC Treaty *“Member States shall refrain from any measure which could jeopardize the attainment of the objectives of this Treaty.”* Conclusion of a bilateral agreement with a third country containing provisions contrary to Community law would imply, without doubt, a breach by that Member State of its obligations deriving from the Treaty.

Likewise, we should highlight the subtle difference existent between the allocation of taxation powers, on the one hand, which pertain to the sovereign power of the Member States, and the exercise of taxation powers, on the other hand, according to which, whenever dealing with a responsibility of the Member States, the EC fundamental freedoms established by the Treaty should be complied with.

It is also important to stress out that in the tax field the objectives of the European Communities and of the Member States respectively have been and still are (within certain limits) different to some extent, fact that impacts on the distribution of powers. Thus, on the one hand, the objective⁽²⁸⁾ of the European Community to achieve an economic and monetary union and a common internal domestic market of the Member States, capable to ensure free movement of goods, persons, services and capital and the freedom of establishment is partly contrary to the responsibilities of Member States to meet the increasing public expenditures in areas such as health, education, defence, government and justice.

The circumstances above and the condition regarding elimination of fiscal barriers between Member States have called for elimination of import tax and for the refunding of taxes paid on exports (now called intra-Community acquisitions and deliveries). To facilitate the achievement of this objective, Community institutions are now enjoying almost full legislative and executive powers in the field of indirect taxes (VAT, excise duties, etc.).

If indirect taxation affects the domestic trade, direct taxes influence direct investment and free unrestricted and non-discriminatory movement, on the Community territory, of capital and labor. This is the reason why, at least for now, the issue of the conclusion of a convention on avoidance of double taxation regarding direct taxes between Member States was left at their choice, the Community legislative⁽²⁹⁾ efforts in this field being still in their infancy.

Romania's fiscal policy was concerned, during the pre-accession to EU period, about removing State aids, exemptions and exceptions from the payment of taxes and focused on providing a fiscal environment favorable to domestic and foreign investment, on supporting economic growth and fair competition and on providing transparency of budget revenues and expenditures.

Also, both in the pre-accession period and after acquiring the statute of Member State, Romania harmonized its national legislation with the Community legislation on direct taxes⁽³⁰⁾, and, as a consequence, implementing relevant Community directives, indirectly influenced as well the content of the conventions on avoidance of double taxation that it had already concluded with Member States.

Although Community law has a strong influence in matters of taxation, it may be noticed the further maintaining of fiscal sovereignty of Member States, which must observe, apart from the said Directives, only the Community principle concerning the removal of double taxation.

Notes

- (1) See I. Condor, *Evitarea dublei impuneri internaționale*, Editura Regia Autonomă „Monitorul Oficial”, București, 1999, p. 31.
- (2) Double taxation can be defined as the taxing of the same income or good twice or several times, within the same financial operation. The juridical instrument most frequently used by states in fiscal juridical relations for the elimination or limitation of international double taxation are the conventions for avoiding double taxation. Double taxation can be of two types: economic double taxation and juridical double taxation. Economic double taxation represents the taxing of a taxable income to two or more taxes in favour of the same authority or of different public authorities, during the same fiscal year. A common example of double taxation would be the taxing of the profit of a commercial entity and then the taxing once more of this amount by taxing the dividends distributed to associates/shareholders. Juridical double taxation represents the phenomenon of taxing the income of a person once or several times, in the same state or in different states.
- (3) According to Law no. 571/2003 on the Fiscal Code, OG no. 927 from Dec 23, 2003, as further amended and completed.
- (4) See GD no. 1860/2006, OG no. 1044 from Dec. 24, 2006, as further amended and completed.
- (5) See R. Bufan, *Taxation of extraneous operations (I)*, Revista de Drept Comercial no. 1/2005.
- (6) According to Art. 1 paragraph 3 of the Fiscal Code states that “On fiscal matters, the provisions of this code are above all any other provisions of legislative acts, in case of

conflict between these, the Fiscal Code provisions being applied”, and the paragraph 4 of the same article states that „if any provision of this code is against a provision of a treaty Romania is part of, the provision of that treaty shall be applied.”

- (7) According to R. Bufan, M. Minea, *Codul fiscal comentat*, Editura Wolters Kluwer, 2008, p. 604.
- (8) *For further information access www.iccj.ro: Supreme Court, administrative section, Decizia nr. 919 of March 7, 2003, I.C.C.J. administrative department, Decizia nr. 2323/2001 etc.*
- (9) *The international double taxation occurs when a person is unlimited imposed to a tax obligation on the territory of two states.*
- (10) According to I. Condor- op.cit.
- (11) *Specifically this implies: protection against the risk of double taxation of taxable income in two states, the fight against tax evasion practices, supporting the safety of international trade treatment; warning of tax discrimination between international contributors, etc.*
- (12) *Conventions for avoiding international double taxations may be subject to income taxes and/or wealth (capital).*
- (13) Except for Lichtenstein.
- (14) Convention between the Government of the Socialist Republic of Romania and the United States of America Government regarding the avoidance of double taxation and preventing tax evasion, B. Of. no. 168 from 28.12.1974.
- (15) *”Cultural royalties” are any form of payments made for the usage or for the right to use copyrights with regard to literary, artistic or scientific works, including the copyrights for movies or films or recorded tapes used for radio or television shows.*
- (16) *”Industrial royalties” are any kind of payments made for the usage or for the right to use patents, drawings, models, designs, procedures or secret formulas, brands or any other similar property or rights, or for knowledge, experience, know-how.*
- (17) *”Cultural and industrial royalties” include profits from selling, exchanging or any other means of using any such rights or properties, up to the limit where the incomes from such sales, exchange or any other way of using them are conditioned by productivity, usage or disposition of such rights or properties.*
- (18) Published in the Official Gazette, Part I No. 127 from 23.06.1995
- (19) This category includes: a) payments received from sources outside the contractual state, for maintainance, education, research and training; (b) donations, scholarships or other payments made by the Government or scientific, educational, cultural organisations or by other non-profit organisations.
- (20) Republished in OG no. 40 from 12.03.1997.
- (21) Republished in OG no. 185 from 12.08.1996.
- (22) For further information concerning the tax credit in the light of GO no. 70/1997, see I. Condor, *Impozitele, taxele și contribuțiile datorate de persoanele juridice*, Tribuna Economică, 1998, pp. 49-50.
- (23) Direct taxes are the taxes that are established and paid in a direct relation between the public authority and a certain taxpayer, such as the income tax, the wages tax or the tax on income from independent activities, etc.
The indirect taxes are levied with the circulation of goods, service provision, the provision of certain forms of consumption in general (VAT, excise duties, etc.)

- (24) That is Austria, Belgium and Luxembourg.
- (25) TCE – European Community Treaty, in its revised version adopted in Nice, see www.europe.eu.int.
- (26) Article 2 of the EC Treaty provides that any discrimination on the grounds of nationality is prohibited.
- (27) Article 39 of the EC Treaty stipulates that the freedom of movement for workers shall be secured within the Community, such freedom entailing the abolition of any discrimination based on nationality. Article 43 prohibits restrictions on the freedom of establishment of nationals of a Member State in the territory of another Member State. Article 294 requires the Member States to accord nationals of the other Member States the same treatment as their own nationals as regards participation in the capital of companies or firms.
- (28) For further details on the EU tax policy see R. Bufan, M. Minea, *Codul fiscal comentat*, Editura Wolters Kluwer, 2008, p. 60.
- (29) In terms of direct taxes the following Community acts have been adopted: Directive No. 90/435/EEC of 23 July 1990 on the common fiscal regime applicable to parent companies and subsidiaries located in different Member States; Directive No. 90/434/EEC of 23 July 1990 on the common fiscal regime applicable to mergers, divisions and contributions to the formation of a company; Directive No. 2003/48/EC of 26 June 2003 on taxation of savings income in the form of interest payments; Directive No. 2003/49/EC of 26 June 2003 on the fiscal regime applicable to interest and royalty payments between associated companies in different Member States – Romania has agreed a transition period of four years, effective of 1 January 2007; Code of conduct for Business Taxation, of 3 June 2003 – a non-binding document, having as purpose to remove harmful tax competition existing between Member States; Code of Conduct on transfer pricing, Recommendation No. 94/79/EC of 21 December 1993 on the taxation of certain items of income received by non-residents in a Member State other than that in which they are residents of 29 December 1994; Recommendation No. 94/390 of 25 May 1994 concerning the taxation of small and medium-sized enterprises of 9 July 1994.
- (30) By implementing in the Fiscal Code the acts adopted at Community level.

References

- Condor, I. (1999). *Evitarea dublei impuneri internațională*, Editura Regia Autonomă „Monitorul Oficial”, București
- Condor, I., „Impozitele, taxele și contribuțiile datorate de persoanele juridice”, *Tribuna Economică*, 1998
- Bufan, R. „Fiscalitatea operațiunilor cu elemente de extraneitate (I)”, *Revista de Drept Comercial* nr. 1/2005.
- Bufan, R., Minea, M. (2008). *Codul fiscal comentat*, Editura Wolters Kluwer
- Legea nr. 571/2003 privind Codul fiscal, MO nr. 927 din 23.12.2003, cu modificările și completările ulterioare
- HG nr. 1860/2006, MO nr. 1044 din 24.12.2006, cu modificările și completările ulterioare

- Convenție dintre Guvernul Republicii Socialiste România și Guvernul Statelor Unite ale Americii privind evitarea dublei impuneri și prevenirea evaziunii fiscale asupra veniturilor, BO nr. 168 din 28.12.1974
- Convenția între Guvernul României și Guvernul Republicii Moldova pentru evitarea dublei impuneri și prevenirea evaziunii fiscale cu privire la impozitele pe venit și pe capital, Publicată în Monitorul Oficial, Partea I, nr. 127 din 23.06.1995
- Ordonanța Guvernului nr. 70/1994 privind impozitul pe profit, Republicată în MO nr. 40 din 12.03.1997
- Legea nr. 32/1991 privind impozitul pe salarii, Republicată în MO nr. 185 din 12.08.1996
- Directiva nr. 90/435/CEE din 23 iulie 1990 referitoare la regimul fiscal comun aplicabil societăților mamă și filialelor situate în state membre diferite, publicată în JOCE L 225 din 20.08.1990
- Directiva nr. 90/434/CEE din 23 iulie 1990 referitoare la regimul fiscal comun aplicabil fuziunilor, divizărilor și aporturilor la constituirea unei societăți, publicată în JOCE L 225, 20.08.1990
- Directiva nr. 2003/48/CE din 26 iunie 2003 referitoare la impozitarea economiilor provenite din plata unor dobânzi, publicată în JOCE L 157 din 26.06.2003
- Directiva nr. 2003/49/CE din 26 iunie 2003 referitoare la regimul fiscal comun aplicabil plății dobânzilor și redevențelor efectuate între societățile asociate în state membre diferite, publicată în JO L 157 din 26.06.2003
- Codul de conduită privind impozitarea afacerilor (Code of Conduct for Business Taxation) din 3 iunie 2003
- Codul de conduită în materia prețurilor de transfer, publicat în JOCE din 06.01.1998
- Recomandarea nr. 94/79/CE din 21 decembrie 1993 privind impunerea anumitor categorii de venituri realizate de nerezidenți într-un alt stat membru decât cel în care rezidă, din 29 decembrie 1993, publicată în JOCE L 39, 10.02.1994
- Recomandarea nr. 94/390/CE din 25 mai 1994 privind tratamentul fiscal al întreprinderilor mici și mijlocii, din 9 iulie 1994 publicată în JOCE L 177 din 09.07.1994
- Ordonanța de urgență nr. 58/2010 pentru modificarea și completarea Legii nr. 571/2003 privind Codul fiscal și alte măsuri financiar-fiscale, publicat în MO nr. 431, din 28.06.2010, partea I

Towards a New Basel Accord with More Rigorous Settlements

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Abstract. *The recent financial crisis made the banking sector more vulnerable to shocks. The system was characterised by weaknesses: too much leverage in the banking; not enough high quality capital to absorb losses and excessive credit growth based on underwriting standards and under pricing of liquidity.*

This article is about a new accord Basel III and the view of this framework. Basel III will be finalized before November 2010, and will be implemented by the end of 2012. Basel III is going to be implemented in the United States. All G-20 countries should adopt progressively this capital framework. The Basel Committee on Banking Supervision and national authorities should develop and agree a global framework for promoting a stronger liquidity in financial institutions. The reform program is to raise the resilience of the banking sector through promoting more sustainable growth, both in the near term and over the long term.

The initiatives of Basel Committee will develop a set of reforms based on four steps: public consultation, impact assessment, overall calibration and macroeconomic impact assessment over the transition period.

Keywords: BCBS reforms; capital distributions; minimum capital requirements; additional capital; systemic risk; externality; procyclicality; risk exposures; financial stability; leverage ratio.

JEL Code: G21.

REL Code: 11C.

World economy is currently experiencing a period of slight recovery after the financial crisis which has involved all the sectors of economic life, due to which we ask ourselves, more than often, questions like: “What should we expect?”, or “What will happen next, economically speaking?”.

This economic crisis has strongly affected the American banking system, then spread on the European banks, which has led to the appearance of some international settlements in the field of ensuring the financial security, settlements regarding a new agreement in the banking field.

Whether the Basel I and II Accords, through the requirements issued, have contributed to a better capitalization of banks, currently there has been the need of new prudential policies, more complex which have led to the decision to make an accord, that is the Basel III Accord. This is stipulated („Financiarul, 2009) to be finished, according to the Basel Committee, before November 2010 and for the implementation period it is mentioned the end of 2012.

The new elements brought into discussion, regarding a new accord, have been the object of numerous meetings of the G-20 member countries, on the subject of new banking settlements.

The London G-20 group agrees on a new Basel III Accord and it considers that it should be finished by 2011 so that it could be implemented as soon as possible.

In December 2009, the Basel Committee on Banking Supervision published, in this view, two consultative documents, entitled: “The Consolidation of the Resistance of the Banking Sector”, a document which has been mentioned in the press and also on the Internet, with the title “Basel III”, and a second document: “The International Frame to Measure the Liquidity Risk, the Standards and Monitoring”. These are part of the Basel Committee’s activity, but they are just projects and do not represent a legal frame for a new accord.

There have been and still are different opinions and preoccupations in this view both of the European banks and of the American banks. The Europeans consider that Basel III will be implemented more rapidly at the European level, and if what the USA is concerned, this thing will take place subsequently and its measures have been initially considered as an optional guide of settlements.

Internationally (“Financial News”, 2010), the novelties brought by this new accord will have a major impact on the banking sector, on the loan offer and on the problems regarding the economic development. The requirements mentioned in the new accord will have to determine the banks to have more liquidity, of a higher quality, as short term coverage.

At the G-20 London Summit⁽¹⁾, in April 2009, problems regarding the coarsen of the rules to reform the financial sector were brought into discussion and it was predicted that all the members present at this meeting should progressively adopt the frame of settlements and the Basel Committee on Banking Supervision and the national authorities should develop and agree on a new global frame meant to solve the problems concerning a stronger liquidity at the level of financial institutions, including here also the transborder financial institutions.

At Pittsburgh, in September 2009, the G-20 Summit drew up a report regarding the actions to promote the financial settlements established, according to which the global standards should be implemented constantly so that they ensure “a permitted and authorised level of market fragmentation, protection and rule arbitration⁽²⁾”. In their opinion, progress can be achieved with the help of the Decision Group of the transborder banks, of the Basel Committee on Banking Supervision and the World Bank, which establish recommendations for the authorities regarding the problem of crisis management and decision making process.

Another problem brought into attention was that regarding the introduction of a frame in order to cover the countercyclical capital, before the settlement requirements. This frame will include measures to keep the capital and also constraints regarding the capital distribution.

What the Basel Committee has in view is also the setting up of some standards regarding the establishment of long term provisions, based on the losses forecast. It is also necessary a very detailed economic analysis so that the requirements which are going to be established can be finished in due time. The analysis will follow the improvement, both quantitatively and qualitatively, of the banking capital as well as the discouraging of some activities taking place excessively and which could hinder the recovery of economy.

Nationally, the implementation of a high level and of a better quality of the settled capital, of the elements of the Basel II Accord, as well as of the requirements to improve the liquidity risk and also of the long term provisioning activity will determine the banks to give up taking an excessive risk. These measures will try to create a much better prepared financial system to cope with the possible economic shocks that might occur. Due to this it is necessary a fair evaluation of capital and the encouragement of the additional capital increase. The banks are advised to retain a higher percentage from the current profit in order to raise the capital. This capital must support the loans given.

