

# **Romania in the European Union. The Quality of Integration. Growth. Competence. Employment**

Volume 1

November 23rd 2007  
Bucharest

Works of the Symposium dedicated to „The Economist's Day”  
Patroned by „The General Association of Economists of Romania”  
The Association of the Faculties of Economics of Romania and The Academy  
of Economics Studies of Bucharest, organized by Center of Excellence  
for Analysis and Economical Policies and the Departament of Economics  
and Economical Policies



## Contents

*Foreword / 5*

**The National Wealth-Factor of Economic Integration**

■ *Gheorghe Zaman, Zizi Goschin / 7*

**The Harmonizing of the Romanian Higher Education Qualifications with the EU Labor Market Requirements**

■ *Ion Gh. Rosca, Viorel Lefter / 17*

**The Public Finance Stance and the Economic Growth: the Case of European Union**

■ *Ioan Talpos, Bogdan Dima, Mihai Ioan Mutascu, Cosmin Enache / 43*

**Banking Products Development in the Romanian Banking Market**

■ *Nicolae Danila / 55*

**Some Aspects Concerning the Sensitivity of the Capital Market**

■ *Gabriela Anghelache / 69*

**From Macroeconomic Stability to Sustainable Growth in Romania**

■ *Coralia Angelescu, Aura-Gabriela Socol / 77*

**The Effect of Integration and the Distribution of Corruption**

■ *Constantin Popescu, Alexandru Tasnadi / 85*

**Romania 2007. Macroeconomic Instability is Back?**

■ *Cristian Socol, Dorin Emil Mantescu / 103*

**Economic and Social Cohesion of EU – from Acquis to Concept**

■ *Dorel Ailenei / 113*

**The Estimation of Production Function in Romania**

■ *Marius-Corneliu Marinas / 123*

**Characteristics of Investment Policy and European Convergence**

■ *Dragos Huru / 131*

**The Gross Domestic Product and Direct Foreign Investment**

■ *Constantin Anghelache / 139*

**The Cycles of Transition - An Epistemological Perspective on Globalization**

■ *Marin Dinu / 147*

## **Foreword**

*After Romania joined the European Union at January 1<sup>st</sup> 2007, increasing the quality of the integration in the European model presents the most important challenge, and not only for Romanian academic circles. Once entering the European club, added to the internal restrictions in creating and implementing the Romanian economic policies will be several conditionalities imposed by the European Union.*

*The symposium “Romania in the European Union. The quality of integration. Growth. Competence. Employment” was proposed by the General Association of Economists in Romania and the Association of the Faculties of Economics of Romania, in collaboration with the Academy of Economic Studies of Bucharest and organized by the Center of Excellence for Analysis and Economical Policies and the Department of Economics and Economical Policies. It offers an objective and rational analysis-diagnosis on post-joining economical developments, trying to come up with solutions for solving the nominal convergence - real convergence trade-off and for the complete insertion of Romania into the defining processes of the European Union.*

*The organizers set out for the study of the works of the Symposium to represent a building block for the economic policy decision makers in Romania, in their struggle to harmonize the processes of adaptation to European governance with the need for modernization in the Romanian economy and to match the criteria of adherence to nominal convergence with those of real convergence. Only in this way will our economy succeed in attracting the net benefits of integration in the European Union and to consolidate the processes of catching up with the developed countries in the European club.*

*In the present volume - Volume I of the Symposium works - you can find rational answers to the evolution of the convergence with the European economical model, both at micro and macro-economic levels. Of relevance is the leaning of research towards fundamental aspects, which create a framework for approaching integration as a project of modernization, for reconfiguring the traits of the learning process and for understanding the dynamics of a change which implies behaviors and values in equal measure. Optimizing the mix of macro-economical policies and harmonizing Romanian and European policies are classical themes which, being analyzed together with the potential integration into the knowledge economy, represent fundamental challenges for all Romanian intellectual circles.*

*Volume II (edited at a later date) will represent a Decalogue for the rallying to the practices of good governance at an European level, a difficult process to achieve when there is a virtual tying of the hands of the decision making authorities working with macro-economic policy in the member countries. The vast process of anchoring the economical reform to “the best practices at an European level” will constitute a test for the capacity of Romanian authorities to participate in the processes of elaborating and coordinating economical policies in the European Union.*

## THE NATIONAL WEALTH-FACTOR OF ECONOMIC INTEGRATION

■

**Gheorghe ZAMAN**

*Ph. D. Professor*

Associated Member of the Romanian Academy

Institute of National Economy

**Zizi GOSCHIN**

*Ph. D. Professor*

Academy of Economic Studies, Bucharest

**Abstract.** *The study is dealing with the problems of the role which is played by different components of the national wealth, among which a special attention is devoted to the natural, produced and intangible capitals, as factors of contemporary economic growth, at macroeconomic level. Starting from the wealth per capita, as is defined, understood and calculated by the World Bank, we have taken its components as explanatory variables of the Human Development Index, aiming to understand the linkages between development outcomes and the level and the composition of wealth.*

*The main results of our research are: a) the natural capital and natural resources endowment do not play a determining role for the level of economic and social development; b) intangible assets represent the most outstanding factor of GNP level and sustainable growth; c) life expectancy is highly dependent on the wealth per capita; d) the education index is explained to a lesser extent by the level of national wealth in comparison with the other two components of Human Development Index: the GNP level and life expectancy.*

*Multifactor regression models that we have employed for Human Development Index as dependent variable confirm the above mentioned conclusions for the European Union member states.*

**Key words:** national walth; intangible capital; Human Development Index; regression.

**REL Classification:** 20A, 8B, 10D.



### **I. National wealth as factor and result of development**

Growth is essential for developing countries if they are to cover the gap separating them from the developed ones. Growth, however, depends upon the range of assets – produced, natural, and intangible – a country has, many of them being the result of the previous development and of wealth accumulated in the past.

The World Bank published monetary estimates of the wealth – including produced, natural, and human and institutional capital – for 120 countries of the world aiming to deepen the understanding of the linkages between development outcomes and the level and composition of wealth (Hamilton, Ruta and all, 2006). This estimates suggest that the intangible capital constitutes the largest share of wealth in virtually all countries. It doesn't mean, however, that natural resources aren't important. The natural capital is highly significant for the low income countries, many of them relying heavily on their natural resources. Even if growth is illusory when it is based on mining soils and depleting fisheries and forests, researches suggests that better management of ecosystems and natural resources will be key to sustaining development while these countries build their infrastructure and human capital. The research also finds that the value of natural capital per person actually tends to rise with income when we look across countries, contradicting the traditional wisdom that development necessarily entails the depletion of the environment.

Such researches provide decision makers the information and the indicators needed to manage the total portfolio of assets upon which development depends, enabling them to direct the development process toward sustainable outcomes.

Starting from the wealth estimates provided by the World Bank, we intend to research the variation of wealth and development level in European Union, but also in the case of Japan, Russian Federation and USA, in view of deducing some conclusions of theoretical-methodological but also of practical-applicative character.

### **II. The components of national wealth**

*Total wealth* was estimated by the World Bank experts as:



$$W_t = \int_t^{\infty} C(s) \times e^{-r(s-t)} ds \quad (1)$$

where:

$W_t$  - the total value of wealth, or capital, in year  $t$  ;

$C(s)$ - the consumption in year  $s$ ;

$r$ - the social rate of return from investment.

The social rate of return from investment is determined by the relation:

$$r = \rho + \eta \frac{\dot{C}}{C} \quad (2)$$

where:

$\rho$  - the pure rate of time preference;

$\eta$  - the elasticity of utility with respect to consumption.

Under the assumption that  $\eta = 1$ , and that consumption grows at a constant rate, then total wealth can be expressed as:

$$W_t = \int_t^{\infty} C(t) \times e^{-\rho(s-t)} ds \quad (3)$$

The current value of total wealth at time  $t$  is a function of the consumption at time  $t$  and the pure rate of time preference. Expression (3) implicitly assumes that consumption is on a sustainable path, that is, the level of saving is enough to offset the depletion of natural resources.

The total wealth is composed of *natural*, *produced* and *intangible capital* (Hamilton, Ruta and all, 2006):

1. *natural capital* consists of:

- energy resources (oil, natural gas, hard coal, lignite);
- mineral resources (bauxite, copper, gold, iron, lead, nickel, phosphate, silver, tin, zinc);
- timber resources;
- nontimber forest resources;
- cropland;
- pastureland;
- protected areas.

2. the *produced capital* includes machinery and structures and urban land;

3. the *intangible capital* was calculated as a residual, the difference between total wealth and the sum of produced and natural capital.

In the economic literature, the assessment of intangible assets is usually achieved by the following methods:

- comparison within the market framework;
- income method which take into consideration the amount of incomes generated by an individual intangible asset or a system of assets;
- cost based valuation method which takes into consideration the total volume of costs involved by the use of the intangible asset;
- methods based on estimates of past and future economic benefits, the major challenge being
- the discount that should be used for the past and future values related to this assets; the valuation is essentially combining the economic concept of intellectual value and the legal concept of the intellectual property;
- in view the fact that a good part of intangible assets can't be quantified in monetary terms, the methodology is very frequently using the method of scoring based on the grades of experts in the field.

### **III. Econometric models of multiple regression**

The macroeconomic analysis of the level of development depending on its main factors of influence offers the opportunity of testing in the case of European Union the intensity of the connection between development and wealth, as well as of determining some priorities and hierarchies with respect to the used economic instruments and policies.

The econometric model of multiple regression that we have used to underpin the action of the explicative factors of the development level variation includes a dependent variable – Human Development Index– and three independent variables (influence factors) which are the components of the national wealth: produced, natural, and intangible capital. Starting from the values recorded for the variables used in our empirical analysis in the year 2000, several regression models were tested (linear, probit, exponential and logistic ones). The most significant results from the statistical viewpoint were obtained for the linear multiple regression model.

Appendix 1 displays the complete data exploited in this paper. This data show enough variability among countries to allow for identifying critical determinants of development in spite of the relatively small size of the sample (22 countries). We measure the influence factors employing data from a survey conducted by the World Bank (Hamilton, Ruta and all, 2006), including monetary estimates of the total wealth and its composition for 120 countries of the world. We selected the data for European Union member states (wealth estimates were available only for 19 EU countries), together with Japan, Russian Federation and USA. We also employed data from the Human Development Reports provided by the United Nations Development Program (see Appendix 1).

The data show a clear link between wealth and development, all the countries with more than 400,000 \$ estimated wealth per capita in the year 2000 also having a HDI bigger than 0.925 in the same year. Sweden, the United States and Belgium had the highest levels of the HDI in 2000, while the leaders in wealth per capita were Denmark, Sweden and the United States. Romania and Bulgaria occupied the last places both for HDI and wealth per capita, having small levels for all three components of wealth, but especially for the intangible capital, which is the main explanation of this significant development gap.

***Linear multiple regression model for EU, Japan, Russian Federation and USA (model 1)***

Running the linear regression model for 19 member states of the European Union for which wealth estimates were available (see Annex 1), together with Japan, Russian Federation and USA, we get the following results:

$$\begin{aligned} \text{HDI} &= 0.81 - 0.08 \text{ KN} + 0.68 \text{ KP} + 0.89 \text{ KI}, & (4) \\ R &= 0.94; \text{ DW} = 2.25; F = 48.39 \end{aligned}$$

where:

HDI= Human Development Index  
 KN= natural capital  
 KP= produced capital and urban land  
 KI= intangible capital  
 R= multiple regression ratio  
 DW= Durbin-Watson statistic  
 F= Fischer statistic.

