

## The liquidity crisis of trust

“I believe that the only important hurdle on the path to global prosperity is represented by the old doctrines from which the mind of man cannot distance itself.”

**Paul Krugman**

The transmigration of economic thinking towards psychology is the most sophisticated expression of its contamination by the assumptions of ideologies. Obsessed by omnipotence, the ideologies resort to emotional thinking in order to make up for the deficit in rational consistency.

In the last two decades in particular, the failure of the economic reasoning in psychologism is a capital reason for the global crisis started in 2007. The problem of the ideologies is a part of the exit from the crisis. The solution to this problem does not imply the extinction of ideologies, but the annihilation of their turbulent effect on rationality.

Born out of the impetuosity of reason of constituting the rule of existence, Economics has invented its island of rationality. However, while mankind got caught up in the priority of materialism the island of rationality became ever more cramped. Modernity's great montages animated by the ideology of winning could no longer find within rationality the adequate terrain for the foundations of their giant constructions. The new frontiers of the irrational exuberance and unidirectional expectations have become, thus, not only coveted but also unavoidable when producing wealth.

The conceptual architecture of Economics has progressively evolved from rationality to the blurry zone of expectations self-confirming in the world of profit. Today the rule of the referential game is not made by productivity for instance, but by the trust in a political instrument or in the behavior of a prosperity-producing institution. It seems foolish now to get hung up on the correspondence between the value of money and an economy's capacity of readily making available the equivalent quantity of necessary goods and services. You are branded a loony if you do not believe in the crucial role played for the economy by the public image of the central bank instead of the management of money supply. The audacity of asking for the regulation of the non-banking financial sector is punished with banishment to the gulag of socialist thinking.

What is amazing about the status of Economics as a science lies in the fact that the propensity towards psychologism of its explicative model does not occur as a project for rebuilding the conceptual unity between the human condition and human nature. The main purpose of betraying rationality was the over-certification of the virtues attributed to some theories which had become official. Instead of them simply being given up or their correction admitted, the infallible psychological component was introduced into the arsenal of arguments. The supremacy of monetary policy instruments in determining the amount of growth necessary for generating prosperity had to be preserved at all cost.

Hence ideas have been proven sufficient to themselves even if the economic reality and the rationality-island's habitat pointed to the contrary. The increasingly precarious traction capacity monetary policies could not be challenged though, for as long as it was still possible to cover the failures of brought by the miracle of trusting someone's competencies. There was a single conclusion: let us not free ourselves of the principles of the de-regulation ideology.

The fact that we are still lacking a post-crisis vision is explained by the very stubbornness with which it is insisted – for instance – on the defending of the irrational alignments of monetary theory. The violent expulsion of yet other theoretical constructions – the acquisitions of the theory of supply, the theory of development, the theory of multiple equilibriums and the theory of industrial strategies and policies among others – gives the amplitude of the irrational consequences of the sufficiency of barricade-monetarism.

The global crisis is – obviously – a fashionable theory crisis, generalized in such a way that the essential dynamic of fashion is no longer admitted (“fashion is passing!”), imposing it as the single and definitive alternative with regard to action. The very essence of liberalism has been altered!

This theory, inlove with itself, officialized and – in some places – sanctified, has unknowingly become the new monster of totalitarian thinking. “There is no alternative” is its suicidal conclusion.

The occupied land is either exploited, or scorched. This seems to be the current irrational attitude of fundamentalists. Somewhat with a behavior of a hounded predator in a world which is rebuilding its rationality, they doggedly refuse to return to the basement of the faculty of economics from Al Capone's city.

The relativization of rationality's targets through the prism of for and against psychologism of arguments for the solutions to strategic problems has led Economics into the deviant loop in which its scientific status has lost some of its relevance. The manager-ization of the recipes of profit and the personalization of success have replaced the classical economic expertise. In the vision of psychologist monetarism, virtues associated with inspiration, talent, luck, flair, lobbying etc. and also with the perfected instruments of panic, fear, violence, manipulation a.s.o. have marginalized professional action as a call to the basic principles of Economics.

In all, the present crisis is not one of the economy itself, but of that economy mixed with monetary psychologism. It is the crisis which de-glorifies the bigoted attitude which fuels irrational exuberance and makes demiurgic management possible.

Marin Dinu

# Contents

The Future of the Banking Supervision in Europe	
■ Nicolae Dardac, Elena Georgescu .....	3
The Penrose's Law and Decision-Making Processes in the Council of the European Union. Case Study: the Impact of the Square Root' Rule on Formation of Romania's Coalitions in the Council of Ministers	
■ Constantin Chiriac .....	17
Empirical Analysis Concerning the Correlation Fiscality Rate – Tax Incomes in Romania	
■ Raluca Drăcea, Mirela Cristea, Ionuț Tomescu .....	29
The Mimetic Principle in the Underground Economy	
■ Cristina Voicu .....	41
Relational Marketing – the Prerequisite to Implement Tourist Companies' Marketing Strategies	
■ Maria Carmen Iordache, Denisa Parpandel .....	57

Note: The authors are responsible for the content of their articles and for obtaining necessary permissions.

Text revision:

**Gabriela Ochiană**

Computerized drawing up:

**Nicoleta Bobocea**

Cover:

**Alexandru Ion**

Subscriptions distribution:

**Mircea Dinu** Tel./Fax: 021/210.73.10; 021/210.63.07  
021/210.63.08

Data base indexation:

**Research Papers in Economics (RePEc)**

<http://www.ideas.repec.org>

**Directory of Open Access Journals (DOAJ)**

<http://www.doaj.org>

**EBSCO Publishing**

<http://www.ebscohost.com>

**CNCSIS** categoria B+

[www.economieteoreticasiaplicata.ro](http://www.economieteoreticasiaplicata.ro); [www.ectap.ro](http://www.ectap.ro)

Reception of texts: [economia.ta@edeconomica.com](mailto:economia.ta@edeconomica.com)

# The Future of the Banking Supervision in Europe

■

**Nicolae Dardac**

The Bucharest Academy of Economic Studies  
nicolae.dardac@fin.ase.ro

**Elena Georgescu**

The Bucharest Academy of Economic Studies  
elena.georgescu@bnr.ro

***Abstract.** The current financial crisis marked the end of a period characterized by a profit rush and an ascending trend of taking risks. In order to diminish its effects, central banks and governments made a prompt and joint intervention which resulted in urgent measures to re-establish the trust in the international financial system.*

*However, the deficiencies in the risk management (associated with other weaknesses in the functioning of the financial markets) call for a profound reform of the financial regulatory and supervisory framework. The success of this process aiming the improvement of the regulatory structure and, especially, of the components which encountered major dysfunctions, cannot be conceived without revising the entire supervision architecture at both regional and international level, so that it can provide the revitalization, consolidation and effectiveness of the international financial system as a whole.*

**Keywords:** financial crisis; banking supervision; Lamfalussy “Architecture”; De Larosiere Report; efficiency; effective.

■

**JEL Codes:** G21, G28.  
**REL Codes:** 11B, 11C.

## Introduction

What in August 2007 seemed to be an issue of the US “*sub-prime*” mortgage market, subsequently turned into global financial crisis, still ongoing.

This long period, favorable from an economic and financial point of view, determined the increase of the risks to be assumed by both the borrowers and investors.

As a result, the institutions reacted by expanding the market for the securitization of the credit risk and by aggressive extending of the “*originate-to-distribute*” model. The system became more and more dependent on the guarantee standards of the originators and on the rating agencies’ efficiency. The losses accumulated on the US sub-prime mortgage market, sustained by structured and complex securitizations, lead to the rapid spread of the turbulences within the entire financial system. The giants of the international financial world found themselves powerless facing such a crisis, appreciated by specialists as being “*without precedent since the [...] second world war*”<sup>(1)</sup>.

The “*wholesale*” capital markets began to register serious turmoil, threatening the robustness of the financial institutions and their capacity to face the current shocks, but also the trust of the population in the financial system as a whole, a reaction significantly amplified by the collapse of the Lehman Brothers, in September 2008.

The consequences of the financial crisis continue to make their presence felt, therefore, almost two years after it began,

the sizes of the generated losses still remains unknown. Moreover, the estimations of the banks related to their exposures in depreciated assets are continuously increasing.

In the context of these certainties and of the measures adopted in order to mitigate the effects of the current international financial crisis, the problem of the future of the banking supervision and of the way it has to provide a good functioning, at a global level, of the financial markets, came again to the attention of the public authorities with attributions of issuing regulations, best practices and rules in the fields with a significant influence in achieving this objective.

In order to be able to identify *possible solutions regarding the future of the banking supervision in EU*, in our opinion it is necessary to answer three questions as follows:

1. *Which were the most important weaknesses of the financial systems brought to surface by the global financial crisis?*
2. *How did the involved factors react in order to respond to these provocations?*
3. *Are there lessons to learn from this experience which generated major dysfunctions of the global financial systems and what measures are foreseen?*

### 1. The fundamental weaknesses of the financial systems

In a very concise presentation, the following causes determined the beginning and, subsequently, the spread of the global financial crisis:

- significant lacks in the *regulatory framework*, which determined the incapacity of this system to capture the concentration risk and the weaknesses of the incentives attached to the expansion of the financial innovations;

- disregarding of the true significance of the systemic risk and of the mortgage markets in terms of the size of the *macroeconomic policies*;

- the fragmented structure of the *global architecture of supervision*, unable to detect the increasing vulnerabilities of the financial systems and the interdependency between their components.

The current financial crisis presents, in our opinion, on certain dimensions<sup>(2)</sup>, some similarities with the previous financial crisis, such as the brusque adjustment of the imbalances registered in the previous exercises resulting from the intense increase of the lending activity which supplied the increase of the capital and, at the same time, the price of the real estate assets. Although, this crisis is radically different from the previous ones especially by the massive sub-evaluation of the risk and the explosive lending of the sub-prime mortgage debtors (without scoring). This trend resulted from a combination of various factors.

Firstly, it was noted that, before the beginning of the crisis, the rating agencies assumed losses coming from the sub-prime area, which were estimated as reduced in an unrealistic way, without raising the necessity of revising them, despite some signals of warning generated by the excessively rapid increase of the sub-prime

market. The very low rate of the losses registered in the early period of 2000-2001, of the mortgage executions on the sub-prime market served as a benchmark for the evaluation of the assets and their related risks. Also, the limits imposed by the regulatory framework on the profit distribution scheme by the management of the companies, with repercussions on the excessive taking up of risks by the institutional investors, are among the specific causes of the current crisis. Moreover, the important role of the credit rating agencies in the methodology of determining the capital requirements according with Basel II Capital Accord, also acted as a stimulus for their activity.

Secondly, the intensity of the savings process encouraged the taking up of increasing risks by providing the resources necessary for investments. The savings accrued in the emerging states were also a source of lending for the financial institutions in USA.

Thirdly, the deficiencies of the supervisory and regulatory framework amplified the phenomenon of the economic increase followed by the fall off. The regulations applicable to insurance companies, mutual funds and pensions, as well as banks, limited their possibility to hold claims evaluated as having a low quality, in conformity with the requirements of the Basel I and II Capital Accord. Moreover, according with the specific rules in force, the off-balance sheet operations of the commercial banks, generated by their special vehicles, and those of the investment banks were not

included in the supervision area, which allowed an unrestrained increase of the borrowed capital in the total capital. The effect of this phenomenon was amplified by the increase of the importance of institutions (e.g. “*hedge funds*”, “*private equity firms*”) which relied intensively on borrowings while the applicable rules were inadequate.

We should also mention the lack of transparency of the way the “*originate-and-distribute*” risk is transferred. Last, but not least, we have to mention that, in the traditional channels of propagating the crisis, such as asymmetry of information, could also find specific aspects which make the current financial crisis different from the past ones. In this respect we have to mention firstly the complexity of the structured mortgage products.

Also, among the new factors affecting the rapid spread of the crisis within the financial systems of other states is also the capacity and wish of the financial institutions to strengthen the share capital in order to be able to face the consequences of the losses on the sub-prime market.

Another specific aspect related to the channels of spreading the current financial crisis is the globalization process characterized by the interdependency of the integrated markets which clearly contributed to the rapid spread of the contamination process.

In other words, the current global financial crisis is based both on traditional causes which also generated crisis in the past, and non-traditional specific aspects.

## 2. Reactions of the EU authorities to the impact of the crisis on the financial markets

As in the case of previous crisis, the measures taken for diminishing the effects of the current financial crisis resulted in a strategy in two steps. In the first step, several states adopted a gradual approach, combining the instruments for monetary policy intervention with actions aiming the improvement of liquidity, ad-hoc interventions or punctual actions for saving certain financial institutions with difficulties. Since these initiatives were not able to re-establish the trust in the financial system, certain comprehensive rescue packages for the financial system were implemented in the second step of the strategy.

Therefore, the solutions proposed in the context of the current solvency financial crisis, as in the previous crisis, consisted in combining three main elements: claims’ guarantee; recapitalization of the institutions with difficulties, but solvent and separation of toxic assets.

The national plans of prevailing the effects of the crisis contributed to the re-establishment of the financial market’s stability and the purpose of the measures adopted until present was to liquidize the inter-bank markets and reduce the capital deficit. However, the financial markets are not back to a normal status yet. In this respect, it is necessary to adopt further concerted measures at European level, to involve the intervention of the governments of the Member States, the central banks and European Commission.

More precisely, in 2008 and 2009, in reply to the financial turbulences, some measures on a short term were taken, but also on a long term consisting in revision of the Lamfalussy „Architecture” and consolidation of the arrangements related to financial stability in EU.

Thus, in order to respond to the second question, respectively *how did the involved factors react in order to overcome the challenges induced by the current financial crisis*, we appreciate that it is necessary a short review of these initiatives:

a. Adoption in October 2008, of a *concerted action plan*, which included temporary measures such as:

- Facilitation, by various means, of the financing of the banks with difficulties;
- Injection of additional capital in the financial institutions;
- Recapitalization of the banks with problems;

- Increase of the minimum level of the guaranteed deposits.

At the same time, this plan instituted the common principles that central banks and governs of the EU Member States will promote in anti-crisis packages, so that those adopted at national level do not induce adverse effects in the functioning of the Single Market.

We have to stress out that as long as the ad-hoc interventions did not manage to re-establish the trust in the financial markets, still marked by a multipart process of depreciation, it is necessary the adoption of certain comprehensive rescue packages of measures including actions to re-launch the inter-bank lending activity and to sustain the capitalization of banks. These packages including the key recommendations, presented in Table 1, are less expensive and more efficient than a gradual approach.

**Selected recommendations of the rescue packages dedicated to stabilize the banking system**

Table 1

Recommendation	Objective	
	Improve inter-bank lending	Recapitalize banks
Inject capital (often through preference shares)		❖
Guarantee bank loans (for a limited time and against a fee)	❖	
Temporary bank nationalization		❖
Provide harmonized insurance for bank deposits		
Facilitate the creation of long-term liquidity pools to purchase assets (by issuing 10-year government bonds)	❖	
Absorb significant amounts of toxic assets	❖	❖
Create a joint recapitalization scheme		❖
Set up common rules to recapitalize banks		❖
Coordinated monetary expansion across the globe	❖	❖

**Source:** Baldwin & Eichengreen (2008).

The pallet of the intervention schemes<sup>(3)</sup> adopted by the OECD member states, as a

reply to the financial crisis, from the beginning of September 2008 and up to the present day,



though, much wider, as it can be observed from Table 3 presented in the annex.

The dimension of the fiscal costs associated with the rescue measures depends decisively on the implementation details. Empirical studies reveal that the adopted measures, such as the ones regarding the liquidity support, the granting of guarantees and the exoneration from the prudential requirements are costly and do not necessarily lead to the acceleration of the economic recovery speed (Bordo *et al.*, 2001, Honohan, Klingebiel, 2003, Claessens *et al.*, 2005, Laeven, Valencia, 2008).

Thus, according to the European Commission's representatives<sup>(4)</sup>, guarantees

were issued for banks, in the total amount of EUR 2.5 billion and capital was injected for the consolidation of their balance, summarizing EUR 300 billion. Following these approaches, from the beginning of 2009, in many OECD member states, supplementary measures were announced, which are to be adopted in other states as well and thus, the fiscal costs will grow as opposed to the sums already allocated for this purpose.

The situation of the gross fiscal costs of the rescue packages adopted for the surmounting of the crisis during 2008 is presented in Table 2.

**Gross fiscal costs of the rescue packages for the counteracting of the crisis effects, adopted in 2008**

Country	Capital injection	Guarantees	Total of measures announced*	Total (% of GDP)
United States	USD 250 billion	-	USD 700 billion	5.1
Germany	EUR 70 billion	EUR 400 billion	EUR 480 billion	19.8
France	EUR 40 billion	EUR 320 billion	EUR 360 billion	19.0
Italy	-	-	EUR 40 billion	2.6
United Kingdom	£ 50 billion	£ 250 billion	£ 400 billion	28.6
Canada	-	-	CAD 75 billion	4.8
Austria	EUR 15 billion	EUR 85 billion	EUR 100 billion	36.9
Denmark	-	-	Kr 35 billion	2.1
Greece	EUR 5 billion	EUR 15 billion	EUR 28 billion	11.0
Ireland	-	EUR 450 billion	EUR 450 billion	235.7
Hungary	USD 3 billion	-	-	-
Korea	-	USD 100 billion	USD 100 billion	-
Netherlands	-	EUR 200 billion	EUR 200 billion	-
Portugal	-	EUR 20 billion	EUR 20 billion	6.1
Sweden	SEK 15 billion	SEK 1500 billion	SEK 1515 billion	50.5
Switzerland	-	-	SFR 60 billion	-
Spain	Initially EUR 30 billion, rising to EUR 50 billion	EUR 100 billion	EUR 150 billion	14.3

\* This column (the total) shows in some case the sum of measures of which a cost estimate was available up to December 2008.

a. a better *coordination of the fiscal policies* of the member states, in order to counteract the recession, by constructing an *economic recovery plan*<sup>(5)</sup>, founded on two



pillars and a fundamental principle. The first of the two pillars targeted a liquidity injection in the economy, which was meant to launch the demand and to stimulate the trust, whereas the second pillar is based on the necessity to act on a short term for the revival of Europe's competitiveness on a long term, both pillars being sustained by the principle of solidarity and social equity. According to the statistics cited above, for the re-launching of the demand, up to the present, the member states have injected in their economies, incentive fiscal facilities of EUR 400 billion, representing 3.3% of EU's GDP.

b. adopting of the *European Commission's Working and Legislative Programme for 2009*, which included two strategic initiatives. The first concerns a rescue package regarding the reform of the financial sector and the establishing the future of the supervision architecture in the EU. Related to the second initiative, in the reviewing process of the Lamfalussy "Architecture", one must take into account the enhancing of the component regarding the cooperation in the supervisory field and the convergence of the practices used.

### **3. Designing the future architecture of the banking supervision, precondition of assuring financial stability at EU level**

Regarding the answer to the third question, we must highlight the fact that there are many lessons from which we must learn, starting with the necessity to deepen the risk management practices, continuing with the enhancement of the transparency

and the reviewing of the assessment practices as a solution for the reestablishing of the trust in the financial markets, or with the reviewing of the regulation regarding the capital adequacy. To these lessons, one must add another of high importance, from the perspective of the theme approached in the present study, respectively the one regarding the necessity of enhancing the cooperation and the exchange of information, essential precondition of yielding the synergies between the macro-prudential approach and the micro-prudential approach and of creating a more efficient supervision framework for the identification and monitoring of the risks.

By reiterating the position adopted in 2001, the Central European Bank still claims<sup>(6)</sup> that regardless of the supervision models existent in different states, respectively the sector model, the model on objectives or the one of an unique authority, depending on the circumstances, they can function perfectly or they can fail, but the most important aspect remains that of the existence of a tight collaboration and exchange of information between the central bank and the supervision function.

This reality integrates the conclusions resulted from the reviewing of the Lamfalussy process regarding the new formula which will define the prudential supervision in the EU, given the lessons learnt as a result of the present financial crisis.

Therefore, the successful implementation of the rescue packages meant to ensure the reconstruction of the economies and the reestablishment of the trust in the

financial systems is, to a great extent, conditioned by the reconsideration of the present supervisory structure.