Therefore, in this period of crisis an important objective would be to combine the measures regarding the risk cover, according to the Basel II Accord, with the measures regarding the improvement of the capital quality and the increase of the global minimum requirements.

An important step for the settlements to come, through this accord, Basel III, is to study the official documents, for example BIS⁽³⁾ Working Papers, no. 309, regarding the global risk, where Stephen G. Cecchetti, Ingo Fender and Patrick McGuire, from the Economic and Monetary Department, provide a definition of the systemic risk: “the systemic risk in the financial system is similar to pollution”, that is an individual institution can impose on others, through its actions, the same things. This phenomenon, considered as an externality, can have two forms, that is:

- it is considered the common failure of several institutions, as starting from something individual, particular, resulting in a common presentation both outside the financial system and the connection between intermediaries;
- the second meaning of externality refers to procyclicality. The procyclic systemic risk refers to the progressive building of the financial frailty and also to the increase of the risk of economic collapse. The systemic risk may occur in the financial-banking system also due to some new financial products which may be introduced on the market, their effect being harder to be foreseen. The financial institutions become less prudent during the cyclical increase period and more prudent during the decrease periods. During the stable, homogeneous periods, the volatility of the economic markets has the tendency to be lower and the risk is compressed.

All these problems regarding the appearance of the crisis, the increase of the risks in the banking institutions have determined the reviewing process of the Capital Adequacy Directive⁽⁴⁾.

The secretary of the Basel Committee on problems regarding the banking supervision, Stefan Walter, stated that the main objective of the Basel Committee was in this period to increase the elasticity of the banking sector, promoting a more sustainable development both on short-term and on long-term. Also, in the Basel Committee's agenda there are norms to stabilize the real economy for it has been considered that the period before the crisis generated weaknesses in the banking system, weaknesses determined by:

- too much lightness in banks and in the financial system, but weak quality of capital to absorb the losses;

- excessive increase of the loan and the insufficient coverage with liquidity;
- incorrect, inadequate support in banks which was based on an inherent procyclicality of the financial markets and the participants to it;
- too much systemic risk, a weak interconnection between the financial players, the common exhibition to shocks, all these leading to the increase of the problems concerning bankruptcy.

Due to the problems concerning the economic crisis (Cinteză, 2010), its harshness, by the fact that this crisis penetrated with too much lightness the financial system, it has been required as being necessary a reform programme of the Basel Committee on Bank Supervision.

The key elements of the reform programme of the Basel Committee on problems concerning Bank Supervision (BCBS)

The reforms of the Basel Committee have objectives making the connection between the analysis performed by this committee and the short-term results. The elements had in view through the reform programme refer to:

- the ensurance that a high qualification of capital can absorb possible losses occurred by exposure to risks;
- the ensurance that all the material risks have been appropriately integrated from the inside and have been calculated through the level of settled capital;
- the introduction in banks of some supplementary verifications both for the banking supervision and for making the risk management activity more efficient. Therefore, a special attention will be paid to the three pillars of the Basel II Accord, as well as to a new instrument of capital adequacy: the lever effect;
- the establishment of some long-term provisions and the cover of countercyclical capital, thus contributing to the increase of the banking system's capacity to absorb the shocks, when they become unavoidable;
- the introduction of some minimum global standards to measure and control the liquidity risk;
- the strengthening of the banking system through rules and its systematic supervision, thus forcing the internalization of risks;

- the improvement of the risk management activity as well as of the risk governance, set up through the supervision process in pillar II of the Basel II Accord;
- the increase of the market discipline by intensifying the transparency in accordance with Pillar III of the Basel II Accord and the capital adequacy;
- the promotion of some more practical approaches leading to the management consolidation of the banks outside Basel.

All these new reforms are considered much stronger for the banking system. The safer the financial system, the more it will lead to an economic development, to long-term intensification and welfare, concomitantly with the minimization of economic costs on short-term.

The impact of these reforms being implemented

With the help of these reforms, banks should return to the level of profitability before the crisis. The profits obtained in this period will be used to build capital, to cover with liquidity and less to obtain dividends and other extra bonuses.

Internationally, The Basel Committee has suggested through these reforms the harmonization of some minimum liquidity standards which should ensure the banks stability for one month period during stressful times and promote a long-term elasticity of banks.

The reforms concerning the capital and liquidity have been the subject of numerous rigorous public consultations. All the comments on this subject and the consequences of these reforms being applied have been discussed. Therefore, the Basel Committee is performing a complete, quantitative research in order to evaluate a possible impact that this package of reforms will have both at the level of each bank and at the level of the entire banking system. The research will contain information concerning the capital requirements, a minimum set of measures which will be applied to banks, countries, business models.

Also, the cumulated impact of these reforms will be studied so that to ensure in the same time certain prudence on long-term concerning the availability of loans. In critical situations, these reforms should follow the banking compensation and support on long-term. The Basel Committee has in view that the implementation of reforms as well as the transition procedures to the new standards do not compromise the possible short-term economic development.

All these economic reforms are oriented towards future, making the financial-banking system more flexible to possible future economic crises. Even though some countries and banks have not caused the current economic crises, the entire world is affected by this crisis. The economic crisis has affected not only all the world regions, but also all the types of products, all the types of models and the evaluation levels on classes: retail, corporate, securitizations, subscriptions, credits, etc. The source of a future economic crisis cannot be foreseen, that is why this Basel Committee is the one which through the economic reform measures issued will help mitigating or reducing the impact of a possible crisis. It is essential that all the countries and banks contribute to the strengthening of the banking system.

The lever effect – as a supplementary indicator of capital adequacy, according to Basel III

If until now the prudential settlements of capital adequacy had in view heated discussions between the regulating authorities of the banking system and the commercial banks regarding the subject of liquidity and provisions, this indicator “the lever effect” will be introduced in order to avoid the excessive indebtedness of banks.

For this new indicator there is no standard for the existing differences between the accounting systems make more difficult to measure and compare a possible level of it.

In order to establish a common level for the lever effect, the approaches are different: in the USA the minimum level required for this indicator is of 3% for the commercial banks and of 4% for the rest of the banks, although, in the present, they speak⁽⁵⁾ about an existing level of over 5.5% which is considered appropriate. According to the same source (Newspaper “Financiarul”, may 2010), in Austria this indicator must be of over 6%. Canada takes into account when computing this indicator the risk weighted assets and Switzerland is one of the countries where in the computation of the lever effect they take into consideration the adjusted asset value (according to the portfolio of loans given to the residents). The necessary minimum considered appropriate is of 3% at the consolidated level and of 4% at the individual level.

In our country, this indicator is used by the National Bank of Romania for analysis. The lever effect is computed as a ratio between the level I equity ownership and the balance sheet assets.

$$\text{The lever effect} = \frac{\text{Level I equity ownership}}{\text{(rate of equity ownership) Average value balance sheet assets}}$$

The main component of the level I equity ownership is represented by the equity ownership and the average value balance sheet assets are those assets resulting from adding the value of all the assets at the end of the month and dividing this result to the number of months taken into consideration.

The calculus formula of this indicator can be also written like this:

$$\text{Rcp} = \frac{\text{Equity ownership}}{\text{(rate of equity ownership) Total asset (net value)}}$$

The Supervision Directorate within the National Bank of Romania implemented a Homogeneous Bank Rating System CAAMPL – with the help of which it has been tried the promotion of an efficient supervision of the Romanian banking system in order to prevent the systemic risk. This system has six specific components of analysis: capital adequacy (C), shareholders' quality (A), assets' quality (A), management (M), profitability (P), liquidity (L). All these components contribute to setting up the banking rating, to the establishment of the banks' risk profile, of the development strategy. Within the first component of analysis – the capital adequacy, belongs the lever effect or the rate of equity ownership. The indicator is computed monthly and as variation limits of the indicator the following are taken into consideration:

≥ 6%	well capitalised bank	rating 1
4 - 5,9%	adequately capitalized	rating 2
3 - 3,9%	sub-capitalized	rating 3
2 – 2,9%	significantly sub-capitalized	rating 4
< 2%	major sub-capitalized	rating 5

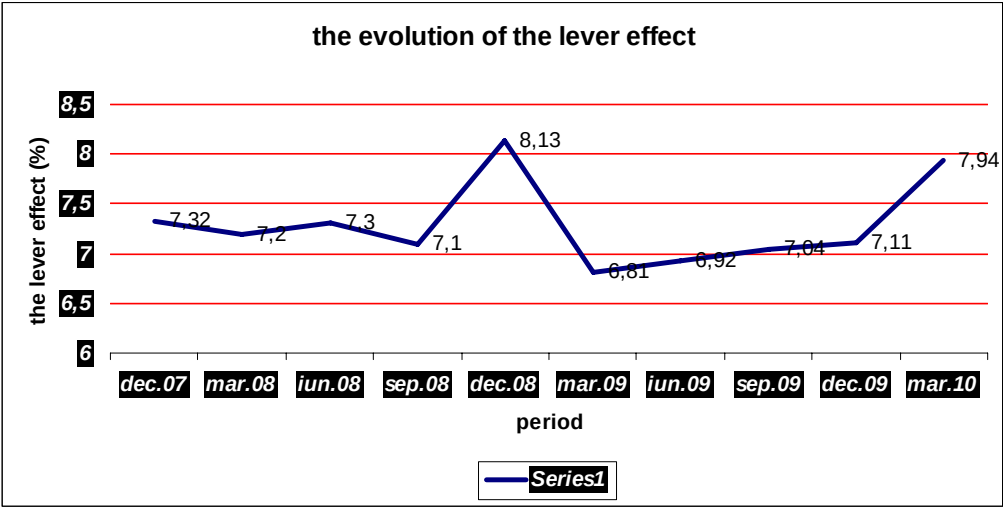
Source: The National Bank of Romania.

The determination of the elements in the calculus formula is based on the National Bank of Romania Norm no. 11 of 15.12.2003 regarding the individual and consolidated based supervision of equity ownership, published in the Official Journal of Romania no. 17 of 09.01.2004. The lever effect, as indicator,

is contained at the banking level in the Calculus and Reporting Form of Equity Ownership and in the Patrimony Statement.

Currently, the National Bank of Romania accepts a minimum level set at 4%. The lever effect can be used as a supplementary measure at the banking level, so that the banks should not be excessively indebted. This, combined with the capital adequacy according to the risk, will lead to a limitation of the excessive increase of the balance sheets, both at the level of each bank and at the level of the entire banking system.

Due to the analysis performed by the National Bank of Romania at the end of 2009, it was noticed that the majority of banks in Romania were much above the admitted minimum level of 4 %, as it can be seen in the following graph:



Source: The National Bank of Romania.

Figure 1. The evolution of the lever effect

Only one bank in the system had a level below 4% of the lever effect due to some low quality assets, due to an inadequate capitalization of the risk associated to the assets and a high balance sheet for the capital that it had, too. There have been measures to stabilise this indicator according to the National Bank of Romania’s regulations: it took place an increase of the company capital, which determined that in March 2010 the evolution of the lever effect to be above the minimum level accepted.

The introduction of this indicator has produced changes at the level of each bank, meaning that the size of the bank cannot increase above a certain limit, taken into consideration by the National Bank of Romania. Also, it will be taken into account the complexity of some banks, that is the banks presenting a too high balance sheet as compared to the capital they have will have to take measures so that the increase of the assets be limited and the profit obtained be capitalized. Also, the credit activity must be limited according to the level of this indicator, which will influence the economic development. What we can say that it is specific to the Romanian banking system is the fact that the banks do not have a high complexity level. The level of this indicator is, currently, much higher than the minimum established, even compared to other countries.

The reason for which the Basel Committee intends to introduce this indicator, as a supplementary indicator of capital adequacy, is also due to the G-20 leaders, which consider that the lever effect is “simple, transparent, and comparable at the international level”.

The lever effect produces a series of advantages and disadvantages at the banking system level.

A banking capitalization according to the risk level, as it is stipulated through the Basel Accord I and II, encourages the displays with a lower degree of risk, thus resulting in a tendency to concentrate on those assets that can attract smaller capital requirements.

The banks could accumulate a higher volume of assets from other funding sources, too. This could have consequences such as a high level of assets, with a low degree of risk, high assets, but also higher indebtedness. All these have determined that through the introduction of the lever effect the volume of the balance sheet be limited.

The introduction of the lever effect can determine the reduction of some pressures from banks for the latter, through their own inside risk evaluation models, applied in banks, can represent a decision factor and can subjectively influence the regulating and supervising authorities.

A disadvantage of the lever effect is that there is no yet a unanimously international accepted definition which means that the appearance of several calculus variants could be in favour of some banks.

Not even in what the accounting system is concerned there is no perfect compatibility, because the new accounting standards have not been implemented yet and this could cause problems when comparing the indicators.

As a conclusion, we can say that an important measure of the Basel Committee is the establishment of a unanimously accepted calculus formula of the lever effect for as correct as possible analysis of this indicator is needed.

The regulating authorities wish an analysis and a concentration of the banking activity, based more on the volume of assets which will represent an important change for the big and more complex banks. This will lead to a certain maximum limit from the point of view of bank's size and dimension, that is there will not be very big banks monopolising the banking activity, as the Lehman Brothers Bank did.

If this indicator were used for a limited number of states, it would determine the establishment of a different treatment between the banks in these states and the banks in the transborder banking system.

Even if this supplementary indicator is introduced in order to try to create a more stable state in the banking system, the new banking settlements cannot exclude the occurrence in the future of some problems of different nature, which could lead to a new economic crisis.

Notes

- (1) Newspaper "Financiarul" – "Şefii de stat şi de guvern din G8 şi G20 vor adopta măsuri pentru prevenirea altei crize financiare", 25 June 2010.
- (2) Basel Committee on problems concerning Bank Supervision (BCBS).
- (3) BIS – Bank for International Settlements with headquarters in Basel, Switzerland.
- (4) CAD III – Capital Adequacy Directive – European directive which takes over the Consolidated Banking Directive 2000/12/EEC and the Directive of Capital Adequacy for the Investment Companies and Credit Institutions 93/6/EEC.
- (5) Newspaper "Financiarul" – "Cu un efect de pârghie de aproape 8%, băncile au un capital adecvat şi nu sunt îndatorate excesiv", 28 May 2010.

References

- Bichi, C, Dumitru, I. (2003). *Reglementare și supraveghere bancară*, Editura ASE
- Bloomberg Businessweek, “The Battle Over Bank Rules at Basel III”, Markets & Finance, 27 mai 2010
- Cinteză, N. – „Criza financiară – motiv de schimbări?”, cu ocazia evenimentului din cadrul seriei „130 de ani de la înființarea BNR”, București, 27 mai 2010
- Georgescu, F. – „Basel II – Redefinirea strategiilor”, cu ocazia celei de-a 8-a ediții a conferințelor organizate de Finmedia în colaborare cu Institutul Bancar Român
- Raportul Ernst & Young – „Îmbunătățirea Sistemului Uniform de Rating a Sistemului de Avertizare Timpurie”, decembrie 2004
- Financial News, “A guide to 'Basel III' - tougher capital laws loom for banks”, 16 aprilie 2010, Fareed Sahloul
- Financiarul, „Cu un efect de pârgăhie de aproape 8%, băncile au un capital adecvat și nu sunt îndatorate excesiv”, 28 mai 2010
- Financiarul, “Șefii de stat și de guvern din G8 și G20 vor adopta măsuri pentru prevenirea altei crize financiare”, 25 iunie 2010
- Financiarul, “Perioada de grație pentru aplicarea Basel III”, 18 decembrie 2009
- [http:// www.basel – ii – association.com/Basel_ii_News_June_2010.htm](http://www.basel-ii-association.com/Basel_ii_News_June_2010.htm)

Consumer Rights in Digital Economy. Case Study of Romanian e-commerce Usage

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Abstract. *Current economy or digital economy is driven by modern information and new technologies, which offer to organizations or to the public access to almost any type of information, regardless of its form of existence, storage type or geographical location. These tools encourage the development of new activities, services and products.*

All developed countries have issued and implemented government policies supporting: the evolution and the adoption of new technology, the national information infrastructure consolidation, the training and the attraction of new technology experts, the adult education, and the cooperation with the private sector to encourage investment in this new economic branch, and promoting government projects to demonstrate the benefits for the current society services. This work aims to highlight the pattern of trade activities using the convenience of the Internet – e-commerce, with emphasis on legal regulations in regard to currently available services. Also the present study summarizes existing legislation, for electronic commerce, at national and international level.