The multiple regression ratio has the value of 0.94, indicating a very strong statistical dependence of the Human Development Index in relation to the underpinned factors of the model – the three components of the wealth. The variables of the model represent factors that have a positive or negative influence on the dependent variable. The produced and intangible capital has a strong, positive impact upon the development level, while the natural capital has an extremely weak negative influence.

Looking for partial correlations between the Human Development Index components and the national wealth, we found out that GDP per capita, representing the economic part of HDI, has the highest connection with the wealth ( $R=0.937$ ). The other components of HDI are also strongly linked to the national wealth, the coefficients of correlation being 0.855 and 0.768 respectively.

As it should be expected, the intensity of the correlation between the national wealth in the year 2000 and the HDI values for the following years slightly decreased over time, from 0.937 in 2000 to 0.921 in 2001, 0.913 in 2002, 0.908 in 2003 and 0.898 in 2004, the coefficients of correlation still remaining very high.

Among the components of the wealth, the intangible capital shows the highest connection with the HDI ( $R=0.938$ ), the produced capital also being strongly linked to development ( $R=0.765$ ), while there is a complete lack of association between the natural capital and the HDI ( $R=0.03$ ).

In our study, the parameters were estimated with the assistance of the STATISTICA software. The statistical tests we performed gave very good results, proving the high quality of this model: the proportion of variance accounted for the model ( $R^2$ ) is 94%, the Durbin-Watson statistic of 2.25 shows no autocorrelation of errors and the computed Fisher statistic of 48.39 exceeds the critical F value.

#### ***Linear multiple regression model for EU (model 2)***

Restricting the linear multiple regression model to the 19 EU countries for which estimates for the components of national wealth were available, we get different values for the parameters of the model, but the results are similar:

$$\begin{aligned} \text{HDI} &= 0.804 - 0.220 \text{ KN} + 0.175 \text{ KP} + 0.767 \text{ KI} & (5) \\ R &= 0.929 ; F = 31.64 ; DW = 2.02 \end{aligned}$$

where:

HDI= Human Development Index

KN= natural capital

KP= produced capital

KI=intangible capital.

Although the multiple regression ratio has the value of 0.929, being smaller compared to the previous model ( $R=0.94$ ), it still indicates a very strong statistical dependence of the Human Development Index in relation to the three components of the wealth. The most significant difference against the first model is the highest association of the HDI with the natural capital ( $R= 0.41$ ) and the produced capital ( $R= 0.91$ ), while the connection with the intangible capital remains almost unchanged ( $R= 0.93$ ).

#### **IV. Final remarks**

The economic integration of Romania into European Union is important for the sustainable development of our country not only under the circumstances of traditional models of economic growth, but in the light of the increasing role of knowledge-based society and digital economy, the core of which are the increasing contribution of intellectual property represented by large variety of intangible assets.

The narrowing of digital divide, technological gaps and R&D discrepancies between Romania and the developed member states of the EU is depending to a greater extent of promoting in our country the increase of the quality and the contribution that could be obtained by an increasing amount of intangible assets.

A key problem of Romania's sustainable development and integration in the EU is the intellectual capital, the value of which is encompassing the major part of economic profitability and efficiency.

In this respect the relationship between research mobility (emigration, brain-drain, brain circulation, brain gain) and intangible assets in Romania could be envisaged as a factor improving the position and economic-social performances using the highly qualified labour force movement under the constraints of the strategic model based on "win-win" and not on "win-loss" principle.

**Appendix 1. Complete data for the regression models**

Country	Wealth estimate * 2000 \$/capita	Natural capital* 2000 \$/capita	Produced capital and urban land* 2000 \$/capita	Intangible capital* 2000 \$/capita	Human Development Index 2000	GNP/ Capita \$PPP 2000	Life expectancy 2000	Educational Index 2000	HDI 2001	HDI 2002	HDI 2003	HDI 2004
Austria	493080	7174	73118	412789	0.926	26765	78.1	0.96	0.929	0.934	0.936	0.944
Belgium	452714	3030	60561	388123	0.939	27178	78.4	0.99	0.937	0.942	0.945	0.945
Denmark	575138	11746	80181	483212	0.926	27627	76.2	0.98	0.930	0.932	0.941	0.943
Finland	419346	11445	61064	346838	0.930	24996	77.6	0.99	0.930	0.935	0.941	0.947
France	468024	6335	57814	403874	0.928	24223	78.6	0.97	0.925	0.932	0.938	0.942
Germany	496447	4445	68678	423323	0.925	25103	77.7	0.97	0.921	0.925	0.930	0.932
Greece	236972	4554	28973	203445	0.885	16501	78.2	0.92	0.892	0.902	0.912	0.921
Ireland	330490	10534	46542	273414	0.925	29866	76.6	0.96	0.930	0.936	0.946	0.956
Italy	372666	4678	51943	316045	0.913	23626	78.5	0.94	0.916	0.920	0.934	0.940
Netherlands	421389	6739	62428	352222	0.935	25657	78.1	0.99	0.938	0.942	0.943	0.947
Portugal	207477	3629	31011	172837	0.880	17290	75.7	0.94	0.896	0.897	0.904	0.904
Spain	261205	4374	39531	217300	0.913	19472	78.5	0.97	0.918	0.922	0.928	0.938
Sweden	513424	7950	58331	447143	0.941	24277	79.7	0.99	0.941	0.946	0.949	0.951
United Kingdom	408753	7167	55239	346347	0.928	23509	77.7	0.99	0.930	0.936	0.939	0.940
Bulgaria	25256	3448	5303	16505	0.779	5710	70.8	0.90	0.795	0.796	0.808	0.816
Estonia	66769	6283	18685	41802	0.826	10066	70.6	0.95	0.833	0.853	0.853	0.858
Latvia	47198	5485	12979	28734	0.800	7045	70.4	0.93	0.811	0.823	0.836	0.845
Hungary	77072	4947	15480	56645	0.835	12416	71.3	0.93	0.837	0.848	0.862	0.869
Romania	29113	4508	8495	16110	0.775	6423	69.8	0.88	0.773	0.778	0.792	0.805
Japan	493241	1513	150258	341470	0.933	26755	81.0	0.93	0.932	0.938	0.943	0.949
Russian Federation	38709	17217	15593	5900	0.781	8377	66.1	0.92	0.779	0.795	0.795	0.797
USA	512612	14752	79851	418009	0.939	34142	77.0	0.98	0.937	0.939	0.944	0.948

\*Source: World Bank (2006), Human Development Reports 2002-2006.

### References

- Behrman, J. R., Taubman P. J.. 1982. „Human Capital.” În *Encyclopedia of Economics*, ed. Douglas Greenwald, p. 474, New York: McGraw-Hill Book Company
- Berndt, E. R., Field., B. C., eds. (1981). *Modeling and Measuring Natural Resource Substitution*, Cambridge MA: MIT Press
- Bohm, B., Gleiss, A., Wagner, M., Ziegler, D., “Dissagregated Capital Stock Estimation for Austria – Methods, Concepts and Results.” *Applied Economics* vol. 34, 2002, pp. 23–37
- Croitoru, L., Gatto, P., Merlo, M., Paiero., P., ed. (2005). *Valuing Mediterranean Forests—Towards the Total Economic Value*. Rome: CABI Publishing

- Dasgupta, P., Mäler, K.-G. "Net National Product, Wealth, and Social Well-Being. *Environment and Development Economics*, vol. 5, 2000, pp. 69–93
- De Boer, B., de Haan, M., Voogt, M. "What would Net Domestic Product have been in an environmentally sustainable economy?", Presented in Papers and Proceedings of the Meeting on National Accounts and the Environment, 16-18 March, 1994, London
- Dixon, J., K. Hamilton, and A. Kunte. 1997. "Measuring the Wealth of Nations," Expanding the Measure of Wealth: Indicators of Environmentally Sustainable Development. *Environmentally Sustainable Development Studies and Monographs*, Series 17, 1997, Washington, DC: World Bank
- Gylfason, "Natural Resources, Education and Economic Development." *European Economic Review*, vol. 45, 2001, p. 847
- Hamilton, K., Clemens M. "Genuine Savings Rates in Developing Countries," *World Bank Economic Review* vol. 13 (2), 1999, p. 333, Washington, DC: World Bank
- Hamilton, K., Ruta, G. and all (2006). *Where is the Wealth of Nations? Measuring Capital for the 21st Century*, The International Bank for Reconstruction and Development/The World Bank
- Kunte, A., Hamilton, K., Dixon, J., Clemens, M. "Estimating National Wealth: Methodology and Results." Environment Department Paper 57, (1998). World Bank, Washington, DC.
- Larson, Donald F., Butzer Rita, Mundlak, Y., Crego Al. "A Cross-Country Database for Sector Investment and Capital." *The World Bank Economic Review* vol. 14 (2), 2000, p. 371
- Mas, Matilde, Perez, F., Uriel, E. "Estimation of the Stock of Capital in Spain." *Review of Income and Wealth* vol. 46 (1), 2000, p. 103
- Mitra, T. "Efficient Growth with Exhaustible Resources in a Neoclassical Model" *Journal of Economic Theory* vol. 17 (1), 1978, p. 114
- Pearce, D. W., Atkinson, G. "Capital Theory and the Measurement of Sustainable Development: An Indicator of Weak Sustainability." *Ecological Economics* vol. 8 (2) (1993), pp. 103–108

- Pezzey, J. (1989). "Economic Analysis of Sustainable Growth and Sustainable Development," *Environment Department Working Paper 15*, World Bank, Washington, DC
- Psacharopoulos, G., Patrinos, H. A. "Returns to Investment in Education: A Further Update," *Education Economics* vol. 12 (2) 2004, p. 111
- Schultz, T. W. "Investments in Human Capital." *American Economic Review* vol. 51 (1) 1961, pp. 1–17
- Stiglitz, J. E. 1974a. "Growth with Exhaustible Natural Resources: Efficient and Optimal Growth Paths." Symposium on the Economics of Exhaustible Resources. *Review of Economic Studies*, vol. 41, 1974, p. 123
- Human Development Reports 2002-2006*, at [www.undp.orgwww.worldbank.org](http://www.undp.orgwww.worldbank.org)



## THE HARMONIZING OF THE ROMANIAN HIGHER EDUCATION QUALIFICATIONS WITH THE EU LABOR MARKET REQUIREMENTS

■

**Ion Gh. ROSCA**

*Ph .D. Professor*

**Viorel LEFTER**

*Ph. D. Professor*

Academy of Economic Studies, Bucharest

**Abstract.** *The paper analyses the utility of the implementation of the European Qualifications Framework (EQF) and of the National Qualifications Framework as tools for a better use of human capital and for increased quality and competitiveness of the Romanian higher education, as well as it's adaptation to the requirements of the labour market. From this perspective, we shall analyse the new trends influencing the labour market and the changes in the interactions between the educational services market and the labour market. We shall also discuss the main strategic choices available for the Romanian higher education institutions in order to successfully integrate the European area of higher education and research.*

**Key words:** labor market requirements; higher education offer; professional qualifications; national education policy; knowledge economy

■

### Introduction

The nature of graduate employment is changing and diversifying and many students already work part-time throughout their courses. Institutional responses to developing employability are also diverse. Employability is about making closer links between education and the world of work. Employers are increasingly interested in what higher education has to offer, both for recruitment purposes and as a source of

part-time training and development for their existing employees. Higher education institutions are reaching out to their various communities, collaborating with employers, and developing innovative and successful ways of enhancing students' employability: enabling them to manage their careers, preparing them for lifelong learning, and providing continuing professional development. The changes in the graduate labor market include:

- changes in the structure of commerce and industry, especially the emergence of smaller and less sensitive organizations;
- responsive organizations;
- more graduates employed in small organizations, becoming self-employed, or combining part-time or fixed-term employment with freelance work;
- reform of the public sector, notably government's efforts to improve performance and accountability.