One must mention that, although the way the financial sector from the EU was supervised was not the main cause of the crisis, there were still identified a series of significant weaknesses of the supervision, which target both of its dimensions, respectively the macro and micro prudential supervision. To that effect, in our opinion, in the establishing of the *model of the future architecture of the banking supervision* at EU level, the following should be taken into account:

- to be harmonized with the current initiatives, started globally;
- to not only cover the specificities and the common issues of the euro-zone, but also those of the entire EU;
- to be consensual, based on the vision of the member states, the financial institutions and its final “users”;
- to be based on the objectives followed, the finality in the regulation act and not on the processes or the instrumentality;
- to admit that the regulation and supervision of the financial services represent a global concern and not only an European one;
- to add value to the existent initiatives such as: the cooperation and convergence in the supervisory field and in the setting up of the colleges of supervisors;
- to rationalize and/or reform the existent relevant EU bodies, where is possible, without setting up new legal entities.

Admitting the importance of harmonizing the supervisory system with the evolutions recorded at the level of the Single Market and its specificity, as well as an adequate equipage of the system in order for it to be capable of detecting the risks related to the financial stability in the EU, the European Commission set up, in November 2008, the *High Level Expert Group on Financial Supervision*, chaired by Jacques de Larosiere. The central objective of its mandate targeted the formulating of recommendations to the European Commission regarding the enhancement of the supervisory arrangements at EU level, for all the components of the financial sector, in order to realize a more efficient and integrated European supervisory system.

To this effect, in the *de Larosiere Group Report*<sup>(7)</sup> a wide analysis of the causes of the present financial crisis is presented and, at the same time, as a corollary of the measurements taken, the changes recommended to be adopted for the improvement of the regulatory framework from the EU.

On the basis of the identification of the most appropriate solution, in order to achieve these objectives, is the wide analysis of the most important weaknesses with regard to the prudential supervision, which can be synthesized as follows:

- inadequate macro-prudential supervision;
- inefficient early warning mechanisms;
- problems related to the quality of the national supervisory authorities’ activity in relation with certain credit institutions;

- weaknesses in the supervisory practices at cross-border level;
- insufficient cooperation and lack of sincerity between the supervisors;
- differences regarding the statutory powers conferred to the national supervisory authorities;
- lack of financial resources of the level 3 committees;
- lack of means available to the supervisors for the adopting of common decisions.

At the same time, for the delineation of the most appropriate solutions referring to the proposals for the organization of the supervision, the tendencies recorded at the Single Market's level were analyzed as well, given the fact that the final objective of the new supervisory architecture is to ensure the financial stability in the EU, in normal conditions as well as in crisis situations.

Thus, the EU specialists have designed a system built on the preconditions of accomplishing a structural reform of the present supervisory framework. The proposed reform targets two fields, respectively:

- macro-prudential supervision;
- micro-prudential supervision.

Regarding the *macro-prudential supervision*, the setting up of a new body is proposed, bearing the name of "the European Systemic Risk Council" (ESRC). This body will be founded under the auspices and with the logistic support of the European Central Bank (ECB). This body *will collect and analyze the information relevant for the financial stability*, correspondent to the macro-economic

conditions and the macro-prudential evolutions from all the financial sectors in the EU and will *issue risk related warnings*, while regularly exchanging information with the micro-prudential supervisors. If the risks are of serious concern, ESRC will inform the Economic and Financial Committee and will co-act with the European Commission in order to identify the adequate solutions. Globally, ESRC will have a tight collaboration with the International Monetary Fund (IMF), the Financial Stability Forum (FSF) and G20.

In the field of *micro-prudential supervision*, the EU specialists consider as being necessary the setting up of an European System of Financial Supervisors (ESFS), responsible with the supervision of the financial institutions. ESFS will result from the transformation of level 3 committees (CEBS, CESR, CEIOPS) in three new European authorities, respectively: the *European Banking Authority*, the *European Securities Authority* and the *European Insurance Authority*. Thus, ESFS's role will be to coordinate the application of the standards in the supervisory field and to guarantee the tight cooperation between the national authorities with supervisory prerogatives.

The three authorities will have a considerably enlarged role as opposed to the one held by the present level 3 committees. Thus, the national supervisory authorities will continue to be responsible with the daily monitoring of the financial institutions within their own jurisdiction, while the new authorities will have *supplementary* attributions as follows:

- *mandatory* mediation powers between the national supervisors;
- adopting of *mandatory* supervisory standards;
- adopting of mandatory technical decisions applicable to the national institutions;
- monitoring and coordinating the supervisory colleges;
- licensing and supervision of specific institutions at EU scale (e.g.: The credit risk rating agencies);
- *mandatory* cooperation with ESRC, in order to ensure an adequate macro-prudential supervision;
- coordinator role in crisis situations.

The process which will lead to the setting up of ESFS contains two stages:

- *Stage 1 (2009 – 2010)* will be a preparatory stage, dedicated mostly to: the creation of the conditions for the transformation of the level 3 committees into European authorities; the improvement of the prudential supervision quality; the harmonization of the rules, statutory powers and of the sanctions; the immediate enhancement of the level 3 committees and of the supervisory colleges; the crisis and the “problem” banks regime management.

- *Stage 2 (2011 – 2012)*, dedicated to the actual setting up of ESFS

The EU specialists have recommended that after three years of functioning of the ESFS, a detailed analysis should be done in order to establish if supplementary reforms would be necessary, consisting in making at least two amendments. *The first* would target the orientation towards a system based on two authorities alone, respectively:

one, responsible for the prudential banking issues and the insurance field, as well as for problems related to the financial stability, whereas the second authority will be responsible for the supervision of the business conduct for all the three sectors. *The second* will allow the granting of increased powers to the referred to authorities in the field of supervision.

Regarding the way of implementing in practice the new supervisory architecture at EU level, it must be highlighted that it will be achieved based on a detailed implementation plan which will be finalized by the end of the year 2009, by a high level group, which will function under the authority of the European Commission.

A subject of high importance, in the context of this project’s launching, is the position adopted by the main EU’s structures related to it, as well as the position adopted by the member states.

The group’s report was received favorably by the *European Commission*, its main opinions regarding the de Larosiere Report being included in its Communication<sup>(8)</sup> from 04 March 2009 for the Spring European Council. *The European Central Bank’s position* was not yet made public officially by it, although there are different standings expressed by the high ranged ECB officials, who, in a brief description, appreciate the necessity of moving to a new supervisory system at the EU level.

Regarding the *European Council’s position*, it too acknowledges the necessity of improving the regulation and supervision of the financial institutions in the EU, the

de Larosiere Report being a broad action basis.

Referring to the *positions of the member states*, expressed in the context of the meeting from 13 March 2009, these were in favor of creating ESFS as well, although they formulated a series of observations. With regard to the micro-prudential supervision, the member states have appreciated the report as being a good starting point for the implementation of the new supervisory architecture.

## Conclusions

In our opinion, in order for the new macro and micro-prudential supervisory architecture to achieve its objectives, respectively the early identification of the components that could generate crisis situations, it is necessary that the warnings regarding the economic policy risk and recommendations to be transformed into concrete and factual actions.

Regarding the opportunity to reconsider the present architecture at the EU level, this can not be questioned, for it represents a priority in the present and, also, an essential condition for ensuring a growth of the quality and efficiency of the financial supervision in its overview. This opinion is founded on the benefits which will be brought by the new formula of the supervisory architecture at the EU level, proposed through the de Larosiere Report.

Therefore, the proposal of setting up a pan-European authority in the EU in order to identify the systemic risks and to alert the supervisory authorities, as well as to

grant increased powers to the three level 3 committees, including in regard to the micro-prudential supervision, represents an efficient modality of removing the failures related to the financial supervisory activity, identified in the context of the present financial crisis.

As such, we appreciate that the hastening of the implementation calendar of this project<sup>(9)</sup>, along with its two stages, is highly necessary as well, through the new supervisory structures that will be established while assuring the harmonization of the rules applied in the exercising of the mandate by the national supervisory authorities, in parallel with the growth of the uniformity regarding the powers attributed to the national supervisors and the degree of coherence of the sanctions which can be applied by these, as well as the completing of the pallet of attributions that will be given to the three newly founded authorities.

To the considerations presented above, which served as a base for supporting this opinion, one can add the improvement of the cross-boarder financial groups' supervision, by *equipping the three new authorities* with supplementary functions, from which being more important the *assuring*:

- *of an unique set of harmonized rules*, including the mandatory technical standards in specific fields and interpretative guidelines which will be applied by the national supervisory authorities, especially in the financial institutions' authorization and supervision process, as well as *a culture and common and coherent supervisory*

*practices and a coordinated reaction in crisis situations;*

■ *a consistent application of the new rules*, as they have a mediator role in the disputes between the national supervisory authorities and a role in the activation of the mechanism designed to correct their deviations from the uniform community rules;

Supplementary to these functions, among the prerogatives which will be attributed to the new authorities, one can also find the *collecting of micro-prudential*

*information* which will be used within the supervisory colleges of the cross-boarder financial groups as well.

Regarding the legal framework necessary for the implementation of the new supervisory architecture, we mention that, in accordance with the Court of Justice's Decision<sup>(10)</sup>, art. 95 from the EC Treaty, it can represent the legal basis for the setting up of "*a Community body responsible for contributing to the implementation of a process of harmonization of the legislation of the internal market*".

---

## Notes

---

- <sup>(1)</sup> According to European Central Bank, "The European Regulatory and Supervisory Framework: The views of the ECB", Speech delivered by Jean-Claude Trichet, President of the ECB at the 2008 EUROFI Conference, Nice, 11 September, 2008, p.1.
- <sup>(2)</sup> IMF, Research, Monetary and Capital Markets, and Strategy, Policy and review Departments, „Initial Lessons of the Crisis“, February 6, 2009.
- <sup>(3)</sup> See Davide Furceri, Annabelle Mourougane, „Financial Crisis: Past Lessons and Policies Implications“, OECD - ECO/WKP No.668/(2009)9;
- <sup>(4)</sup> See European Commissioner for Economic and Monetary Policy- Joaquin Almunia, „The crisis and beyond: what priorities for European Financial Markets?“, 2nd Financial Centre Meeting, Frankfurt 5 March, 2009.
- <sup>(5)</sup> According to Communication from the Commission to the European Council, „A European Economic Recovery Plan“, Brussels, 26 November, 2008, COM (2008), 800, final.
- <sup>(6)</sup> In accordance with IBN National Conference „Beyond financial turmoil“, Speech by Hose Manuel Gonzales-Paramo, Member of Executive Board of ECB, Dublin, 22 October, 2008.
- <sup>(7)</sup> The High-Level Group on Financial Supervision in the EU (de Larosiere Group) published the report on the accomplished target imposed by European Commission on February 25, 2009.

- <sup>(8)</sup> See Communication for the Spring European Council, „Driving European Recovery“, EC, COM (2009) 114 final, March 2009.
- <sup>(9)</sup> According to Communication from the European Commission (COM -2009- 252 final)
- <sup>(10)</sup> See EC Justice Court’s Decision, C – 217/04, pt.44

---

## References

---

- Bordo, M., Eichengreen, B., Klingebiel, D., Martinez-Peria, M., „Is the Crisis Problem Growing More Severe?“, *Economic Policy*, April 2001
- Communication from the Commission to the European Council, „A European Economic Recovery Plan“, Brussels, 26 November, 2008, COM (2008), 800, final
- Communication for the Spring European Council, „Driving European Recovery“, EC, COM (2009) 114 final, March 2009
- Comunicatul Comisiei Europene (COM -2009- 252 final)
- Decizia Curții de Justiție CE, C – 217/04, pt. 44
- Furceri, D., Mourougane, Annabelle, „Financial Crisis: Past Lessons and Policies Implications“, *OECD - ECO/WKP*, No. 668 (2009)
- Almunia, J., „The crisis and beyond: what priorities for European Financial Markets?“, *2<sup>nd</sup> Financial Centre Meeting*, Frankfurt, 5 March 2009
- European Central Bank, „The European Regulatory and Supervisory Framework: The views of the ECB“, Trichet, J.-C., *2008 EUROFI Conference*, Nice, 11 September, 2008, p. 1
- IBN National Conference „Beyond financial turmoil“, Gonzales-Paramo, H.M., Dublin, 22 October 2008
- IMF, Research, Monetary and Capital Markets, and Strategy, Policy and review Departments, „Initial Lessons of the Crisis“, February 6, 2009
- The High-Level Group on Financial Supervision in the EU - de Larosiere Report, February 25, 2009



Overview of main financial crisis responses in OECD countries (September 2008-January 2009)

Table 3

Country	Traditional monetary instruments				Crisis resolution instruments				
	Liquidity injections	Interest rate changes	Increased guarantee of deposits	Guarantees for bank loans or debt	Funds to purchase commercial papers	Purchase mortgage bonds	Ban or restrict short-selling	Capital injections	Option to purchase toxic assets
United States	x	Cut	x	x	x	x	x	x	x
Japan	x	Cut		x	x		x		
Euro area	x	Cut	x						
Germany			x	x			x	x	x
France			Already high	x			x	x	
Italy			x				x	x	
United Kingdom	x	Cut	x	x	x	x	x	x	
Canada	x	Cut		x		x	x		
Australia	x	Cut	x	x		x	x		
Austria			x	x			x	x	
Belgium			x	x			x	x	
Czech Republic		Cut							
Denmark	x	Increase/cut	x	x		x	x		
Finland			x	x			x		
Greece			x	x				x	
Hungary	x	Increase	x	x				x	
Iceland		Increase	x					x	
Ireland			x	x				x	
Korea	x	Cut		x					
Luxembourg			x	x					
Netherlands			x	x			x	x	
New Zealand	x	Cut	x	x					
Norway	x	Cut	Already high	x					
Slovak Republic		Cut	x						
Poland	x	Cut	x						
Portugal			x	x				x	
Sweden	x	Cut	x	x		x		x	
Spain			x	x		x	x		
Mexico	x	Cut		x					
Switzerland	x	Cut	x		x			(x)	x
Turkey	x	Cut							

Source: OECD.

# The Penrose's Law and Decision-Making Processes in the Council of the European Union. Case Study: the Impact of the Square Root' Rule on Formation of Romania's Coalitions in the Council of Ministers

■

**Constantin Chiriac**

The Bucharest Academy of Economic Studies

costelchiriac@yahoo.com

***Abstract.** Enlargement of the European Union has led to much discussion on the need to reform institutions so that the various inequalities between the member states to be removed. Such Treaties of Nice and Lisbon do not grant to citizens of member the same influence in the decision-making in the Council of Ministers. One of the solutions proposed to remedy this problem is to establish a voting scheme that gives each country a share of votes proportional to the square root of the population and determining the optimum of a threshold, known as the Jagiellonian Compromise. Starting from the analysis of Penrose square root law in the decision-making Council of Ministers, the article presents a case study on the influence of approximation by rounding the share of votes on the coalition's formation in the case of Romania.*

**Keywords:** Council of Ministers; decision-making processes; Jagiellonian Compromise; coalition's formation.

■

**JEL Codes:** C70, D70, D72, D74.

**REL Codes:** 20C, 7L, 9A.

## 1. Jagiellonian Compromise. Criticism treaties of Nice and Lisbon

In 2007, researchers from 10 countries formed a group called SDE (Scientist for a Democratic Europe), and have sent a joint letter to EU Member States governments, recommending the use of square root of Penrose's method of allocating votes in the Council of Ministers. They draw attention to the shortcomings of the voting system of the Treaty of Nice and the Treaty of Lisbon. Alternative voting system that they suggested was based on the square root of Penrose, considering that this system is more suitable to give to every citizen the same influence on decisions of the Council of Ministers, regardless of country of origin. The system proposed would be a fair compromise between the Nice and Lisbon systems. An institution such as the EU representative must deal with the situation of Malta, with 400,000 inhabitants, which "is at the same table" with Germany, which

has 82,000,000 inhabitants, that is 211 times higher. It is as if we compare China to Malta at the United Nations.

Following criticism of Nice' system, Council members agreed that the decision should be changed in a system with qualified majority double that to have two criteria: the number of Member States and the population. This system leads to loss of power for some countries (Poland), which has generated much tension in the adoption. Although, finally, in 2004, Poland has accepted the new system, it began a systematic campaign in favor of another decision-making system within the Council, to ensure equality in representation for all countries. Such a system is based on square root law of Penrose with one majority, and the number of votes allocated to be proportional to the square root of the population of the Member States.

Table 1 shows the power of the vote compared to the system adopted in the case Jagiellonian compromise.

**Qualified majority voting system for the Council of Ministers: Citizen-based Jagiellonian Compromise "JC" and negotiated Double Majority "DM"**

Table 1

Member States	Population (mil.) 2007	Weight JC	Power JC <sup>(1)</sup>	Power Double Majority	Deviation %
Germany	82.438	9080	9.46	11.66	+23
France	62.886	7930	8.27	9.02	+9
UK	60.421	7773	8.10	8.69	+7
Italy	58.751	7665	7.99	8.49	+6
Spain	43.758	6615	6.90	6.55	-5
Poland	38.157	6177	6.44	5.71	-11
Romania	21.610	4649	4.85	4.15	-14
Netherlands	16.334	4042	4.21	3.50	-17
Greece	11.125	3335	3.48	2.88	-17
Portugal	10.569	3251	3.39	2.80	-17
Belgium	10.511	3242	3.38	2.80	-17

Member States	Population (mil.) 2007	Weight JC	Power JC <sup>(1)</sup>	Power Double Majority	Deviation %
Czech	10.251	3202	3.34	2.77	-17
Hungary	10.076	3174	3.31	2.74	-17
Sweden	9.047	3008	3.14	2.63	-16
Austria	8.265	2875	3.00	2.53	-16
Bulgaria	7.718	2778	2.90	2.47	-15
Denmark	5.427	2330	2.43	2.19	-10
Slovakia	5.389	2321	2.42	2.18	-10
Finland	5.255	2293	2.39	2.17	-9
Ireland	4.209	2052	2.14	2.04	-5
Lithuania	3.403	1845	1.92	1.95	+2
Latvia	2.294	1515	1.58	1.81	+15
Slovenia	2.003	1415	1.47	1.78	+21
Estonia	1.344	1160	1.21	1.69	+40
Cyprus	0.766	875	0.91	1.63	+79
Luxembourg	0.459	678	0.71	1.59	+124
Malta	0.404	636	0.66	1.58	+139
TOTAL	492.881	95.916	100	100	
Quota		59.058	61.57		

**Source:** Pukelsheim, 2007, p. 15.

Under the Nice Treaty, each Member State is assigned a number of votes that reflect the population. A legislative proposal passes the Council, in the Treaty of Nice, if three conditions are accomplished: number of votes, the number and percentage of state population, the system being called triple majority.

Lisbon Treaty states that a legislative proposal pass if only two criteria are met: 55% of Member States “for” representing 65% of the EU population. Additionally, a minority block includes at least four members who could block a proposal that a majority may agree. Most experts believed that the main drawback of the Treaty of Nice was the low efficiency of decision making. This performance, measured by Coleman power to act index, calculate the probability that the Council approved various issues, selected

randomly, and is equal to the share of possible winning coalitions.

For the Lisbon Treaty, approximately 12.9% out of all possible coalitions are leading to a condition regarding the approval of randomly chosen legislative proposals, and for the Treaty of Nice this index is equal to 2.1%. Calculations show that by introducing the double majority decision-making reduce the danger of blocking process from the EU levels. On the other hand, the figures show that the Nice system, which is currently, extension to the EU-27 was not fear and confirming all that the decision system will be blocked (Kurpas, Schonlau, 2006, pp. 2-5). Another shortcoming of the system from Nice is that it is necessary to apply simultaneously the three criteria in calculating the qualified majority, replaced by the Treaty of Lisbon, which uses only two criteria.