A case study was performed to highlight the current state of Romanian e-commerce activity, regarding the applicability of existing legislation, the frequency of electronic commerce usage, the usefulness of the service and the selection of the most frequently purchased products online. The research emphasizes on the existing legislation, its applicability and the degree in which the users are informed about it.

Keywords: e-commerce; Internet economy; Internet; electronic market; online consumer.

JEL Codes: L81, O30.

REL Codes: 5I, 18D.

1. Introduction

The continuously changing electronic technology and the complexity of this new type of society, that uses electronic communication devices, have continuously increased the volume and the diversity of activities and services developed.

According to Doukidis and others (2004), today's society is characterized by the boom in the usage of electronic support for communication in all areas of life, and the resulting fundamental changes in organizations and society.

The development of the computer networks in the entire world, through the Internet, has enabled electronic trade, which offers a large range of services, reducing the time and additional costs related to transportation. One of the major advantages of electronic trading process is given by the fact that it can be ran anytime and anywhere, bypassing the time and space barriers of data availability (Pocatilu, Boja, 2009).

It is safe to say that commerce was one of the first areas to undergo transformation through the use of new technologies, which are facilitating trading through the Internet. More and more commercial operations are done today using modern payment technologies. Electronic commerce and new technologies in general, can generate significant cost savings and can facilitate access to internal and external markets.

What is the foundation of the electronic commerce? First important thing is vendor's presence on the Internet and then the availability of online products and services offerings. It is also important to talk about the vendor's website accessibility to customers (actual or potential). The core of the e-commerce activity is represented, of course, by the products or services offered for sale, whose intrinsic qualities are enhanced with specific features resulted from their presence online, like:

1. Clear and concise product description, with suggestive images;
2. Try before you buy options (for example, when buying a book - the possibility of browsing its table of contents or some of its relevant pages);
3. The option to compare, online, the desired product to similar products;
4. Online reviews of customers that either purchased the specific product or dealt with that online vendor;
5. Home delivery;
6. Online payment.

Although modern e-commerce solutions offer potential customers different ways to analyze the characteristics of the product/service being offered, none of them compares to actually seeing the real product on the shelf,

with the visual, olfactory or tactile sensations that this triggers. This is why, at least for now, customers are somewhat reticent of purchasing those products sold online, whose characteristics may be deceiving or impossible to tell while viewed digitally (e.g. clothing, shoes, whose color might look different on the monitor, and it also impossible to tell just by looking at the pictures and reading about their size if they are going to fit well or not), but they prefer purchasing those products for which the perception of the characteristics is not being altered by just viewing the product online and reading about its description and features, those products for which the chance of "dislike" is very slight. In this category fall electronics, domestic appliances, clearly identifiable products like paper, office supplies, tickets, movies and music albums, digitized products, etc.

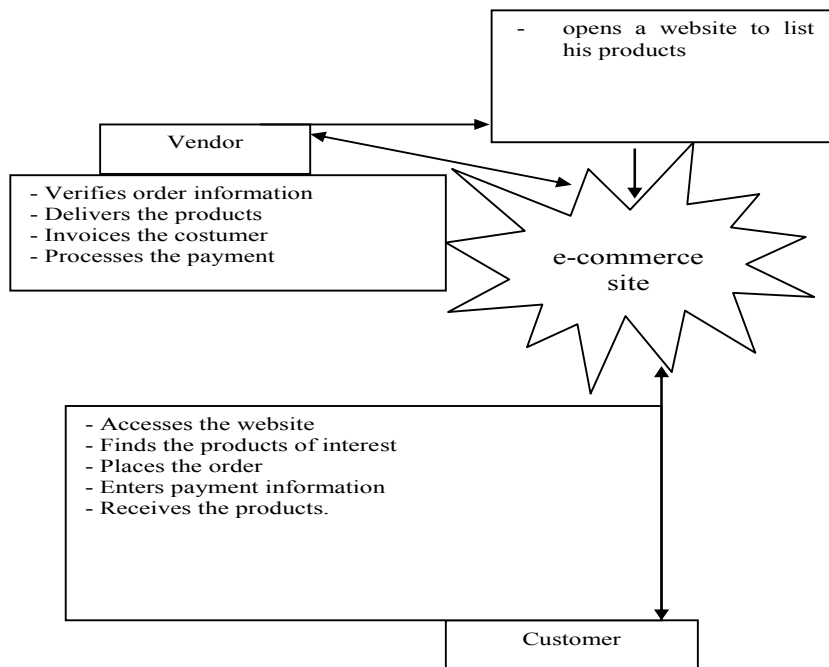
The electronic commerce usage has increased in recent years at the same time with the increased development and diversity of communication networks. Electronic commerce is depending on communications network infrastructure and it expanded with them, leading to electronic business (e-business) appearance.

Related to customers, the e-commerce site has two great advantages resulted from the increased number of stores available: on one hand it reduces the time spent purchasing goods and on the other hand it is increasing the freedom of choice.

For companies, we distinguish four major advantages using electronic commerce:

1. It is a quick and easy way to advertise;
2. It reduces costs;
3. It significantly increases the speed of internal and external communication;
4. It strengthens the relationships with customers that are interested in their products.

In general, the online sale is a multi-step process and it is governed by the legal regulations enforced at that time (Figure 1).



Enforcing legal regulations for electronic commerce is justified when its, very fast, dynamic leads to the development of a significant size market.

According to recent studies published in the European Commission (August 2009), the Information Society in Romania is still in its early stages, but it is showing an accelerated trend of development and modernization.

There is a remarkable progress in eProcurement (public procurement in particular), supported using the Electronic Procurement System - SEAP, where the share held by electronic auctions in recent years increased from 2% to 12%.

Some progress is being noticed in the e-government area - the Agency for Information Society Services (ASSI) reported as of October 2009 over 11,000 registered companies in the National Electronic System - SEN that access, online, various public services.

An equally significant progress was the *e-Romania* portal launching in June 2009, which aims to become the single point of contact for all Romanian institutions, at national and local territories. *e-Romania* is structured in over 10 fields of interest: health, environment, transportation, agriculture, law, education, culture, religion, associations, tourism and sport. Besides the goals of transparency and ease of deployment of national and local government business portal, e-Romania has the potential to reduce the cost of administrative

services by up to 70% through the implementation of 12 online services for citizens (payment of taxes, job search, social benefits, personal documents issuance, vehicle registration, obtaining building permits, home address change notice, police reports, public library access, registration in the public system of higher education, access health services) and 8 online services for corporate (social contributions, taxes, Value Added Tax – VAT, registration of new companies, statistical data transmission, customs declaration, environmental permits, public procurement).

In terms of communication infrastructure (broadband), Romania registers visible, but slow, progress with only 11.7% penetration rate. National Strategy for Broadband Infrastructure Development predicts an aggressive growth targeting a 40% penetration rate among households in 2010 and 80% by 2015. Furthermore, over 80% of existing customers have access to broadband high-speed (+2 MB/s).

When it comes to business services and electronic commerce, their use and penetration rate is still low. Even though its development on a large scale is a priority for the Romanian Government, the information technology and communication sector (IT&C) contributes only with 3.6% to GDP and with 1.5 % to labor utilization, but was responsible for 5.3% of total exports.

2. Legal aspects of internet trading

With the study of electronic commerce the issue of consumer protection comes automatically. Ensuring consumer protection on the web, where the trading takes place, assumes the existence of new issues, particularly important in terms of security and consumer safety (Surcel, Dinu, 2007).

According to the “intangible” model of transactions progress in the Internet, B2C (Business to Consumer)/B2B (Business to Business) relations can lead to disputes and commercial litigation in particular where:

1. Customer pays for the goods ordered, but the supplier does not deliver them;
2. Customer pays for the goods ordered, but the supplier does not deliver those ordered, or the amount requested, or goods arrive damaged to destination;
3. Customer pays for the goods ordered but payment is not received on time;
4. Supplier delivers the goods ordered, but the customer refuses to pay; and
5. Supplier delivers the goods but it appears that the recipient has not placed any order.

These are the most common cases of dispute in both B2C and B2B relations, but they are not limited to IT & C mediated trading, such situations can occur in any commercial transaction in which the trading is managed by a third party (postal service for instance) and there are laws which protect, in context, both customers and suppliers. What is specific to internet commerce unlike regular stores is that customers and suppliers may be located in different countries and the Web server may be located in a third. In these cases a dispute should be resolved as determined by the place and jurisdiction under which the actual commercial transaction took place. Most laws state that electronic commerce transactions conducted over the Internet fall under the jurisdiction of the country in which the supplier is located.

In 2000 the European Union published a series of recommendations to ensure the usage common commercial infrastructure, at least in the EU:

1. Terms and Conditions – Commercial terms and conditions must be shown to users before initiating any transactions on the Internet;
2. Equal status – electronic contracts are equal in terms of commercial and legal effects, with their printed form. They can be used in court, along with elements of electronic authentication (electronic signature);
3. Location – the geographic location of others is independent of web server's location hosting the transaction; and
4. Single Market – the dealer can offer Internet trading services across the EU, provided they comply with trade laws and regulations in force in its country of origin.

Another category of disputes arising from electronic commerce refers to the content or type of goods traded, especially on online auction sites. Internet allows any type of “property” sale, be they illegal, immoral or simply nonexistent. Case studies of countries with experience in this field make reference to transactions in which the subject property was either property on the moon, guns, drugs, human organs or unborn children. Unlimited access of people with or without discernment, good or bad intentions – in this type of transactions can also lead to business bankruptcy for sellers of goods, especially if they do not specify a minimum purchase price.

In the last few years a series of tests have been performed, regarding the definition, disclosure, acceptance and use of general standards applicable to online trading, none of which has been general enough to be widely adopted. Using well-defined commercial standards could limit the potential of fraud in online trading, while ensuring security and the conditions mentioned above. The difficulty of defining such standards, however, lies in the speed of change of technology and media (speed that doesn't allow enough time to develop a

standard) especially in transactions of complex nature and diversity that run from one market to another, from one company to another.

So far standards have been developed on how to process electronic payment transactions. There are also security standards, the quality of services on some verticals (banking, government, public administration). But there isn't an accepted standard to regulate the commercial transactions procedures and the way they progress. Large companies, in general, have made various attempts to impose a specific trading methodology with partners (in particular suppliers of products and services).

3. European Union directives regarding Internet transactions

The most common form of laws and regulations issued by the European Union is through directives, instructions given to the member states that specify the nature and content of laws that each nation should individually adopt. The directives specify the objectives that each state should achieve, without imposing the actual manner of deployment and accomplishment; the particular regulations and norms are left to the decision of each individual nation.

The E-commerce Directive, adopted in year 2000, establishes that the Information Society services (defined in the Directive 98/48/EC) have to respect the principles of free movement of services within the Community; they can be delivered anywhere in the European Union's space, however respecting the laws of the originating member state. The document establishes the regulatory framework for:

1. Defining the location of electronic commerce services operators;
2. Obligations of the operators to ensure the transparency of their activities;
3. Requirements related to the transparency of commercial communications;
4. Validity of electronic contracts in all member states;
5. Legal accountability of organizations that mediate information over the Internet; and
6. Online settlement of litigations.

The Directive covers all e-business forms, including B2C and B2B, clearly referring to online newspapers and magazines, public databases, online professional services (provided by lawyers, accountants, medical doctors etc.), financial and insurance services, marketing and online advertising. The Directive does not apply when one of the entities involved in supplying or consuming the online services is not part of the European Union. In this case, the Directive recommends the usage of regulations issued by international

entities such as the World Trade Organization (WOT), Organization for Economic and Commercial Development (OECD) or United Nations Commission on International Trade Law (UNCITRAL).

Regarding the electronic commerce – selling goods and services over the Internet – the European Union issued in 1997 *The Distance Selling Directive*, as an add-on to *The E-Commerce Directive* and laws of each member state. The Directive specifies that the supplier has to provide the consumer with clear and precise information regarding:

1. The supplier's identity and address;
2. The characteristics and prices of products and services sold;
3. Transportation's cost and duration;
4. Details regarding the possibility of returning the products;
5. General conditions related to the commercial transaction;
6. Payments and delivery methods; and
7. Valid period of the offer or price, when it is the case

A special directive was also created for regulating the principles of electronic signatures – *The EC Framework Directive for Electronic Signatures*; in essence, it outlines the validity and legal effects of electronic signatures and the liberty of certification authorities.

The Electronic Money Directive establishes that approved institutions may issue electronic money at European Union's level based on the license obtained in one of the member states.

To ensure privacy and confidentiality, the European Union issued *The Data Protection Directive*, aimed to sustain the free movement of data and information within the Union, under the condition of protection of the individuals' fundamental rights and liberties. The Directive guarantees the confidentiality of electronic messages and forbids any kind of interception; the Directive also guarantees that personal information may be collected and used only in specific, well explained and justified situations.

In regards to the *intellectual property*, EU defined a set of directives that regulates: legal protection of computer programs; legal protection of databases; industrial property protection: trademarks, industrial designs, Internet domain names, etc; rights related to leasing and loan; cable and satellite broadcasting.

4. Current legislation regarding Internet transactions

Starting in July 2007, The United States Congress ratified a set of basic principles regarding e-commerce, comprised in the *A Framework for Global Electronic Commerce* report. The report defines the strategy of the American Administration in relation to the official support given to Internet-conducted

businesses and to strengthening the confidence of consumers in using electronic networks for commercial activities. The report establishes five basic principles which governments should take into consideration when developing the national legislative framework for electronic commerce:

1. Private sector should be the main engine for e-commerce development;
2. Governments should not impose unnecessary restrictive measures over electronic commerce activities;
3. Governments implication should be limited to developing the necessary legislation needed for the deployment of electronic commerce activities;
4. Acknowledge the unique qualities and benefits of the Internet; and
5. Worldwide encouragement of the Internet-based electronic commerce.

Besides the five principles mentioned above, the report contains a set of nine recommendations needed for developing key e-commerce related activities: Taxes and Duties, Electronic Payment Systems, Single Commercial Code of Conduct for Electronic Businesses, Protecting the Intellectual Property, Confidentiality, Security, IT&C Infrastructure, Accessing Content, and Technological Standards.

In 2001, the Science and Technology Committee from the US Chamber of Representatives elaborated the law proposal known under the name of *The Electronic Commerce Enhancement Act of 2001*. The law stipulates the necessity of promoting the electronic commerce; in this respect it invites the National Institute of Standards and Technologies – NIST to develop a detailed plan aimed to encourage the implementation of e-business technologies by small and medium enterprises. The document outlines the need to identify practical measures that should be taken to increase the e-commerce interoperability and standardization of electronic order processing and payment.

Currently there is no worldwide common point of view on the subject of the legislative framework needed for settling the e-commerce related activities and policies; United States of America fairly regulates while the European Union prefer developing a complex long-term legislative framework, with various flavors at countries-level (Roșca et al., 2006).

From many points of view, the electronic commerce transactions or, at a wider level, the e-business relationships are not radically different from the contractual terms encountered in the physical space; the international set of law and regulations are applied similarly in the real economy and in the virtual one. In the particular case of the European Union and United States there is also the need of harmonizing the union or federal laws to the individual regulations defined at country or state level. While in the United States the regulations adopted at state level outgrown the amount of laws ratified at federal level, in

the European Union the situation is reversed; the legislative principles adopted at Union level exceeded the amount of regulations defined at individual country level, and are in the process of being applied to member and candidate states.

Comparing to the American legislation, the European rules regarding electronic commerce are quite complex. This complexity is mostly due to the big number of independent nations that make up the European Union, the cultural and legislative diversity of the member states.

At the beginning of year 2000, during the European Council meeting at Lisbon, the head of states from the Group of 15 have declared as one of their major objectives that Europe should become “*the most competitive and dynamic knowledge-based economy based in the world*”. As a result, in June 2000 the first version of the *eEurope* Action Plan has been launched. At that moment, the *eEurope* initiative’s main purpose was to connect online, as soon as possible, each European citizen, school and organization, establishing three major action items: 1. *Cheaper, quicker and safer Internet*; 2. *Invest in people and skills*; 3. *Stimulating the Internet usage*.