The National Framework of Qualifications forms the basis of a new, more flexible and integrated system of qualifications. The need for such a system arises in the main from the national objective of moving towards a „lifelong learning society”, in which learners will be enabled to take up learning opportunities at chosen stages throughout their lives.

The more diverse learning community that is anticipated in the future will include many learners who participate in programmes on a part-time basis, or at intervals. The concept of the Framework of Qualifications, and the integration of the various classes of award-type (major, minor and supplemental and special purpose), depends on having in place ways of measuring and comparing packages of learning outcomes less than those associated with whole major awards.

The framework is seen as describing a coherent national policy approach to qualifications, as an inspiration source for building and fostering lifelong learning society and a basis for international comparison and alignment (to the European policy trends and agreements – Lisbon, Copenhagen and Bologna, European Qualifications Framework – EQF). *EQF* aims at identifying the training needs directly linked to the labour market (employers') demand. The labour market demands for competences and qualifications (which require training) are addressed to the university, which processes them and turns them into training strategies and further on into programmes of study. All qualifications (expressed in learning outcomes) should be transparent and legible to the economic environment. Once in the enterprise, the qualifications are

moulded by specific conditions ensuring in the same time the competition and innovation. In this context, the university and the enterprise transmit information to the national qualifications authority for higher education, which synthesises and defines the formal qualifications (in terms of descriptors, mechanisms, principles). This process takes into account the opinions coming from the civil society, sector committees, professional associations, trade unions, students, graduates.

The EQF aims to provide a common language to describe qualifications which will help Member States, employers and individuals compare qualifications across the EU's diverse education and training systems<sup>(1)</sup>. The core element of the European Qualifications Framework (EQF) is a set of eight reference levels describing what a learner knows, understands and is able to do - their „learning outcomes” – regardless of the system where a particular qualification was acquired. The EQF reference levels therefore shift the focus away from the traditional approach, which emphasises learning inputs (length of a learning experience, type of institution). As an instrument for the promotion of lifelong learning, the EQF encompasses general and adult education, vocational education and training, as well as higher education. The eight levels cover the entire span of qualifications from those achieved at the end of compulsory education to those awarded at the highest level of academic and professional or vocational education and training.

An award is recognition of learning outcomes and learning outcomes can be described and even defined in great detail, but the tools by which learning outcomes can be measured do not exist, apart from the crude device of counting specific skills. All workable approaches to assigning credit to learning achievements require the use of a notional device that can associate either learning outcomes or programme targets with something else that *can* be measured: the most

---

<sup>(1)</sup> Ján Figel', European Commissioner for Education, Training, Culture and Multilingualism, appreciated: "People in Europe too often face obstacles when they try to move from one country to another to learn or work, or when they want to build upon previous education or training. The EQF will help to solve that problem: it will make different national qualifications more understandable across Europe, and so promote access to education and training. Once adopted, it will increase mobility for learning or working. We believe the EQF is a key initiative in creating more jobs and growth, helping people in Europe to face the challenges of a globalising, knowledge-based world economy." **Source:** *The European Qualifications Framework: a new way to understand qualifications across Europe*.

commonly-used of these devices in Europe is learner workload, and this is the measurement basis of ECTS. While the workload/programme relationship is itself notional, the association between these constructs in ECTS is very strong, as the key quantity involved in defining learner workload is that of a notional average programme-year's participation in learning. The workable nature of this arrangement is strengthened by the fact that most credit for learning achievement in higher education is gained through participation in programmes.

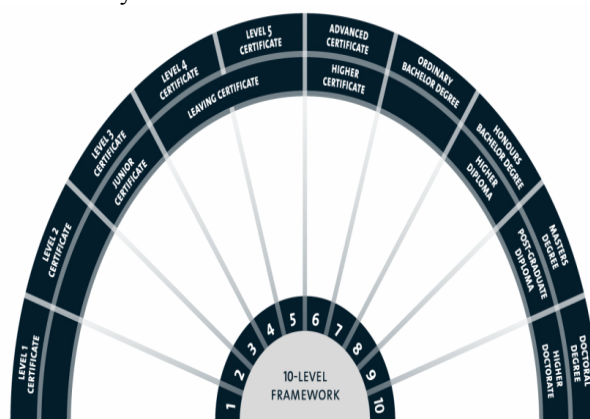
The rationale for the QFHE is to provide a mechanism to relate national framework to each other as to enable:

1. International transparency; in relations between universities across and in relation with the employers and other stakeholders;  
Instrument: Diploma Supplement;

2. International recognition of qualification;

3. International mobility of learners and graduates:

- Learners can ultimately have greater confidence that the outcomes of study abroad will contribute to a qualification sought in their country.
- A framework will also be of particular help in supporting the development and recognition of joint degrees from more than one country.



**Figure 1.** *The framework seen as structure of 10 "levels" in which each level is based on standards of knowledge, skill and competence*

Even if every higher education institution will be affected to the same degree by the societal drivers of change, it is the educational institutions' role to choose how they will react or initiate adjustments in the sense that they can let themselves be affected by these drivers along with current institutional mission and characteristics.

The pressure to use available resources – whether human or financial – to the best possible effect is part of the daily life of schools and training institutions across the EU. Mechanisms that can help include: *improving quality assurance and ensuring efficient use of resources.*

Several broad trends have contributed to growing governmental interest in establishing policy mechanisms to ensure quality and accountability in higher education. Particularly significant has been the trend toward mass higher education. Many countries have seen a doubling or tripling of post-secondary enrollments in the last few decades, along with increased participation rates for young people. In most middle income countries today, between 25 and 45 percent of young people enroll for higher education. Greater diversity of educational offerings has emerged in response to mass higher education; most countries have introduced different types of institutions, different lengths of study programs, and varying modes of instructional delivery as ways to accommodate rapid enrollment expansion. Other responses are seen in the growth of a private, entrepreneurial sector of higher education and, in many countries, an expansion of educational offerings by distance learning. Further, as universities have become larger and more specialized, they have adopted more diverse roles, often seeking to serve needs of business and industry or to strengthen their contributions to local, regional or national needs.

These new concerns are forcing universities to think more along corporate lines than ever before. "Presidents have become corporate managers, and management has become increasingly focused on accountability" (Kezar). This has caused many of them to model themselves after corporations in relation to cost efficiency, calculability, and predictability. While all of this is not negative in itself, it has the effect of shifting the focus from the true purpose of education – the student. It will become increasingly difficult to balance these two as a more sophisticated public demands more quality options and accountability for less cost (Conway).

- A business product, as educational and innovative intellectual products and services can be exported for a high value return.

- A productive asset.

At least two drivers derived from the knowledge economy do receive attention in the light of making close the two factors: qualifications and labor market and these are:

- information/knowledge intensity – efficient production relies on information and know-how; over 70% of workers in developed economies are information workers; many factory workers use their heads more than their hands.
- computer networking and connectivity – developments such as the Internet which are triggered by the globalization.

Lately, at national level, four priorities have been identified related to this subject:

- Elaboration of the methodology for the development of the National Qualifications Framework for Higher Education by September 2007;
- Description of a set of pilot qualifications by December 2007;
- Identification of the national compatibilities between the pre-university level and the university level;
- Design, implementation and permanent updating of the National Register of Qualifications in Higher Education, 2008.

And targeted to international level, three lines of action have been established:

- exchanges of good practice;
- involvement in European actions concerning the qualifications framework;
- harmonisation of the Romanian NQFHE with EQF and with the NQFs of other countries.

### **New trends affecting higher education**

As higher education moves into the 21<sup>st</sup> century, there are a variety of factors or trends that are affecting institutions of higher education. How these institutions approach these changes will determine whether they remain competitive in the future, or if they will cease to exist. The context in which higher education functions is changing dramatically due to various phenomena.

According to Gibbons (1998) the following patterns show a mass inclusion of larger layers of population in Higher Education under the forms of some symptoms: diversification of functions, social profile of student populations, education for the professions, tensions between teaching and research, growth of problem-oriented research, decline of primary knowledge production, broadening of accountability, technology for teaching, multiple sources of funding for higher education, efficiency and the bureaucratic ethos, consequences for mass access.

A major shift is the changing demographics of the student population in higher education: steep and steady decline in the birth rate and an increase in life expectancy in the more economically advanced countries, in general: longer lives, longer work days, larger urban areas, more diverse populations, more frequent moves. As the population of traditional college-age youth and corresponding high school graduates began to decline in the 1980s, they were replaced by an older population seeking a college education.

Another trend, derived from the increased rhythm of social development and the higher complexity of economic and business environment, is that the average worklife in the future could easily consist of several different careers carried out sequentially. Life-long learning is becoming a necessity rather than the enrichment opportunity it may have been in the past. More students who already possess a degree are looking for vocational courses (that is, courses expected to improve job or career skills). If employers continue to reduce the number of core (ie. benefitted) employees, more of these students may be paying directly for the education they need to become or remain employable.

Another aspect of restructuring in the workplace, telecommuting, may significantly influence the ways for delivering of higher education. Communities around the world are creating telecommuting facilities to allow their residents to work for distant employers, as the number of people working from home will continue to increase. Some quality assurance agencies have begun to adapt their review procedures to address a growing variety of distance education and other electronic learning opportunities, including television-based courses, and instruction over the Internet.

Consequently, complex questions about how to measure educational quality are gaining new urgency because of two recent developments: the widening use of educational technology and the burgeoning interest in global delivery of educational services.

Quality assurance will be more complex as universities move to broaden the range of their knowledge missions. Until now, quality control in teaching and research has been exercised through essentially the same type of peer review system. Quality has been a matter for academics and academics alone. It has been up to them to determine when quality in both teaching and research has been achieved.

Quality Assurance in Higher Education continues to be the main mode of expansion in teaching provision in the future. If new research practices diffuse more widely throughout universities, entirely new assurance mechanisms will be necessary for the problem-oriented teaching that will accompany it.

In higher education, globalization is leading to increased emphasis on internationalization of the curriculum; this brings opportunities for new partnerships for research and teaching with agencies and institutions across the globe and, it leads to an increased permeability of international boundaries.

The benefits of globalization include the growth-enhancing ability of countries to tap their comparative advantages, the expansion of our export markets, and the price savings associated with imports. Similarly, the expansion of financial and labor markets has the potential to create greater competition, more efficient markets, and lower prices.

Among the back draws - many in our manufacturing workforce have watched their jobs and even their; tens of millions of workers go without health insurance, see their pensions erode, and watch their incomes stagnate while the benefits of economic growth flow freely to those at the top. We are just now coming out of the longest jobless recovery on record, and for many in the working class, wage growth continues to lag inflation, even while profits and productivity soar. Also, factories leave for other countries, and now, in an era where white-collar jobs can increasingly be offshored, even our most skilled workers face competition from workers with similar skill sets yet far lower wages.

While the benefits of globalization are prodigious, many who have been hurt by trade competition feel devalued when elites stress solely those benefits and ignore the negative impact of these trends on working families<sup>(2)</sup>. Moreover, if policy makers do not acknowledge and try to address these costs, we will increasingly encounter a public that views protectionism as the best way to insulate themselves from the downside of global competition.