All voting systems in the EU were a compromise between two fundamental principles: the principle of equality of Member States and the principle of equal citizens. Double majority brought by the Lisbon Treaty apparently reflects only those two desires. In this system the large states will gain more from direct contact with the population, while the small states will have a disproportionate power provided that the number of states supporting a proposal to increase. The combined effects of these consequences lead to decreased power of medium sized Member States. In an ironic manner, the same conclusion was also drawn by Penrose, who discovered this deficiency by analyzing double majority system in 1952. His findings can be regarded as a visionary critique of the Treaty of Lisbon. The fact that this system uses only two criteria fixes another basic flaw: the system is not more transparent because a simple citizen is not able to calculate the potential voting power of each Member State, complex mathematical calculations being required as in case the Treaty of Nice. These calculations show that the basic principle of democracy, through which the voting power of a citizen of any state is of equal value, is violated in both systems.

## 2. Is square root solution for optimal decision-making for the Council of Ministers?

One may be designed a voting system in which every citizen of any Member State to have the same power to influence decision-making processes? Can be done in a transparent way easily implemented

efficiently and to match in future EU enlargements?

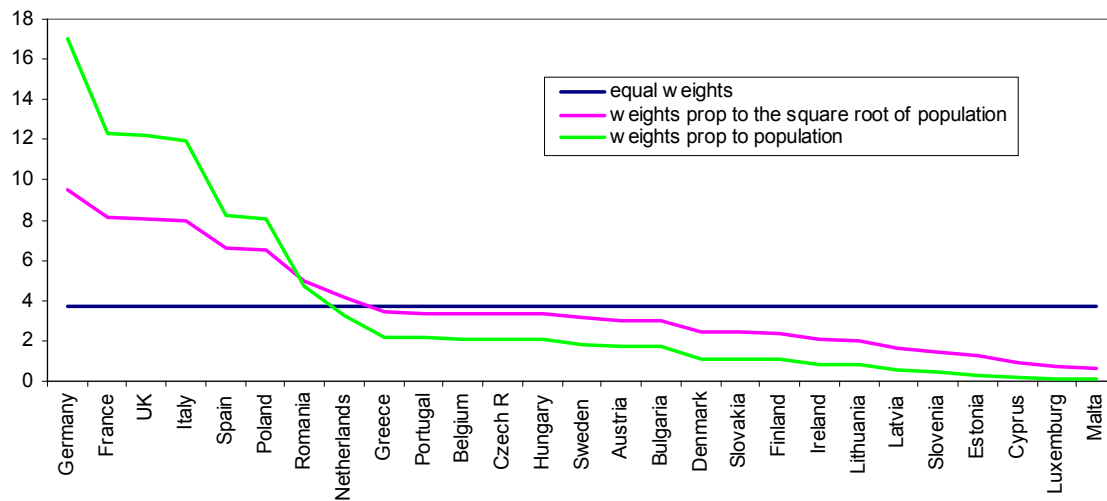
A partial answer was given by Penrose, who developed the principle of a voting system of an ideal representation in which every citizen of any state has the same voting power potential. If we consider direct elections in a state with  $N$  population, which can be gained by a simple majority of  $50\% + 1$ , then the simple citizen from a country with a large population has less influence on the outcome of the election process than a citizen from a small sized country. Penrose has shown that in such elections, the voting power of a citizen drops the square root rule. Thus the indirect vote system of Council would be representative if the voting power of each country should be proportional to the square root of  $N$  (Penrose's law).

Kauppi and Widgren showed that although this law may seem strange, however, using it as a basis for voting scheme may be justified in terms of fairness (Kauppi, Widgren, 2004, pp. 221-229). It can be shown that the square root rule ensures that every citizen is equally represented in the Council regardless of country of origin. The proposal received considerable support from the academic world.

The solution of sharing votes, proportionate to the square root of population, is a mathematical application of the principle of degressive proportionality<sup>(2)</sup> and is between two extremities: „a country-one vote” (as if Europe would be a simple association of states) and “votes in proportion to the population” (as if Europe would be a single state). Note that a degressive

system is used in German Parliament, by which is designated a number of representatives for each Land. But the assertion that “each country’s voting power should be proportional to the square root of the population” does not solve the problem entirely. Kirsh showed that the square root tells us just how power should be distributed between countries (2004, pp. 2-3). It is not clear how this law should be implemented in practice in terms of share of the vote.

The problem is how votes are allocated and how to set the threshold to achieve a certain distribution of power. One solution would be that the share of votes to be proportional to the square root and then to found the optimal threshold that will produce maximum transparency of the system, i.e. the system in which voting power of each Member State will be approximately equal to the share of votes as is observed in Figure 1. (Slomczynski, Zyczkowski).



**Figure 1.** The weights attributed to the Member States: proportionally to population, proportionally to the square root of population, and uniformly

**Source:** Slomczynski, Zyczkowski, 2008, p. 11.

Thus Penrose’s law should be respected and the potential influence of each citizen in the Council would be the same, which would lead to compliance with the principle of representativeness. Such a system should also be transparent, simple and objective and would not create any advantage or disadvantage for any country.

This system was called the Jagiellonian Compromise. Thus for the EU Council of

Ministers 27 optimal threshold would be 61.57%. For an arbitrary number of Member States the best threshold  $q$  can be calculated according to the formula:

$$q = \frac{1}{2} \left( 1 + \frac{\sqrt{N_1 + N_2 + \dots + N_m}}{\sqrt{N_1} + \sqrt{N_2} + \dots + \sqrt{N_m}} \right)$$

where  $N_i$  represents the population of country  $i$ .

Since the number of Member States will increase it will result in a change of the optimal threshold. Calculations show that the optimal threshold decreases with electoral body size. This shows that a threshold that change depending on future conditions is increased efficiency.

Jagiellonian Compromise is also known as the solution *Pop.-q%*. Based on the

population<sup>(3)</sup> we get a threshold of  $q = 61.5\%$ , with an error less than  $0.00005\%$ . Analysis showed that the maximum relative deviation between  $\beta_{oi}$  and  $\beta_{qoi}$  is less than  $0.14\%$  (Langner, Werner, 2009). In addition the efficiency is  $16.43\%$ . The voting share and voting power measure by Banzhaf index (see Table 2), which is higher than the Treaty of Lisbon, not to mention the one in Treaty of Nice.

**Jagiellonian Compromise. Distribution of votes and voting power in CM with threshold of 61.5%**

Table 2

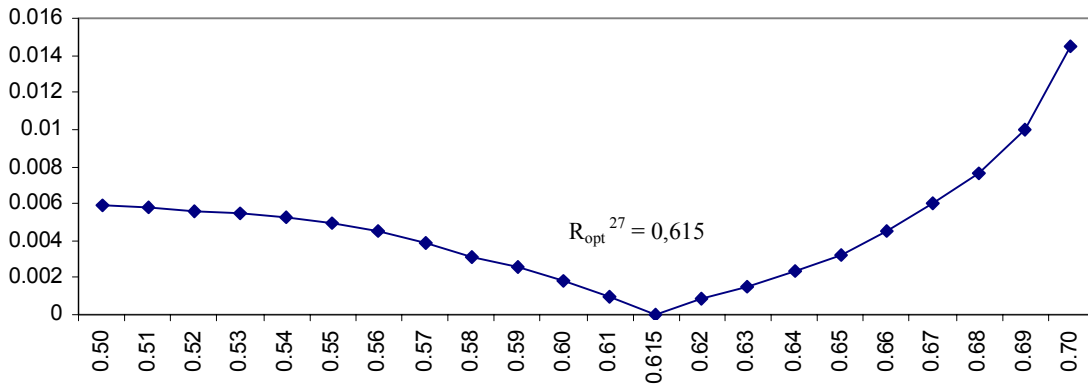
Distribution of votes and the voting power in the Council of Ministers.			
Jagiellonian Compromise – threshold of 61.5 %			
State	Population	Square root of population	Banzhaf index %
Germany	82.438	9079.54	9.441
France	62.886	7937.18	8.273
UK	60.421	7771.30	8.104
Italy	58.751	7664.97	7.994
Spain	43.758	6615	6.906
Poland	38.157	6177.14	6.445
Romania	21.610	4648.68	4.851
Netherlands	16.334	4041.56	4.210
Greece	11.125	3335.4	3.479
Portugal	10.569	3251.09	3.388
Belgium	10.511	3242.13	3.378
Czech	10.251	3201.73	3.338
Hungary	10.076	3174.36	3.308
Sweden	9.047	3007.95	3.138
Austria	8.265	2875.05	2.998
Bulgaria	7.718	2.77	2.898
Denmark	5.427	2329.69	2.428
Slovakia	5.389	2321.46	2.418
Finland	5.255	2292.51	2.388
Ireland	4.209	2051.59	2.138
Lithuania	3.403	1844.8	1.918
Latvia	2.294	1514.79	1.578
Slovenia	2.003	1415.40	1.478
Estonia	1.344	1159.61	1.208
Cyprus	0.766	875.45	0.909
Luxembourg	0.459	677.86	0.709
Malta	0.404	635.88	0.659

Effectiveness of the square root rule does not decrease with the number of Member States as in case of the system with a double majority. Figure 2 illustrates the dependence of the square root of residual sum of squares between  $\sigma$  normalized Banzhaf index and the share of the vote, the threshold R:

$$\sigma^2 = \sum_{x=1}^N \left( \beta_x(R) - \frac{\sqrt{N_x}}{\sum_{y=1}^N \sqrt{N_y}} \right)^2$$

Since the minimum value of this function is reached for  $R^{27}_{opt}$ , then one can say that the optimal value for threshold is reached when the share of the vote and the votes are equal.





**Figure 2.** The cumulative residual  $\sigma$  between the voting weight and power for EU-27 countries as dependent on the value of the threshold  $R = 0.615$

**Source:** Slomczynski, Zyczkowski, 2007, p. 11.

When  $N \rightarrow \infty$  then the value of critical threshold tends to 50% in accordance with Penrose's law. Table 3 shows the average critical threshold in terms of  $N$ , the number of electoral body obtained as a result of a symmetric Dirichlet distribution, with density given by the formula

$P(x_1, x_2, \dots, x_N) = C_N(x_1, x_2, \dots, x_N)^{(-1/2)}$  for any  $x_i \geq 0$ ,  $\sum_{i=1}^N x_i = 1$  and where the normalization constant is expressed by the Euler gamma function  $C_N = \Gamma(\frac{N}{2})n^{(-\frac{N}{2})}$ .

**Average optimal threshold  $R_{opt}^N$  as a function of the number of states  $N$**

Table 3

No. of Member States $N$	10	12	14	16	18	20	22	24	26	27
$R_{opt}^N$	66.0%	65.8%	64.6%	64.4%	63.4%	63.1%	62.6%	62.0%	61.4%	61.57%

The results above indicate that for a given number of states  $N$ , the choice of the weighting in proportion to square root of the population and close to the threshold  $R_{opt}^{27}$  ensures optimum representativeness system of voting power as each country becomes proportional to the square root of population and voting power of individual a citizen is almost identical.

Square root is derived from the probability that an individual voter to influence the outcome of a binary vote (yes/no). A voter has some direct influence only if the rest of the people  $N$  voted in a

proportion equal to *yes* and *no*. This approach requires that the people who voted to be in an even number, otherwise the voter will not be in such a position. The probability of compliance leaves the hypothesis that each member of the population are equally likely to vote in two ways (yes/no).

$$P_{tie} = \left(\frac{N-1}{2}\right) \frac{1}{2^{N-1}} = \frac{(N-1)!}{\left(\frac{N-1}{2}\right)^2 2^{N-1}} \approx \sqrt{\frac{2}{\pi(N-1)}} \frac{1}{\sqrt{N-1}}$$

**Ease of decision-making process for various thresholds**

Table 4

Majority threshold % Members - % population	UE-27	Passage Probability UE-27+Turkey
50-50	35.8	31.9
55-55	23.0	19.9
50-60	21.9	19.8
55-65	12.9	12.5
50-61.5	12.9	11.7
60-50	11.1	15.1
50-70	9.2	8.3
60-60	8.5	11.0
60-70	4.8	5.6
Nisa	2.8	1.8
70-50	2.5	1.7
70-60	2.2	1.6
70-70	1.6	1.1

Source: Baldwin, Widgren, 2007, p. 6.

The result can be viewed by considering a binomial distribution with

standard deviation variation  $\left(\sqrt{\frac{N-1}{4}}\right)$ .

Formally, the approach to the value of  $N-1$  represents a normal distribution and it has a fixed area: the point is the maximum

height of  $\frac{1}{\sqrt{N-1}}$ .

If the share of votes allocated to a state is  $\sqrt{N}$ , such a proportional distribution cancels the possibility of giving each state an equal share of votes (Ratzer, 2006).

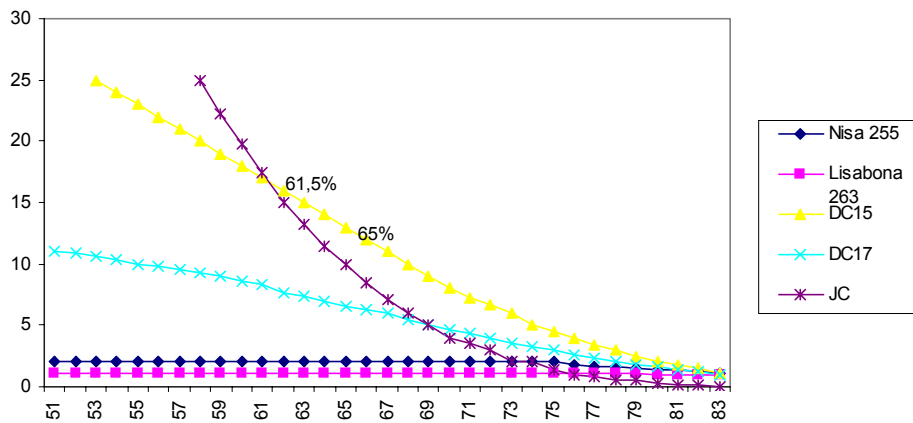


Figure 3. Effectiveness of the Nice Treaty, the Treaty of Lisbon and the Jagiellonian Compromise

Source: Langner, Werner, 2009, p. 15.

We conclude the Jagiellonian advantages:

- is simply, based on one criterion and may be called single majority system;
- is objective (the share of the vote and the threshold are not set arbitrarily) and hence the absence of disadvantages for different countries;

- representativeness: every citizen of the Member States has the same voting power potential;

- transparency: the voting power of each state is roughly proportional to the share of votes;

- is easily adaptable and extensible: if the number of state changes, all you have

to do is to reallocate votes in accordance with law and as the square root threshold;

- is more effective than the treaties of Nice and Lisbon;
- moderate conservative: it does not lead to a dramatic transfer of power from the current situation.

### 3. Approximation by rounding when applying Penrose's law in decision-making processes of the Council of Ministers and the impact on coalitions formation of Romania

The application of square root law in the EU Council decision-making processes has consequences for the coalitions formation of a Member State. We show that the approximation by rounding the share of votes, and no exact calculation, which must return a Member State, may have a major effect on the optimal threshold  $R$  and the minimum value of  $\sigma$  can be reached by the voting system of Penrose's square root law.

To make a voting system "fair" in the Council of Ministers, Banzhaf index should be calculated according to the formula

$$\beta_i = \frac{\sqrt{N_i}}{\sum_{j=1}^n \sqrt{N_j}}$$

for all countries, where  $N_i$  is the population of country  $i$ . Practical implementation of this index, thus calculated, is difficult and represents a problem of multi-dimensional optimization. To estimate an ideal distribution of voting power, Penrose suggested that the share of votes to be

proportional to the square root of the country's population according to the

formula 
$$v_i = \frac{\sqrt{N_i}}{\sum_{j=1}^n \sqrt{N_j}}$$
 for all  $i$  countries.

The number of votes obtained will not be rational numbers, but some approximations have to be made. These approximations, in the absence of precise rules, will be given to the accuracy of floating point representation, in which the performance of computer use.

Zyczkowski and Slomczynski were rounded voting weights to four decimal places obtained.

Case study will show that this rounding may have effects on the optimal threshold  $R$  and the minimum value of  $\sigma$ , which is produced by the voting system of the square root of Penrose.

Approximation of  $k$ -digit rounding means that the share of votes is done by  $k$  decimals, where the share of votes is

normalized such  $\sum_{i=1}^n v_i = 1$ , where  $v_i$  is the share of votes if the country  $i$ . To show data rounding errors, the minimization of  $\sigma$ , we consider four countries as follows:

**Population and share of votes for four countries**

Table 5					
Current no.	Country	$N_i$		$v_i$	$v_i$ (3 decimals)
1	România	21610213	4648.678	0.4648	0.465
2	Denmark	5427459	2329.6907	0.2329	0.233
3	Ireland	4209019	2051.589	0.2051	0.205
4	Cyprus	766414	875.450	0.0875	0.088

**Coalitions and the share of votes, without rounding**

Table 6

Coalitions of states	$\Sigma v_i$	Coalitions of states	$\Sigma v_i$
1,2,3,4	1.000	2,3	0.438128014
1,2,3	0.902995877	1	0.464867863
1,2,4	0.785382012	2,4	0.320514149
1,3,4	0.757571875	3,4	0.292704012
1,2	0.697836938	2	0.232969075
1,3	0.670026801	3	0.205158938
2,3,4	0.525673088	4	0.087545074
1,4	0.552412937	Nici una	0.000

Using four decimal approximation for the share of votes, the share of votes for all possible coalitions could be obtained which are formed in accordance with Table 6. From this table it could be read the winning coalitions  $\omega$  that have a majority for a given threshold  $R$  and the number of winning coalitions  $\omega_i$  to which the country  $i$ . This means that for all thresholds  $0 \leq R \leq 1$  and all countries  $i$ , the number of coalitions where the country's vote  $i$  is critical,  $\eta_i$ , and could be calculated with the formula  $\eta_i = 2\omega_i - \omega$ , giving the Banzhaf index and the deviation  $\sigma$ .

For example for  $0.90299 < R \leq 1$  there is only one winning coalition of countries formed from Romania, Denmark, Ireland and Cyprus, i.e.  $\eta_i = 1$  for  $i = 1,2,3,4$ . Deviation  $\sigma$  is computed according to formulas:

$$B_i = \frac{\eta_i}{2^{n-1}}, \beta_i = \frac{B_i}{\sum_{j=1}^n B_j} = \frac{\eta_i}{\sum_{j=1}^n \eta_j}$$

and  $\sigma = \sqrt{\frac{1}{n} \sum_{i=1}^n (v_i - \beta_i)^2}$ .

The values of  $\sigma$  for all the thresholds  $R$  are calculated in Table 7. Only thresholds

for  $R \geq 0.5$  are shown as the lower threshold of 0.5 means that a coalition can be successful even if the opposition has more votes.

**Deviation from the fair voting, without rounding**

Table 7

R >	R ≤	$\eta_1$	$\eta_2$	$\eta_3$	$\eta_4$	$\sigma$
0.902995877	1.000	1	1	1	1	0.126844
0.785382012	0.902995877	2	2	2	0	0.108664
0.757571875	0.785382012	3	3	1	1	0.082441
0.697836938	0.757571875	4	2	2	2	0.062765
0.670026801	0.697836938	5	3	1	1	0.060114
0.525673088	0.670026801	6	2	2	0	0.092898
0.552412937	0.525673088	5	3	3	1	0.030906
0.438128014	0.552412937	6	2	2	2	0.060498
0.464867863	0.438128014	5	3	3	1	0.030906
0.730832026	0.464867863	6	2	2	0	0.092898
0.292704012	0.730832026	5	3	1	1	0.060114
0.232969075	0.292704012	4	2	2	2	0.062765
0.205158938	0.232969075	3	3	1	1	0.082441
0.087545074	0.205158938	2	2	2	0	0.108664
0.000	0.087545074	1	1	1	1	0.126844

The lowest value of  $\sigma_{\min} = 0.030906$  and this happens in the  $0.5256 < R \leq 0.5524$ .

The situation is changing very much if  $\sigma$  is calculated from the share of votes, with rounding. In this case the possible coalitions and the share of votes are shown in Table 8.