At the beginning of year 2001 the European Union started to elaborate a legislative framework designed especially for the candidate countries, known as the “*eEurope+ 2003 Action Plan*”, together with the *eEurope2005* – “*An information society for all*” strategy. The *eEurope+* actions referred to the three main objectives of *eEurope*, adding a fourth one – *the acceleration of finalizing the infrastructure needed for the Information Society*.

The *eEurope2005* plan focused on extending the previous connectivity objectives in those directions so that Internet would support an increase in economic productivity, quality and accessibility to information services for all European citizens, based on a safe broadband communication infrastructure. The initiative established the main objectives needed to be achieved in 2005: *modernize public services, develop a dynamic electronic business environment, develop a safe information infrastructure, provide access to inexpensive broadband services, identify, measure and deploy best practices and experiences*.

In 2005 the *eEurope2005* plan has come to an end, and the European Commission started to elaborate the development strategy for 2006-2010: *i2010 – A European information society for growth and employment*. *i2010* currently represents the regulatory framework for the development of the information society and media in the European Union, promoting the positive contribution that IT&C can make to economy, society and personal quality of life. The main objectives of the *i2010* strategy are: 1. *Creating a single European information space meant to develop the media and informational services market based on open competition*; 2. *Promoting the innovation and investment in research*;

3. *Facilitating wider inclusion, better public services and quality of life through IT&C* (http://ec.europa.eu/information_society/eeurope/i2010/index_en.htm).

From the digital consumer rights perspective, one of the most interesting programs included in i2010 is the *eYouGuide to your rights online*, launched in May 2009. (EYUGUIDE). The program's approach is a very practical one, offering a simple online assistance tool (Frequently Asked Questions) referring to the rights of consumers in the digital space:

1. *Protecting privacy*: tips and precautions citizens should take in order to prevent misuse of the personal information online: Internet services and email, advises related to uploading personal information online, confidentiality of email and internet phone calls, shopping online, online payment safety;

2. *Being informed*: what citizens should know when dealing with online sellers and service providers, obligations of the Internet services providers, information that should be expected when shopping online.

3. *Terms & conditions*: what citizens should know about the consumer contracts, unfair terms and delivery of goods bought online, importance of the terms and conditions specified on the online shopping sites, rights and obligations in respect with delivering goods purchased online;

4. *Advertising & offers*: illegal offers, advertisements and other unfair commercial practices online consumers should be aware of (spam, illegal fees and taxes, promotions addressed to children);

5. *Safety & Security*: concerns about the security of consumer's computer, Internet connection or safety of online payments. Risks of using social networks and uploading personal data on various web sites;

6. *Copyright and Intellectual Property Rights*: what consumers should know about their rights and obligations related to music files, movies, CDs and DVDs and books online. Legal information related to downloading and using films, music, recording video and audio streams, uploading music on file-sharing networks;

7. *Protecting minors*: how to protect children from harmful online content, controlling children access to video games, specific sites;

8. *Disabled, older people*: access to and use of online services for older people and people with disabilities;

9. *Who's liable?*: how to find who is responsible for illegal online content and for faulty goods sold or advertised on the internet; and

10. *Taking action, redress*: enforcing consumer rights – how and where consumers can report abuses, illegal taxes, make claims related to the overall Internet services quality.

Romania's legislation is aligned to the European framework, enforcing it with several national laws applied to IT&C and digital economy:

1. *Laws regarding electronic commerce* (Law of Electronic Commerce No. 365/2002 modified by the Law No. 121/2006, Law No. 51/2003 regarding the juridical regime of contracts concluded at distance);

2. *Laws regarding authoring rights* (Law No. 8/1996, Methodology regarding use of musical products over the Internet)

3. *Laws regarding the electronic signature* (Law of electronic signature No. 455/2001, Law regarding the electronic archiving of documents 135/2007, Law regarding the recording of commercial operations through electronic means No. 260/2007, Decision regarding the procedure of checking and approval of information systems used for issuing electronic No. 888/2008);

4. *Laws regarding electronic payments* (National Bank's Regulation from 2006 regarding issuing and using electronic payments and Order of Communications Information Systems Ministry No. 389/2007 related to the approval of distant payments using Internet Banking, Home Banking or Mobile Banking applications);

5. *Laws regarding online advertising* (Law No. 140/2000 regarding the advertising, Law No. 365/2002 for electronic commerce, Law No. 506/2004 regarding the processing and usage of personal data and protection of private life);

6. *Laws regarding the private life* (Law No. 677/2001 for protecting the individual in relation with the usage and circulation of personal data, Law No. 506/2004 regarding the processing and usage of personal data and protection of private life, Law No. 298/2008 related to the preservation and archiving of information generated or processed by electronic communication providers). In this area, it is interesting to outline the fact that in October 2009 the Constitutional Court of Romania decided that the dispositions specified in the Law No. 298/2008 related to the preservation and archiving of information generated or processed by electronic communication providers, together with the Law No. 506/2004 related to processing and usage of personal information are un-constitutional, by limiting several fundamental rights of the individuals related to the private, family and intimate life, the secrecy of correspondence, the right to free expression, in a manner that contravenes to article 53 of the Romanian Constitution. This decision created a precedent at the European Union's level, given also the fact that the same type of discussions related to the respect to the private life occurred in other countries (Bulgaria, Czech Republic or Germany).

7. *Laws regarding informational criminality* (Law No. 64/2004 for ratifying the European Council's Convention related to informational criminality);

8. *Laws regarding pornography over the Internet* (Law No. 196/2003 for the prevention and fight against pornography); and

9. *Laws regarding electronic communications* (Law No. 304/2003 for the universal service and consumer rights related to the usage of electronic networks and communications, various regulations and norms related to the interconnections of public electronic networks, postal services, etc).

5. Case study about e-commerce usage

We have conducted a survey using the support of an e-commerce site in order to analyze the impact of the electronic commerce in our country. In this case study we have tried to record the opinions of the e-commerce users, be they good or bad. Our goal was to render the most interesting ideas that came from the results of that survey.

We have set up a 12 questions form for this analysis. The first eight questions were addressing the subject's opinion on e-commerce. The questions dealt with both quantitative and qualitative issues. The last two questions were added in order to define the profile of the subject, and two open questions were appended at the end.

The subjects of the survey were selected from the current visitors of an e-commerce website (circa 4,000/ week). Given the uneven distribution of the visitors during one day, as well as during a week, the observation was made during a week in order to record all the aspects related to sample of visitors. An algorithm was created to help our attempt to get the real structure of the group of visitors. Thus, each 40th visitor was asked to reply to the survey. Number 40 was chosen to be able a sample of 100 responders.

The answers were collected online, through a server side application and they were stored in a database. Following the collection, the data was processed through an application server side which returned statistical reports.

According to the replies, it was noticed that a large number of the e-commerce users had higher education and training, most of them having university degrees (78%), while 19.98% had secondary education and the rest of 2.02% stands for other categories.

According to Table 1 younger users prefer e-commerce when shopping for goods and services.

Table 1

Age structure

Age	Percentage
14..20	8.16
20..35	71.42
35..60	4.08
60 <	6.12

The advantages of using Internet are relatively well known. Over 67.34% of the users find the e-commerce service accessible, easy to use and efficient. Most of them admitted the utility of this service in general and the users emphasized in their answer to the open questions the ease of using e-commerce from different locations, without the need to be present at a specific location. Users also highlighted the feature of comparing prices of identical products, but offered by different e-commerce sites so that eventually they will be buying at the best price.

Another important aspect is the frequency with which a user returns to the Internet in to buy a new product, so that an appropriate informational structure can be defined for the providers of such services. There could be noticed that the users return several times per month for a new acquisition via the Internet (Table 2).

Table 2

Usage frequency in e-commerce

Usage Frequency	Percentage
Several times a month	40.81
Several times a quarter	30.83
Several times a year	18.36

The answers at the fifth question should trigger some alerts. When asked whether they will choose to return to e-commerce websites, the large majority responded that they intend to continue using this service. An issue was noticed in the case of the large number of subjects who are not decided (24.48%) and who will not buy on-line (4.08%). This is caused by the large number of vendors that are not providing quality services, which is the result of not using the e-commerce services at a large scale, because of the existing legislation related to the online consumer protection, but also because the existing Romanian communication infrastructure, which, although is progressing, the results are showing very slow.

The large amount (74%) of those who have used the e-commerce based on the recommendation of a friend emphasizes the fact that the individuals are reluctant to changes and this is also shown by the relatively small number of the

people who use the new electronic technologies, according to the survey of ANC (National Agency for Communications) in 2008.

The questionnaire shows that in Romania the primarily sold products via e-commerce are IT products (more than 20% of total products sold via e-commerce), while the main carrier remains the Romanian Post or other forms of courier services (Table 3). Next, after the IT products, there are virtual bookshops, photo, electronic devices and mobile phones.

Table 3

Structure on products	
Products	Percent of total online sales (%)
IT products	22
Books	17.5
Photo	16
Electronic products	13.4
Telephones	12.1
Other	19

The payment of the products bought on-line is still made at delivery, in cash, both because few virtual shops offer the option to pay on-line via credit card, and also because of the limited trust shown by the Romanian citizens in the electronic payment systems via Internet. In 90% of the cases, the payment is made offline, at delivery, refund, postal mandate, and only in 10% of the case the order is made entirely online (including electronic payment).

The most popular method to place orders online is the “shopping cart” in 70% of the cases, followed by telephone order (12.1%), online form (10%), e-mail order (6.7%) and electronic bids (1.2%).

Other relevant aspects of our survey are derived from the open answer questions. The most often proposals coming from the buyers refer to the payment options and to increase the interactivity degree. There is also a concern related to the increase of the security and safety of the transactions; with more of the answers being related especially to the legal aspects of Internet transactions. There are also some technical suggestions, such as using mobile devices for online purchases. New accessibility opportunities are resulting from the exponential growth of mobile technology in recent years, increasing availability of network infrastructures, advances in wireless technologies and popularity of handheld devices (Boja, Bătăgan, 2009).

The general picture of the e-commerce usage shows a large number of users who consider that this service has a certain utility for their own activities and these are at the same times those who make recommendations to other persons.

Many of the people that find electronic commerce useful have listed in their answers to the opened question a number of disadvantages:

1. insufficient information on current legislation (such as 10 days to return the product);
2. failure of existing legislation on electronic commerce;
3. insufficient advertising;
4. lack trust in the provided services;
5. there is a cumbersome system of placing an order;
6. lack of search functionalities; and
7. accessibility and communication difficulties.

Having the possibility to use distance communication technology, the e-commerce could be considered a real solution for those who have no time to go to shopping, or those who are in a different location than products sold, or who can't go because some other personal issue.

6. Conclusions

According to our study, individuals are willing to use e-commerce services, leading to reduced costs and use of the available funds with increasing positive returns, to significant decrease in corruption, and to a new operations process for companies. A study commissioned by ANC and realized by RomCard to evaluate e-commerce market in Romania in 2008 shows that the number of online stores in Romania will continue to increase by 50% annually in the 2009-2011 period, reaching up to 3,000 stores that will carry functional activities of commerce via Internet (<http://www.izzisale.ro/Studiu-eCommerce-ANC.pdf>).

The e-commerce has an ascending growth rate, ending the first half of 2009 with 570,000 transactions and a total volume of 43.5 million euro, up 68% from the same period last year, according to RomCard. And forecasts for 2010 are optimistic, the development in electronic commerce, ePayment and RomCard are estimated to lead to a 30% increase in online credit card transactions.

It is estimated, however, that the multiplication of electronic commerce transactions in Romania will follow the western model of development by 2009, with the increasing number of Internet users, broadband infrastructure and general improvement of living standards and purchasing power. Thus, market analysts estimate that the Romanian market of electronic commerce will triple in the next annual period.

In conclusion, internationally Romanian consumer has started to diversify their needs and requirements, seeking not only a product, but a set of services

associated with it, too. The offer became more diversified, the number of companies operating in the online business has grown, and their need to retain customers has become increasingly important.

The electronic commerce development depends on the evolution and overall quality of telecommunication networks and the equipments that are connecting to it. In many countries the state of telecommunication systems can not yet develop advanced digital networks. It is recommended that their government gets involved to encourage competition in the IT and telecommunications market, to reduce import duties, and to reduce tax levels for companies and services in the area.

References

- Boja, C., Bătăgan, L., „Software Characteristics of M-Learning Applications”, *Proceedings of 10th WSEAS International Conference on Mathematics and Computers in Business and Economics* (MCBE'09), Prague, Czech Republic, 2009, pp. 88-93
- Doukidis, G., Mylonopoulos, N., Athanasia (Nancy), P., „Social and Economic Transformation in the Digital Era”, 2004, Publisher Idea Group, [Online], disponibil la: http://books.google.ro/books?id=YdICTQsmxzQC&printsec=frontcover&dq=Social+and+Economic+Transformation+in+the+Digital+Era&source=bl&ots=TXmAFYV7e5&sig=VMUBQA7nVFH52dp0XRvcwn_KgOo&hl=ro&ei=HbFiS4efHdeJ_gbK6vDtAw&sa=X&oi=book_result&ct=result&resnum=1&ved=0CAwQ6AEwAA#v=onepage&q=&f=false
- Ghilic-Micu, B., „Afacerile în Economia Digitală”, *Informatica Economică*, nr. 3(23), 2003, pp. 30-36
- Mărășescu, A. (2007). *Managementul afacerilor electronice*, Teză de Doctorat
- Mendes, M. J., Suomi, R., Passos C., „Digital Communities in a Networked Society”, 2003, E-Commerce, E-Business and E-Government Publisher Kluwer Academic, [Online], disponibil la: http://books.google.ro/books?id=IHFnb5CAC&printsec=frontcover&dq=Digital+Communities+in+a+Networked+Society+E-Commerce,+E-Business+and+E-Government&source=bl&ots=VoTzFCrAFm&sig=6n2PGz7BBOCMjTK2xzKQ9bzx2CE&hl=ro&ei=rMBiS9ORB6Hc_QbD18H1Aw&sa=X&oi=book_result&ct=result&resnum=2&ved=0CA4Q6AEwAQ#v=onepage&q=&f=false
- Pocatu, P., Boja, C. (2009). *Caracteristici și metrici de calitate ale procesului de m-learning*, Nr. 26, pp. 346-355
- Roșca, I. Gh., Ghilic-Micu, B., Stoica M. (coord.) (2006). *Informatica Societatea informațională. E-serviciile*, Editura Economică, București
- Roșca, I. Gh., Nicolescu, O., Trandafir, I., Isaic-Maniu, I., Uscatu, C., „O evaluare a adaptării e-business în România din perspectiva IMM-urilor”, *Informatica Economică*, nr. 3, 2002, (pp. 126-131) și 4 (pp. 10-20)
- Stoica, M., „Organizarea virtuală a întreprinderii”, *Informatica Economică*, Nr. 19, 2001, pp. 24-28

- Surcel, T., Dinu, V., „Auditul comerțului electronic în relație cu protecția consumatorilor”, *Amfiteatru Economic*, no. 21, 2007, pp. 115-120
- Yi-chen, L., „Global information society: operating information systems in a dynamic global business environment”, 2005, Publisher Idea Group, [Online], disponibil la: http://books.google.ro/books?id=9RbOjX9JS28C&pg=PA16&lpg=PA16&dq=Global+information+society:+operating+information+systems+in+a+dynamic+global+business+environment&source=bl&ots=ui4s7EPFi5&sig=ukcz2gy1uruJKTUs_KlXIY9IVss&hl=ro&ei=tbBiS4nzNZmf_AaywNCDBA&sa=X&oi=book_result&ct=result&resnum=1&ved=0CAwQ6AEwAA#v=onepage&q=&f=false
- European Comission, Information Society, 2010 http://ec.europa.eu/information_society/eeurope/i2010/index_en.htm [Accesat 28 August2010].
- European Comission, Economica land Finacial Affairs http://ec.europa.eu/economy_finance/eu/countries/romania_en.htm [Accesat 28 August2010].
- Europe's Digital Competitiveness Report, Volume 2: i2010 — ICT Country Profiles, Bruxelles, 04.08.2009 - http://ec.europa.eu/information_society/eeurope/i2010/docs/annual_report/2009/sec_2009_1104.pdf [Accesat 28 August2010].
- Government of Romania <http://unpan1.un.org/intradoc/groups/public/documents/Other/UNPAN036099.pdf> [Accesat 28 August2010].
- Studiu privind dezvoltarea comerțului electronic în România <http://www.izzisale.ro/Studiu-eCommerce-ANC.pdf> [Accesat 28 August2010].
- Legi și reglementări privind comerțul electronic <http://www.epayment.ro/articole/legislatie/legi-reglementari-comert-electronic.html> [Accesat 28 August2010].
- Drepturile digitale eYouGuide http://ec.europa.eu/information_society/eyouguide/index_en.htm [Accesat 28 August2010].
- Directiva 98/48/EC <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1998:217:0018:0018:EN:PDF> [Accesat 28 August2010].
- National Institute of Standards and Technologies <http://www.nist.gov> [Accesat 28 August2010].
- Sistemul Electronic National www.e-guvernare.ro [Accesat 28 August2010].
- Sistemului Electronic de Achiziții Publice – SEAP, www.e-licitatie.ro [Accesat 28 August2010].
- E-România (www.romania.gov.ro) [Accesat 28 August2010]

The Public Pension System of Romania between Crisis and Reforms. The Case of Special Pensions System

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Abstract. *The public pension systems have real difficulties, at the international level. The public authorities take different measures to reform the system, the multi-pillar system being considered as a “miraculous” solution. The incidence of the political factor is significant for the particular reforms and the social inequities will remain, no matter the specific efforts, as long as the interests of the financial institutions and the political factor stay strongly interconnected. Special pensions raise political and academic debates, mainly for the sums received by their beneficiaries. In this study we analyse the actual stage for the specific reforms and the degree of social inequity for the special pension case.*

Keywords: social security; revenue redistribution; public pension reform; social equity; special pensions.