---

<sup>(2)</sup> [http://www.senate.gov/comm/labor/general/Hearings/2005\\_05\\_26/Bernstein.pdf](http://www.senate.gov/comm/labor/general/Hearings/2005_05_26/Bernstein.pdf)



The domestic policy responses offered to strengthen the competitiveness of our 21st century workforce. Two common lines of argument are skill enhancement and further deregulation of US labor, product, and financial markets are the necessary components of a more competitive workforce. While improving access to educational opportunities is critical to improving living standards to many who currently lack such access, further deregulation – for example, reducing our labor standards – is likely to be counterproductive. Instead of making us more competitive, it will have the effect of shifting more economic risk onto our workforce, thereby amplifying the negative effects of globalization.

A network of quality assurance agencies that has recently formed in Europe could offer assistance, possibly by identifying certain tasks where it could undertake developmental projects. The international network of quality assurance agencies could also be a resource for identifying special expertise for certain tasks.

Before any substantial amount of developmental work can move forward, a separate effort is needed to develop greater clarity and consensus on what types of new structures might be appropriate for assessing learning, regardless of setting. An international approach is needed for this task, too, and needs to be organized by a multinational body. Various options need to be debated for what the broad developmental objective should be; areas of agreement and cooperative research need to be identified. The options to be considered might range widely, including:

- Harmonization of degree levels across countries, for example, to organize levels of learning to more closely conform with the ISCED levels developed by UNESCO;
- Identification of general competencies or skills that should characterize holders of a degree, regardless of where or how they earned the degree;
- International standards for student achievement, specified for each profession and discipline;
- International leaving examinations, comparable to the *international baccalaureate* that has been established at the high-school-leaving stage and that becomes more feasible worldwide as computer-assisted examination techniques are developed;

- Assessments of institutional capacity based on international standards and review teams, organized separately for research universities, technical institutes, etc.; or
- Internationally-recognized methods for assessing educational capacity.

As a result of technological change, based on the evidence that the rate of technology change will decrease, as the rate at which new technologies are penetrating businesses and especially homes can be expected to increase. Advances in technology, most recently the decline in the cost of transmitting information, have diminished barriers between nations and expanded the national markets without far beyond the borders. One possible impact of changing technologies is a move away from site-based delivery of education to more flexible, learner-selected options.

Because of the rapid development of electronic media and delivery infrastructure over the last decade, distance learning has now reached a stage where substantial growth can be expected. Prospects for expansion are especially great in view of the burgeoning enrollments forecast for many countries and the limited prospects they have to invest in physical facilities to match rising demand. Over the next decade, an increased number of institutions can be expected to offer distance learning, and with much higher numbers of students enrolled. This growth poses serious implications for quality assurance agencies: a greater number of providers of distance learning must be monitored, in a greater variety of learning sites and modes; and an increasing number of students will be seeking recognition for distance-based courses to fit a greater diversity of study objectives.

In Romania, major steps were taken towards the European Higher Education Area by reorganizing the entire spectrum of university programmes. A new higher education structure has been adopted by Law No. 288/2004 on the organization of university studies, providing the legislative framework for the introduction of the three cycles, Bachelor, Masters' and Doctoral studies, according to the Bologna objectives. The law came into force in the 2005/2006 academic year and the first generation of Bachelor students will graduate in 2008/2009. Ministerial Order No. 3617/16.03.2005 generalises the application of ECTS in Romanian universities. Ministerial Order No. 4868/2006 concerning the implementation of the Diploma Supplement for certifying the graduation of a study cycle stipulates that all higher education institutions will issue, free

of charge, the Diploma Supplement, starting from the 2005-2006 academic year. One of the main achievements for the Romanian higher education with a view to become an active and attractive part of the future European Higher Education System was the adoption of Law No. 87/2006 which approved Emergency Government Ordinance No. 75/2005 on quality assurance in education.

The adoption of a system of credits is also a key component of the development of the European Higher Education Area under the Bologna process. ECTS is becoming a generalised basis for credit systems in higher education, and it has a proven track record in facilitating student mobility and international curriculum development, and is developing into a credit accumulation, as well as a credit transfer system.

The national approach to credit – which spans both the higher education and training and further education and training sectors – is intended to establish a stable and clearly understood national currency in learning that will benefit both learners and recruiters in education and employment. Specifically, it will help foster mobility amongst Irish learners both nationally and internationally, and enable education providers to attract international students more readily. It will also enhance the readability, the comparability and the recognition of Irish higher education and training awards both nationally and internationally. This will be reflected in instruments such as the Diploma Supplement.

In Romania, the development of the National Qualifications Framework for Higher Education (NQFHE) is the responsibility of the National Agency for Qualifications in Higher Education and Partnership with the Economic and Social Environment (ACPART). ACPART is the national authority for establishing and regularly updating the national qualifications framework for higher education, a specialized body subordinated to the Ministry of Education, Research and Youth, a public institution with legal personality. ACPART Agency has branches in Cluj-Napoca, Galati, Timisoara, and Iasi. ACPART has as main missions:

- to elaborate, implement, and update the national qualifications framework for higher education concerning the development, recognition, and certification of qualifications based on the knowledge, abilities, and competences acquired by beneficiaries of the higher education system;
- to analyse compatibility of the specialisations curricula in the fundamental areas of higher education with national qualifications framework standards;

- to involve Romanian higher education institutions in the development of a European society based on knowledge and productivity, with a competitive and dynamic economy;
- to promote the opening of higher education institutions towards the socio-economic environment through cooperation actions among higher education institutions, economic operators and other organisations, aimed at developing specific partnerships, labour market research, an entrepreneurial dimension to Romanian universities, as well as knowledge transfer.

Romania welcomes the proposal of developing an overarching European Qualifications Framework for Higher Education by ensuring that its NQFHE will be compatible with the EQFHE. The rationale for the EQFHE is to provide a mechanism to relate the national frameworks to each other so as to enable international *transparency, recognition of qualifications, and mobility of learners and graduates*. The process of international transparency should be carried out and supported at the level of both higher education institutions (HEIs) and employers and other stakeholders. The main instrument for achieving this aim is the Diploma Supplement. The increase of the international mobility of learners and graduates can ultimately offer greater confidence to learners that the learning outcomes of the programmes of study attended abroad will contribute to a qualification requested in their own country. The development of the qualifications framework will also be of particular help in supporting the development of joint degrees from more than one country and recognition of the national diploma.

#### **New trends affecting labour market**

Among the new phenomena interfering in the development of the labour market, one could mention: population explosion in the developing world, demographic transition in OECD countries, aging, projected labor shortages, reinforcement of the importance of education and creating new skills, better utilization of the domestic work force, migration of employment, outsourcing and temporary work.

The nature of work is changing and skills required from employees and managers are changing. Examples of this change are increasing knowledge intensity in products, an increasing proportion of the workforce in the service sector, changing work organizations that demand new skills, and the role of enterprises as training providers. Knowledge cannot be expected to remain static throughout life the way it

used to. Lifelong learning in the context of employability will in many areas be a prerequisite to stay attractive to the labour market. This development of the knowledge society should not allow the creation of social barriers, but rather overcome them. These challenges are common to all education and training systems and they will need to anticipate and adapt to the rapid changes. Common objectives, discussion on possible solutions and exchange of good practice will be important instruments to meet these challenges together.

The challenge of these demographic trends on education and training systems implies:

- the need to encourage people to continue learning whether through the traditional education and training paths or through work-based learning, and thus to become more employable, and entrepreneurial,
- the need to provide for information and guidance and continuing education and training for people during a longer and more active life-span.

**Migration flows** are now more varied. This confronts the education and training systems with the reality of a diversified and multilingual public to serve. The migration streams to the EU should also be seen in the perspective of sustainable development.

Life expectancy in Western Europe raised from 47 years in 1900 to 67 years in 1950 and then to 79 years by 2004. The result of these trends is a reduction in the number of young people entering the job market and a surge in the size of the elderly retired population. Already 50 percent of the population in industrialized countries is in the dependent age groups, which includes those under 15 and those over 64. During the past decade, the old-age dependency ratio in these countries has risen from 19 percent in 1995 to 22 percent in 2005.

Even, in the USA, the Bureau of Labour Statistics (BLS), US Department of Labour, periodically releases projections on future job growth by industry and occupation and on the likely composition of the workforce pursuing those jobs. The 10-year projections of economic growth, employment by industry and occupation, and labour force are widely used in career guidance, in planning education and training programs, and in studying long-range employment trends. These projections, which are updated every 2 years, continue a nearly 60-year tradition of providing advice to individuals who are entering the job market, changing careers, or making further education and training choices.

Related to industry employment, employment growth will continue to be concentrated in the service-providing sector of the economy. Educational services, health care and social assistance, and professional and business services represent the industry sectors with the strongest employment growth; these sectors are projected to grow more than twice as fast as the overall economy. Construction employment is projected to grow, but at a slower pace than during the previous decade. Manufacturing employment, however, is expected to decline by up to 5 percent; nonetheless, employment in goods-producing industries is expected to decrease of total employment.

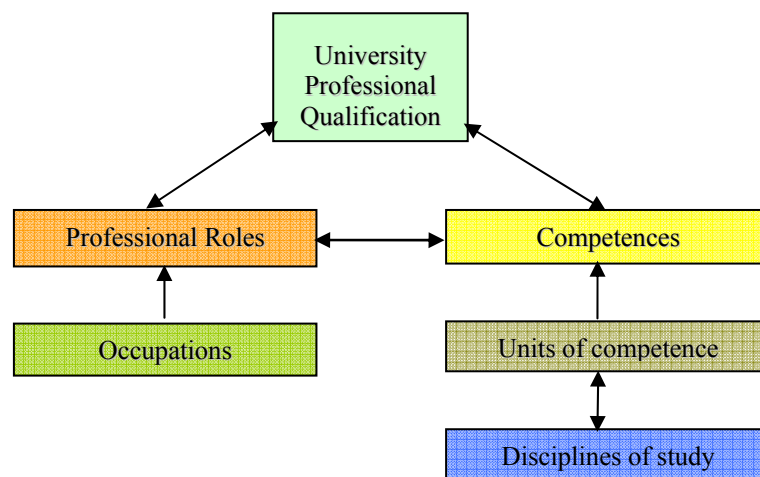
**The new interaction between higher education and labor market**

1. Growth of employment opportunities exceeds the rate of population growth and will continue to do so in future.
2. This trend has been accentuated until recently by the lowering of the retirement age, which has accelerated the loss of experienced workers from the workforce.
3. It has been further accentuated by falling birth rates, resulting in the influx of fewer young workers to replace those who retire.
4. The proportion of the population in retirement has also risen to peak levels and will continue to rise unless offset by massive immigration.
5. At the same time, educational and skill requirements have increased faster than the capabilities of the workforce.

The main idea of dealing with the binome: higher education qualifications – labour market requirements consists of the necessary trans-disciplinary approach of the economy-engineering-management in the context of the new paradigm brought by the more and more complex processes generated within the knowledge-based economy.

A new paradigm of the function of higher education in society has emerged in the latest years (Quality Assurance in Higher Education). While universities still maintain their role as the “conscience of society,” more pragmatic roles have been evolving over time: universities no longer pursue knowledge for its own sake; rather they provide qualified manpower and produce knowledge. With this new economically oriented

paradigm, comes accountability. Higher education will be judged in terms of outputs and the contributions it makes to national development.