**Coalitions and the share of votes, with 3 decimals rounding**

Table 8

Coalitions of states	$\Sigma v_i$	Coalitions of states	$\Sigma v_i$
1,2,3,4	1.000	1	0.465
1,2,3	0.903	2,3	0.438
1,2,4	0.785	2,4	0.321
1,3,4	0.758	3,4	0.293
1,2	0.698	2	0.233
1,3	0.670	3	0.205
1,4	0.552	4	0.088
2,3,4	0.526	None	0.000

Comparison with Table 6 shows that the coalition consisting of Denmark, Ireland and Cyprus and coalition consisting of Romania and Cyprus has changed places. This leads to different results for and  $\sigma$  as shown in Table 9.

**Deviation from fair voting system,  
with three decimal places rounding**

Table 9

R >	R ≤	$\eta_1$	$\eta_2$	$\eta_3$	$\eta_4$	$\sigma$
0.903	1.000	1	1	1	1	0.126844
0.785	0.903	2	2	2	0	0.108664
0.758	0.785	3	3	1	1	0.082441
0.698	0.758	4	2	2	2	0.062765
0.670	0.698	5	3	1	1	0.060114
0.526	0.670	6	2	2	0	0.092898
0.552	0.526	7	1	1	1	0.163120
0.438	0.552	6	2	2	2	0.060498
0.465	0.438	7	1	1	1	0.163120
0.731	0.465	6	2	2	0	0.092898
0.293	0.731	5	3	1	1	0.060114
0.233	0.293	4	2	2	2	0.062765
0.205	0.233	3	3	1	1	0.082441
0.088	0.205	2	2	2	0	0.108664
0.000	0.088	1	1	1	1	0.126844

The lowest value of  $\sigma_{min} = 0.060114$  and this happens in the  $0.670 < R \leq 0.698$ .

It is noted that the minimum value of  $\sigma$  has changed much from the case without rounding and also the interval it belongs to.

This shows that the rounding has a great influence on the minimum value of  $\sigma$  and the associated threshold.

It can happen that rounding to decrease the value of  $\sigma_{min}$ , which means that the approximation is improved if the Jagiellonian Compromise decision-making system based on square root.

## Notes

<sup>(1)</sup> The share of the vote in the case of Jagiellonian Compromise is square root of population, rounded to the nearest number. Thus we have in Malta =  $635.9 \rightarrow 636$ . The threshold for qualified majority decisions respect the formula:  $(+95.916)/2=59058,47 \rightarrow 59058$ . Since the share of Malta is  $636/95916=0,006631 \rightarrow 0.66\%$ , the relative index is 0,66. Power index for the rule of double majority of 55% of Member States and

65% of its population are taken from Slomczynski and Zyczkowski, 2007, p. 12. Deviation from Jagiellonian compromise is for the Malta  $(1.58-0.66)/0.66 = +1.3939 \rightarrow +139\%$

<sup>(2)</sup> See draft Constitution with regard to the European Parliament.

<sup>(3)</sup> See Eurostat No. 7/2008.

---

## References

---

- Baldwin, R., Widgren, M., „Can the Constitution voting rules be improved?”, *CEPR Policy Insight, No. 4*, 2007
- Colignatus, T., „Why one would accept Voting Theory for Democracy”, *MPRA Paper No. 3885*, 2007
- EuObserver, „Poland to fight for square root law in EU Treaty”, *www.Euobserver.com*, 03.2007
- Kauppi, H., Widgrén, M., „What determines EU decision-making: Needs, power or both?”, *Economic Policy*, Vol. 39, 2004
- Kirsh, W., „On Penrose, s square-root law and beyond”, *Ruhr-Universität Bochum*, 2007
- Kirsh, W., Langner, J., „Invariably Suboptimal An attempt to improve the voting rules of Treaties of Nice and Lisbon”, *arXiv:0812.4114v3 [math.HO]*, March 9, 2009
- Kirsch, W., Slomczynski, W., Zyczkowski, K., „Getting the votes right”, *European Voice*, 3-9 May 2007
- Kurth, M., „Square root voting in the Council of the European Union: Rounding Effects and the Jagiellonian Compromise”, *University of Nottingham*, *arXiv:0712.2699v2* 2007
- Kurpas, S., Schnolnau, J., „Thinking Ahead for Europe. Deadlock Avoided, but Sense of Mission Lost? The Enlarged EU and its Uncertain Constitution”, *CEPR Policy Brief, No. 92*, 2006
- Laruelle, A, Valenciano, F., „Inequality among EU citizens in the EU’s Council decision procedure”, *European Journal of Political Economy*, 2002
- Machover, M., „Distribution of power and voting procedures in the European Union”, *Natolin European Centre, Warsaw, IW*, 2007
- Pukelsheim, F., „Putting Citizens First: Representation and Power in the European Union”, *Universität Augsburg, Institut für Mathematik, Natolin International Workshop on Distribution of Power and Voting Procedures in the European Union, Warsawa, 12-13 October 2007, Proceedings*, Preprint 40/2007
- Ratzer, E., „On the Jagiellonian Compromise voting in the European Union”, <http://arxiv.org/>, 2006
- Slomczynski, W., Zyczkowski, K., „Jagiellonian Compromise-An alternative voting system for The Council of the European Union”, *Jagiellonian University Paper*, 2007
- Slomczynski, W., Zyczkowski, K., „Voting in the European Union: The square root system of Penrose and a critical point”, *Jagiellonian University Paper*, 2004
- Slomczynski, W., Zyczkowski, K., „From a toy model to the double square root voting system, *Homo Oeconomicus* in press, 2007
- Slomczynski, W., Zyczkowski, K., „Penrose voting system and optimal quota”, *Acta Physica Polonica, B37*, 313-314, 2006

# Empirical Analysis Concerning the Correlation Fiscality Rate – Tax Incomes in Romania

■

**Raluca Drăcea**

University of Craiova  
rdracea@central.ucv.ro

**Mirela Cristea**

University of Craiova  
mcristea@central.ucv.ro

**Ionuț Tomescu**

University of Craiova  
ionut.tomescu@cez.ro

***Abstract.** In the specialized literature it is reviewed the taxation from all points of view and the question raised by the last decade analysts is: what is the optimum level of taxation? The difficulty in answering to this question stands in the opposite interests: State wants a high level of taxation due to the increasing trend of public expenses while the tax payers wants a low level in order to benefit of greater financial funds.*

*Starting from Laffer theory, the objective of this paper is the empirical analysis of the correlation between fiscality rate and the tax incomes in Romania, using Matlab program and SPSS software. The paper is structured in three parts: first part it is review the specialized literature, in the second part is described the research methodology while the third part compound results and discussions. The paper is finished by conclusions.*

**Keywords:** Laffer curve; taxation ratio; fiscal incomes; statistical analyse; correlations.

■

**JEL Codes:** E62, H21, C22.

**REL Codes:** 8K, 13F.



## Introduction

Using as source of the analysis the US market economy saddled with mathematical arguments, the American economist Arthur B. Laffer (1978) pointed out, by means of a curve, *the relation between the tax pressure rate and the tax incomes flux*, recently known under the denomination of Laffer Law. This law became fast the theoretic groundwork and the reference support for the theoreticians of the offer economy. The Laffer curve is considered in almost every study dealing with the fiscality level, due to its suggestive feature, and it reflects the relation between the tax pressure represented on the abscissa and the tax incomes on the ordinate.

The representation of the tax pressure area for a certain country, on the Laffer curve, is difficult as long as the maximum threshold admitted theoretically has always been exceeded. As a rule, when a country is represented in the inadmissible area (*prohibitive range*) an increased tax base and the growth of tax incomes is expected, generated by the stimulative effect of all measures adopted for stimulating the output and the investment process (Witte, 1985). The same effects are wanted for a country registered within the admissible area (*normal range*). It is possible that the expected effect do not manifest when population claim new public utilities, and the funds allotted in this case are neither possible in a first stage, nor wanted, due to the rigidity of the work tender. In addition to this, a policy of tax extension rejects the extension of the public economy to the exchange economy detriment, because of the negative effects on the global tender.

The practical issue of each government consists in the determination of the *adequate taxation rate* level, meant to register high tax incomes for the government (Government or local, regional authority). The adequate level is defined from the point of view of the institution entitled to decide the tax rate, the tax incomes maximization representing the objective function.

Starting from the premise that the taxation method is less important (flat or progressive tax) than the general level of taxation (tax burden), the purpose of this paper consists in the empirical analysis of the correlations between the tax pressure rate and the tax incomes flux within Romania.

### 1. Theoretical basis

Studying the relationship between the tax pressure and tax incomes, A. Laffer together with V.A. Canto and D.H. Joines (1978), in their paper "Taxation, GNP and Potential GNP"<sup>(1)</sup>, reached the conclusion that the growth of the tax pressure does not necessarily determine the adequate accumulation of tax incomes, in exchange, *the diminution of the tax pressure generates favourable conditions for the growth of tax incomes*. This conclusion was based on a mathematical argument according to which the capital and the work are rewarded according to the marginal income:

$$P = K^{\alpha} \times M^{1-\alpha}, \quad (1)$$

where:

$$0 < \alpha < 1;$$

$\alpha$  and  $1-\alpha$  – elasticity of factors K and M;

P – output value;

K – capital factor;

M – work factor.

The analysis pattern introduces a series of simple hypothesis, this is why they are considered as the *the weak point of the theoretical basis* (Samuelson, Northaus, 1992):

- the compensation rates of the capital factor ( $R_v$ ) and work factor ( $W_v$ ) are achieved taking into account their marginal value and they are expressed according to the output value (P):

$$R_v = \frac{\partial P}{\partial K} \text{ and } W_v = \frac{\partial P}{\partial M} \quad (2)$$

- the net reward of the capital factor (R) and work factor (W) differs from the gross reward ( $R_{v \text{ and } W_v}$ ) due to the taxation rates ( $t_k$  and  $t_w$ ) applied to the incomes of the factors:

$$R_v = R(1 + t_k) \text{ și } W_v = W(1 + t_w) \quad (3)$$

- the functions of the capital and work tender are:

$$K_0 = \left( \frac{R}{W} \right)^a \times R^e, \quad a < 0, e < 0 \quad (4)$$

$$M_0 = \left( \frac{W}{R} \right)^b \times W^e,$$

$$b < 0, e > 0 \text{ and } a + e > 0; b + e > 0 \quad (5)$$

The expressed hypothesis lead to the following preliminary conclusions:

- for a certain output level, any change interfering between the rates ( $R_v$  and  $W_v$ ) of gross reward of the factors changes the demand of capital and work factors in the case of enterprises;

- any change of the net rewards (R and W) of the factors changes the market tender within the administration department, by substituting a factor in a certain proportion with the other one.

The elementary character of these hypothesis regarding the rate elasticity of tax drawings and the curve analysis, considered as a reflection of the tax history specific to a

country, and the last stage in the evolution of the tax system determined the French economist Henri Sempe (1981) to propose the study of a fragment of their evolution, in order to prevent the risk of obtaining an exchange economy and the disappearance of the State.

In the American litterature, a series of American authors contradict the legitimacy of the Laffer curve (McConnell, Brue, 1990, Dornbusch, Fischer, 1990) as well as the effects generated by the diminution of the tax rate at the American economy level, the critics engendered fervent reactions from the supporters part (Clark, Dwight, 1996). Other critics regarding the Laffer curve (Mirowski, 1982, Denicolo, 1988) are related to its empirical character, the lack of relevant variables and controversies concerning the underground economy.

Subsequently, in a recent article, Arthur Laffer (2005) illustrates the expected effects giving concrete examples which confirm his theory. There have been three major periods of tax-rate cut in the US history: the Harding-Coolidge cuts of the mid-1920s; the Kennedy cuts in the 1960s and the Reagan cuts in the 1980s. The most recent examples belong to the ex-socialist States, where unique tax-rates are experimented for the first time<sup>(2)</sup>.

The representation of the tax pressure area for a certain country, on the Laffer curve, considering the tax pressure level, is hard to accomplish as long as the maximum threshold admitted theoretically has always been exceeded. As a rule, when a country is represented in the inadmissible area, an increased tax base and the growth of tax incomes is expected, generated by the stimulative effect of all measures adopted for stimulating the output and the investment process.

The same effects are wanted for a country registered within the admissible area. It is

possible that the expected effect do not manifest, when population claim new public utilities, and the funds allotted in this case are neither possible in a first stage, nor wanted, due to the rigidity of the work tender. In addition to this, a policy of tax extension rejects the extension of the public economy to the exchange economy detriment, because of the negative impact over the global tender.

The displaced Laffer curve (Hoanță, 1997) describes all the elements in a different way (Figure 1).

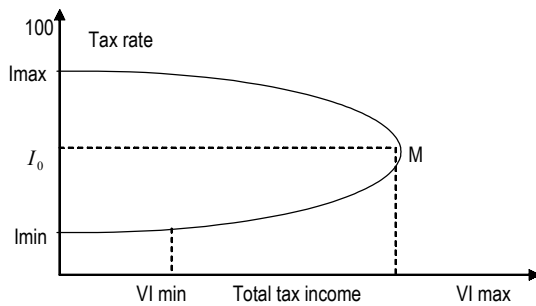


Figure 1. Displaced Laffer Curve

The minimum tax rate  $I_{min}$  corresponds to a minimum budget meant to provide a reduced bureaucracy, and efficiency for the government’s improved fiscal situation. The adequate tax rate  $I_0$  places the drawing of the largest amount of incomes resulting from taxes, retained by the government. All possible rate between  $I_{min}$  and  $I_0$  represent tax rates which are available for the government – business entity in a market economy.

The maximum tax rate  $I_{max}$  indicates the tax rate which satisfies the following relation:

$$I_{max} = V - \sum \frac{VPD}{V} \times 100 \quad (6)$$

where V is the income achieved by the population of a country, during one year, and VPD represents the individual income established by the public authority which becomes totalitarian.

So, if for the interval  $I_{min}$  and  $I_0$  the activity of collecting incomes is functional and equitable, reaching the maximum value in point M, for the interval  $I_0$  and  $I_{max}$  it is not the same situation, the collected incomes retained by the government tend to a sudden increase, which is not the result of the taxation effect, but of the seizure performed within imposed working conditions stripped of freedom of initiative.

Considering the relationship between the tax incomes level and the gross domestic product, we may notice that (Văcărel, 2005) a highly developed country from the economic point of view possesses numerous possibilities for the reallocation of public financial resources (resulting from taxes, duties and contributions) in order to satisfy the general needs of the society.

Presently, a number of governments (we mention here Romania) register a reduced GDP per inhabitant compared to that registered by the European Community countries, and the GDP reallocation percentages through taxes and duties are higher than those registered by highly industrialized countries. The explanation for this situation consists in the reduced level of GDP registered within those countries and in the existence of numerous unsolved economic and social issues (for a reduced GDP, the necessary resources results from the growth of the tax rate).

An important research elaborated by the specialists of the Economic and Social Council of France (Le Clezio, 2005) pointed out the way in which the public budget proportion of 18 developed countries of the world influences the economic growth, the GDP level/inhabitant and the poverty rate of those countries. The study entitled “Prélèvements obligatoires: compréhension, efficacité économique et justice sociale” clearly substantiates

the fact that *there is no coordination between the value of taxes and duties reported to the GDP value and the economic growth*. Countries as Norway, Finland, Denmark or Sweden, with public budgets which represent more than 50% of the GDP, registered the last decade an economic growth more important than that in Japon (with a public budget of 29% of the GDP). Moreover, Norway registered the highest rhythm of economic growth among the most developed States, with a public budget of over 55% of the GDP (here the taxes and duties paid by Norwegians are very high).

The French specialists tried to establish a correlation between the public budget income level and the GDP/inhabitant, but they didn't succeed in achieving such a correlation. Norway and USA are highly developed countries (over 35,000 dollars/inhabitant), even if the tax rate in Norway registers the highest value, and in USA, its value is among the smallest. In exchange, one may notice the existence of a very tight correlation between the public budget importance and the limitation of the inequality level, or the return of poverty in the case of children. If programs of social support were not enforced, financed from taxes and duties, the poverty rates among children would be very close in Sweden and USA, of 23.4%, respectively 26.7%. In reality, as a result of the enforcement of social support measures, these rates represent 2.6% in Sweden and 22.4% in the USA.

Considering all these aspects, our paper tries to test the correlation between fiscality rate and tax income flux in Romania.

## 2. Research methodology

Necessary data used for the representation of the Laffer curve (table 1 and table 2) are provided by the National Institute of Statistics

and the Ministry of Economy and Finance. The influence of the tax rate over the total amount of collected tax incomes<sup>(3)</sup> at general public budget level is registered for the following time interval 1991-2006.

In order to obtain the values corresponding to the GDP and to the tax incomes, the inflation impact has been ignored. The values assigned to the parameters have been transformed into comparable values by reducing them to the same basis of comparison (year 1991), all data have been calculated using the same currency – euro. The studied period, 1991-2006 for Romania, registered important currency exchange fluctuations as well as measures concerned with the national currency denomination. In order to reduce the effects generated by these situations, the values of the variables have been changed in euro using the average currency exchange registered during the last year of the interval 2006.

Taking into account all available data, a file in Matlab (6.5 version) has been saved where the available data concerning the real GDP, the nominal GDP, the GDP deflator, the tax rate, the real level of incomes, the period specific to each set of data, have been imported, distributed on columns.

Subsequently, elementary functions of graphical representation and adaptation of data tendency have been applied using this file. This projection follows to display how the available data falls into different representations – a line or a curve, meant to illustrate the evolution along the 16 years considered as the study framework, therefore, the prognosis on future data is not processed.

Figure 2 illustrates the graphical representation of GDP deflator by applying a function of graphical representation meant to display the set of data, and processing the data

in the columns which stand for the values of the deflator and the years of reference. The two columns, consisting of processed data, in fact, represent the parameters specific to the function of graphical representation.

The same function of graphical representation is used for the real GDP (million lei), during the 16 years and for the nominal GDP (million lei), in figure 3. The representation function gives four parameters, in this case (all data specific to the analyzed interval are considered twice, for the real GDP and for the nominal GDP).

Figures 4 and 5 illustrate the graphical analysis of the percentage-evolution of real GDP and nominal GDP, during the 16 years

taken into consideration. Two graphics were performed, adjusting the data tendency – this adjustment practically indicates the elaboration of a line which joins the points characterizing the entire range of data. As means of adaptation, the linear tendency has been chosen (1<sup>st</sup> degree).

Figure 8 refers to the evolution of real incomes expressed in million euros according to the tax rate registered within the considered interval, using as in figure 2 a representation function based on two parameters (the two correlated values). The distribution of data in figure 10 is displayed by means of a 4<sup>th</sup> degree polynomial, in order to obtain a clearer image on the statistical evolution of data (dotted blue line).