JEL Codes: G23, H55, J26.

REL Codes: 7G, 13J.

1. Introduction

When Central and Eastern European countries began socio-political and economic transformations in the late 1980s, all countries started the process of reform of their public pension systems as well. From 1991, Romania had started the reform in this important area, but the inequalities in the public pension system were not solved even after 20 years.

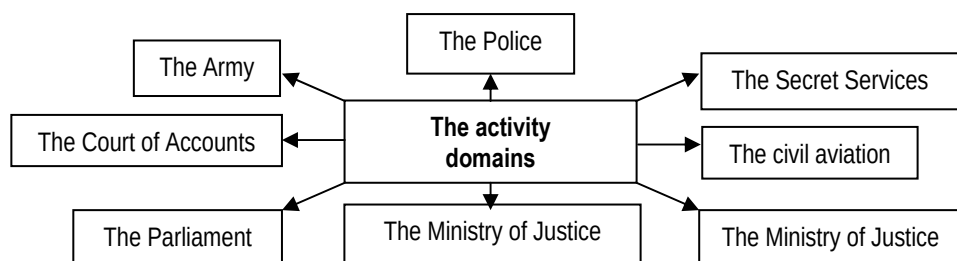
State actions, through its pension reforms, can distribute the economic costs of reforms unevenly across different groups. Researchers should thus consider the intersection of age relations with other inequalities, including gender and social class (Calasanti, Slevin, 2001). In this paper, we analyzed the intersections of age, retirement age required by the law, the period of contribution to the public pension system and social class by evaluating the extent to which persons of certain age groups and social classes are differently affected by the radical transformations of public pension systems in Romania.

Generally speaking, *social equity* (Adams, 1963, 1965, Thibaut, Walker, 1975) has been defined as a theory that explains how individuals evaluate the level of investment they make in an exchange situation against the level of benefit received by their exchange partner and can be described in various ways including consistency in their treatment, judgments made about the level of outcomes being in proportion to their inputs and according to the principle of reciprocity (Park et al., 2010). Specifically, the inequities in the public pension system are common phenomena in several countries of Central and Eastern Europe, as is the case of Poland, a country with which we are alike in many ways. We will make a comparison for the special pension case between those two emergent countries in the next sections of the article.

An accurate social equity definition is also provided by Ciucur et al., 2004, who state that *it challenges the equality of rights for the generations that are coexisting and they are coming-next-after in life*. In the context of public pensions, we consider that this definition emphasizes the fact that people must have the same rights (including the amount money that they receive during the retirement period), for the same paid contributions in their active life. Otherwise, the opposite situation will generate irritation among the individuals that are hampered by the unjust system.

The article 47 from the Constitution of Romania stipulates that *The State shall be bound to take measures of economic development and social protection, of a nature to ensure a decent living standard for its citizens*. The real situation is, to a certain extent, different from the cited principle from the Constitution, because at this time there are huge discrepancies between the pensioners' incomes. According to the National House of Pensions and Other

Social Security Rights, the average pension received in June 2010 by an ordinary retired individual was 740 ROL, much lower than the one received by an individual who has worked in the civil aviation that was 9169 ROL. Thus, we consider that an ordinary retired individual who lives in Romania doesn't have a respectable living standard. Even if during his active life the person who has worked in the civil aviation had earned much money than the other one, though the differentiation among their incomes wasn't so large. For making possible the existence of the special pensions, the difference between these ones and the real pension is financed from national budget⁽¹⁾.



Source: Our own findings.

Figure 1. *The privileged sectors with special public pension*

In the Romanian economy strongly affected by the financial crisis, the social security budget has a huge rising deficit, estimated to reach at the end of 2010, about 1.7 billions euro. The financial practitioners' expectations regarding this deficit⁽²⁾ were among the reasons to have a negative perception, in the mass media and among the majority citizens, against the amount of money received as special pension, by the individuals who have worked in certain privileged economic sectors, as: the Army, the Police, the Secret Services, the Court of Accounts, the civil aviation, the Parliament, the Ministry of Justice and the Ministry of Justice.

This study is structured as follows: in Section 2 important aspects regarding the pension system reform were presented in an international context, in Section we analysed the most important legal provisions regarding special pensions in Romania. Section 4 presents some important statistical data for Romania in order to reveal the inequities from the public pension system, especially determined by the social class. Sections 5 contain some particular issues regarding the legal differences between "ordinary" public pension and the special ones, with numerical results related to the dissimilarities regarding the pension's specific calculation formulas. Finally, we have the conclusions of the study.

2. The pension system reform between necessity and fulfilments. A brief analysis in an international context

After the falling of communism, East European states had to rethink the entire pension system philosophy and to implement radical reforms. Among the factors that made the reform in CEE necessary, the most important were considered: the demographic tendencies, the informalization of economy in post-socialism, the diminishing of the state's tax collecting capacity, the migration towards the West of Europe for a significant part of the active population, the devaluation of the reserves held by the pension funds in the context of a considerable inflation rate during the transition period (Rutkowski, 1999, Kritzer, 2002, Schmahl, Horstmann, 2002, Schmahl, 2002, Fultz, 2003, Rein, Winfried, 2004).

The reforming of the pension systems and of those of social protection for the third age are problems which present interest in an international context: Western Europe, North and South America, or Central and Eastern Europe (CEE). Advised by the World Bank, many of these countries considered necessary to create a multi-pillar system that would take a part of the pressure over the public budget. Experiments were made, for the first time, with questionable results, in Latin America (Orszag, Stiglitz, 2001, Mesa-Lago, 2002, Stiglitz, 2002). The public system is also affected by the low level of absorption in certain economic sectors, because of the low possibilities of professional re-conversion, especially for the age group of 50-60 years (Pelleg, 1998). In these conditions, appears a complementary effort from the part of social security budget, because there is the obligation of additional payments for the anticipated pensions. In the same time, international institutions like the World's Bank and the IMF insisted that the CEE countries to adopt a multi-pillar pension system offering the example of the states that have already implemented such strategies, and insisting on the macroeconomic correlations awaited between the development of the private pensions system, the development of the capital market and the economic growth (Impavido, 1997, Muller, 1999, Srinivas, Whitehouse, Yermo, 2000).

Arza (2008) made an interesting diagnostic analysis of the mixed pension system established in Argentina in 1994 and notes that "over the past two decades, major transformations of social security systems have taken place worldwide. Ten Latin American countries have privatized part or all their pension arrangements, and similar processes can be found in nine Central-Eastern European and ex-Soviet Union countries. Other Western European countries (such as Sweden, Denmark, and Italy) have also created individual funded accounts as a new layer of their dominantly public system of old-age

income protection. Nowadays there are roughly 23 countries which have mandatory systems of private individual accounts and many others where private arrangements are voluntary” (calculated from International Social Security Association Database *Social Security Worldwide*).

The integration in the European Union (EU) of most CEE countries made the EU undertakings to facilitate the pensions’ transferability inside the Union and made the prudent person principle as a premise for the pan-European reform of the pension system to be an actual issue in the Eastern Europe, too (Fultz, 2003, Wagner, 2005).

The viable solutions were those of creating of the pillar II (privately and compulsory administrated), III (privately, but facultative administrated), and even a pillar IV (privately, and also facultative administrated), especially created in countries like Bulgaria and Hungary, for the stimulation of investments on a larger trellis of actives (obligations, mutual funds, commerce effects), than that allowed for pillar II and III (Zoltán, 2004).

Due to the population ageing, the active part of the population diminishes and each country must implement particular reforms, depending on the social aspects that must be considered (Harris, Painter, 2002). The success of these reforms is sustained by the existence of over 20 million clients (pillar II and III), in Poland, the Czech Republic, Bulgaria, and Hungary (representing about 31% of the population).

Arza (2008) correctly pointed out that “private pensions could be less susceptible of political manipulation, due to property rights and private management: political pressures for poor design features – such as early retirement, non sustainable pension levels, and hidden redistribution to influential groups – are avoided because each person’s contribution determines the benefits that retrench). Competition and choice were two additional elements attached to funding and private management. Competition between administrators was expected to increase efficiency in capital allocation (World Bank, 1994), while individual choice would make the competitive system work better by encouraging firms to be more efficient”.

It can not be underestimated the theory according which the design of one pension system is the result of political compromises, too, and reflect the ideas that prevail at a given moment of time as well as the balance of power in the political process (Castles, 1982, 1993, Esping-Andersen, 1990, Korpi, Palme, 2003, Arza, 2008). Moreover, structural pension reform was considered as a politico-economic strategies of “signalling” the international community on the commitment of government toward structural change (Arza, 2008) in order to improve the country’s standing for foreign investment (see Barr (2002) and Orszag and Stiglitz (2001) for theory-based analyses). A considerable financial

literature was developed especially after 90's regarding the interest group's influence on pension systems (Verhoeven, Verbon, 1991, Breyer, 1994, Grossman, Helpman, 1998). Kemmerling and Neugart (2009) develop a model in which firms from the financial market lobby the government to lower compulsory contributions to the public pension system. Firms lobby in order to increase demand from households for their old-age savings products. They argue their theories taking two major pension reforms in Europe – UK and Germany, exemplifying the influence of financial market lobbies on pension policies⁽³⁾. The pension reform in the UK (1987) involved a significant reduction in public pension scheme and introducing a mandatory private savings with a huge development of the number of private pension contracts from 1.3 million in 1988 to 5.7 million in 1994 (Bonoli, 2000).

Pinto-Duschinsky (1989) demonstrated that roughly half of the funds for the (re)election campaign of Mrs. Thatcher and the Conservative Party was financed from the donations of the firms operating in the financial sector. "On an anecdotal basis one may note that Thatcher rewarded many of her donators directly. For instance she made them elected peers in the House of Lords so that the percentage of peers coming from the financial sector climbed steadily (Riddle, 1989; Shell, 1985). The close financial and personal ties of the Thatcher government generated well-known benefits for financial service companies in many policy areas such as corporate taxation or exchange rates (Helleiner, 1994). Overall, it is very plausible that the financial sector exerted a strong and effective lobbying on the nature of pension reform in 1986" (Kemmerling, Neugart, 2009).

The financial situation of social security in Romania (similarly with Latin American countries) had been weak for some time when reform started to be discussed. The lack of adequate actuarial basis for the pension schemes conducted to financial imbalances. The first significant moment of imbalance was in the year 1995, when revenues of social security budget (as a % of GDP) were exceeded by the social security spending (as a % of GDP) and this situation remain in this deficit until 2005. The years 2006 and 2007 were the single two years with no deficit for the social security budget from the entire period between 1995 and 2010. So, the public pension system required increasing budget transfers and it must be noted that financing problems were not just the result of system maturation. Starting from 2008, the deficit of this budget had an exponential growth, up to 2,000 millions ROL in 2008, and around 6,500 millions ROL, in November 2009. If the political factor will be taking into consideration, an interesting monthly evolution of the social security budget deficit can be observed in the year 2009, a year with disputable public election for the Romanian presidency. Therefore, the budget execution had a

deficit which rose from 400 millions ROL in January 2009 to 2.5 billions ROL in August 2009 (cumulative values from the beginning of the year) and in November 2009 was transformed in budget surplus of around 796 million ROL. In the year 2010 the macroeconomic context was changed dramatically and public accounts were less able to cope with deficits. The cumulative values of the deficit for the social security budget rose from 1.7 billions ROL in February 2010 to 2.6 billions ROL in March 2010 (cumulative values).

In Romania, as in other countries with significant problems in PAYG system, the multi-pillar pension system it was seen as an almost “miraculous” solution, in order to achieve permanent financial sustainability. But Arza (2008) very clearly pointed out the expectations and the reality regarding the two pension systems: defined contribution (DC) versus defined benefits (DB). (1) The DC system is better suited to face the demographic transition, and (2) DC system is always financially balanced because individual benefits are equal to individual contributions. But the reality is like this: “while demographic change affects PAYG systems by shrinking the contribution base (the number of workers, and hence pension system revenues), it may affect funded systems by a mismatch between supply and demand of financial or monetary assets” (Arza, 2008). The DB system sets the value of benefits and then adjusts the other parameters (contribution rates, subsidies, retirement ages, etc.) to get the resources required to pay for those benefits. The DB system sets the parameters and makes adjustments on the benefit side. “In the long-term equilibrium can be obtained, not because administration is private, nor because the system is funded, but because benefits are no longer defined and can thus adjust automatically to existing resources. The political feasibility of such a system will depend on the performance of the pension fund market and the ability of governments to contain the political and social costs of crises on benefit levels” (Arza, 2008).

The DC system is considered, in theory, very useful in order to prevent the old-age poverty. The studies realized for other countries which have experienced the multi-pillar system before Romania (and similar countries from Central and Eastern Europe) proved that in economies with significant unemployment rates, high rates of informality and tax evasion the capacity of this system to guarantee poverty prevention is extremely limited. For example, in Argentina, according to Bertranou and Sanchez (2003), only around 8% of workers who have paid contributions at some point in time do it systematically year after year – the rest have contributory gaps and may also find it hard to achieve the 30 years required to get basic benefits.

In the last few years, World Bank and different authors, such as Gill, Packard and Yermo (2005) and Holzmann et al. (2005) propose a “zero-pillar” – a non-contributory benefit specifically oriented to prevent poverty. Romania

adopts in 2009 a law referring to minimum social guaranteed public pension (Law no. 196/2009) with a monthly level of 350 ROL. In June 2010, the designation of this indicator was changed in “social indemnity for pensioners” and its level can vary depending on the evolution of the macroeconomic variables and based on the level of the financial resources (Law no. 118/2010).

Another myth regarding the DC system is about the exempt from the political risks. Barr and Diamond (2006) has demonstrated that the private pension market action under this type of risk, due to the fact that pension system parameters continued to be dependent on the political cycle and the socio-economic environment of the country. For example, the Romanian case regarding the raising of the percentage which can be invested in state bonds (up to 70% from the private pension funds’ portfolios) is not an exception. A similar case is Argentina in 2007: “in the wake of public debt default, the elimination of the maximum investment limit was a policy concerned with financing state deficit (to which pension reform had itself contributed), rather than with securing pension savings” (Arza, 2008). PAYG systems also suffered from political risks, which are well documented. But while in the old PAYG DB system pensioners could (at least in theory) claim their benefit entitlements to the state, in the new system there is no ex-ante benefit to claim: political risks are fully borne by current and future pensioners.

Generally in the European Union and particularly in Romania, the population aging and the fast approaching retirement of the large cohorts of baby-boomers put very much pressure on the PAYG pension systems. It is widely agreed that providing future retirees with benefits of similar size to that enjoyed by current generations can only come at the expense of large increases in future payroll taxes. Therefore, most industrialized countries have made various attempts to reform their pension systems, by targeting lower benefits and greater labour participation by their more senior workers (Martin, 2010). Different models were made in this context, from the original Auerbach and Kotlikoff (1987) to models of Auerbach et al. (1989), De Nardi et al. (1999), Kenc and Perraudin (1997a), Hirte (2001), Fehr et al. (2005), Rojas (2005), Fehr et al. (2003), Díaz-Giménez and Díaz-Saavedra (2009), Martin (2010), for different European countries, like Germany, Norway or Spain.