**Figure 2.** The description process of the university professional qualification



**Figure 3.** Actors' Roles in Defining Qualifications

In the context of actual socio-economic framework, the university and economy both become partners in education and in building the human resource as *human capital*. The suggested models are meant to provide a focus on the creation of the adequate education offer correlated with the requirements of the labour market induce by the recent accession to the European Union and described previously by the Lisbon Summit, the Bologna Document and by the corresponding policies actions.

The approach implies several levels:

- a *conceptual* one – of identifying through impact analysis the crucial mechanisms of cause-effect among a set of state variables associated to the formal education system and that one the labour market (developing some theoretical econometric models, its validation based on statistical evidence);

- an *operational* one – the optimal adaptation of domestic framework of qualifications on the three levels: license, master and doctorate degrees, able to assure the students' mobility and a high degree of employability for the young graduate on the current European labour market, the decisional one, of the accountability toward the main transformations in the society: the globalization of the higher education, the population ageing, the industrial restructuring processes, the new business models on the virtual space etc.

The main scope consists of the creation and the transformation of the universities and of public institutions of RD into significant actors on the international market of knowledge and its increase of co-operation capacity with the business climate.

In the context of the following steps of Romania' integration into European Union, the issue of human resources' development gains a crucial importance – for ensuring a critical mass of researchers in technological domains, harmonised to actual trends in the European space. Some documents are leads for shaping efforts to create a valuable supply of labour force, appropriate to the need of the market: the *Lisbon Strategy* – framework for developing educational labour market, the *Bologna Process* etc.

Since the 1999 Bologna Declaration, countries have taken many important steps to fulfil the main preconditions for the establishment of the European Higher Education Area. The basic precepts of the Bologna Process date back to the Sorbonne Joint Declaration on Harmonisation of the Architecture of the European Higher Education System, signed in May 1998, which stipulated the need to improve the international transparency of courses and the recognition of qualifications by means of



gradual convergence towards a common framework of qualifications and cycles of study and to facilitate the mobility of students and teachers in the European area and their integration into the European labour market. The ministers responsible for higher education in the countries signatory to the Bologna Declaration agreed that there is a need to introduce a system that is more uniformly structured and "readable" in order to consolidate the European Higher Education Area by 2010. At the start of the 2006/2007 academic year, the three-cycle structure was in place in virtually all signatory countries. In Romania, all higher education institutions have been legally obliged to put the three-cycle structure in place since the start of the 2005/2006 academic year.

In the majority of signatory countries, higher education provision is divided between academic/theoretically-based programmes (ISCED 5A) and practically oriented professional/vocational programmes (ISCED 5B). In Romania, ECTS has been used on a general basis since 2005/2006. As per the 2004 law, ISCED level 5B programmes in Romania will be reorganised into ISCED level 5A programmes as of 2007/2008.

At the Bergen Conference, the European ministers of higher education adopted an overarching framework of qualifications for the European Higher Education Area (EHEA). This includes reference to the three-cycle study structure and makes use of generic descriptors for each cycle (based on learning outcomes, competences and credits for the first and second cycles).

A National Qualifications Framework may be defined as a mechanism for describing formal qualifications and other learning outcomes at all levels of education; its components and format may vary from one country to the next. It is also intended that the framework should be an intelligible, meaningful resource at international level. As of February 2007, nine countries or regions (most of them EU Member States) reported that they had adopted (but not necessarily implemented) a framework of this kind for higher education. France and the United Kingdom did so in 2002 and 2001 respectively; most other countries in this group have done so since 2003. Many countries have yet to adopt an NQF, but plan to do so. Latvia, Malta, the Netherlands and Sweden plan to adopt such a framework in 2007. In the Czech Republic, adoption of the principles for a framework is also scheduled for 2007. In Armenia, this should be achieved by the end of 2009.

In general, most of the other countries have not set a date for adoption of an NQF but are actively working (in special committees,

working groups or through public consultation) to prepare a model for it. Working groups have either been formed recently, as in the case of Belgium (the French Community), Cyprus, Georgia, Poland and Serbia in 2006, or will be very soon (Austria, where consultation begins in 2007).

In Bulgaria, Croatia, Greece, Norway, Spain and Turkey, working groups are proposing in 2007 that their governments should adopt a (full or partial) model framework. In Lithuania, a model of this kind is intended for completion in 2008.

According to the 2005 government decision on the establishment, organisation and operation of the National Agency for Qualifications in Higher Education and Partnership with Economic and Social Environment (ACPART), a National Qualifications Framework for higher education will be elaborated, implemented and regularly updated by ACPART beginning in 2006/07.

The main trends and important aspects related to the implementation of the Bologna Process include the existence of a higher education structure based on three cycles, the adoption or general implementation of the European Credit Transfer and Accumulation System (ECTS), the introduction of the Diploma Supplement, the incentives offered for the implementation of the aforementioned three aspects, the establishment of a national qualifications framework and joint/double degrees as well as the development of measures for quality assurance.

At its Lisbon meeting, in March 2000, the European Council invited the Education Council "to undertake a general reflection on the concrete future objectives of education systems, focusing on common concerns and priorities while respecting national diversity. The European the Council has identified a number of common priorities for the future and the contribution which the education and training systems must make if the Lisbon goal that Europe should become *"the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion"* is to be achieved.

The European Council has also considered the general aims which society attributes to education and training:

- the development of the individual, who can thus realize his or her full potential and live a good life;
- the development of society, in particular by fostering democracy, reducing the disparities and inequities among individuals and groups and promoting cultural diversity,

- the development of the economy, by ensuring that the skills of the labor force correspond to the economic and technological evolution.

In March 2001, the European Council adopted three strategic goals (and 13 associated concrete objectives) to be attained by 2010: education and training systems should be organized around quality, access, and openness to the world. A year later, it approved a detailed work program ("Education & Training 2010") for the attainment of these goals and supported the ambition of the Ministers for Education to make education and training systems in Europe *"a worldwide quality reference by 2010"*. The "Education & Training 2010" work program has been implemented in stages since 2001 and the follow-up to the Copenhagen Declaration is at an early stage. While some developments have been recorded, it would be premature for the time being to attempt to measure progress. The Commission has nevertheless to hand the reports of the different working groups set up, national reports on the development of lifelong learning and mobility, and also indicators and recent analyses backed up by figures. Worryingly, these sources all point to a situation in which efforts are being made in all the European countries to adapt the education and training systems to the knowledge-driven society and economy, but the reforms undertaken are not up to the challenges and their current pace will not enable the Union to attain the objectives set.

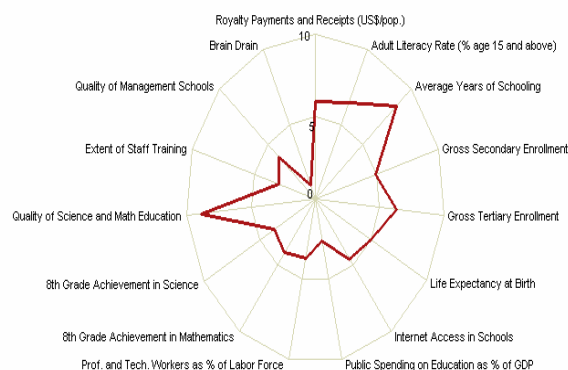
In Europe, due to lack of quality and attractiveness, vocational training is not up to the new requirements of the knowledge-based economy and the European labour market. The Union also faces an increasing risk of a teacher shortage. Equally, it is experiencing the greatest difficulty in regaining its place as first choice for students from non-Community countries, the number one spot having been taken over by the USA. These continuing weaknesses are all the more worrying as the effects of investments and reforms on the systems are felt only in the medium and even long term, and as the date of 2010 is getting closer and closer. A wake-up call is therefore essential at all levels if there is still to be a chance of making the Lisbon strategy a success. In order to get there, the Commission feels it is essential to act simultaneously, and right away, on four priority levers:

- Concentrate reforms and investment on the key points in each country, in view of the situation of each and of the common objectives; at the Community level, this requires structured and continuous cooperation to develop and make the best use of human resources and achieve maximum investment efficiency;

- Define truly coherent and comprehensive lifelong learning strategies, ensuring effective interaction between all the links of the learning chain and setting national reforms within the European context;
- At last, create a Europe of education and training, particularly by rapid introduction of a European reference framework for qualifications in higher education and vocational training; such a framework is essential for creating a genuine European labour market, to facilitate mobility and make European systems more transparent;
- Give "Education & Training 2010" its rightful place so that it becomes a more effective tool for formulating and following up national and Community policies, including beyond the current decade; the urgent nature of the challenges to be faced means we have to use the open method of coordination to the full – while fully complying with the principle of subsidiary. In particular, the Commission feels that as from 2004 a mechanism should be put in place to monitor progress achieved on the basis of annual reports forwarded to the Commission by the Member States.

If these steps are all taken quickly, there is still a chance that the objectives set by the Member States can be attained. Otherwise, the likelihood is that the gap between the Union and its main competitors will become even wider and, what is more serious, that the success of the Lisbon strategy overall would be seriously jeopardized.

For Romania, the indicators offered by the World Bank Methodology concerning the progress on the knowledge dimensions of the society and the economy provide the following pieces of information:



Source: [http://info.worldbank.org/etools/kam2/KAM\\_page4.asp](http://info.worldbank.org/etools/kam2/KAM_page4.asp)

**Figure 4.** Romanian performance regarding education issues

**Romania – benchmarked with the group of all countries –  
KAM methodology**

Table 1

Variable from the education chapter	Romania as compared to All Countries	normalized
	actual	
Royalty Payments and Receipts (US\$/pop.) 2005	10.20	5.95
Adult Literacy Rate (% age 15 and above), 2004	97.30	6.47
Average Years of Schooling, 2000	9.51	8.50
Gross Secondary Enrolment, 2005	85.10	4.89
Gross Tertiary Enrolment, 2005	40.20	6.36
Life Expectancy at Birth, 2005	71.70	5.00
Internet Access in Schools (1-7), 2006	3.60	4.54
Public Spending on Education as % of GDP, 2005	3.60	2.66
Prof. and Tech. Workers as % of Labour Force, 2004	17.44	3.70
8th Grade Achievement in Mathematics, 2003	475.00	4.08
8th Grade Achievement in Science, 2003	470.00	3.67
Quality of Science and Math Education (1-7), 2006	5.50	8.91
Extent of Staff Training (1-7), 2006	3.30	3.03
Quality of Management Schools (1-7), 2006	3.90	3.87
Brain Drain (1-7), 2006	2.20	0.93

### Conclusions

The main challenges for Romanian Higher Education are the following:

- the establishment of the NQF, based on the learning outcomes and described in terms of knowledge-competences-skills;
- the separation of the HEIs: HEIs for education, HEIs for research, HEIs for education and research;
- the passage from teaching to learning based education paradigm;
- the assessment of all the HEIs and of all the study programs;
- increase the funding for higher education, allocated in accordance with their quality;
- the portability of the grants;
- the training of the trainers;
- the establishment of the of Sustainable Development Education Strategy.

In the light of these challenges and developments, with the aim of contributing to the "new strategic goal" for Europe, the Ministers of Education have adopted the following concrete strategic objectives for the coming ten years.

♦ Increasing the quality and effectiveness of education and training systems in the European Union - Evidence indeed suggests that individuals without adequate qualifications are four times more likely to be unemployed. Hence, preventing and combating unemployment and social exclusion starts by increasing the quality of education and training provision, including work-based learning.

Upgrading the initial education and in-service training of teachers and trainers so that their knowledge and skills respond both to the changes and expectations in society, and to the varied groups they teach and train is a major challenge to the education and training systems over the next 10 years.