### 3. Results and discussions

#### Evolution of real GDP, real tax incomes and tax rate. Considered period 1991-2006 (Romania)

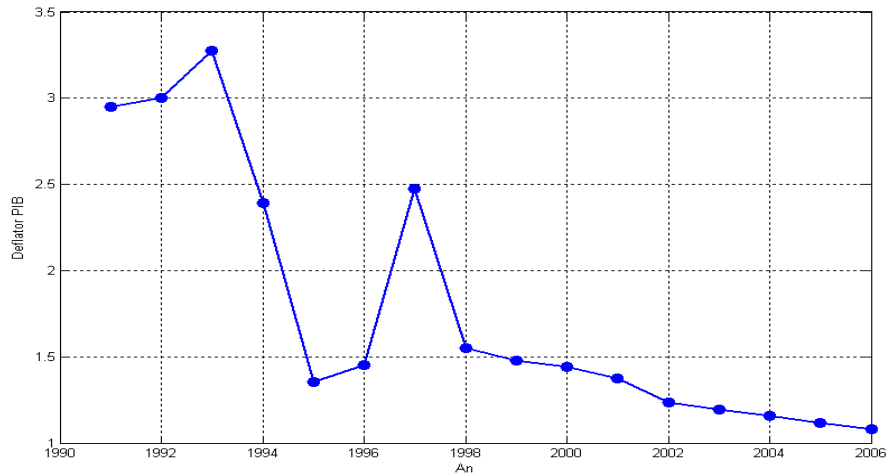
Table 1

Year	Nominal tax incomes*) (mil. lei)	Nominal GDP (mil. lei)	GDP deflator index	Real GDP (mil. lei)	Real tax incomes (mil. lei)	Real GDP (1991=100%) (mil. lei)	Real tax incomes 1991=100% (mil. lei)	Real GDP **) (mil. eur)	Real tax incomes **) (mil. eur)	Tax rate (%)
1991	73,3	220,3	2,951	74,65	24,84	220,30	73,30	62,51	20,80	33,27
1992	201,2	603,0	3	201,00	67,07	201,00	67,07	57,03	19,03	33,37
1993	626,6	2003,6	3,274	611,97	191,39	203,99	63,80	57,88	18,10	31,27
1994	1404,2	4977,3	2,391	2.081,68	587,29	211,94	59,79	60,13	16,96	28,21
1995	2080,3	7213,5	1,353	5.331,49	1.537,55	227,02	65,47	64,41	18,58	28,84
1996	2924,8	10892,0	1,453	7.496,21	2.012,94	235,92	63,35	66,94	17,97	26,85
1997	6701,4	25292,5	2,473	10.227,46	2.709,83	221,53	58,69	62,85	16,65	26,50
1998	10541,6	37379,9	1,552	24.084,99	6.792,27	210,95	59,49	59,85	16,88	28,20
1999	18493,7	54573,0	1,478	36.923,55	12.512,65	208,37	70,61	59,12	20,04	33,89
2000	23748,7	80377,3	1,443	55.701,52	16.457,87	212,68	62,84	60,34	17,83	29,55
2001	33145,5	116768,7	1,374	84.984,50	24.123,36	224,87	63,83	63,80	18,11	28,39
2002	41739	151475,9	1,234	122.751,94	33.824,15	236,40	65,14	67,07	18,48	27,55
2003	53564,9	197564,8	1,194	165.464,66	44.861,73	258,23	70,01	73,27	19,86	27,11
2004	67623,6	246371,6	1,158	212.756,13	58.396,89	278,08	76,33	78,90	21,66	27,45
2005	79032,3	287186,3	1,114	257.797,40	70.944,61	290,98	80,08	82,56	22,72	27,52
2006	96847,1	342198,4	1,082	316.264,70	89.507,49	320,44	90,69	90,92	25,73	28,30

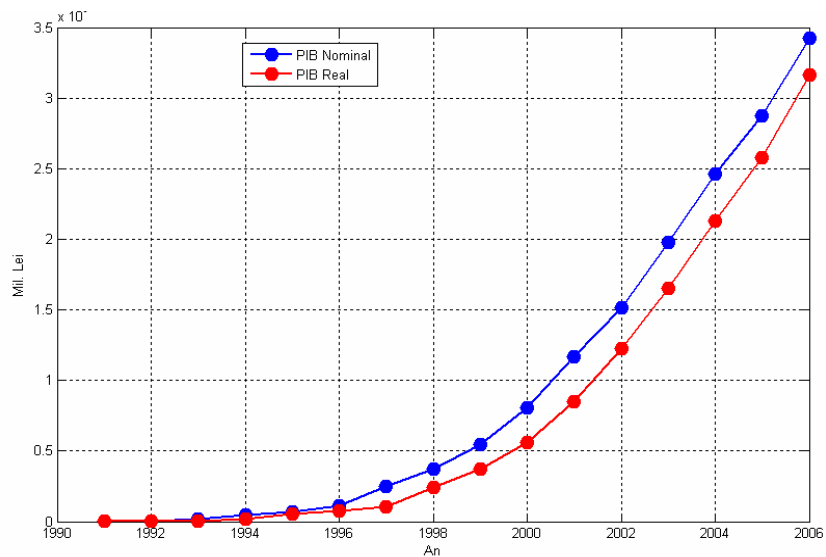
\*) This category includes duties, taxes and social security contribution

\*\*) According to the exchange value eur/lei registered in 2006

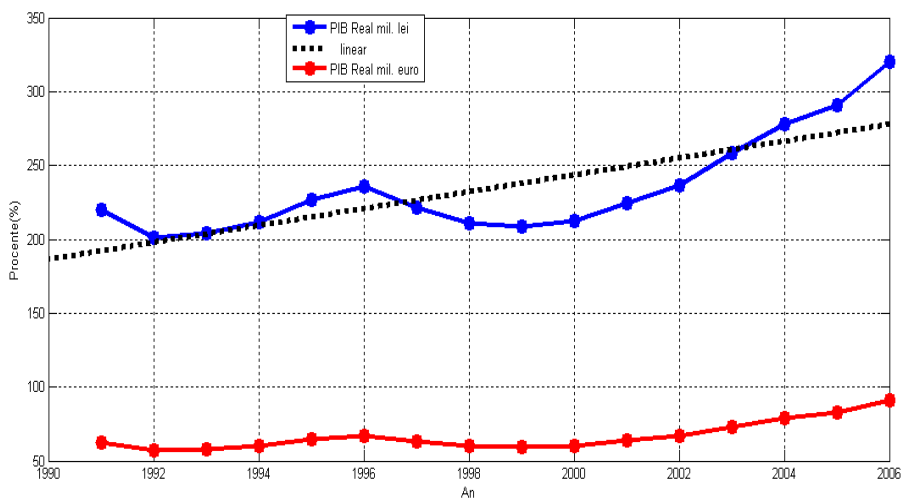
Source: Statistical Annuary of Romania.



**Figure 2.** Graphical representation of GDP deflator evolution



**Figure 3.** Graphical representation of real GDP and nominal GDP evolution (mil. lei)



**Figure 4.** Graphical representation of real GDP evolution (mil. lei and mil. euro)

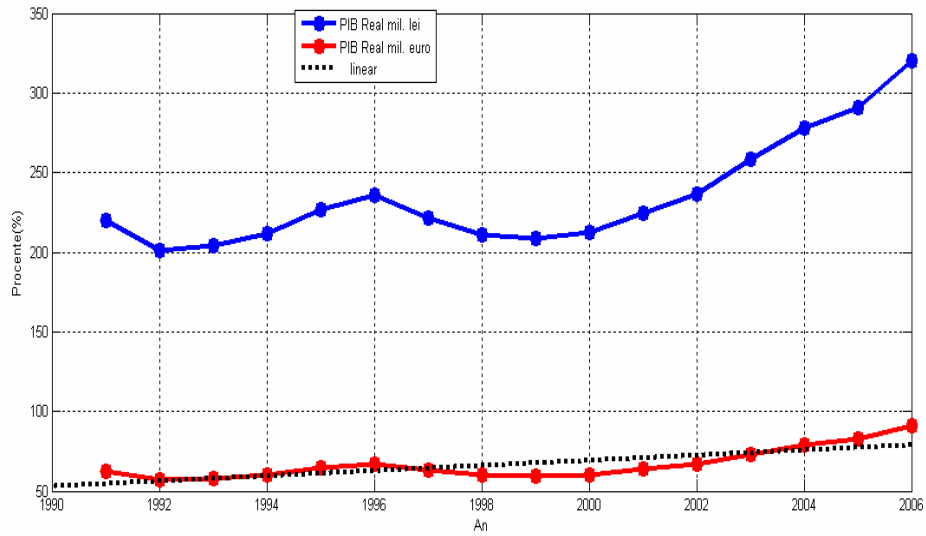


Figure 5. Graphical representation of real GDP evolution (mil. lei and mil. euro)

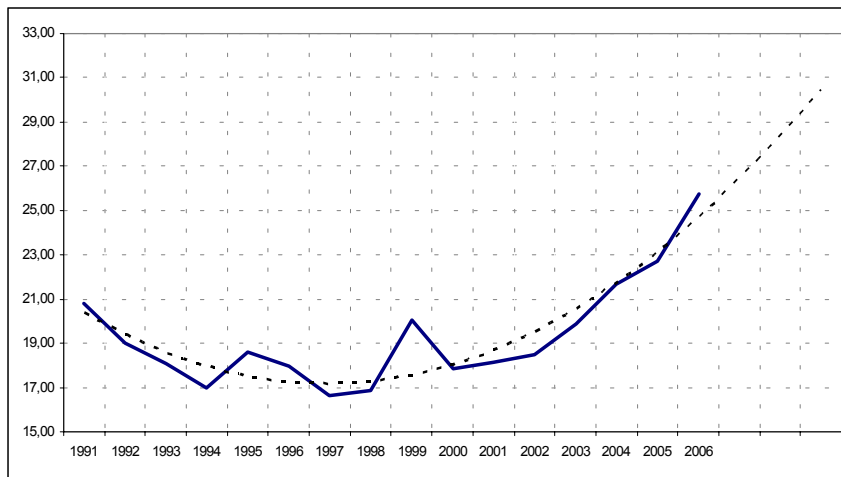


Figure 6. Real tax incomes in Romania 1991=100 (mil. euro)

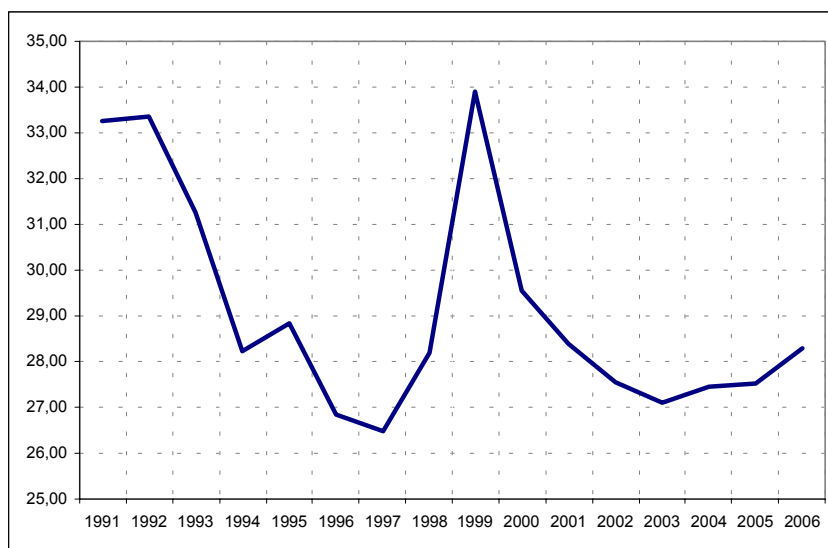
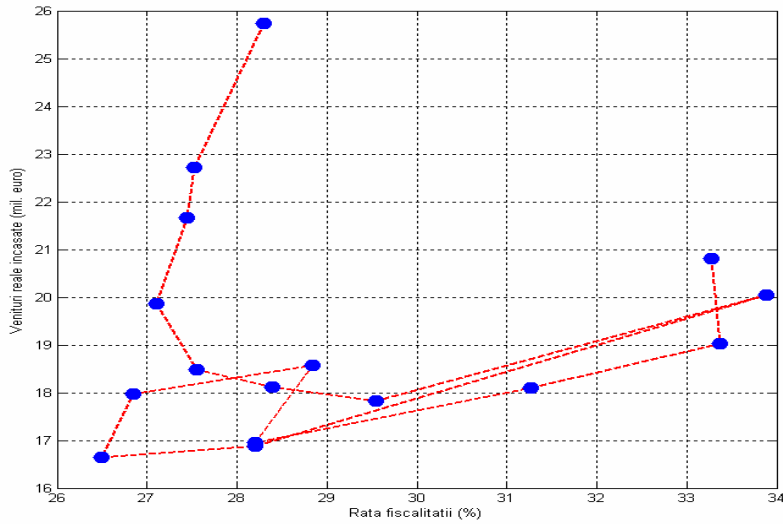
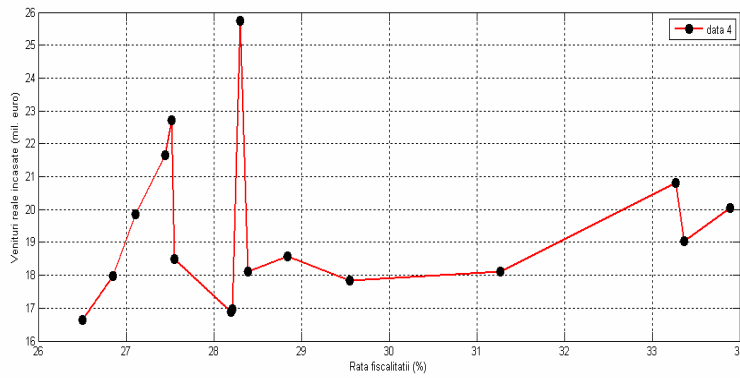


Figure 7. Tax rate in Romania (%)

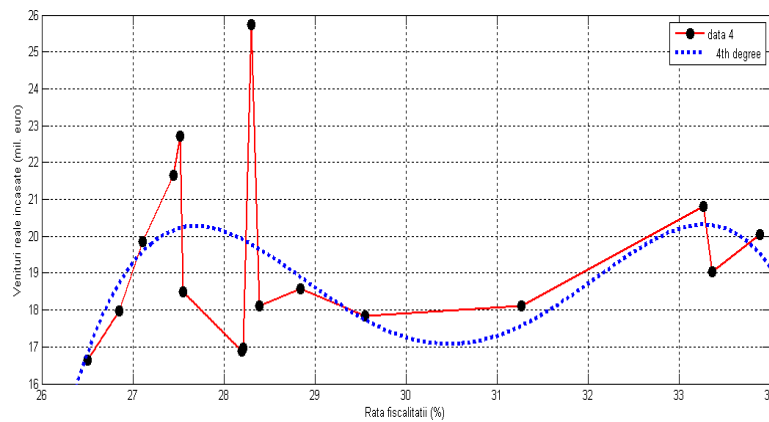




**Figure 8.** Temporal evolution (1991-2006) of tax rate and of collected real incomes



**Figure 9.** Laffer curve representation for Romania (evolution concerning the progressive growth of tax percentages)



**Figure 10.** Laffer curve representation for Romania (graphical adaptation using the 4<sup>th</sup> degree polynomial equation)



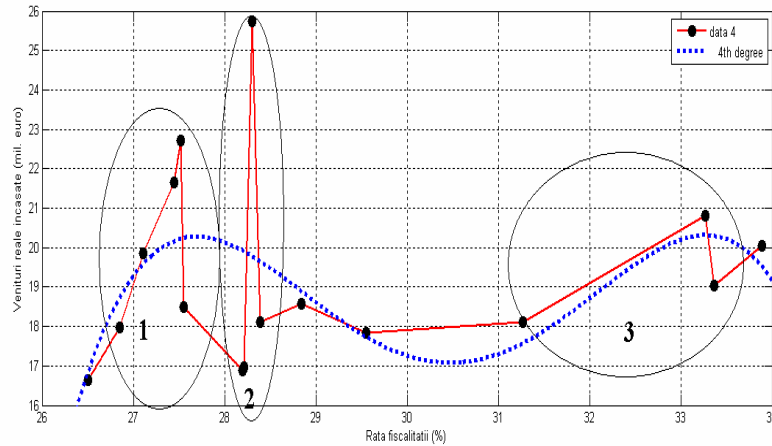


Figure 11. „Cyclicity” of Laffer curve representation in Romania

In Romania, the real *gross domestic product* (Figure 4) indicates a linear type tendency. The minimum values are registered in the year 1992 (an important rise in prices was registered in this year) and the year 1999 (as a result of the period of massive activity restriction of the State enterprises and of a private sector inadequately developed, unable to attenuate this effect).

The second half of this interval (1999-2006) clearly indicates a stabilization tendency based on increasing values.

As one may observe in Figures 4 and 5, the evolution of the real GDP expressed in euro differs from that of the real GDP expressed in million lei, fact deriving from the currency exchange. This difference becomes evident in the last three years of the studied interval (2004, 2005, 2006). No currency exchange average is used for the last three years of the interval, considering that differences would be rather details than practical. The black lines corresponding to each curve (linear tendency of data) register almost the same parameters and the same inclination reported to the OY axis, for each set of data, which enforces the situation

mentioned above, according to which the possibility of considering a larger interval of years, for the currency exchange analysis, proves to be an action of detail rather than an useful information.

The *real tax incomes* (Figure 6) register a parabolic type tendency indicating a minimum value in 1997 and more important fluctuations during 1994-2000 (generated by frequent changes of the tax level). The last part of the analyzed period (2000-2006) points out a continuous increase of the value of this variable.

The *tax rate* (Figure 7) presents an evolution registering important fluctuations, with an absolute minimum in 1997 caused by a minimum level of real tax incomes during the same year and an absolute maximum in 1999 (generated, this time, by the combination: local maximum for tax incomes and local minimum for the GDP).

According to Laffer’s theory, taking into account the evolution of tax incomes and rates, one may identify two areas:

- the „admissible” area (*normal range*), where the increase (diminution) of the tax pressure is followed by the corresponding

increase (diminution) of the tax incomes to the State general consolidated budget;

- the „inadmissible” area (*prohibitive range*), where the increase of the tax pressure is followed by the diminution of tax incomes.

Although, the affirmation according to which the tax pressure diminution is followed by the tax incomes diminution, situation placed in the admissible area representation on the curve, and the tax pressure diminution is followed by the tax incomes increase, situation placed in the inadmissible area representation, seems a little bit illogical, the estimation should be done according to Laffer’s theory, *reported to the optimum level of the tax pressure* which provides the maximum amount of incomes, thus, for the first situation the tax pressure level is placed below the optimum level, and for the second situation, above the optimum level.

The most suggestive tendency of Laffer curve representation for Romania has been achieved through the adaptation by means of the 4<sup>th</sup> degree polynomial equation (Figure 10). One may notice a tendency following a cyclic rhythm: first cycle with a length of time of 5-6 years, second cycle with a length of time of 3 years and third cycle with a length of time of 3-4 years.

### 3. Conclusions

According to this analysis, the tax optimum level remains an illusion. The results of the analysis reflects the fact that the real issue consists in the tax general level correlated to its effects over the social environment. The existence of the three tax „pillars” which maximize the tax incomes flux involves the existence of three levels of „optimum taxation:

the first level represents a tax rate between 27-28%; the second level consists in a tax rate between 28-29% and the third level of tax rate being a little bit over 33%.

In *Romania*, the enforcement of the unique tax rate of 16% (2005) led, on average term, to the *evidence of the economic effect suggested by Laffer*: the growth of tax incomes. This growth is determined by three causes: (i) the emergence of a part of the dark economy; (ii) the increase of the private consumption due to high salaries, which led to the increase of VAT incomes; (iii) the increase of the investments made by companies.

The reaction manifested by the Romanian economy to the tax policies was in accordance with the economic laws based on economic theories. Presently, Romania adopts an optimistic attitude, based on the statistic tendencies which confirm Arthur Laffer’s theory, applied by other countries in the Eastern Europe. Though, the form of the Laffer curve for Romania is not identical to that introduced by the American economist, this fact evidenced that the *tax pressure can not be considered as a variable of the economic conduct or as an economic indicator*, for the given period.

On the other hand, the reduced tax level in Romania (under the circumstances that the tax rates for the main taxes are similar to those adopted by other countries in the Eastern Europe), points out *a reduced collection of taxes* mainly due to the tax payment evasion phenomenon.

The continuous diminution of the tax level in Romania, after the year 2000, considering the considerable increase, in real terms, of the gross domestic product and, respectively, the diminution of the tax rates for the main taxes,

may be explained as it follows: (i) the increase of the tax base is insufficient in order to compensate the loss of incomes generated by the diminution of the tax rates; (ii) the diminution of the tax pursuance level and the spread of the tax dodger phenomenon.

In Romania, the real GDP value directly depends in a great extent on the real tax incomes value. Thus, the increase of its values is generated by the increase of the real tax incomes to the limit consented by the tax payers (reaching the tax optimum level).

---

## Notes

---

- <sup>(1)</sup> See Human Rights Report – electronic database includes statistics concerning different economic and statistic indicators, <http://www.cato.org/pubs/journal/cj1n1/cj1n1-1.pdf>
- <sup>(2)</sup> In 1994, Estonia introduces a unique tax rate of 26%, generating an annual average economic growth of 5.2%. Subsequently, the unique tax rate has been reduced to
- <sup>(3)</sup> Total amount of collected tax incomes including direct, indirect taxes and social security contributions.