A very recent model developed by Martin (2010) reveals that all the measures which has been taken by the Spanish Government regarding the public pension system (in 1997 and 2001, respectively) completely fail and determine larger pension liabilities (the pension system would run into deficit from 2018, and the imbalance will peak around 2045, at a figure greater than 14% of the GDP). The most important changes made in these two moments were: to extent the length of the averaging period for contributing to the pension system from 8 to 15 years

and to reduce the annual early retirement penalty from 8 to 7% (1997 reform) and to extent the entitlement to retire early to all cohorts, irrespective of when they had started to make contributions, compensated somewhat by the one-year-increase in the Early retirement age (2001 reform⁽⁴⁾).

Martin (2010) takes into consideration in his model two different measures to reduce the liabilities of the public pension system: (1) delaying the legal retirement age (up to 67 years) and (2) extending the averaging period in the pension formula (from 15 to 40 years) to cover most of the individual's life-cycle⁽⁵⁾.

The public measures which had been taken in the last 10-15 years (or more recently, differ from country to country) do not include correctly the population aging phenomena into the macroeconomic model (and implicitly into the adopted regulations) because the costs are transferred to the future cohorts and reveals the unwillingness of current cohorts (who control the political process) to share a part of the future costs of aging. The proposed measures distribute the efforts both for current and future generations.

In Romania, starting from 2009, different measures were proposed and a part of them were already implemented, even if there are a lot of public voices who criticized these regulations. A new law for the public pension system was proposed by the Romanian Government, in order to reduce the deficit of the social security budget. The political principle affirmed by this public authority to be the foundation for these "reforms" is to show more consideration to the social equity concept and simultaneous to equilibrate the PAYG pension system.

So, they proposed to rise the age for normal retirement to 65 years for both women and men, to eliminate the special pensions and to recalculate them on the general basis (applied for the most part of the categories of the social contributors). The Romanian Government had in mind to reduce all the public pensions with 15% at least until 2011, in order to reduce the social expenditures, together with the other forms of public social indemnity (such as unemployment assistance, the maternity subsidies, etc.). The proposed public pension cut was considered an unconstitutional measure and is not applied, but the rest of the reductions were adopted and already put into operation through the Law no. 118/2010.

Because until August 2010 the project for the new regulations regarding a "new" public pension system is not adopted, we will analyze in the following parts of the article the measure which was considered and presented to the public opinion as the most "social equitable": the removal of the concept of "special public pension". Because the most part of the social contributors are "normal" ones (with pension calculated based on the active working life and the normal stage of contribution), it can be considered as the less disputable decision in the public pension system in this period of strong financial and economic crisis for Romania.

3. Legislative changes regarding special pensions in Romania

The second article of the Law no. 19/2000 regarding the public pension system and other social security rights, published in the Official Journal of Romania no. 140 from 1 April 2000, defines the *equality principle, which guarantees to all the participants in the public pension system, as contributors and consumers, an undiscriminating treatment as regards their rights and duties*. This principle is applied to all the participants in the public system, by using a calculation method based on the pension point's⁽⁶⁾ accumulation. The exceptions from this principle are the special pensions, which are determined on the basis of the specific laws according to the specific sector.

Table 1

Changes of the legislation for the special pensions in Romania

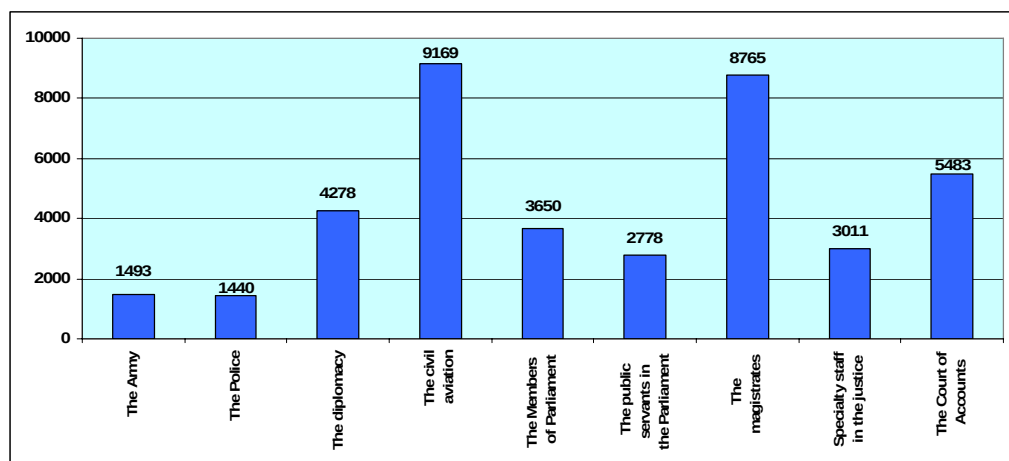
The sector	The specific legislation
The Army	The actualised Law no. 164/2001 regarding the public military pensions, published in the Official Gazette no. 748 from 14 October 2002
The Police	The actualised Law no. 179/2004 regarding the public pensions and other social security rights of the policemen, published in the Official Gazette no. 633 from 13 July 2004
The Ministry of Justice	The actualised government emergency ordinance no. 36/2003 regarding the retirement system for the diplomacy and consular members, published in the Official Gazette no. 376 from 2 June 2003
The civil aviation	The actualised Law no. 223/2007 regarding the statute of the civil aviation navigator staff from Romania, published in the Official Gazette no. 481 from 18 July 2007
The Members of Parliament	The actualised Law no. 96/2006 regarding the deputies and the senators statute, published in the Official Gazette no. 763 from 12 November 2008
The public servants in the Parliament	The actualised Law no. 7/2006 regarding the public servants in the Parliament statute, published in the Official Gazette no. 35 from 16 January 2006
The magistrates	The actualised Law no. 303/2004 regarding the magistrates statute, published in the Official Gazette no. 576 from 29 June 2004
Specialty staff in the justice	The actualised Law no. 567/2004 regarding the specialty staff in the justice statute, published in the Official Gazette no. 1197 from 14 December 2004
The Court of Accounts	The actualised Law no. 217/2008 regarding the Court of Accounts structure and operating, published in the Official Gazette no. 724 from 24 October 2008

Source: Our own findings according to the legislation for the special pensions.

4. Statistical analysis regarding the special pensions in Romania

In 2010, there are about 200,000 individuals who receive special pensions and their total cost for the public budget reach at about 1% of GDP, almost equal with the social security budget deficit. From March 2009 – since the statistics was published until June 2010, the number of the special pension's beneficiaries has increased sharply in all the sectors, between 3.8% in the case of the Parliament Members and 23.7% in the case of the magistrates. The augmentation is higher than the increase in the case of the ordinary pension's beneficiaries which was about 1.3%, during the same period of time.

We conclude that the high value of the special pensions is an incentive for the potential receivers to have an early retirement, hoping to preserve the special pension advantage for a long period of time. Another incentive for their early retirement is the approval of the Law no. 119/2010 regarding some measures implementation in the pensions' domain, published in the Official Gazette no. 441 from 30 June 2010, which will apply the same calculation regulations as for the ordinary public pensions, to these advantaged beneficiaries, excepting the magistrates.



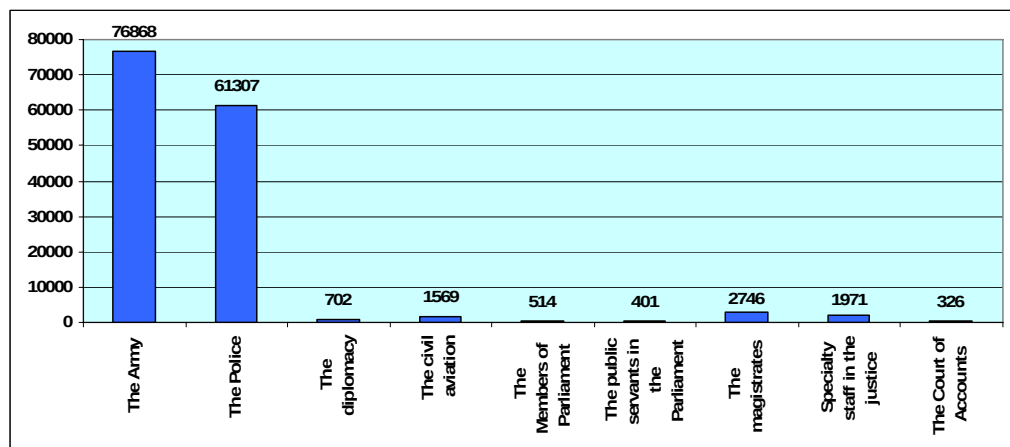
Source: Our own findings based on data from the Ministry of Labour, Family and Social Protection.

Figure 2. *The average level of the special pension received in June 2010 (ROL) in different "special" economic sectors*

Each of these advantaged sectors has its own law and there is a consistent discrimination between the specific regulations, which creates a strong differentiation between the average pensions received by their members. As we can see from Figure 2, the highest level of public "special" pension is in the civil aviation sector, about 9169 ROL, and the lowest level is in the Police, about 1440 ROL. Nevertheless, fewest privileged sector has a level of public pension double than the average one received from the social security budget.

The special pensions beneficiaries are interested to maintain their privileges and they invoke the principle that a gained right (the pension) may not be taken back. Until September 1, 2010 the special pensions will be recalculated according to the same rules for all the social security pensioners, with the exception of the pensions from the Army and the Police, which will be recalculated Until January 1, 2011.

There is not enough transparency about the special pensions' beneficiaries in relation to the sector where they have worked before. For example, we have no information about the number of the pensioners who derive from the secret services and also about the amount of their pension.



Source: Our own findings based on data from the Ministry of Labour, Family and Social Protection.

Figure 3. *The number of beneficiaries of a special pension in June 2010*

Analyzing the beneficiaries' number of special pensions we observe that most of the people have worked in the Army – 76,868 and in the Police – 61,307 and the fewest people have worked in the Court of Accounts – 326 and as public servants in the Parliament – 401. The Army and the Police have their own House of Pensions, and the social security contribution for an employee in these domains is only 5%, much smaller than the contribution for the other employees.

5. The special pensions vs. the social security pensions

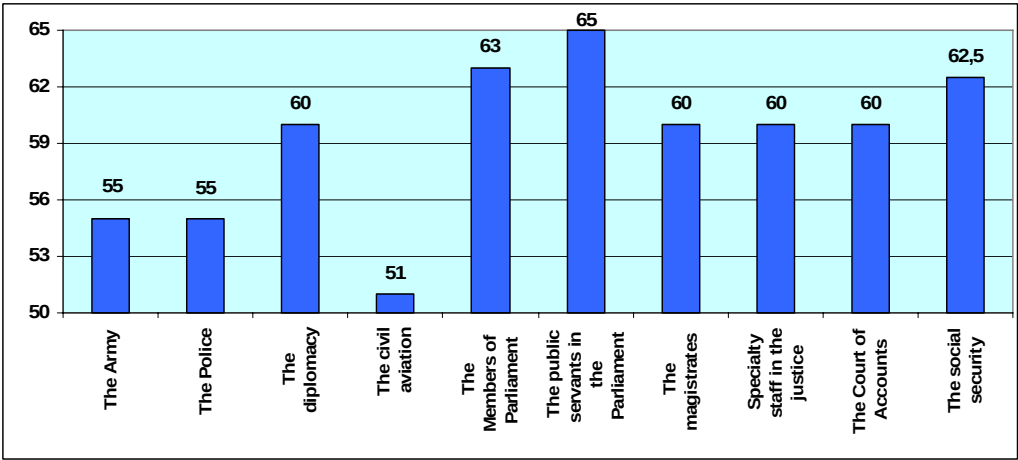
Analyzing the specific legislation regarding the special pensions and the social security pensions, we noticed that there are two major distinctions: regarding the retirement age and the complete contribution period and also the pension's specific calculation formulas.

5.1. Distinctions regarding the retirement age and the complete contribution period

According to the social equity principle, the employees who have worked in the same conditions should have the right to retire in the same moment. In Romania, there are three possible working conditions: ordinary, difficult and

special. The people employment in one working condition category is done according to the specific risks of the job.

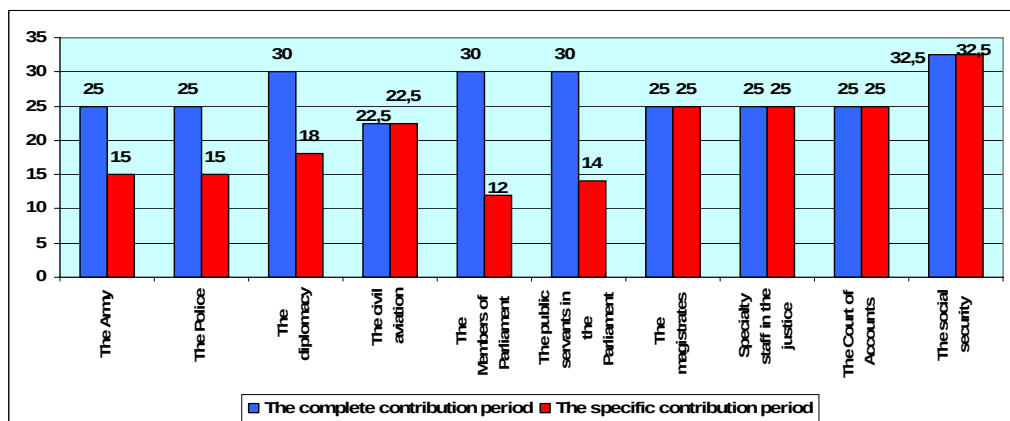
An individual who retires earlier has the opportunity to receive the pension a longer period than the one who retire lately. For example, a man whose life expectancy is 68 years will obtain the pension for 18 years, if he was a pilot and for only 3 years, if he was an ordinary employee.



Source: Our own findings according to the pension’s legislation.

Figure 4. *The standard retirement age*

From our estimations, the retirement age for the civil aviation sector is an average value between the pilots retirement age (50 years) and the technical navigator employees retirement age (52 years). We determined the retirement age for the social security as an average between the men retirement age (65 years) and the women retirement age (60 years). In the privileged sectors, both men and women retire at the same age. The earliest retirement age (51 years) is in the civil aviation and the latest one (65 years) correspond to the public servants in the Parliament and to the social insured men. The pension legislation for the workers in the Army and in the Police stipulates that they may retire starting at 50 years, if their jobs are restructured.



Source: Our own findings according to the pension's legislation.

Figure 5. *The complete and specific contribution period to the public pension system*

We determined the complete contribution period for the civil aviation sector as an average value between the pilots complete contribution period (20 years) and the same index for the technical navigator employees (25 years). We calculated the complete contribution period for the social security as a mean between the men complete contribution period (35 years) and the same index for the women (30 years). In the privileged sectors the men and the women have the same complete contribution period. The minimum complete contribution period (25 years) is in the Army, in the Police, in the magistrates' case, in justice specialty staff case, in the Court of Accounts case and the maximum complete contribution period (32.5 years) match to the social security.

The minimum specific contribution period (12 years) is for the Members of Parliament, in the magistrates' case, in specialty staff in the justice case, in the Court of Accounts case and the maximum specific contribution period (25 years) corresponds to the magistrates, to the specialty staff in the justice and to the Court of Accounts employees.

In Poland we found a similar situation, the 1991 Act maintaining the inequalities by preserving pension advantages granted to uniform-service personnel (such as the military and police) in terms of both age eligibility and benefit levels. Wiktorow (1995) showed that, as a result, many workers in these occupations could collect high retirement benefits at lower ages than anyone else, even before the age of 50, while still continuing gainful employment. The 1990 and 1991 Acts thus helped the most impoverished elderly, but also maintained a system of occupational privileges that shaped class and gender inequality among pensioners. Zajicek, Calasanti and Zajicek (2007) have highlighted that, in 1995, "the average monthly pension for both the military and the police was more than double the

pension for the general population (\$347 and \$291, respectively, compared to \$139)". In fact, in 1995, "the average salary was 32% lower than the average military pension" (Wiktorow, 1995). And a 1997 study estimated that "a retired lawyer with 40 years of employment and five years of higher education could expect to receive a pension in the amount of \$521; a skilled worker could anticipate \$277; and a nurse or a librarian about \$210" (Zienkowski, 1998) – an amount just above the minimum pension.