♦ Facilitating the access of all to the education and training systems - Ensuring that all citizens achieve an operational level of literacy and numeracy is an essential precondition to quality learning. These are the key to all subsequent learning capabilities, as well as to employability. Some groups (e.g., those whose mother tongue is not the language of learning) could be particularly vulnerable.

The developing use of ICT within society has meant a revolution in the way schools, training institutions and other learning centres could work, as indeed it has changed the way in which very many people in Europe work. ICT is also of increasing importance in open learning environments and in virtual teaching. As far as the education and training

systems are concerned, the ability to respond to the rapid developments and the need to stay competitive will continue to play an important role. In addition, flexibility will be needed for individuals to acquire ICT skills throughout their lives. The outcome will depend on issues such as flexible organizations, sufficient resources and in particular continuing focus on:

♦ **Opening up education and training systems to the wider world.**

- More education to raise the qualifications of young workers.
- On-going training to upgrade skills to keep pace with changing needs.
- Extension of the retirement age and removal of disincentives to work beyond the retirement age.
- Policies and incentives to facilitate part-time work so that those who are unable or unwilling to work full-time can still participate in the work force.

As the national authority for the development of the National Qualifications Framework for Higher Education, ACPART has the responsibility of designing, implementing and maintaining the National Qualifications Register for Higher Education (NQRHE), as a tool for identification, registration, permanent consultation and updating of qualifications, namely of degrees and awards issued by higher education institutions.

The NQRHE should be regarded as a *multi-actor* and *multi-national* tool of interest. As a multi-actor tool, NQRHE represents the result of collaboration among different stakeholders, while as a multi-national tool, NQRHE will be available on-line both in Romanian and in English, in order to ensure national and international access to information.

NQRHE has been started in its first experimental form, bringing together all the titles/qualifications delivered by Romanian universities. This is publicly available starting with 1st of May 2007 on the ACPART website. The future development of the Register will be supported by projects from Governmental and Structural Funds.

The keystone for a good NQF is the improvement of the dialogue with the representatives of all HEIs, other stakeholders and students in order to explain and to build up together the NQFHE, as well as to receive a well-needed feedback regarding the development and implementation of the NQFHE. The NQF must assure the transparency and the visibility of HE study offer.

The NQFHE will further allow the development of a real student-centred higher education. In order to achieve all its goals the NQFHE should be characterized by flexibility, simplicity, applicability and visibility.

Therefore, if we develop the qualifications framework, we can develop the mobility of students, graduates and labour force, improve the curricular reform, and develop a better understanding of study cycle and learning outcomes correlated to each cycle.

All stakeholders should get involved in the actions which link the development of the qualifications framework to other Bologna action lines: quality assurance, credit transfer and accumulation systems, lifelong learning, flexible learning paths and the social dimension, recognition of qualifications, particularly the Diploma Supplement and quality assurance.

An NQFHE would be of direct relevance to policy-makers and expert bodies at national, but also at international level responsible for education, training, and learning policies and systems. The relevance of the NQFHE to individual citizens will be ensured by the development and implementation of transparent instruments and tools for “reading” and understanding the higher education qualifications (including the credit transfer and accumulation system, entry and exit level requirements, etc.). Following the development and implementation of the NQFHE, individual qualifications awarded at national level should contain a clear reference to the EQF, further strengthening the direct relevance of the framework to citizens.

---

### References

---

- Bernstein, J. - *The 21st Century Workplace: Preparing for Tomorrow's Employment Trends Today*, The Living Standards Program at the Economic Policy Institute, Washington, DC [http://www.senate.gov/comm/labor/general/Hearings/2005\\_05\\_26/Bernstein.pdf](http://www.senate.gov/comm/labor/general/Hearings/2005_05_26/Bernstein.pdf)
- El-Khawas, Elaine, R. DePietro-Jurand, L. Holm-Nielsen – *Quality Assurance in Higher Education: Recent Progress; Challenges Ahead*, UNESCO World Conference on Higher Education, held in Paris, France on October 5-9, 1998, author from Graduate School of Education, University of California, Los Angeles and The World Bank

[www.eric.org/trends/students2000.html](http://www.eric.org/trends/students2000.html)  
[horizon.unc.edu/projects/issues/papers/kovel.asp](http://horizon.unc.edu/projects/issues/papers/kovel.asp)



- Zaharia, S.E. - "The Present State Of The National Qualifications Framework For Higher Education In Romania", paper conference Dublin, 2007
- \* \* - *Romania National Report*, London, 2007
  - \* \* - Framework for Qualifications of the European Higher Education Area - Bologna Working Group on Qualifications Frameworks; Ministry of Science, Technology and Innovation February 2005, Bredgade 43, DK-1260 Copenhagen K, <http://www.vtu.dk>; ISBN (internet): 87-91469-53-8
  - \* \* - "*The concrete future objectives of education and training systems*", Report from the Education Council to the European Council 5680/01 EDUC 18
  - \* \* - "*Education & Training 2010*", The Success Of The Lisbon Strategy Hinges On Urgent Reforms, COMMISSION OF THE EUROPEAN COMMUNITIES, Brussels, 11.11.2003, COM (2003) 685 final
  - \* \* - "*Focus on the Structure of Higher Education in Europe*", 2006/07, National Trends in the Bologna Process, Directorate-General for Education and Culture, European Commission, EURYDICE - The information network on education in Europe; <http://www.eurydice.org>
  - \* \* - *Enhancing employability, recognizing diversity* - Making links between higher education and the world of work; [www.UniversitiesUK.ac.uk/employability](http://www.UniversitiesUK.ac.uk/employability)
  - \* \* - Employment trends in the 21st century, available at the address: [http://humanscience.wikia.com/wiki/Employment\\_trends\\_in\\_the\\_21st\\_century](http://humanscience.wikia.com/wiki/Employment_trends_in_the_21st_century)
  - \* \* - *Principles and Operational Guidelines for the Recognition of Prior Learning in Further and Higher Education and Training*, National Qualifications Authority of Ireland June 2005
  - \* \* - *Law No. 88/1993 on the Accreditation of Higher Education Institutions and Diploma Recognition*
  - \* \* - *Ministerial Order No 4822/1998 regarding the expansion of the transferable credits system in education*
  - \* \* - *Ministerial Order No. 3659 introducing the Diploma Supplement Government Decision No. 1011; Ministerial Order No. 3997/2002 concerning the methodology for special monitoring of higher education institutions*
  - \* \* - *Law on the organisation of university studies (No. 288/2004)*
  - \* \* - *Law No. 346/2005 concerning the approval of Government Emergency Ordinance No. 78/2005 for the modification and*

completion of Law No. 288/2004 concerning the organisation of university studies

- \* \* - Hotărârea de Guvern 1357/2005 privind înființarea, organizarea și funcționarea Agenției Naționale pentru Calificări din Învățământul Superior și Parteneriat cu Mediul Economic și Socia – ACPART
- \* \* - Law No. 87/2006 for approval of the Government Emergency Ordinance No. 75/2005 concerning quality assurance of education
- \* \* - Government Decision No. 1424/2006 concerning the approval of the framework methodology for the organisation of integrated study programme, offered by two or more universities, which lead to common diplomas
- \* \* - "[http://en.wikipedia.org/wiki/Knowledge\\_economy](http://en.wikipedia.org/wiki/Knowledge_economy)"
- \* \* - National Qualifications Authority of Ireland: [www.nqai.ie](http://www.nqai.ie)

# THE PUBLIC FINANCE STANCE AND THE ECONOMIC GROWTH: THE CASE OF EUROPEAN UNION

■

**Ioan TALPOS**

*Ph. D. Professor*

**Bogdan DIMA**

*Ph. D. Senior Lecturer*

**Mihai Ioan MUTASCU**

*Ph. D. Lecturer*

**Cosmin ENACHE**

*Ph. D. Candidate Lecturer*

West University of Timisoara

**Abstract.** *This paper is studying the impact of public budget deficit on the economic growth. We have tested the connection between budget deficit and economic growth, using econometrical analysis (the Pool Data Model). Within this framework, we have quantified the intensity of connections between public budget deficit and economic growth in the case of European Union 25.*

**Key words:** budget deficit; economic growth; impact; econometric model.

**REL Classification:** 8K, 8E, 10B

■

## 1. Introduction

The macroeconomic relationship between fiscal policy and economic growth has long fascinated economists. Unfortunately, analyses of that relationship have frustrated empiricists for almost as long. One

root of that frustration is the array of possible policy indicators. As Tanzi and Zee (1997) discuss, there are three candidate indicators of fiscal policy – government expenditures, taxes and deficits.

The literature does not systematically favour one indicator of fiscal policy over the others. Neoclassical growth models imply that government policy can affect only the output level but not the growth rate (Judd, 1985). However, endogenous growth models incorporate channels through which fiscal policy can affect long-run growth (Barro 1990, Barro-Sala-i-Martin 1992, 1995). The latter models classify generally the fiscal policy instruments into: a) distortionary taxation, which weakens the incentives to invest in physical/human capital, hence reducing growth; b) non-distortionary taxation which does not affect the above incentives, therefore growth, due to the nature of the utility function assumed for the private agents; c) productive expenditures that influence the marginal product of private capital, henceforth boost growth; d) unproductive expenditures that do not affect the private marginal product of capital, consequently growth.

Unfortunately many empirical studies examining fiscal effects on growth have been based only loosely on theoretical models, often testing *ad hoc* hypotheses relating to government size such as government consumption spending or public investments or some aggregate measure of tax burden. Not surprisingly, early results were ambiguous or contradictory and frequently non-robust (see Agell et al., 1997, for a review). In the many of the empirical tests realized so far, econometric problems such as endogeneity of the regressors, nonlinearity, nonstationarity and multicollinearity, are largely ignored (Durlauf, 2001).

Furthermore, Levine and Renelt (1992) investigated the robustness of explanatory variables in cross-country regressions using extreme bounds analysis and found that none of the fiscal indicators is robustly correlated with economic growth when evaluated individually.

Nevertheless, the methodology used by Levine and Renelt was challenged to be “too strong” by Sala-i-Martin (1997), which investigated the distribution of coefficient estimates, concluding that for a substantial number of variables, including the fiscal ones, the relation to economic growth is robust. So, the empirical literature on the growth effects of fiscal policy produced mixed and non-conclusive results.

Kneller et al. (1999) argue that one reason for such apparently contradictory results is their failure to incorporate the government budget constraint formally into testing procedures. Empirical models which do control for the government budget have generally found more robust

associations between fiscal policy and economic growth (Devarajan et al., 1996; Kocherlakota, Yi, 1997, Miller Russek, 1997, de la Fuente, 1997, Kneller et al., 1999).

So, in our paper we assess the growth impact of fiscal policy stance as it is captured by the public deficit as a quantitative measure of government budget constraint.

## **2. Theoretical foundation**

A fiscal expansion, taking the form of an increase in government spending that is not matched by an equal increase in fiscal revenues or the form of a reduction in tax rates, and hence in fiscal revenues, not followed by a cut in government spending, is usually expected to have known Keynesian positive effects on growth via fiscal multipliers. The intensity of these effects depends on the determinants of private investments, money demand and monetary policy, the openness of the economy and the exchange rate regime.

Overcoming the lack of microeconomic foundation of Keynesian approach, new classical models reveal the supply-side effects of fiscal policy. In the new classical framework, both the value and the sign of fiscal multipliers depend on:

- the presence of rational expectation;
- the degree of Ricardian behaviour of households and firms;
- the intensity of consumption smoothing behaviour of households;
- the interest rate premia and government credibility;
- the level of uncertainty.