---

## References

---

- Canto, V., Joines, D., Laffer, A., „Taxation, GNP and Potential GNP”, *Proceeding of the Business and Economics Statistics Sections*, 1978 (Washington, DC: American Statistical Association)
- Clark, J. R., Lee, D.R., „Sentencing *Laffer Curves: Response to the Critics*”, *Social Science Quarterly* (University of Texas Press), Vol. 77 Issue 2, June 1996
- Le Clezio, Ph., „Prélèvements obligatoires: compréhension, efficacité économique et justice sociale”, *Journal officiel de la République française, avis et rapports du Conseil économique et social*, 2005
- Denicolo, V., „Some analytics of the Laffer curve”, *Journal of Public Economics*, Vol. 35 Issue 1, February 1988
- Dornbusch, R., Fischer, S. (1990). *Macroeconomics*, New York: McGraw, Hill International Editions
- Gandhi, V.P., Ebrill, L.P., Mackenzie G.A. et al. (1987). *Supply-Side Tax Policy. Its Relevance to Developing Countries*, Washington, DC: International Monetary Fund
- Hoanță, N. (2000). *Economie și finanțe publice*, Editura Polirom, București
- McConnell, C.R., Brue, S.L. (1990). *Economics: Principles, Problems, and Policies*, New York: McGraw-Hill
- Mirowski, Ph., „What’s wrong with the Laffer Curve?”, *JEI, Journal of Economic Issues*, vol. XVI, Septembre 1982
- Padovano, F., Galli, E., „Tax Rates and Economic Growth in the OECD Countries (1950–1990)”, *Economic Inquiry*, vol. 39, no. 1, 2001
- Samuelson, P., Northaus, W.D. (1992). *Economics*, 14<sup>th</sup> edition, McGraw-Hill, New York
- Spiegel, U., Templeman, J., „A non-singular peaked Laffer curve: debunking the traditional Laffer curve”, *American Economist*, Fall, Vol. 48 Issue 2, 2004
- Văcărel, I. (2004). *Finanțe publice*, Editura Didactică și Pedagogică, București
- Witte, J.F. (1985). *The Politics and Development of Federal Income Tax*, The University of Wisconsin Press
- xxx, Institutul Național de Statistică, Romania (INSSE)
- xxx, Ministerul Economiei și Finanțelor, România

# The Mimetic Principle in the Underground Economy

■

**Cristina Voicu**

The Bucharest Academy of Economic Studies

cristina.voicu@economie.ase.ro

***Abstract.** There has been in the recent years an increased preoccupation at international level for the research of the mechanism of development of the underground economy. The numerous vain attempts to measure the dimension of the underground economy persuaded us to embark on a qualitative research of this economic phenomenon. In our investigation on the roots of the underground economy we drew very close to the psychological and sociological aspects of the phenomenon itself. The process of humanizing that has at its origin components of the mimetic principle, like acquisitive mimesis, prompt us to ponder over J.M. Keynes' words: „The avoidance of taxes is the only intellectual ambition that one feels rewarded for.”*

**Keywords:** underground economy; mimetic principle; acquisitive mimesis.

■

**JEL Codes:** A14, B22, H26.

**REL Codes:** 3B, 5B, 13I.

“Man (...) imagines he can arrange the members of society as easily as he arranges the pieces of chess on a chessboard. He does not take into account the fact that the piece on the chessboard have no movement principle other than that the hand imprints on them; but on the great chessboard of society, each piece has its own movement principle, totally different from the one that the legislator may choose to imprint on it...”

Adam Smith, *The Theory of Moral Sentiments*

### The sterility of the attempts of measuring the underground economy

“Understanding is, after all, the purpose of science – and science is much more than mechanical calculation, lacking understanding.”

Roger Penrose

We consider that underground economy is the product of some general factors, as well as of some specific ones. When we speak of a phenomenon of such importance and that is present in our daily lives, our responsibility increases. It is difficult to accuse but it is even more difficult to clear the blame. It is a great responsibility to cast the blame, as long as every one of us has been at least once direct participants at an economic activity with an underground characteristic.

Two types of economy as they are presented in literature and that have an identical composition have no reason for functioning separately and to be analyzed as occupying rival positions. Both types of economy are part of the real economic life and both exist due to people’s real needs, both are capable of satisfying a set of real needs for them.

### Others have tried as well

Taking into account the perception at a global level on the evolution of the level of corruption and of the activities of the underground economy in general, one can justify the increased interest in this phenomenon which is ever more present in contemporary economy. According to the Global Report on Corruption<sup>(1)</sup> made by Transparency International, 54% of the respondents maintain that the acts of corruption will increase in the following years.

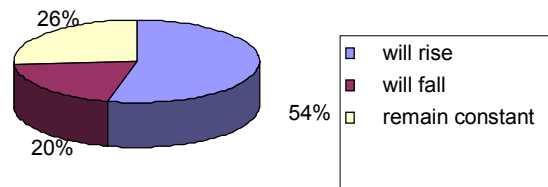


Figure 1. Global perception of corruption for the next 3 years

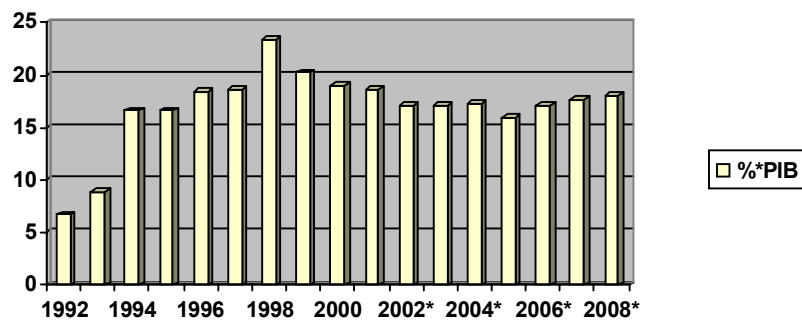
### Official data

The interest for more in-depth research was not random, it was triggered by the concerns among the economists regarding the following deficiencies that exist in the economy of one country (Popa, Cucu, 2000, p.10).

- the evidence, in official statistics, of errors that were hard to explain;
- errors in governmental policies due to the faulty perception of reality;
- unrealistic conclusions of the selective research regarding the households of the population that passed unnoticed by the users of the data resulting thus in the distortion of reality;
- disorder in the system of taxation and fees etc.

The analysis is done with respect to Romania. Thus, the official data about the estimated dimension of the underground economy in Romania is the one offered by the National Institute of Statistics, using the method of the labor force, used initially in Italy and generalized for all the countries in the European Union. The *constitutive elements of the underground economy* specified in the analysis done by the National Institute of Statistics are: *the under-utilization of the labor force; tax evasion through unreported added value; tax evasion through unreported income; unreported informal activities*. Also, we took into consideration the activities done by legally registered companies, in the formal or informal sector, but unreported with the purpose of avoiding taxes, social security payments, regulations on the labor market, as well as the activities done by unregistered enterprises, that belong to the informal sector. It was estimated that the under-reported added value is the most important way of tax evasion, the main source of the underground economy.

In order to achieve a greater degree of objectivity we took into account both the activities of the legally registered companies, in the formal or informal sector, but unreported (with the purpose of avoiding taxes, social security contributions, regulations on the labor market), and the activities of the unregistered enterprises that belong to the informal sector. It is nevertheless estimated that the under-reported added value is the most important way of tax evasion, the main source of underground economy. According to the estimates of the National Institute of Statistics and of the National Bank of Romania, the proportion of the underground economy in the GDP shows a rising trend in the interval 1990-1998, when it reaches the highest level, after which it diminishes till the year 2005, when it starts growing again, as Figure 2 shows. Although in absolute sum the underground economy increased permanently, the percent evolution had also descending trends. This evolution is due to a more rapid rate of growth of GDP compared to the value of underground economy.



**Figure 2.** *The proportion of underground economy in Romanian GDP between 1990 and 2008<sup>(2)</sup>*

The Public Finance Ministry used the monetary method to evaluate the underground economy during the period 1993-1998. The estimates were made for the

domestic economy and imports, comparing the official part with the underground one. The results of the application of the monetary method showed a rate of growth of the

underground economy of 56% in 1994 and of only 13% in 1997. The monetary method is not very suitable for the Romanian economy. The main argument is that the Romanian economy is strong demonetized; only a small part of the population uses currency as the main means of exchange.

The data above can be easily contradicted by other studies carried out with respect to the underground economy, so that in the year 2008 the underground economy is estimated at 33% of GDP, occupying the 5th place in Europe, and on the first places were Bulgaria (36%), Latvia (36%), Estonia and Croatia (35%), according to the study carried out by the AT Kearney company<sup>(3)</sup>.

**The sterility of the quantitative in the absence of the qualitative**

One of the greatest challenges for the researchers is the measurement of the dimension of the underground economy in relation to the GDP, to the underground economy of other countries and also to its evolution, while the sociologists are interested more in the structure of the members, of the ones that participate at the formation of the underground economy.

After analyzing several specialist works, in which the authors tried repeatedly to do this without obvious success, I decided *to deal mainly with qualitative research*. In order to motivate my choice I will present, in parallel, the attributes of the two methods of research according to the classification in Table 1 (Grix, 2001, p. 34).

Qualitative research presupposes a microeconomical approach and implies the investigation of knowledge. This method of research does not reside in the

accomplishment of numerical measurements, but it can use them in analysis. Qualitative research implies the interpretation of data and often the elaboration of new theories. Therefore, by comparison to the quantitative research, the researcher is not detached, on many occasions he even interacts with the researched topic. Quantitative research presupposes a macroeconomic approach relying on testing the existing theories.

**The quantitative-qualitative dichotomy**

Table 1

Quantitative approach	Qualitative approach
Macroeconomic approach	Microeconomic approach
Implies the deductive research strategy	Implies the inductive research strategy
Has its origin in the positivist tradition	Has its origin in the interpretive tradition
Relies on testing the theories and offering predictions	Generates theories
Has the role of identifying general notions and making connections between them	Has the role of interpreting events of consequence in time

I consider that the domain of the underground economy cannot be approached only at a microeconomic level or only at a macroeconomic level. The microeconomic level is essential in order to understand the whole, and the macroeconomic level is very important in order to identify edifying solutions.

As one can see from the comparative analysis put forth by Jonathan Grix, the quantitative analysis specific to the macroeconomic approach relies on testing the theories and even on offering predictions. Our proposed analysis belongs to the American economist A.B. Laffer<sup>(4)</sup> together with V.A. Canto and D.H. Joines, who formulated the idea according to which an increase of the fiscal pressure does not necessary determine an equal increase of the tax collections, but, on the other hand, the diminishing of the fiscal pressure creates



favorable conditions for the increase of the tax collections.

The demonstration starts with a Cobb-Douglas function that contains the factors labor and capital, rewarded by rapport to their marginal income:

$$Y = K^\alpha \times L^{1-\alpha}; 0 < \alpha < 1 \quad (1)$$

where:

$\alpha$  and  $1-\alpha$  - the elasticity of the production factors K and L;

Y – production;

K – capital;

L – labor.

The targeted taxes refer to:

- Rewarded rates of the production factors “capital” ( $R_K$ ) and “labor” ( $W_L$ ) are done at their marginal value and are expressed as function of the value of production (Y):

$$R_K = \delta Y / \delta K \text{ si } W_L = \delta Y / \delta L \quad (2)$$

- The net reward of the factors differs from the gross reward, due to the taxation rates applied ( $t_K$ ) and ( $t_L$ )

$$R_K = R \times (1 + t_K)$$

$$W_L = W \times (1 + t_L)$$

- The functions of the offer of the factors “capital” and “labor” are:

$$K_0 = (R/W)^a \times R^e, a < 0, e > 0; \quad (3)$$

$$L_0 = (W/R)^b \times W^e, b < 0, e > 0 \quad (4)$$

cu  $a + e > 0$  and  $b + e > 0$ .

with  $a + e > 0$  and  $b + e > 0$ .

The conclusions that can be drawn from here are the following:

- any change in the gross reward rates of the factors “capital” and “labor” for a certain level of production modifies the enterprises’ demand for necessary factors;

- any change in the net reward rates of the R and W factors modifies the offer of

the households providing that a factor can be substituted for another in a certain proportion.

$$\text{so: } K_0/M_0 = (R/W)^\beta, a + b + e > 0 \quad (5)$$

where:

$\beta$  - the elasticity of substitution of the supply of factors.

- The state budget is completely balanced and financed on the account of the taxes applied to the utilized factors:

$$IB = t_K \times RK + t_L \times WL, \quad (6)$$

where:

IB – the sum of the fiscal returns to the state budget;

RK – the income made by the K factor;

WL – incomes made by the L factor;

$t_K, t_L$  – taxation rates on capital and labor.

The relation between the factors offered is in balance with the factors demanded by the market

$$K_0/L_0 = K_c/L_c \quad (7)$$

On the basis of the previous hypotheses and of the mathematical reasoning we can draw the following conclusions:

- When the total income is divided in proportions a and (1-a), the functions of the demand for the “capital” factor and for the “labor” factor are:

$$K_c = \alpha \times Y/R_v;$$

$$L_c = (1-\alpha) \times Y/W_v \quad (8)$$

- the relation between the requested factors  $K_c/L_c$  is influenced by the taxation rates

$$K_c/L_c = \alpha \times Y / (1-\alpha)Y \times (1+t_L) / (1+t_K) \times W/R \quad (9)$$

- the relation between the gross recompensation of the factors is influenced by the taxation rates;

$$W_v/R_v = (1-\alpha)/\alpha \times [(1-\alpha)/\alpha \times (1+t_K)/(1+t_L)]^{\beta} \quad (10)$$



where:

$\gamma > 0$  - the elasticity of the substitution of the factors demanded by the market.

Considering the facts presented above I support the predilection of the analyzed theme for qualitative analysis, bearing in mind that the individual is the one that acts in the sphere of the underground environment, and the amplitude of the activities of the underground economy depends considerably on the capacity of the individuals to imitate, innovate and experiment with new methods of evading the overbearing structures of the state.

### **Past, present, future: the same fundamental cause**

*“Each age is a transition age. We know just one sure thing about the future or rather about the future ages: that they won’t resemble the present.”*

Jorge Luis Borges

The overbearing fiscal system is the main cause of the underground economy in the world. In Romania, the main form of manifestation of the underground economy is black market labor that spreads also on the account of a pressure of unbearable impositions both on the employee and on the employer.

### **The history of fiscal system in Romania**

Ever since the ancient times taxation has existed under different forms, even if it bore another name, the constraining principle was functioning just like today. The first Romanian tax attested in the documents dates from the age of the hospodar, in the 13<sup>th</sup>

century, these being the customs duties of the customs placed on the borders of the kingdoms. In the 14<sup>th</sup> century, besides the customs duties the tithe is also mentioned – “one out of ten”. In the 15<sup>th</sup> century the tribute in money appears, that was paid only by the “lower people” and was collected by tributes.

A drastic coercive measure, but an effective one, stipulated that the one paying the tribute to the other would immediately acquire the right of property over the wealth of their debtor. In the following centuries many other dues were introduced: quarter, tribute, tithe, beekeeping (taxes on keeping bees), hearth-money, sheep breeding (taxes on sheep), etc. The heaviest were the taxes set in order to meet the Turks’ requirements.

Dating from this period, there are two ways of avoiding taxation that constitute, in fact, methods of transition to the underground economy. Thus, the vassals that considered themselves too overwhelmed by the taxes imposed by their senior (the boyar) could move with the entire family on the estate of another senior, to whom they would then pay the dues established by him. From the point of view of the first collector of taxes, that is, of the boyar from whose estate the peasants run away, the tax payers go into the underground economy, a thing for which he considered himself in the just position of taking measures in order to keep them in the official economy. This is the reason for the issuance of the laws to “bind to the land” the peasants on one’s estate, laws that caused nevertheless, the most violent uprisings in the history of the Romanian states. The second situation is somewhat similar to the first, although, at first sight, it involves

aspects of international politics, and religious and military aspects. Moldova and the Romanian Country were not transformed into Turkish Pashalic and they retained their autonomy to a certain degree, but they were integrated as conquered territories in the system of taxation practiced in the Ottoman Empire. Almost all the military campaigns for liberation from the Turkish domination started with a symbolic act: gathering all the Turks who were in charge with collecting the taxes and killing them. So did Stefan cel Mare and Vlad Tepes, Ioan Voda cel Cumplit but also Mihai Viteazul. This way, the passing into the underground economy – from the point of view of the Ottoman Empire, an act with an economic character – turned into a declaration of independence of the Romanian rulers.

*The first reform in the history of the Romanian fiscal system* took place in Muntenia in 1739 under Constantin Mavrocordat king, on the basis of the principles of generality, proportionality and individual responsibility towards the fiscal institution. But the growth of the demands of the Turks prevented the state from obtaining positive results following this process of reform. In 1859, at the beginning of his reign, A.I. Cuza manifested his intention of establishing taxes only “gradually and these following some deep taxes”. In 1863 the “*Controllers’ Code*” was adopted, through which it was established that the tax collectors be accompanied by fiscal agents. *In the year 1910* E. Costinescu initiated a fiscal reform characterized by the preoccupation towards fiscal justice. This reform marked *the first attempt in Romania to introduce the unique income tax.*

The union of 1918 meant also the necessity of unifying the fiscal system, because, for example, in Ardeal there were ten types of direct taxes and in Basarabia two different fiscal regimes, in the northern counties compared to the southern counties, all these in their turn contradicting the fiscal regime in Romania. The fiscal union was completed in the period 1923-1927, initiated under the leadership of Nicolae Titulescu, who proposed a progressive tax on possessions and on getting rich over the war. This tax was imposed due to the pressure of the public opinion, unhappy because of the dramatic increase of the underground economy that led to the fabulous fortunes of the speculators that provided the army with supplies during the First World War. Also, the tax on luxury and turnover was introduced, representing at that time a novelty in the Romanian fiscal system. Beginning with 1929, the Romanian fiscal legislation diminished constantly the sphere of applicability of the direct method, through the use of the declaration of the tax payer and its replacement with the system of minimum imposition.

*The first law dedicated to the fight against underground economy was adopted in 1933*, the so-called “Law of direct taxation”, through which the deviations were classified in simple contraventions and qualified contraventions, being sanctioned with fines that raised to up to four times the tax on the assessed undeclared income.

In the 1940s C.N. Tăutu wrote “*The education of our tax payer is today so little articulated that they have but only one preoccupation: to pay as little as possible and, if possible, nothing at all.*” It was

considered that to cheat the tax collecting institution, in the current mentality, was a test of ability, not of dishonesty; to pay what the fiscal organism demanded was a proof of naivety, not of integrity” (Craiu, 2004).

After Second World War there were profound transformations in the fiscal system, starting with the agrarian reform in 1945, the reform and the monetary stabilization from 5<sup>th</sup> August 1947 as well as the nationalization of the main means of production on 11<sup>th</sup> June 1948. But, generally speaking, *in the years of the communist dictatorship there was a fiscal regime based on progressive taxes on salaries as well as on the other incomes*. Starting with 1<sup>st</sup> July 1977 they introduced the *tax on the total salary fund of the socialist state enterprises* that replaced the tax on individual salaries.

In the communist period they resorted to taxes not for economic reasons, but rather for political and social reasons. The treaties that defined the fiscal regime were:

- Taxation targeted only the incomes derived from property that did not belong to the state – communal organizations, craftsmen, corporatist organizations. After 1977 the tax on the salary of the employees was paid by the enterprises;

- The main purpose of taxation was the liquidation of the capitalist system through taxes and fees applied to those that were still operating after the nationalization of 1948.

The investments of the economic agents, the goods and public services as well as the social security of the population were managed through the state budget, subordinated to planned production and to industrialization at any cost. Moreover, investments were directed to sectors that

presupposed long periods of time for amortization. All these led to a double complete isolation of the Romanian economy: an isolation at international level from the global and European economic circuits (including the ones in the communist space); but also isolation on an internal level, an alienation of the citizens from their own economy that no longer had any connection with their needs or with a normal evolution of society. Although tax evasion was inevitably reduced, *the underground economy prospered*. From a conceptual point of view it may seem paradoxical, but *during the communist period there was, in Romania, an underground economy of significant proportions, generated by the general lack of consumer goods as well as by the people’s resentments towards the totalitarian state*. In fact, the kind of illegal acts comprised in the sphere of the underground economy and especially tax evasion were often considered as acts of protest against the communist system. Moreover, there was an important parallel market of the unregistered economic activities.