In conclusion, the social equity principle can not be observed, because the individuals who have worked in the advantaged domains retire earlier and have a lower complete contribution period than the social insured employees.

5.2. Dissimilarities regarding the pension's specific calculation formulas

In this chapter we will compare the pension received by nine persons (men), who had identical conditions during their active life, but each of them has worked in a different sector. We suppose the following hypothesis:

- during his active life each man started to work at the age of 25;
- the gross salary of the employee was, in the last six months, of 5,853 lei per month;
- the worker has retired as early as the specific law allowed, in June 2010.

We will establish the type of public pension he had the legal right to receive, as it follows:

a) *An employee who has activated in an ordinary sector of activity.* With the purpose to retire in June 2010, a male should have 63 years and 10 months old and he must contribute to the social security budget for 32 years and 8 months. The average gross income in Romania was 1951 ROL in June 2010, the employee has 3 pension points in the last worked month and we assume that he has an identical score for all the contribution period. The pension point value is 732.8 ROL. The social security pension is calculated multiplying the pension points number by the pension point value.

The social security pension = $3 \times 732.8 = 2198.4$ ROL, that is 2,199 ROL.

b) *An employee who has activated, in normal conditions, in the Army or in the Police sector.* He is 55 years old and he has contributed at his own House of Pensions for 30 years, as military man or as policeman. The special pension is calculated multiplying the gross salary with 60%. In addition, he will receive 2% from his gross salary, for every supplementary year above the complete contribution period (25 years).

The special pension = $60\% \times 5853 + 2\% \times (30 - 25) \times 5853 = 4097.1$, that is 4,097 ROL.

c) *An employee who has activated in the Ministry of Justice.* In June 2010 he is 60 years old and he has contributed at the social security for 35 years, as a

diplomat. The special pension is calculated multiplying the gross income of the employee by 80%. In addition, he will receive 1% from his gross income, for every supplementary year above the specific contribution period (18 years).

The special pension = $80\% \times 5853 + 1\% \times (35 - 18) \times 5853 = 5677.4$, that is 5,677 ROL.

d) *A former pilot who has activated in the civil aviation.* In June 2010 he is 50 years old and he has contributed at the social security for 25 years, as a pilot. The special pension is calculated multiplying the employee gross income average in the last three months by 80%. In addition, he will receive 1% from his gross income, for every supplementary year above the specific contribution period (20 years).

The special pension = $80\% \times 5853 + 1\% \times (25 - 20) \times 5853 = 4975.1$, that is 4,975 ROL.

e) *A former senator who has activated in the Parliament.* In the present he is 63 years old and he has contributed at the social security for 38 years and as senator for 18 years. The special pension is calculated multiplying the gross income of the employee by 80%. In addition, he will receive 1% from his gross income, for every supplementary year above the specific contribution period (12 years).

The special pension = $80\% \times 5853 + 1\% \times (18 - 12) \times 5853 = 5033.6$, that is 5,034 ROL.

We have to mention that for receiving the special pension, this employee must had been a senator or a deputy at least three times. For every fewer mandate the special pension decrease by 20%, respective 40%.

f) *An employee who has activated as a public servant in the Parliament.* In June 2010 he is 65 years old and he has contributed at the social security for 40 years and as a public servant in the Parliament for 18 years. The special pension is calculated multiplying the gross income of the employee by 80%. In addition, he will receive 1% from his gross income, for every supplementary year above the specific contribution period (14 years).

The special pension = $80\% \times 5853 + 1\% \times (18 - 14) \times 5853 = 4916.5$, that is 4,917 ROL.

g) *An employee who has activated as magistrate.* In the present he is 60 years old and he has contributed at the social security for 35 years and as judge or prosecutor for 28 years. The special pension is calculated multiplying the gross income of the employee by 80%. In addition, he will receive 1% from his gross income, for every supplementary year above the specific contribution period (25 years).

The special pension = $80\% \times 5853 + 1\% \times (28 - 25) \times 5853 = 4,858$ ROL.

h) *An employee who has activated as specialty staff in the justice.* In the present he is 60 years old and he has contributed at the social security for 35 years and as specialty staff in the justice for 26 years. The special pension is

calculated multiplying his gross salary by 80%. In addition, he will receive 1% from his gross salary, for every supplementary year above the specific contribution period (25 years).

The special pension = $80\% \times 5853 + 1\% \times (26 - 25) \times 5853 = 4,740.9$, that is 4,741 ROL.

i) *An employee who has activated as specialty staff in the Court of Accounts.* In June 2010 he is 60 years old and he has contributed to the social security for 35 years and as accounts councillor for 27 years. The special pension is calculated multiplying his salary by 80%. In addition, he will receive 1% from his gross salary, for every supplementary year above the specific contribution period (25 years).

The special pension = $80\% \times 5853 + 1\% \times (27 - 25) \times 5853 = 4,799.4$, that is 4,800 ROL.

In conclusion, there is a huge difference between the special and the social security pensions, which is due to the different calculation formulas. Thus, the special pensions are calculated as a percent from the last salary and the social security pension is determined multiplying the pension point's number by the pension point value. Frequently, the last gross salary received by a person in the public sector is very high comparing to the gross salary received by a beginner. The point's number refers to the complete contribution period for an individual, and the pension point value represent less than 40% from the average gross income.

6. Concluding remarks

The public pension system, even in the case of existence of the multi-pillar one, is in great financial difficulties both in countries from the European Union, but in other countries, too. The private mandatory pension was seen as a solution to solve a significant part of the, sometimes, huge, imbalances of the social security budgets. But the reality is somehow different, the "magic" solution is not found yet and the political risk remain one of the most significant factor for financial disturbances in the pension system, no matter the country to be analysed. This article revealed part of these attempts and problems from different countries around the world (such as Spain, Argentina, UK or Germany) and the solutions are still waiting to be find and, after that, to be applied, taking into consideration the benefits for the persons who work and paid social or individual contributions.

Another important goal of this article was to identify the degree of social inequity from the public pension sector in Romania, because we were already convinced that the simple existence of different laws and system of calculation for the public pension will not permit to have an equitable pension system.

Even if the regulations in this area were changed over the years, the significant differences between the levels of pension remain until now. The statistical data and our example, both, revealed differences between the “special” pensions and “ordinary” public pensions and even among the different types of “special” pensions. The social security pension is the small one – 2,199 ROL and the highest “special” pension – 5,677 ROL is the one deserved to the diplomat. From the retirement age point of view, the most advantaged employees are those from civil aviation, and those from the Army and Police sectors.

From the social equity perspective we consider that would be a massive improvement the special pension’s calculation as the social security pensions and the elimination in the future of the specific advantages. As a result, the social security expenditures might decline and the retired individuals would not be considered any more as a burden for the young generation, who pay contributions.

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Notes

- (1) The funding process is accomplished through the ministry specific budget.
- (2) That is very difficult to be financed during this period of time.
- (3) We motivate our argument by looking more closely at time and cross-country correlates of net-replacement rates of pension systems, the scope of the financial markets, and pension reforms for OECD countries. These descriptive statistics prompt us to analyze more deeply the interplay between financial market lobbies and governments' pension policies. We focus on a causal mechanism that has hitherto been somewhat neglected, namely that governments distort policies in favor of the financial market interests in exchange for some sort of favor that they receive from these lobbyists (Kemmerling, Neugart, 2009).
- (4) With these political measures, all the mild improvements achieved by the 1997 reform disappear. It means that the pension reductions achieved by increasing the minimum period of contribution to the public pension system from 8 to 15 are undone by the extension of the early retirement rights to all cohorts. Spain was back in the 1997 situation (Martin, 2010).
- (5) According to the model, these reforms will be “effective” to reduce the generosity of pensions and make large groups of workers willing to stay in the labor force until more advanced ages. As a result, the liabilities of the system are reduced by 25 percentage points when the pension formula extends to 40 years and by 10 percentage points when the normal retirement is set at 67 years (Martin, 2010).
- (6) This index is determined as ratio between the employee revenues and the average revenue in economy.

References

- Adams, J.S., „Toward an understanding of inequity”, *Journal of Abnormal and Social Psychology*, 67, 1963, pp. 422-436
- Adams, J. S. (1965). *Inequity in social exchange*, in L. Berkowitz (Ed.), *Advances in experimental social psychology*, Vol. 2, pp. 267-299
- Arza, C., „The limits of pension privatization: lessons from Argentine experience”, *World Development*, vol. 36, No. 12, 2008, pp. 2696-2712
- Bonoli, G. (2000). *The Politics of Pension Reform, Institutions and Policy Change in Western Europe*, Cambridge University Press, Cambridge UK
- Calasanti, T.M., Slevin, K.F. (2001). *Gender, social inequalities, and aging*, Walnut Creek, CA: AltaMira Press
- Ciucur, D., Gavrilă, I., Popescu, C. (2004). *Economie*, Editura Tribuna Economică, București
- Fultz, E. (2003) „Recent Trends in Pension Reform and Implementation in the EU Accession Countries”, *International Labour Office, (ILO) Budapest*, http://www.ilo.org/public/english/region/eurpro/geneva/download/events/trend_en.pdf
- Harris, H., Painter, T., “Global Pension Reform: World Solutions for Rebuilding, Restructuring and Reshaping the Pillars of Retirement”, *Review of Business*, vol. 23, 2002
- Impavido, G., “Pension Reform and the Development of Pension Funds and Stock Markets in Eastern Europe”, *Economic Policy in Transitional Economies*, no. 7(3), 1997, pp. 101-135
- Kritzer, B.E., “Social Security Reform in Central and Eastern Europe: Variations on a Latin American Theme”, *Social Security Bulletin*, no. 64(4), 2002, pp. 16-32
- Mesa-Lago, C., “Myth and Reality of Pension Reforms: The Latin American Evidence”, *World Development*, no. 30(8), 2002, pp. 1309-1321
- Muller, K., “Post-socialist Pension Reform: Contributory and Non-contributory Approaches”, *Public Finance and Management*, no. 5(2), 2005, pp. 290-309
- Orszag, P., Stiglitz, J.E. (2001) “Rethinking Pension Reform: Ten Myths about Social Security Systems”, *New Ideas About Old Age Security*, Washington: World Bank, pp. 17-56
- Park, J., Ellis, G.D., Kim, S.S., Prideaux, B., “An investigation of perceptions of social equity and price acceptability judgments for campers in the U.S. national forest”, *Tourism Management*, no. 31, 2010, pp. 202-212
- Pelleg, D., “Partial Work and Partial Pension”, 2nd *International Research Conference on Social Security*, 1998
- Pinto-Duschinsky, M., “Trends in British party funding 1983–1987”, *Parliamentary Affairs* no. 42, 1989, pp. 197-212
- Rein, M., Schmahl, W. (2004). *Rethinking the Welfare State: The Political Economy of Pension Reform*, Cheltenham, U.K. and Northampton, Mass: Elgar
- Sánchez Martín, A.R., “Endogenous retirement and public pension system reform in Spain”, *Economic Modelling*, no. 27, 2010, pp. 336-349
- Schmahl, W. (2002). *Introduction: Design of the Analysis, Its Methodological Approach and Basic Decisions in Designing Pension Schemes*, Transformation of Pension Systems in Central and Eastern Europe, Cheltenham, U.K. and Northampton, Mass.: Elgar, pp. 3-24
- Srinivas, P.S., Whitehouse, E., Yermo, J., “Regulating Private Pension Funds' Structure, Performance and Investments: Cross-Country Evidence”, *Schmollers Jahrbuch: Zeitschrift für Wirtschafts- und Sozialwissenschaften/Journal of Applied Social Science Studies*, no. 120(3), 2000, pp. 363-413

- Stiglitz, J.E., "Whither Reform? Towards a New Agenda for Latin America", *Prebisch Lecture, The Economic Commission for Latin America and the Caribbean*, 2002, Santiago, Chile
- Thibaut, J., Walker, L. (1975). *Procedural justice: A psychological analysis*, Hillsdale, NJ: Erlbaum
- Zajicek, A.M., Calasanti, T.M., Zajicek, E.K., "Pension reforms and old people in Poland: An age, class, and gender lens", *Journal of Aging Studies*, no. 21, 2007, pp. 55–68
- Zoltán, Á. (2004) "Pension reform in Hungary", *Research Fellow*, Kopint-Datort Rt., Budapest, Hungary, <http://www.lancutforum.com/paper/ZAdam.pdf>.
- Zienkowski, L., "Incomes of households during transition, 1989–1996", *Research Bulletin*, no. 7, 1998, pp. 5-26
- Wagner, H., "Pension Reform in the New EU Member States: Will a Three-Pillar Pension System Work?", *Eastern European Economics*, no. 43(4), 2005, pp. 27-51
- Whitehouse, E., "Pensions Panorama: Retirement-Income Systems in 53 Countries", *Washington, D.C.: World Bank*, 2007
- Wiktorow, A. (1995) "Lepsi i gorsi emeryci [Deserving and Undeserving Retirees]", *Rzeczpospolita*, no. 4, 6–7, *apud* Zajicek et al., 2007
- World Bank (1994). *Averting the old age crisis: Policies to protect the old and promote growth*, Oxford: Oxford University Press
- *** Legea nr. 19/2000 privind sistemul public de pensii și alte drepturi de asigurări sociale actualizată, publicată în Monitorul Oficial al României nr. 140 din 1 aprilie 2000
- *** Legea nr. 164/2001 privind pensiile militare de stat actualizată, publicată în Monitorul Oficial al României nr. 748 din 14 octombrie 2002
- *** Ordonanța de Urgență a Guvernului nr. 36/2003 privind sistemul de pensionare a membrilor personalului diplomatic și consular actualizată, publicată în Monitorul Oficial al României nr. 376 din 2 iunie 2003
- *** Legea nr. 429/2003 privind reaprobarea Constituției României, publicată în Monitorul Oficial al României nr. 758 din 29 octombrie 2003
- *** Legea nr. 179/2004 privind pensiile de stat și alte drepturi de asigurări sociale ale polițiștilor actualizată, publicată în Monitorul Oficial al României nr. 633 din 13 iulie 2004
- *** Legea nr. 303/2004 privind Statutul judecătorilor și procurorilor actualizată, publicată în Monitorul Oficial al României nr. 576 din 29 iunie 2004
- *** Legea nr. 567/2004 privind Statutul personalului auxiliar de specialitate al instanțelor judecătorești și al parchetelor de pe lângă acestea actualizată, publicată în Monitorul Oficial al României nr. 1197 din 14 decembrie 2004
- *** Legea nr. 7/2006 privind Statutul funcționarului public parlamentar actualizată, publicată în Monitorul Oficial al României nr. 35 din 16 ianuarie 2006
- *** Legea nr. 96/2006 privind Statutul deputaților și al senatorilor actualizată, publicată în Monitorul Oficial al României nr. 763 din 12 noiembrie 2008
- *** Legea nr. 223/2007 privind Statutul personalului aeronautic civil navigant profesionist din aviația civilă din România actualizată, publicată în Monitorul Oficial al României nr. 481 din 18 iulie 2007
- *** Legea nr. 217/2008 privind organizarea și funcționarea Curții de Conturi actualizată, publicată în Monitorul Oficial al României nr. 724 din 24 octombrie 2008
- *** Legea nr. 196/2009 privind aprobarea OUG nr. 6/2009 privind instituirea pensiei sociale minim garantate
- *** Legea 118/2010 privind unele măsuri necesare în vederea restabilirii echilibrului bugetar
- *** Legea nr. 119/2010 privind stabilirea unor măsuri în domeniul pensiilor, publicată în Monitorul Oficial al României nr. 441 din 30 iunie 2010
- *** Proiectul Legii privind sistemul unitar de pensii publice

Building a Scoring Model for Small and Medium Enterprises

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Abstract. *The purpose of the paper is to produce a scoring model for small and medium enterprises seeking financing through a bank loan. To analyze the loan application, scoring system developed for companies is as follows: scoring quantitative factors and scoring qualitative factors. We have estimated the probability of default using logistic regression. Regression coefficients determination was made with a solver in Excel using five ratios as input data. Analyses and simulations were conducted on a sample of 113 companies, all accepted for funding. Based on financial information obtained over two years, 2007 and 2008, we could establishe and appreciate the default value.*

Keywords: scoring; small and medium enterprises; credit risk management; banking system; logistic regression.