Apart from positive growth effects of a fiscal expansion, in the last two decades, there was an increasing interest in the effects of a fiscal consolidation, which could have in certain circumstances a positive effect on growth. Analysing the cases of Denmark and Ireland, Giavazzi and Pagano (1990) were the first to prove the expansionary effects of a reduction in the size of budget deficit or a fiscal contraction, via the interest rate premia and government credibility.

Alesina and Perotti (1997) studied the episodes of fiscal expansion and fiscal contractions on a panel of OECD countries for a period a three decades and concluded that the fiscal expansions are usually the result of an increase in government spending, especially in transfer programs, and the fiscal contractions are usually founded on a tax

rate increase. They also concluded that only a minority of these fiscal expansion and contractions have a positive effect on growth (especially those that are based on reductions in the public sector wages, employment, and transfers programs).

So, in order to analyze the connection between the budget deficit (as a measure of fiscal policy stance) and the GDP per capita in the European Union, we have selected the 25 member states (until the 1<sup>st</sup> of January 2007) in the following order: 1 – Belgium, 2 – France, 3 – Germany, 4 – Italy, 5 – Luxembourg, 6 – Netherlands, 7 – Denmark, 8 – Ireland, 9 – United Kingdom, 10 – Greece, 11 – Portugal, 12 – Spain, 13 – Austria, 14 – Finland, 15 – Sweden, 16 – Cyprus, 17 – Estonia, 18 – Latvia, 19 – Lithuania, 20 – Malta, 21 – Poland, 22 – Czech Republic, 23 – Slovakia, 24 – Slovenia and 25 – Hungary.

### 3. The model

The analyzed period is between 1995-2005, and the analysis method is econometrical modeling using the EViews 5.0 software. This software allows data analysis in panel system, which implies a mixture of time and data series for different entities.

The „Pool Date” regression model has the following construction:

$$Y_{it} = \alpha + \beta_i x X_{it} + \varepsilon_{it}$$

$i=\overline{1,25}$

where,

- $Y_{it}$  - the dependent variable (GDP per capita);
- $\alpha$  the coefficient of the free factor;
- $\beta_i$  coefficients of independent variables;
- $X_{it}$  the independent variables;
- $\varepsilon_{it}$  random variable;
- $i$  number of “sections” based on which the regression is made 25 sections (number of member states in the European Union until the 1<sup>st</sup> of January 2007);
- $t$  the time period (1995-2005).

The model will quantify the correlation between GDP per capita and global fiscal policy stance as captured by the public deficit.

Therefore, it is possible to construct a “Pool Date” regressive model for quantifying the impact of public deficit (F) on GDP per capita.

In this situation the model has the following configuration:

$$GDP = \alpha + \beta xF + \varepsilon_t$$

A preliminary step in building up the model of the connections between the real output and the fiscal policy defined in terms of public budget deficit consists in the check of the stationarity issue:

Pool unit root test: Summary

Sample: 1995 2005

Exogenous variables: Individual effects, individual linear trends

User specified lags at: 1

Newey-West bandwidth selection using Quadratic Spectral kernel

Balanced observations for each test

#### Unit roots tests for GDP series

Table 1

Method	Statistic	Prob.**	Cross-sections	Obs.
<b>Null:</b> Unit root ( <i>assumes common unit root process</i> )				
Levin, Lin & Chu t*	-7.69912	0.0000	25	225
Breitung t-stat	0.77946	0.7821	25	200
<b>Null:</b> Unit root ( <i>assumes individual unit root process</i> )				
Im, Pesaran and Shin W-stat	1.43688	0.9246	25	225
ADF - Fisher Chi-square	28.6990	0.9933	25	225
PP - Fisher Chi-square	71.2649	0.0257	25	225
<b>Null:</b> No unit root ( <i>assumes common unit root process</i> )				
Hadri Z-stat	34.1329	0.0000	25	225

\*\* Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Pool unit root test: Summary

Sample: 1995-2005

Exogenous variables: Individual effects, individual linear trends

Newey-West bandwidth selection using Bartlett kernel

**Unit roots tests for public budget deficit series****Table 2**

Method	Statistic	Prob.**	Cross-sections	Obs.
<b>Null:</b> Unit root ( <i>assumes common unit root process</i> )				
Levin, Lin & Chu t*	-6.25752	0.0000	25	239
Breitung t-stat	0.67637	0.7506	25	214
<b>Null:</b> Unit root ( <i>assumes individual unit root process</i> )				
Im, Pesaran and Shin W-stat	0.27557	0.6086	25	239
ADF - Fisher Chi-square	47.1825	0.5871	25	239
PP - Fisher Chi-square	85.5873	0.0013	25	242
<b>Null:</b> No unit root ( <i>assumes common unit root process</i> )				
Hadri Z-stat	10.1934	0.0000	25	267

\*\* Probabilities for Fisher tests are computed using an asymptotic

Chi -square distribution. All other tests assume asymptotic normality.

These results suggest the existence of the unit roots both at individual as well as at the common level for both the real output and the public budget deficit but there are some discrepancies especially with *Breitung test*. Such conclusion requires a higher attention that should be paid to the *pool* regression results.

The strategy of building the regression model is based on the next ideas:

- taking into account the cross-section specific connections between the public budget deficit and the dynamic of real GDP;



- including  $AR(1)$  specifications in order to take into account the inertial mechanisms of real GDP formation;
- including cross-section and period *fixed effects* to capture the structural changes in each component of the *pool* over the observation period as well as the global interactions at the EU-25 level. The fixed effects portions of specifications are handled using orthogonal projections. In the simple one-way fixed effect specifications and the balanced two-way fixed specification, these projections involve the familiar approach of removing cross-section or period specific means from the dependent variable and exogenous regressors, and then performing the specified regression;
- the inclusion of a Contemporaneous Co-variances (*Cross-section SUR*) description of the co-variance structures. This class of co-variance structures allows for conditional correlation between the contemporaneous residuals for cross-section  $i$  and  $j$ , as one of its major advantage, but restricts residuals in different periods to be uncorrelated. More specifically, it is assumed that:

$$E(\varepsilon_{it} \varepsilon_{jt} | X_t^*) = \sigma_{ij}$$

$$E(\varepsilon_{is} \varepsilon_{jt} | X_t^*) = 0$$

for all  $i, j, s, t$  with  $s \neq t$ . It should be noted that the contemporaneous co-variances do not vary over  $t$ . Cross-section SUR weighted least squares on this specification (sometimes referred to as the *Parks estimator*) is simply the feasible GLS estimator for systems where the residuals are both cross-sectionally heteroskedastic and contemporaneously correlated.

The results are looking as follows:

Dependent Variable: Real GDP

Method: Pooled Least Squares

Sample (adjusted): 2000 2005

Included observations: 6 after adjustments

Cross-sections included: 25

Total pool (balanced) observations: 150

*Cross-section SUR (PCSE) standard errors & covariance (d.f. corrected)*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.518838	3.684041	-0.140834	0.8884
1--GDP1(-1)	1.225829	0.329998	3.714662	0.0004
2--GDP2(-1)	0.159956	0.350070	0.456927	0.6491
3--GDP3(-1)	1.256627	0.457013	2.749654	0.0076
4--GDP4(-1)	-0.130488	0.469016	-0.278216	0.7817
5--GDP5(-1)	2.033175	0.217741	9.337589	0.0000
6--GDP6(-1)	0.911508	0.344237	2.647905	0.0100
7--GDP7(-1)	0.813605	0.427292	1.904096	0.0610
8--GDP8(-1)	1.014311	0.116279	8.723047	0.0000
9--GDP9(-1)	0.995013	0.339928	2.927128	0.0046
10--GDP10(-1)	0.992983	0.308643	3.217252	0.0020
11--GDP11(-1)	2.820750	1.375423	2.050823	0.0440
12--GDP12(-1)	1.229284	0.232415	5.289182	0.0000
13--GDP13(-1)	0.102357	0.192588	0.531481	0.5968
14--GDP14(-1)	1.015834	0.180186	5.637706	0.0000
15--GDP15(-1)	1.248119	0.259469	4.810274	0.0000
16--GDP16(-1)	1.186050	0.241361	4.914016	0.0000
17--GDP17(-1)	1.013487	0.184541	5.491922	0.0000
18--GDP18(-1)	1.600866	0.350865	4.562630	0.0000
19--GDP19(-1)	1.306672	0.535574	2.439761	0.0172
20--GDP20(-1)	-0.572628	0.277275	-2.065199	0.0426
21--GDP21(-1)	2.518027	1.536959	1.638318	0.1058
22--GDP22(-1)	1.585972	0.592332	2.677503	0.0092
23--GDP23(-1)	0.655111	0.498769	1.313457	0.1933
24--GDP24(-1)	1.459873	0.269289	5.421205	0.0000
25--GDP25(-1)	1.031303	0.707921	1.456805	0.1496
1--S1	0.028893	0.128591	0.224690	0.8229
2--S2	-1.040086	0.361776	-2.874940	0.0053
3--S3	0.052770	0.064874	0.813416	0.4187
4--S4	-0.292200	0.105810	-2.761559	0.0073

5--S5	1.121989	0.275559	4.071679	0.0001
6--S6	-0.100687	0.107189	-0.939346	0.3508
7--S7	-0.145357	0.117949	-1.232376	0.2219
8--S8	-0.107756	0.265226	-0.406281	0.6858
9--S9	-0.459662	0.433410	-1.060570	0.2925
10--S10	-0.305351	0.228257	-1.337748	0.1853
11--S11	0.032467	0.056140	0.578332	0.5649
12--S12	-0.046888	0.106755	-0.439211	0.6619
13--S13	0.911906	0.288197	3.164172	0.0023
14--S14	-0.107866	0.039383	-2.738854	0.0078
15--S15	-0.008820	0.096875	-0.091050	0.9277
16--S16	0.034075	0.021985	1.549934	0.1257
17--S17	-0.237317	0.051260	-4.629696	0.0000
18--S18	0.054176	0.127590	0.424607	0.6724
19--S19	-0.172767	0.121987	-1.416270	0.1611
20--S20	0.031120	0.072780	0.427585	0.6703
21--S21	-0.055608	0.342304	-0.162451	0.8714
22--S22	0.063885	0.043295	1.475577	0.1445
23--S23	-0.298154	0.112489	-2.650507	0.0099
24--S24	-0.116385	0.044779	-2.599084	0.0114
25--S25	-0.156296	0.134466	-1.162346	0.2490
<b>Fixed Effects (Cross)</b>				
1--C	-5.608475			
2--C	17.58493			
3--C	-6.224507			
4--C	27.40997			
5--C	-45.53872			
6--C	2.457655			
7--C	5.728401			
8--C	1.324748			
9--C	0.015853			
10--C	0.115299			
11--C	-18.03657			

12--C	-2.467675
13--C	26.16676
14--C	1.029353
15--C	-5.893584
16--C	-1.149826
17--C	0.625421
18--C	-1.259882
19--C	-1.020848
20--C	13.09709
21--C	-6.218636
22--C	-2.204517
23--C	3.232828
24--C	-3.527843
25--C	0.362786
<b>Fixed Effects (Period)</b>	
2000--C	0.761308
2001--C	0.064341
2002--C	-0.119327
2003--C	-0.287627
2004--C	-0.178877
2005--C	-0.239818
<hr/> <b>Effects Specification</b> <hr/>	
<b>Cross-section fixed (dummy variables)</b>	
<b>Period fixed (dummy variables)</b>	
R-squared	0.999516
Adjusted R-squared	0.998970
S.E. of regression	0.377644
Sum squared residuals	9.983031
Log likelihood	-9.609642
Durbin-Watson stat	2.267160
Mean dependent variable	17.97067
S.D. dependent variable	11.76541
Akaike info criterion	1.194795
Schwarz criterion	2.800467
F-statistic	1829.778
Probability(F-statistic)	0.000000

#### 4. Discussions and conclusion

Analyzing these results, one could note that:

- the estimation satisfy in an acceptable measure the robustness conditions in terms of Durbin-Watson statistic (with some weak autocorrelations in residuals) in terms of informational criterions as well in terms of regression S.E.;
- the adjusted "R squared" suggests that the information relevance of the independent variables in the description of the dependent variable dynamic is quite high;
- it seems that there is no "common" effect of the budget deficit at the ensemble of the EU-25;
- there are important differences between the sample countries both in terms of real output autocorrelation as well as in terms of cross fixed effects (in other words, in terms of structural changes);
- over the observation period there are some modification in the connections behaviour with a possible "breaking point" in 2002.