Law no. 344 from 29<sup>th</sup> December 1947 tried to fight against tax evasion through some tough regulations but which gave the tax dodger the possibility of going legal and to liquidate their fiscal obligations. Art. 268 index36, introduced in the Penal Code in 1953, introduced the punishment for tax evasion through hiding the object or the sum taxed, through destroying and hiding the obligatory evidence established by the fiscal laws.

After 1980 the underground economy took even more seriously its role of “the second economy”, as the imports were

drastically reduced and limited to the raw materials necessary for the functioning of the industrial areas. At the same time, the official economy was channeled almost exclusively to producing goods destined for export, and it was by no means prepared to replace the consumer goods that were no longer imported. Practically, in the last years of the communist regime there was a complete renunciation to the import of some products considered luxury products, such as high quality spirits, tobacco and alcohol, and the supplying to the population of these products was left, on purpose or not, to the underground economy. In this way there were created underground structures that were “criminal” from a penal point of view but necessary from an economic point of view and that constituted the seeds for the growth of the underground economy after 1989.

#### **Fiscal system in Romania after 1989**

Romania’s transition from a centrally-planned economic system to a capitalist one, of market economy, was done on the basis of three distinct realities: communism, capitalism and post-communism. These three are symbolically called by Vladimir Pasti: the “bad” reality, the “good” reality and the “purifying” reality, that makes the transition from the “bad” reality to the “good” reality<sup>(6)</sup>. The first reality, communism, was considered to be “bad” with respect to all the components of life, from roads, foods, literature to the institutions of the state and the political class. The second reality, capitalism, was considered “good” from all points of view, a thing that made the understanding of the true aspects of

capitalism to be considered old-fashioned. Post-communist reality is seen as the messianic redemption of the Romanian people that has to bear the cross of the past on the road full of purifying suffering. These incomplete approaches can construct but an incomplete future, founded on the misunderstanding of the “communist legacy” (Pasti, 2006, p. 207). The lack of a theory that would lay the basis for the explanation of the true aspects of communism, even in the period when it manifested itself as a form of directing the masses, significantly contributed to the fragile construction of the future after the revolution.

On the background of the monotony of the consumer goods, of the penury on the verge of crisis, especially in the foods domain, the change of system was the opportunity for the immediate organization of some structures of the underground economy mainly in the domain of commerce, in the service industry, but also in some industrial fields that produced foods and consumer goods.

Of the three main components of the underground economy (tax evasion, black market labor, criminal activities), the most common in the first years after 1989, in our country, were the unregistered activities, *tax evasion* and *black market labor*.

Regarding Romania’s classification on a global level (according to the data provided internationally), with respect to the level of the underground economy, one can notice that the OECD countries have a reduced level of the phenomenon, unlike the former socialist states and the ones in Africa, Asia and Latin America. Thus, Austria, with 10.6%, Belgium with 22%, France, with

15%, Germany with 16.3%, Great Britain with 12.5%, Holland with 13% and Sweden with 19.1% are under the level of 33.4% registered by the underground economy in Romania. Among the former socialist states, Romania is surpassed only by Latvia with 39.6% and Bulgaria, with 36.4%, and is ahead of other states such as Croatia with 32.4%, Lithuania with 29.4%, Slovenia with 26.7%, Czech Republic with 18.4% or Slovakia with 18.3%.

Starting from this statistics, and taking into account at the same time the conclusions of some institutions with role of controller, but also the international experience, it becomes clear that the dimension of the underground economy in Romania, like in all the countries that come from the planned economic system, is truly worth taking into account. Many are the ones that overload the legislative frame in Romania with more attributions than pertain to it. A perception fuelled by the fact that for each of the components of the underground economy the Romanian legislation tried to counteract them, formulating a series of laws and decrees that made the legislative system to be even more complicated creating thus multiple legal loopholes.

The factors that permitted the excessive development of the underground economy in Romania after December 1989, according to a material elaborated by the European Institute from Romania, are (Fudulu et al., 2002, p. 23):

- the legislative uncertainties that accompanied the economic mutations;
- the uncontrolled economic division, the apparition of some small enterprises with speculative temporary activity;

- decentralization, the division of power through the distribution of responsibilities leading to the increase in the number of corruptible individuals;

- the tolerant attitude of both the authorities and the population towards the violation of the regulations, a certain reserve towards discipline;

- the immediate junction made by the representatives of the parallel market in existence in the socialist period with circles with similar preoccupations in the neighboring countries, and thus, the connection to the international structures of the underground economy.

We consider that the main factors that support the underground economy in Romania were: 1) *the process of privatization*, 2) *the delay in the structuring of the public attitude on norms* and 3) *the distribution of wealth without rules and equivalence at the level of social production*.

### **Past attempts possible solutions for the future**

The Wicksell-Lindhall model<sup>(7)</sup> is the one that tries to analyze the creation of the reserves of public goods<sup>(8)</sup>, offering a series of justifications based on a consensus between the beneficiaries, that is, without coercion, through voluntary exchange. Such an approach is in contrast with the real ways of operating used until now, ways in which the reserves of public goods are financed through obligatory taxation and not through voluntary contribution. The voluntary type of approach was for the first time put forth by Knut Wicksell, who showed that each public good should be financed through an identifiable separate tax. The consensus of

the members of society should be required when they should decide on (if there is any) the volume of the good that will be offered. In the end, the individuals would be aware of the parts (quotas) of each tax that is collected, that will be allocated to finance each public good. The only problem that should still be solved refers to the level of the reserve of goods. This analysis was later extended by E. Lindhall, who perfected a model in which both the value of the taxes

and the volume of the reserves of one good are put forth for debate. In Lindhall's model, reaching a balance demands that each individual pays a tax rate equal to the individual marginal unit obtained of the consumed good. In the following diagram we take a community constituted of two persons (A and B). On the abscissa we represent the quantity of the public good, and on the ordinate the quota-part of the tax paid by each individual.

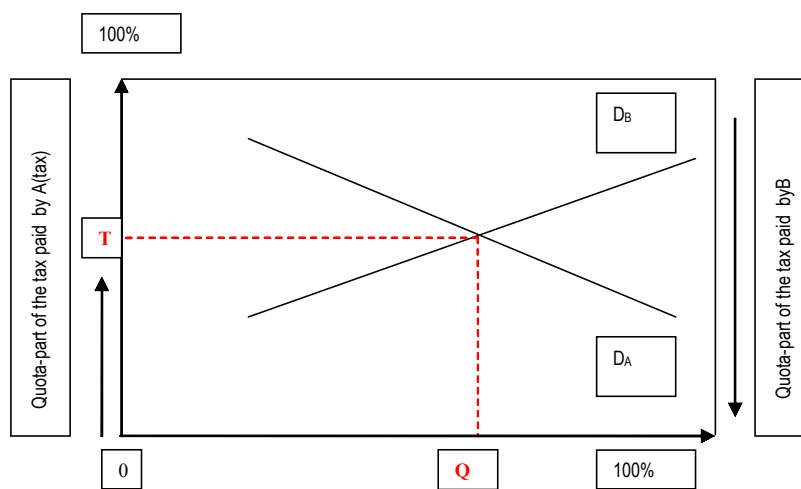


Figure 3. Lindhall balance

One can notice that the part of tax that belongs to A increases from bottom to top, while that of B increases from top to bottom.  $D_A$  and  $D_B$  represent the demands for the public good that each individual would have function of the tax level. Lindhall's equilibrium presupposes the production of quantity  $Q$  of the specified public good at a level of taxation  $T$ . In Wicksell's and Lindhall's models the public goods are offered in a way that ensures to each individual earnings from their own reserves, in other words this constitution of reserves is always a Pareto improvement. Additionally, with Lindhall there is the

condition that each individual consumes their own optimal volume of the public good, corresponding to their part of the tax.

The lack of realism of the proposed model is visible precisely from the perspective of the *variables* that it describes and analyses. Despite the temptation that the model represents, there are difficulties when one applies it. Particularly, the problem of consensus and the possibility that the *individuals* may not indicate their real preferences undermine the utilization of the model. According to the definition of public goods, the exclusion from the utilization of a public good of some potential consumers



is impossible, even if their contribution to the production of that good is null. So, what will be the authorities' argument for the tax payer, as long as, through definition, *anybody can have access to the public goods*? I mention again that the model starts from the premise of the voluntary exchange and eliminates the power of coercion. *What would be the reason for which the individuals would consider their contribution as being justified?*

The conclusion of this subchapter is best expressed by Knut Wicksell's words in his work "A New Principle of Just Taxation": *Neither the Executive, nor the Legislative...are really what theory tells us they should be, that is, pure organs of the community, with no other purpose than that of promoting general welfare.*"

### **Mimesis of appropriation or Acquisitive mimesis**

*"There is nothing or almost nothing in human behavior that has not been learnt, and any learning process is nothing else but imitation."*

René Girard

*The process of humanizing* at whose origins lies the components of the mimetic principle, like acquisitive mimesis, almost prompt us to introspection on J.M. Keynes' words: "The avoidance of taxes is the only intellectual ambition that one feels rewarded for." Can we ever hope that these words will lose their meaning seven decades from now? The mimetic principle almost convinces us of the everlasting validity of these words. In his work "Things Hidden since the Foundation of the World", René Girard

explains in a simple and coherent reasoning that people since they are born feel the need to appropriate as many things from the ones that surround them as they can. R. Girard starts his analysis from the example of some children who, being brought in front of a large number of toys, will try to acquire as many of them as they can, starting an ample phenomenon of rivalry, such as we can observe many times in the case of adults. This thing happens in the activities of avoiding paying fees and taxes. These behaviors that constitute the object of the underground activities are examples of the adults' acts of politeness that learnt how to repress mimetic rivalry. Thus, the adults choose to step aside from the authorities' means of constraint, through non-payment, hiding or omitting to pay their dues, especially when they feel that their interests are not protected or, even more so, when they feel that there is an aggression on their property. That "acquisitive mimesis" manifested since birth accompanies us throughout our lives, taking many forms.

### **Why is there underground economy?**

A question to which very few tried to find an answer. The answer can come forth from the rendering of the main causes that support the activities in the underground economy, such as: fiscal pressure, legislative inconsistency and incoherence, bureaucracy, global phenomena like poverty, wars, globalization, the contribution of the transfer prices, psychological causes, social, economical, political and community causes; local and global causes; poverty generating competition; the discouraging business environment; the lack of specialists in the

field; an increased tolerance towards underground economy.

Attempting to give some answers we can claim that the existence of underground economy draws its strength from both the incapacity of the market and from the incapacity of the state authorities.

- *Underground economy exists because it provides economic goods that correspond to some real needs of society.* Without the existence of demand, the suppliers from the underground market would not exist.

- *Underground economy exists because it proved to be an efficient method for controlling the global powers.* The control of global powers is achieved more easily through hidden and corrupt operations.

- *Underground economy exists because it offers the chances for the manifestation of entrepreneurial spirit in a market economy.* The entrepreneurial spirit that any economy that wants to be a developed market economy needs is inhibited by the fiscal pressure and by the red tape in a country.

- *Underground economy exists because it can exist and it is encouraged to exist.* The lack of a well-developed system of control allows for the development of the activities of the underground economy and for the appearance of new ones.

- *Underground economy exists in order to offer ways of access to the ones who find the doors to the state authorities closed.* Coercion produces ideas that help avoid the barriers imposed by the authorities.

### **Acquisitive mimesis and the underground economy**

The underground economy proved to have a functional economic system

throughout history. At any time, and in any economy, regardless of the level of development, the underground economy was present in different proportions. According to R. Girard, acquisitive mimesis lies at the origin of all things. The main interdictions, the ones on objects such as drugs, sexual interdictions, and even some regarding foods, refer always to the closest objects, the most accessible ones, the ones that belong to the whole group. These objects are forbidden because they are at all times available to all the members of the group, and they can become the target of rivalries that might destroy the harmony of the group. According to an article from “the Economist”<sup>(9)</sup> the countries with the highest vulnerability to corruption are the new members of the European Union: Romania and Bulgaria. Even though the rate of economic growth appeared to be very powerful during 2008, there were nevertheless threats, so that Bulgaria’s current account deficit was at the end of 2008 at 24%. Low quality borrowings will make the bank system very prone to bankruptcies so that the issue of how much foreign assistance the two countries will receive will be raised. Moreover the Baltic States are well known for the high level of corruption due primarily to the incapacity of the authorities to end organized crime and corruption. Corruption and incompetent policies are considered the most severe problems that the East European countries have to face, and not the financial problems. The political leaders have had problems in operating with these problems even when the economy of these countries followed a favorable pattern. The question that arises naturally is: what will



happen when foreign investors will become skeptical towards the economy of these countries, and economic growth will slow down or stop? From the moment when communism stopped, in 1989, the eastern half of Europe has continuously fought to reach the level of economic, social and cultural development of the west. East-European reconstruction started in some cases even from the letter of the law. The standards of living increased, foreign investors soon appeared and the policies gained coherence. These things made the fears of some, that they will be affected by negative externalities from their neighbors like: poverty, instability, the export of hunger and crime, appear unreasonable, even ridiculous. For very many of the ex-communist countries the efforts of meeting the requirements of the European Union will become visible in the costs generated by these pledges in the following period. The economies of the East-European countries will face hard times that will also influence the evolution of the level of corruption and of organized crime which are considered the underground activities with the highest degree of growth in the periods of economic crisis. *“If you walk in Belgium at the weekend, you will see more activity in the domain of constructions than during the week”*. The words of Friedrich Schneider

an economist at Johannes Kepler University in Austria are quite telling; he claims that the revival of the underground economy follows a period of 15 years of decline and it appears in the context in which EU’s real economy might compress with 2%. From here we can draw the conclusion of the existence of a rapport of reversed proportionality between the official economy and its underground component.

*The fundamental cause of the underground economy* lies in the very structure of the human being, the process of humanizing presupposes both: learning, imitation, association, collectivity, reason and rivalry, prohibition, sacrifice, feelings. The failures in combining them can be seen in the very components of the underground economy, components that are a natural reaction of mimetic rivalry. From the human desire of appropriation, assimilation the underground economy is born, and that is why we advocate the impossibility of eradicating it. The refusal of accepting this reality comes from the incapacity of the contemporary world to understand that “simplicity” and “clarity” are essential concepts indispensable in any presentation that wants to be scientific.

“Simplicity and clarity are not fashionable.”

René Girard

---

## Notes

---

- <sup>(1)</sup> Data are taken from the *Global Corruption Report* in the year 2007 by Transparency International and processed by the author.
- <sup>(2)</sup> Share of shadow economy in GDP, for the marked (\*) is estimated on the basis of reports from the National Institute of Statistics of the author.
- <sup>(3)</sup> The article “*Romania, ranked five in Europe as a share of the economy in GDP in 2008*” published on 10 June 2009, available on [www.hotnews.ro](http://www.hotnews.ro).
- <sup>(4)</sup> Laffer, Arthur, American economist, university professor. He attended the University of Chicago, and then became professor at Los Angeles. He leads a consulting firm in Boston. A. Laffer is one of the main representatives of the supply current economy. He is well known theoretician of anti-fiscal revolution of the 1980s. The curve that illustrates the relation between total tax revenue of the state and tax rate is named by him. Starting from scratch, he says, an increase in the tax rate can increase tax revenue. A. Laffer believes that yields are descendent in this area too. Thus, there is an optimum rate of taxation beyond total tax revenue will decrease if the tax rate will continue to rise. From this moment the discouraging effects of tax will cause a reduction in production. In particular, entrepreneurs and high-income owners will devote more energy to look for “shelters” tax. An unequal oppressive tax explains the difficulties of modern economies and slowing production. A decrease in the rates of progressive taxation and reducing the income tax are required to stimulate supply and boost production.
- <sup>(5)</sup> The analysis is taken by Laffer, AB, Canto, VA, Joines, DH, in the paper “*Taxation.GNP and Potential GNP*”, Proceedings of the Business and Economics Etatistics Section.
- <sup>(6)</sup> The ideas are outlined in the paper *New Romanian capitalism*, Vladimir Pasti, Polirom Publishing House, 2006, pp. 205-235.
- <sup>(7)</sup> Presentation Lindhall-Wicksell model comes from the Dictionary of Economics Department of Economics and Economic Policy, Second Edition, 2001, Economic Publishing House, p. 295.
- <sup>(8)</sup> Public goods are characterized by economic nonexclusive and non-rivalry. A nonexclusive public good can be used simultaneously by multiple people. Excluding the use of a public good to potential consumers is impossible, even if their contribution to production asset is equal to zero. Non-rivalry of public goods is the fact that social marginal cost for an additional consumer is zero. The offer of a public good does not diminish if the good is the subject of individual and collective consumption. A public good can provide equal benefits for individual regardless of the number of consumers. The two characteristics are met only by pure public goods, such as national defense and street lightning (Dictionary of Economics, Department of Economics and Economic Policy, Second Edition 2001, Economic Publishing House, p. 72).
- <sup>(9)</sup> The Economist, October 25th 2008, Easter Europe Briefing, “The price of corruption”, p. 31.

---

## References

---

- Ani, M., Roșca, I.Gh., Andrei, T. (2008). *Corupția. O analiză economică și socială*, Editura Economică, București
- Becker, G. (1994). *Comportamentul uman, O abordare economică*, Editura All, București
- Covey, R.S. (1996). *Eficiența în șapte trepte. Un abecedar al înțelepciunii umane*, Editura All, București
- Craiu, N. (2004). *Economia subterană. Între „Da” și „Nu”*, Editura Economică, București
- Dăianu, D. (2009). *Capitalismul încotro? Criza economică, mersul ideilor, instituții*, Editura Polirom, Iași
- Dăianu, D. (2000). *„Încotro se îndreaptă țările postcomuniste? Curente economice în pragul secolului”*, Editura Polirom, Iași
- Dinu, M., Mereuță, C. (2001). *Economia României 1990-2000. Compendiu*, Editura Economică, București
- Dobrescu, E. (2003). *Tranziția în România. Abordări econometrice*, Editura Economică, București
- Fudulu, P., Baboi, A., Albu, L., Simonova, E., Vrabie, C. (2002). *România și măsurile UE pentru combaterea criminalității economice și financiare*, Institutul European din România, p. 23
- Girard, R. (2008). *Despre cele ascunse de la întemeierea lumii*, Editura Nemira, București
- Grix, J. (2001). *Demystifying Postgraduate Research, from MA to PhD*, p. 34
- Keynes, J.M. (2009). *Teoria generală a ocupării forței de muncă, a dobânzii și a banilor*, Editura Publica, București
- Laffer, A.B., Canto, V.A., Joines, D.H., „Taxation. GNP and Potential GNP”, *Proceedings of the business and economics statistics section*, 1978
- Pastî, V. (2006). *Noul capitalism românesc*, Editura Polirom, Iași, pp. 205-235, p. 207
- Popa, Ș., Cucu, A. (2000). *Economia subterană și spălarea banilor*, Editura Expert, București, p. 10
- Colecția „*The Economist*”
- Colecția „*Newsweek*”

# Relational Marketing – the Prerequisite to Implement Tourist Companies' Marketing Strategies

■

**Maria Carmen Iordache**

„Constantin Brâncoveanu” University, Pitești

iordache72@yahoo.com

**Denisa Parpandel**

„Constantin Brâncoveanu” University, Pitești

parpandeldenisa@yahoo.com

***Abstract.** By means of enterprisers' complex efforts to be oriented towards and take permanent steps to customers' benefits, relational marketing actually and essentially argues rendering customers loyal by the persuasive qualities of the products supplied, the conditions they are offered in, and a more favourable quality-price ratio than the competitors'.*

*Within relational marketing, marketing managers must set up and implement efficient strategies and programmes in order to attract and keep their customers. In case of losing their customers, it is necessary they explore the causes and try to emotionally or rationally regain them, especially if customers' strategic value is high to suppliers. The balance between attracting new customers and keeping the current ones has a dynamic feature proved by the change in priorities of the two main concerns during enterprisers' and products' progress on the market.*

*The business environment where enterprisers in the Romanian tourism develop their activities is complex and continuously changing. This imposes an increase in the concerns of tourism managers that should take account of the motivations and demands of current and potential tourists, which would be the best way to attract customers and make them loyal.*

**Keywords:** relational marketing; attracting; keeping; customer value; strategy.

■

**JEL Codes:** L83, M31.

**REL Codes:** 14F, 14G.

## 1. Introduction

According to the famous American Marketing Association (AMA), relational marketing is “marketing made real by the planning and execution of activities to set up, assess, promote and distribute ideas, goods and services with the purpose to achieve exchanges meant to meet various individual and organizational goals”.