JEL Codes: C52, G21, G32, M21, O16.

REL Code: 14K.

1. Introduction

The purpose of the paper is to produce a scoring model for small and medium enterprises seeking financing through a bank loan. This has considered aspects of company management, product or service quality and customer profitability, market position, results of economic and financial, banking experience and, finally, determine customer ability to repay the loan. To analyze the loan application, scoring system developed for companies is as follows: Scoring quantitative factors (Current ratio, Duration of restraint inventory, Receivables collection period, Duration of payment of suppliers, Solvency Ratio, *Gross profit* margin, ROA) and Scoring Qualitative factors (Management, Shareholders, Market position, Transactional behavior).

We have estimated the probability of default using logistic regression - *logit* type. Regression coefficients determination was made with a solver in Excel using the following ratios as input data: working capital/total assets; gross profit/total assets; earnings before interest and taxes (EBIT)/total assets; net worth/total liabilities; sales/total assets.

Analyses and simulations were conducted on a sample of 113 companies, all accepted for funding. Based on financial information obtained over two years, 2007 and 2008 respectively, we could establish and appreciate the default value. For comparison a linear regression was used, too.

2. Scoring quantitative factors

2.1. Current Liquidity = Current Assets/Current Liabilities

Table 1

Margins and score			
Min		Max	Score
1,30	$\leq X <$		7
1,10	$\leq X <$	1,30	5
1,00	$\leq X <$	1,10	3
0,00	$\leq X <$	1,00	1

2.2. Duration of restraint inventory = No. days * Inventory/COGS

Table 2

Margins and score			
Min		Max	Score
90	$< X \leq$		0
60	$< X \leq$	90	1
30	$< X \leq$	60	2
0	$< X \leq$	30	3

2.3. Receivables collection time = *Number of days * Customer/Sales*

Table 3

Margins and score

Min		Max	Score
90	$< X \leq$		0
60	$< X \leq$	90	2
30	$< X \leq$	60	3
0	$< X \leq$	30	4

2.4. Duration of payment of suppliers = *Number of days * Suppliers/COGS*

Table 4

Margins and score

Min		Max	Score
90	$< X \leq$		0
60	$< X \leq$	90	2
0	$< X \leq$	60	4

2.5. Solvency = *Equity/Total liabilities*

Table 5

Margins and score

Min (%)		Max (%)	Score
10.00	$\leq X <$		9
7.00	$\leq X <$	10.00	6
5.00	$\leq X <$	7.00	3
	$< X <$	5.00	0

2.6. Indebtedness = *Debt/Equity*

Equity includes also loans from shareholders if they are subordinated bank debt.

Table 6

Margins and score

Min (%)		Max (%)	Score
0.00	$< X \leq$	200.00	6
200.00	$< X \leq$	400.00	5
400.00	$< X \leq$	600.00	3
600.00	$< X \leq$		0

2.7. Increased Turnover = $(S1-S0) / S0$

(Turnover this year – turnover of the previous year)/turnover of the previous year).

Table 7

Score	
Increasing trend	7
Constant	4
Decreasing trend	0

2.8. Gross profit margin = gross profit/turnover

where gross profit = turnover - cost of goods sold

Table 8

Margins and score			
Min (%)		Max (%)	Score
10.00	$\leq X <$		8
0.00	$\leq X <$	10.00	4
	$< X <$	0.00	0

2.9. ROA = Net profit/Total assets [%]

Table 9

Margins and score			
Min (%)		Max (%)	Score
5.00	$\leq X <$		2
0.00	$< X <$	5.00	0

2.10. Interest Coverage (Time interest earned) = Earnings before net interest costs and tax/Interest expense

Table 10

Margins and score			
Min		Max	Score
3	$< =X <$		10
2	$< =X <$	3	8
1	$< =X <$	2	5
	$X <$	1time	0

2.11. Risk in the FX rate = revenue/expenditure on FX

(Where neither revenue nor expenditure in FX will be given the maximum score)

Table 11

Margins and score			
Min		Max	Score
1.50	<=X<		5
1.00	<=X<	1.50	3
	X<	1time	0

Quantitative factors TOTAL: 65 points

3. Scoring qualitative factors

3.1. Management

The score given to each criterion assesses the quality of senior management and it is divided into four intervals bounded by values and corresponding grades, as follows:

-9 (very bad)	-5 (low)	0 (satisfactory)	5 (good)	9 (very good)
---------------	----------	------------------	----------	---------------

The most important and suggestive information is:

1. Previous experience and achievements in other companies or existing company.
2. Reputation and integrity of management according to a third source (the company, the business community, industry).
3. Assessment of leadership in terms of how work is organized both in terms of carrying on (set-up) and the organization.
4. Frequent changes in management team over the last three years with negative impact on company business.
5. Relationship with Bank X (refers to how customers respond to Bank requirements, transparency, flexibility etc.).
6. There is currently litigation or other potential liabilities arising from past experience with other management companies?

3.2. Shareholders

The score given to each criterion assesses the quality of senior management and it is divided into four intervals bounded by values and corresponding grades, as follows:

-12 (very bad)	-6 (low)	0 (satisfactory)	6 (good)	12 (very good)
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They established the following criteria:

1. Quality of ownership (financial analysis/listing and stock performance/references from banks or other recognized institutions, other information).

In case of individual shareholders will be considered also the personal property.

2. Reputation and integrity of the shareholders according to a third source (community business sector).

3. The shareholders successors (maximum points will be awarded if the criterion does not apply (Ex: companies listed on stock exchanges); if there is a consistent concern of shareholders on the company's development policy.

4. Involvement and support of the shareholders to the company drives (in terms of experience in the field, of financing the company or any other assistance, support).

5. There is currently a dispute or a potential obligation arising from activities of the shareholders that could affect the company image? (If no information this criterion does not apply).

3.3. Market position

Scoring offered:

-6 (very bad)	-3 (low)	0 (satisfactory)	3 (good)	6 (very good)
---------------	----------	------------------	----------	---------------

Criteria:

1. Coverage of market/market share should be judged strictly related to company size (local/national/multinational)

2. Recognition/reputation of the trademark as a result of marketing efforts.

3. Potential development opportunities? Developing core business? Entering new market segments in growing? Diversification of products?

4. Market reputation due to information received from third party/sources (customers, suppliers, competition etc.).

5. The company's ability to develop or maintain a competitive advantage to a better market position.

3.4. Transactional behavior

- Will be evaluated based on customer history from the database of the host bank and NBR (CIP and CRB) and after its availability to provide information requested by the bank.

Table 12

Transactional behavior			
	Event	Observations	Score
CIP	major incidents (prohibition to issue checks)		-2
	minor incidents, more than one case (insufficient resources to pay promissory notes)	reasonable explanation	-1
	minor incidents (one case)	reasonable explanation	0
	any incident		2
CRB x = number of days of delay	$x > 30$		-2
	$15 < x < 30$		-1
	$x \leq 15$	reasonable explanation	0
	$x = 0$		2
OUTSTANDING x = number of days of delay	$x > 30$		-6
	$7 < x < 30$	reasonable explanation	-4
	$2 < x \leq 7$	reasonable explanation	0
	$x \leq 2$	reasonable explanation	4
	$x = 0$		6
Audit opinion or CPA report	minor discrepancies		-2
	no mentions regarding potential discrepancies in financial statements		2
Transparency	opposition		-1
	can not be appreciated		0
	availability		1

Qualitative factors TOTAL: 40 points

Total factors: 105 points

Depending on financial performance and debt service, loans are classified into five categories (Table 13).

Table 13

Categories					
CLASSIFICATION					
Classification		Category	Score		
1	Standard	A	70	$\leq X <$	105
2	In observation	B	50	$\leq X <$	70
3	Substandard	C	30	$\leq X <$	50
4	Doubtful	D	15	$\leq X <$	30
5	Loss	E	0	$\leq X <$	15

Source: www.bnr.ro

After placing the credit in one of these categories the bank should determine the cost of credit that will be granted.

4. Setting score by logistic regression

Score function is a linear expression as follows:

$$Scor = b_0 + b_1 \times x_1 + b_2 \times x_2 + \dots + b_n \times x_n \tag{1}$$

where

x_i representative factors influencing the probability of default;

b_i are coefficients to be determined by the k factors.

If we consider a logistic regression *logit* type, the default probability can be written:

$$\begin{aligned} \log it(p_1) &= \log \frac{p_1}{1 - p_1} \\ &\vdots \\ \log it(p_1 + p_2 + \dots + p_k) &= \log \frac{p_1 + p_2 + \dots + p_k}{1 - (p_1 + p_2 + \dots + p_k)}, p \in [0,1] \end{aligned} \tag{2}$$

where

$$p = \frac{1}{1 + \exp(-(b_0 + b_1 \times x_1 + b_2 \times x_2 + \dots + b_n \times x_n))} \tag{3}$$

or

$$Pr ob(default) = \frac{1}{1 + \exp(-(b_0 + b_1 \times x_1 + b_2 \times x_2 + \dots + b_n \times x_n))} \tag{4}$$

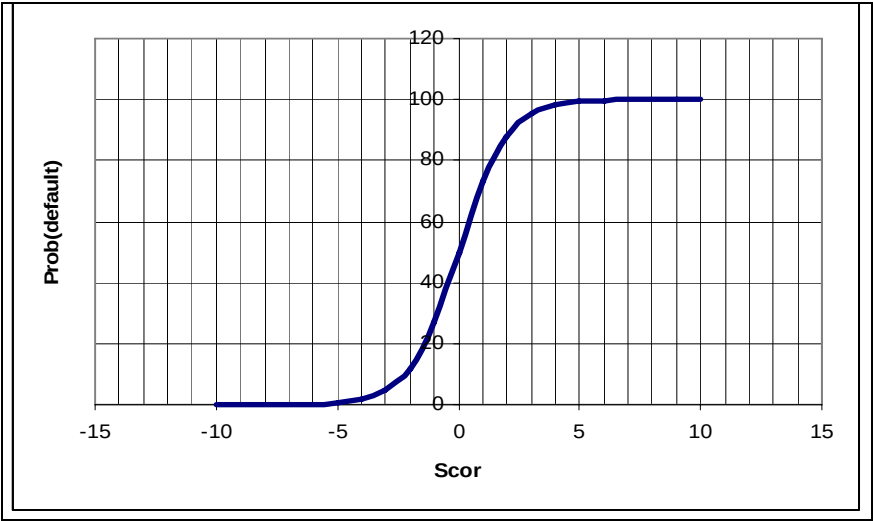


Figure 1. *Graph function LOGIT*

Regression coefficients determination was made with a solver in Excel using the following ratios as input data:

- working capital/total assets;
- gross profit/total assets;
- earnings before interest and taxes (EBIT)/total assets;
- net worth/total liabilities;
- sales/total assets.

Analyses and simulations were conducted on a sample of 113 companies, all accepted for funding. Based on financial information obtained over two years, 2007 and 2008 respectively, we could establishe and appreciate the default value.

Depending on the original values there are obtaining b_i values and their corresponding standard error (SE) (table 14).

Table 14

Coefficients		
Variable	Estimate	SE
Intercept	-4.12804	1.101179
0.639162530388979	-0.64749	2.215812
2.11E+11	-2.25454	10.05861
1.19E+11	6.440458	12.48921
1.86E+11	0.040253	0.169492
0.541852377093463	-0.87148	1.243482

In the column *Variable* is passed the first value of each vector of data considered for identifying the position of each factor and in *Estimate* and *SE* are shown the coefficients and the corresponding error.

Insert Report $t = \frac{b}{SE(b)}$. Its values are listed in Table 15.

In the logit model, the ratio *t* distribution is not similar to a classical linear regression. To make a comparison with a standard normal distribution one can introduce *p* according to the relationship:

$$p_{value} = (1 - normsdist (abs (t))) \times 2 \tag{5}$$

where *normsdist* is a command in Excel that returns the function of cumulative standard normal distribution.

Table 15

Output data for the logit function						
	CONST	WC/TA	GP/TA	EBIT/TA	NW/TL	S/TA
b	-4.12804	-0.64749018	-2.25454	6.440458	0.040253	-0.87148
SE(b)	1.10118	2.2158119	10.0586	12.48921	0.169492	1.243482
t	-3.75	-0.29	-0.22	0.52	0.24	-0.70
p-value	0.000	0.770	0.823	0.606	0.812	0.483

In non linear models estimated with maximum probability one should calculate pseudo-R ². It is calculated as one minus the ratio of estimated log likelihood (*ln L*) and a constant (*ln L* ₀). Log-likelihood probability function is given by the last iteration of the Newton procedure, already available.

$$PseudoR^2 = 1 - \frac{\ln L_{Model}}{\ln L_{Intercept}} \tag{6}$$

Table 16

Pseudo R squared	
Logit Maximum Likelihood Results For Dependent Variable: 0	
Number of X Variables	6
Iterations	10
Mean of Dep Var	0.008889
lnL	-10.8841
Pseudo R Squared	0.04834

In addition to the above values, the program displays: total number of iterations, the average distribution, standard deviation (Table 17).

Table 17

Mean and standard deviation		
X Variable	Mean	SD
Intercept	1	0
0.639162530388979	-0.00401	0.332337
2.11E+11	0.080309	0.200469
1.19E+11	0.037573	0.11534
1.86E+11	0.117623	3.424879
0.541852377093463	1.278489	1.664995

After determining the regression coefficients can be calculated probability of default by the relationship (3) or (4). For comparison a linear regression was used too. Results are presented in Table 18:

Table 18

Logit and linear default probability		
ID	Default probability(logit) (%)	Default probability (linear) (%)
1	0.66193	0.26756
1	0.53995	0.00563
2	0.89525	0.84165
2	1.05141	0.52110
3	1.01928	0.58549
3	1.54093	0.71955
4	0.21304	1.11656
4	0.87286	0.86190
5	0.16954	0.89517
5	0.77050	0.76761
6	1.29973	0.99094
6	1.56317	0.78703
7	0.98216	1.03161
7	1.48393	0.74989
8	0.61607	0.97087
8	1.38981	1.32849
9	1.18117	0.74076
9	0.99528	0.64885
10	0.03026	1.17659
10	0.12365	0.91237
11	0.85893	0.89360
11	0.79313	1.27316
12	1.00790	0.85077
12	0.66196	0.64860
13	3.57742	1.60194
13	3.38023	1.09414

From the table above it results that corporate default probabilities are very small so that the maximum probability of default for logistic regression is 3.57742% for the company corresponding to position 13, in year 2007, and 2.86947% for linear regression corresponding to position 53, year 2007.

Based on the obtained values there can be positive or negative development scenarios. A concrete example is presented for the company 13 (Table 19).

Table 19

Scenario analysis				
	WC/TA	GP/TA	NW/TL	S/TA
Scenario for variables				
better	0.10	0.65	-0.20	1.20
worse	-0.46	0.20	-1.50	0.40
Scenario default probability				
better	2.64%	2.32%	3.69%	2.81%
worse	3.75%	6.15%	3.51%	5.48%

If the company increases the value (WC/TA) to 10%, then the probability corresponding to this ratio decreases from 3.75% to 2.64%. The same process is repeated for each element analyzed.

References

- Basno, C., Dardac, N., Floricel, C. (1994). *Monedă, credit, bănci*, Editura Didactică și Pedagogică, București
- Drake, L.M., Holmes, M.J., „Adverse selection and the market for consumer credit”, *Appl. Financial Econom.*, 1995
- „Finance and Leasing Association”, London – Guide to credit scoring, 2000
- Löffler, G., Posch, P.N. (2007). *Credit risk modeling using Excel and VBA*, John Wiley & Sons, Ltd.
- Lyn, C.T. (2009). *Consumer Credit Models: Pricing, Profit and Portfolios*, Oxford University Press, USA
- Lyn, C.T., Edelman, D.B., Crook, J.N. (2004). *Readings in Credit Scoring: Foundations, Developments, and Aims*, Oxford University Press, USA
- Lyn, C.T., Edelman, D.B., Crook, J.N. (2002). *Credit Scoring and its application*, Society for Industrial and Applied Mathematics
- Mays, E. (1998). *Credit risk modelling*, Chicago Glenlake Publishing
- www.bnro.ro
- www.imf.org
- www.bis.org
- www.worldbank.org
- www.federalreserve.gov