Over the years, the above definition that approaches the concept of marketing mix has been subject to massive criticism of which the harshest belongs to C. Grönroos, a Swedish man, who stated that “relational marketing is the set up, maintenance and consolidation of relationships with consumers and other partners, with the purpose to accomplish profits and meet the parties’ objectives” (Grönroos, p. 86). His definition emphasizes consumers’ and company partners’ important roles when accomplishing company objectives in order to make profit.

## 2. Relational marketing prospect upon attracting and keeping customers

Enterprisers have started to consider the advantages typical of the orientation towards setting up long-term relationships with their customers according to mutual trust, open communication, common objectives, engagement to obtain value on either side.

Marketers have exceeded the times when they thought that losing a customer was not a risk to the enterprise as they started from the wrong idea that the market could give them many other potential customers that

might turn into present ones. Nowadays, they think that losing a valuable customer means not only losing the profit from a certain transaction, but also a long-term loss which is much more significant. In fact, an enterpriser may thus lose an entire flow of sales and profits that could have been generated by a medium- or long-term relationship with a customer.

Therefore, the enterprisers that want to value the opportunities provided by applying relational marketing principles calculate and monitor a very important indicator which is *customer value along the entire relationship with an enterpriser* (a customer’s value throughout their “life” with a supplying enterprise). It is calculated as the up-to-date value of the entire profit flow generated by the relationship with a customer considering a medium- or long-term. Practicians think that a time span of 2 to 5 years is enough to estimate the future up-dated value. Estimating the respective value in monetary units (VVi) can be done by the following formula:

$$VV_i = \sum_{t=1}^T (S_{it} - CD_{it}) - CM_{it} \left( \frac{1}{1+\delta} \right)^t \quad (1)$$

where:

$I$  identifies the customer taken into account;

$t$  (from 1 to T) is the time unit (month, year etc.);

$S_{it}$  means the purchases achieved by customer  $i$  (the enterpriser’s sales to the respective customer);

$CD_{it}$  means the direct costs related to customer  $i$ ;

$CM_{it}$  means the marketing costs related to customer  $i$ ;

$\delta$  is the interest rate (the capital cost used to calculate the net up-dated value) corresponding to time unit  $t$ .

The higher the customer value throughout the entire relationship with an enterpriser, the lower the related costs. The careful monitoring of costs allows an enterpriser to increase customer profitability.

The concern with estimating profits' up-dated value to be generated by a customer leads to an increase in the importance of customers' maintenance strategies. The longer the time span of a customer's collaboration with an enterpriser, the higher the profits' value to a supplier.

The importance of maintaining customers is also supported by the difference of costs related to attracting, respectively maintaining them within their range of interest. It is stated that attracting a new customer is 5 to 10 times more costly than keeping an actual customer's level of satisfaction (Kotler, Armstrong, 2006).

### 3. Relational marketing strategies

Basically, relational marketing does not have an open character, but relies on profitability principles. Nowadays, it is no longer enough to attract customers and make deals with them.

It is necessary that one resort to relational marketing strategies in order to keep customers and develop profitable long-term relationships with them.

Moreover, suppliers are keen on ensuring both customers' complete satisfaction and delight, and their value growth to a selling enterpriser.

Every enterpriser benefits from a wide range of strategies that contribute in attracting and keeping customers. Their strategies can be classified into two main categories – offensive and defensive.

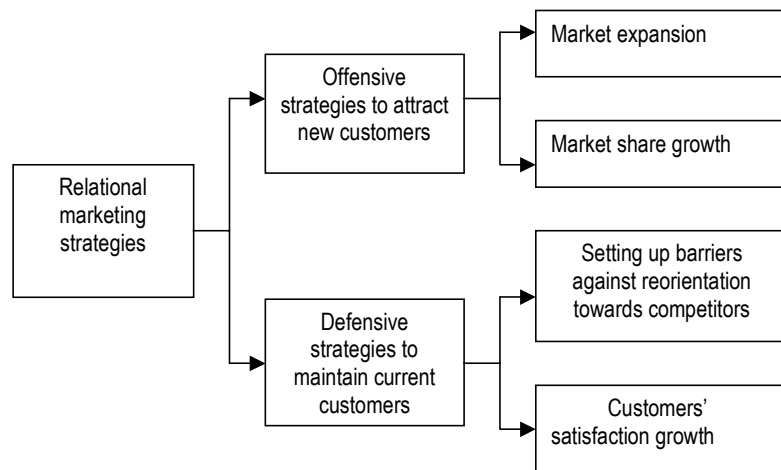


Figure 1. Offensive and defensive strategies

In order to identify potential customers, an enterpriser must research the market. Among the methods that can be used in this respect are the following:

- *“on-the-spot” research.* This method relies on the average rule. For example, suppose an enterpriser must attract 100 new customers in order to achieve 250,000 lei

sales value. If the average success rate is 1:10, it means the enterpriser's selling power will have to resort to 1,000 people/organizations in order to be able to attract 100 customers.

- *“endless chain”*. This research method is based on references. After every sale, a sales agent asks a customer for a list of people/organizations that might be interested in the product/service they supply. The sales agent shall visit the prospective ones and try not only to present a product, but also to get additional references.

- *participation in fairs and exhibitions*. The participation with show-stands in a fair or exhibition generates additional lists of people and/or organizations that might be interested in the exhibited products. Sellers can get data such as people names, organization names, addresses, telephone numbers, e-mail addresses etc. Then, the respective people/organizations are to be contacted and assessed as potential customers.

- *resorting to influence centres*. One of the research methods is considering the influence of opinion leaders or regulators. The people that have favourable positions within organizations or communities may suggest and influence prospective customers. A sales agent must initiate and develop relationships with such influential centres, and inform them about the results of the contacts they have set up that way. Examples of influential centres are clerks, the selling power that supplies uncompetitive products meant for the same target segment, the members of owners' associations, the leaderships of the Chambers of Commerce and Industry etc.

- *research by mail*. Sending promotional messages by traditional or electronic mail allows the access to a large number of potential customers as costs are low. Those who ask for further information are going to be contacted by sales agents. However, this research method generates a low response rate from the target people.

- *telemarketing*. Researches by phone have the advantage of contracting a large number of potential customers situated within a wide territorial area. As far as costs are concerned, they are more convenient than “on-the-spot” research, but more costly than mail research.

- *observation*. The careful monitoring of events in the environment where an enterpriser works facilitates the identification of new opportunities. Thus, new potential customers can be identified.

- *networking*. Every contact initiated with a person is an opportunity for sales agents/consultants to make themselves known and speak about their products or services. Thus, they create people networks that exchange ideas and information, and facilitate researching.

Setting up clear objectives that aim at attracting customers shall contribute in an enterpriser's sustainable growth.

The decision to invest in keeping a certain customer within a supplier's range often relies on the following criteria:

- *the strategic importance of a customer*. Specialists recommend that enterprisers should primarily maintain within their scope of interest the customers that have the highest strategic importance. This category comprises those who are worth much during the time span of their



relationships with enterprisers, the customers that buy extensively and the market leaders.

- *maintenance costs.* Attracting customers is negatively influenced by the growing costs of their maintenance. For instance, the requests of major customers related to products' adjustment by suppliers, the reduction of delivery time or granting price discounts may significantly decrease the strategic importance of the respective customers.

- *customers' loyalty level.* In the case of customers that show a high loyalty level, a supplier should not invest too much in maintaining the respective customers. In exchange, if certain strategically important customers do not show a high level of involvement in the relationship with their suppliers, being tempted to take account of competitors' offers as well, suppliers will have to allocate significant resources to keep customers and increase their loyalty.

- *customers' recent attraction.* Numerous organizations give careful attention to maintaining recently attracted customers. It is estimated that a customer's value during their relationship with a supplier is higher for a recently attracted customer as compared to the one of a customer that has been attracted for some time. The greater interest in recent customers as compared to older ones is proved by the fact that the former, in case of dissatisfaction, are more likely to leave their suppliers and decrease their purchases than customers who have been satisfied for a longer period of time (Bolton, 1998).

- *customer share.* Keeping customers is more difficult if they are supplied by several suppliers simultaneously. Adopting

the decision to keep a customer must take account of several aspects: customer share, the value of customer's purchases, the potential to grow customer's value and the cost of maintaining the relationship with a customer.

Keeping customers within an enterpriser's range does not confine to maintaining their value at its original level. Any professional in the field of relational marketing and customer relations management aims at growing customers' value to an organization. In this respect, they resort to strategies such as:

- „*cross-selling*” – means the gradual supply and sale of several categories of products and services to the same customer as compared to the range they bought when they started to collaborate with a supplier;

- „*upselling*” – refers to the sale of products and services from the category a customer usually requires but having a greater allowance than the products a customer ordered when they first started their collaboration with a supplier.

Some authors (Bruhn, 2003) stated that the strategies to regain customers could identify themselves in:

- *compensation strategy* – reimbursing the value of faulty goods that have generated customers' dissatisfaction; replacing faulty goods etc.

- *improvement strategy* – repairing faulty goods;

- *stimulation strategy* – granting discounts and resuming the relationship with a customer;

- *persuasion strategy* – suppliers' promise to meet customers' requests and expectations.



In order to increase the efficiency and efficacy of an enterpriser's activities, the concern to regain lost customers should be doubled by identifying the causes that have led to losing customers. Only acting upon the symptoms and not the causes, enterprisers will never cease facing customer losses which is going to affect their prospective profitability. The causes of customer losses can be related to the dissatisfaction generated by a supplying enterpriser, buyer or competitor.

One of the goals of research related to customer losses is acquiring information about the following aspects:

- the size of customer loss rate to an enterpriser and its time evolution;
- the size of customer loss rate in the sector an enterpriser belongs to;
- the typology of customers that an enterpriser loses;
- the reasons for losing customers;
- the competing suppliers that lost customers redirect themselves to;
- the influence of price changes upon the level of customers' maintenance;
- the fluctuation of customers' maintenance level according to region, the marketing channel used, distributor, sales agent etc.

As main methods to gather information, one can use the analysis of secondary sources and in-depth interviews. Taking soundings is a way to quantitatively describe the loss of customers, but it does not allow to clearly identify its causes and explore the sensitive, delicate aspects of the relationship between a supplier and a former customer.

#### 4. The need to implement relational marketing in the Romanian tourism enterprises

The Romanian companies in the field of tourism should give special attention to tourists with a view to ensuring the best relations with them and making them loyal. When creating and implementing marketing strategies, tourism enterprises must take account of current and prospective tourists' motivation and demands which is the best way to attract them and make them loyal.

Romanian tourism enterprisers must also consider the initiation of best relations with all their business partners. Ensuring an environment where consumers' satisfaction should be an enterprise's main motivation is one of the primordial goals that Romanian tourism enterprisers should have in view when implementing their marketing strategies. At present, it is much cheaper to keep a demanding customer than attract a new one (Baker, pp. 48-49).

"Relational marketing involves the creation, maintenance and strengthening of the relations with buyers and the other business partners of an enterpriser, aiming at long-term actions. Ensuring the best relations with buyers and – based on that – making them as loyal as possible are the essential end of all attempts typical of relational marketing" (Adăscăliței, p. 15).

Consequently, in order to accomplish this important objective, the companies in the Romanian tourism (tour-operators, retailers, tourist service providers etc.) must pursue the creation, maintenance and strengthening of the relations with current tourists and also the tourist service providers

they have business relations with. For example, it is well known that a tourist who is satisfied with the services rendered by a tourist unit will surely come to it again. They will also tell their friends or colleagues about that particular tourist structure, convincing them to visit it.

Making tourists loyal is possible by the Romanian tourism companies' purchasing of quality products and services that should be created in such a way so that they could best meet tourists' increasing motivation and demands.

That is why it is advisable that enterprisers should directly contact their customers in order to identify their expectations as properly as possible.

It is also well known that a dissatisfied tourist will certainly speak about their dissatisfaction with others and a company's risk of losing prospective opportunities may grow. Specialist LeBoef thinks that such a customer informs other 8-10 people about the negative issues they encountered in the unit they visited (LeBoef, pp.13-14).

In conclusion, the revenues obtained from selling tourist products and services to loyal tourists are higher than the revenues obtained from selling services to customers that visit a unit for the first time or occasionally.

As any other enterprise, Romanian tourism companies are always in a twofold position: on one hand, a buyer in relation with various suppliers (hotels, travel agencies, tourist service providers etc.) and, on the other, a supplier when tourists are the main target of their relationships.

Besides those relationships, Romanian tourism companies also collaborate with

their competing firms and various institutions of local and central management that are responsible in the market field. Therefore, the "range of their direct relations is practically akin to all micro-environment constituents within the complex marketing environment".

Ensuring loyal and long-term collaboration with business partners leads to reducing the marketing expenses, the stability of a tourism firm's business and contributes in rendering business partners' activities more efficient.

Relations with various business partners in the Romanian tourism are complex.

Tourists' reasons for choosing certain tourist products are diverse and unique. That is why, in order to meet the requirements of such clients, Romanian enterprisers must keep such relations with partners in various fields so as to provide tourists with a complex range of tourist services.

Keeping long-lasting, adequate relationships with the various partners involved in the success of a tourism enterprise's activities is essential in order to make tourists loyal and supply valuable tourist services. The above objectives can only be accomplished by the careful use of all the elements that belong to the tourist marketing mix.

Since 1 January 2007, Romanian tourism enterprisers have been facing a wave of new competitors more and more often that try to expand their action scope on Romania's territory. Whereas the Romanian tourist market is more and more attractive to Western European tourism companies, the Single Market is to our investors quite a dangerous environment since marketing and

tourist orientation are not yet developed up to a high level.

Romanian tourism enterprisers are currently struggling to win customers and make them loyal by providing a range of tourist products and services complying with the latter's expectations. Practically, "the key to ensuring customers' satisfaction, loyalty and becoming loyal is the supply of services that should anticipate and even emulate their expectations as far as value is concerned" (Lammers, p. 27).

### **5. Marketing strategies in tourist customer relations**

The best management of the relationship between a tourist service company and a customer in order to reach high commercial efficiency is one of the most important strategies in the field of tourism.

The importance of the supplier-customer relationship is primordial to a company's effort to maximize its business. In fact, Romanian tourism enterprises' competitive advantage is not only defined by the supply contents, but also by the contact personnel's behaviour which involves a permanent interactivity between a customer and the latter (Dumitrescu, p. 3).

In order to manage a good and correct relationship with a customer, tourism companies pursue the administration and conception of the expertise they have gained with the latter. Actually, tourists' satisfaction and loyalty directly depend on the quality of the relationship they have with a tourism company.

"Creating a pleasant business environment shall quickly become the key to buyers'

loyalty. Their satisfaction level shall go up if enterprises duly adapt to the respective buyers' desires and needs" (Adascalitei, p. 42). Romanian tourism enterprisers must know tourists' expectations very well, how they can draw the latter's attention and must find periodical communication ways with them. In this respect, it is necessary they adopt a marketing programme for customer relations aimed at maximizing tourists' long-term loyalty, increasing the profits from current customers, ceasing tourist losses on short term and using current tourists to attract other potential ones.

The validity of such a programme largely depends on the way details are perceived, mere and cheap actions are taken, the purpose of which being to produce a maximum effect, unique actions that should surprise even competitors. The efficiency of such a marketing programme depends on a tourism company's ability to satisfy its clients, on its creativity when achieving tourist products etc. All these actions aim at continuously improving the relationships between a tourism company and a tourist, and the expenses involved herein are minimum.

Tourists' long-term loyalty can be achieved by a tourism company only by creating tourist products that should provide their clients with the most pleasant experiences. In a competitive market environment, it is necessary they should set up sustainable and advantageous relations of Romanian tourism enterprisers with current and potential tourists.

The actual implementation of marketing strategies underlies the efficiency of a tourism company's

activities. Thomas Peters and Robert Waterman state that “the first distinctive attribute of a company for excellence is related to its implementation concept. A poorly executed strategy brings about poor results as easily as a badly set up strategy does” (Peters, Waterman, p. 27).

Implementing the best strategy in Romanian tourism companies occurs as the result of ample analyses and studies after which an enterpriser chooses the way that leads to success and to reaching the goals.

“Implementing a strategy is the process where ideas become actions by developing certain programmes, budgets and procedures. The process may involve changes in the culture, structure and management style of a company”. Ensuring profitability means that Romanian tourism companies should apply a valid strategy.

In broad terms, relational marketing regarded as a solution for keeping an enterprise’s customers on a very long term is a strategic constituent of management decisional system.

In order to generate the highest satisfaction of tourists, a tourism company can use three strategies to render value to a client:

- *the strategy of adding financial advantages* (adopting price reductions for certain tourist products, granting service facilities to loyal clients, guaranteeing the repayment of tourist service value in case tourists are dissatisfied etc.);

- *the strategy of adding social advantages to the financial ones* (involving tourism personnel in setting up social relations with tourists by means of getting acquainted with their desires and reasons, by

customizing and individualizing certain products and services);

- *the strategy of adding structural advantages to the financial and social ones* (using electronic mail in order to ensure direct connections between a company and its tourists).

Romanian tourism companies that do not see their business as mere transactions but ongoing relations with tourists approach and financially support several marketing programmes meant to convince tourists to come back and become loyal.

The long life of a company’s tourist service activity largely depends on keeping its clientele and on its ability to attract new tourist segments. That is why, recognizing the importance granted to every client is relevant to a company’s success. For example, to the Romanian enterprisers that own hotels, restaurants and other companies in the field of hospitality operations, business success depends more on satisfied tourists’ loyalty than on attracting new consumer categories, which involves new efforts of a tourism firm.

Customer value can be interpreted in two ways:

- by the “*customer’s current value*”, respectively according to the sales of services destined to the tourists that resorted to the particular tourism firm for the first time;

- by the “*future value of the same customer*”, that is according to the opportunities to raise profit during a future period of time.

In this context, Ph. Kotler’ statement is relevant, saying that: “the higher your customers’ loyalty is, the less you have to pay for advertising..., most clients will come

back and buy again... although you have no advertisements..., due to their high level of satisfaction..., (and) they are going to advertise for you” (Kotler, p.160).

## Conclusions

Ensuring tourists' satisfaction is a sure way to make current customers loyal and attract potential ones. Romanian tourism enterprisers should give special attention to tourist relations and allocate financial resources in order to support marketing

programmes that aim at the ongoing improvement of the cooperation between a company and a tourist. Satisfied tourists' advertising is much more efficient than many other promotional actions a company can resort to.

In the Romanian tourism, due to the fact that there are many short-term partners that participate in accomplishing tourist products, as well as many buyers, relational marketing aims at the long-term loyalty of consumers, distribution channels and other complementary enterprises.

## References

- Adăscăliței, V. (2007). *Introducere în Marketing relațional*, Editura Pro Universitaria, București
- Baker, M. (1994). *The Marketing Book*, Butter Worth Heinemann, Oxford
- Dumitrescu, L.N., „Impactul marketingului interactiv asupra randamentului comercial al întreprinderii de servicii”, *Revista Română de Marketing*, nr.1/2007
- Grönroos, C., „Quo Vadis marketing? Towards a Relationships Marketing Paradigm”, *Journal of Marketing Management*, 10 (4), 1994
- Kotler, Ph. (2004). *Marketing de la A la Z. 80 de concepte pe care trebuie să le cunoască orice manager* (traducere), Editura CODECS, București
- Lammers, G., *Valoarea externă a clienților*, *Business Digest*, 6/2006
- LeBoeuf, M. (1987). *How to Win Customers and Keep Them for Life*, Ed. Berkeley Books, New York
- Peters, T., Waterman, R.H. (1983). *Le prix de l'excellence. Les secrets des meilleures entreprises*, InterEdition, Paris