Overall, the model suggests that the fiscal policy (at least as it is defined in terms of public expenditures and incomes) affect in distinctive different manners the economic growth of the members of EU-25 with important cross-differentiations.

---

#### References

---

- Agell, J., Lindth, T., Ohlsson H. "Growth and the Public Sector: A Critical Review Essay", *European Journal of Political Economy*, no. 13, 1997, pp. 33-52
- Alesina, A., Perotti, R. "Fiscal Adjustment in OECD Countries: Composition and Macroeconomic Effects", IMF Working Paper 96/70, Washington, International Monetary Fund, 1997
- Barro, R.J. (1990). "Government Spending in a Simple Model of Endogenous Growth", *Journal of Political Economy*, no. 98, 5, 1990 pp. 103-125
- Barro, R.J. "Economic Growth in a Cross Section of Countries", *The Quarterly Journal of Economics*, CVI, 2, May, 1991, pp. 407-443
- Barro, R.J., Xavier Sala-i-Martin (1995). *Economic Growth*, McGraw-Hill

- de la Fuente, A. "Fiscal Policy and Growth in the OECD", *CEPR Discussion Paper* 1755, December, 1997
- Devarajan, S., Swaroop, V., Heng-fu Zou. "The Composition of Public Expenditure and Economic Growth", *Journal of Monetary Economics*, nr. 37, 1996, pp. 313-344
- Durlauf, S. N.. "Manifesto for a Growth Econometrics", *Journal of Econometrics*, nr. 100, 2001, pp. 65-69
- Giavazzi, F., Pagano, M.. "Can Severe Fiscal Contractions be Expansionary? Tales of Two Small European Countries", *NBER Macroeconomics Annual 1990*, ed. by Blanchard, O. J. and Fischer, S. (Cambridge, Massachusetts, MIT Press)
- Judd, K.. "On the performance of patents", *Econometrica* vol. 53, nr. 3, 1985, pp. 567-585
- Kneller, R., Bleaney, M.F., Gemmel N. "Fiscal Policy and Growth: Evidence From OECD Countries", *Journal of Public Economics* nr. 74, 1999, pp. 171-190
- Kocherlakota, N.R., K. Yi, "Is There Long-Run Growth? Evidence from the United States and the United Kingdom", *Journal of Money, Credit and Banking* vol. 29, nr. 2, 1997, pp. 233-262
- Levine, R., Renelt D. (1992). "A Sensitivity Analysis of Cross-Country Growth Regressions", *American Economic Review*, vol. 82, nr. 4, 1992, pp. 942-963
- Miller, S. M., Russek, F. S. "Are the Twin Deficits Really Related?" *Contemporary Policy Issues*, vol. 7 (October), 1997, pp. 91-115
- Sala-i-Martin, X. "I Just Ran Two Million Regressions", *American Economic Review*, nr. 87, 1997, pp. 178-183
- Tanzi, V., Zee H. H. "Fiscal Policy and Long-Run Growth", *IMF Staff Papers*, vol. 44, nr. 2, June, 1997, pp. 179-209

## BANKING PRODUCTS DEVELOPMENT IN THE ROMANIAN BANKING MARKET



**Nicolae DANILA**

*Ph. D. Professor*

Academy of Economic Studies, Bucharest

**Abstract.** *The Romanian Banking System demonstrated a sustained development over the last years, being prepared to continue its expansion and also proving to be a reliable partner to the real economy both in terms of the proposed financial solutions and the perception of risks incurred by different economic activities during this entire period. Market maturation along with the specific requirements of the retail and corporate customers entailed a developed degree of sophistication of banking products and services. Moreover, the internationalized competition on the Romanian market induced an accelerated integration and leveling of the banking market, also generating higher growth rates compared to other Romanian industries.*

*The Romanian Banking Sector is the main pillar of the financial system. The lately significant focusing of banks on the households resulted in an unprecedented development of retail loans. Nevertheless, in the corporate segment, still dominant in total loans, the competition is also increasing, the banks currently concentrating on the small and medium enterprises.*

*The main features of the Romanian financial and banking sector are it is healthy and operates in a well regulated market.*

*The Romanian Banking Sector was and will be the main pillar of the real integration and convergence of Romania to the European Union.*

**Key words:** convergence; restructuring; sophistication of banking products and services; competition; financial intermediation.

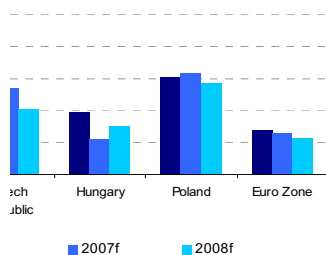


### Romanian economy in the convergence process

The reforms carried out in the last years and the economic and social progress made possible for Romania to join the enlarged European family starting January 1<sup>st</sup> 2007, thus marking a new historical development phase that could place our country as a financial and economic hub in the region and a bridge for expansion towards east.

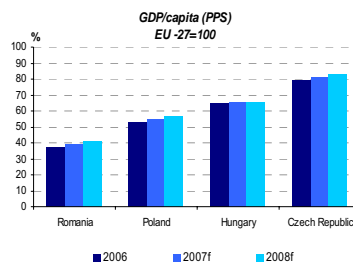
*The second largest market in Eastern and Central Europe after Poland and the 7<sup>th</sup> in the European Union*, Romania is an emerging economy with one of the greatest growth potential in the region and an attractive investment destination in terms of risk-benefits ratio.

varative economic growths



Source: EB Research, BCR Research.

Figure 1



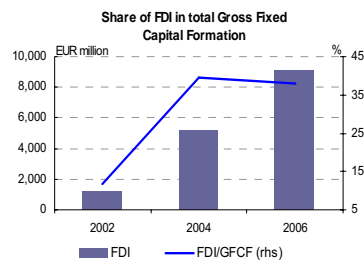
Source: Eurostat.

Figure 2

*The business climate improvement as well as the legislation aligned to the Acquis Communautaire*, including the stimulating taxation based on the 16% flat tax, made Romania attractive for the foreign investors that poured in EUR 9 billion representing FDIs (9.3% of GDP) during the last year for only. All these recommend Romania as one of the major European stages where both foreign and local capital can prosper in the next years, and the signals are encouraging so far.

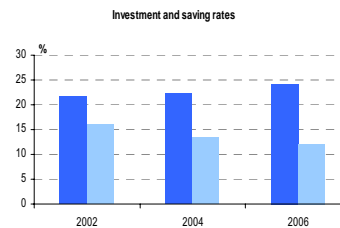
Nevertheless, Romania still has a lot to catch up with, even compared to other countries in the region in terms of convergence to the EU standards, so that our country will have to increase the tempo in order to achieve the real convergence expressed generally by the living standards improvement.





Source: NIS, NBR, BCR Research.

Figure 3

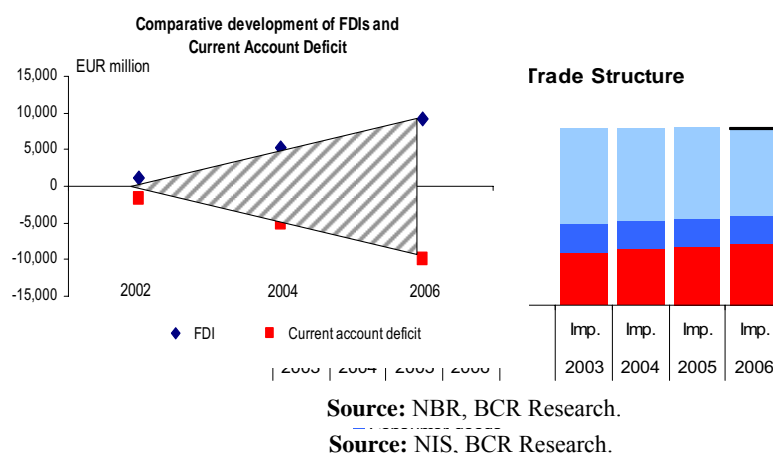


Source: NIS, BCR Research.

Figure 4

*The progress in the restructuring of the economy and reforms laid foundation for a good economic growth*, also as a result, in some cases, of favourable domestic and international conditions. The effects of the investments, domestic or foreign, produced annual growth rates of the gross fixed capital formation more and more alert (12.6% in 2005; 16.1% in 2006 and 18.6% in H1 2007). Despite that the investment rate grew, the saving rate declined to 12.1% in 2006 from 16% in 2002 and this fact impacted on the increased external imbalance that reached 10.3% of GDP last year.

*The widening current account deficit, especially in the last year, shows that the Romanian economy needs more restructuring and investments* in order to improve its competitiveness in the European market and not only. And this is even more necessary now, when the economy has to cope with the higher competitiveness of the EU countries.

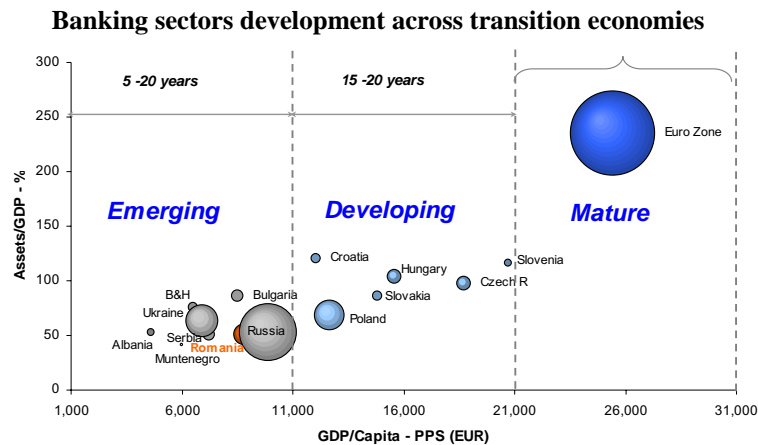
**Figure 5****Figure 6**

There are positive signs: the industrial output grew by 7.1% in 2006, the labour productivity improved significantly (+10.6%) due to the investments, the inflation is declining, the structure of exports show more value-added capital goods, the output covers larger part of the domestic demand, but Romania remains in a *middle* area, that is a technology importer.

*The Romanian economy needs restructuring* in order to achieve in the medium term certain stability and predictability, so as to overcome potential interrelating vulnerabilities such as inflation, external imbalance, foreign debt increase, exchange rate volatility etc while the real and nominal convergence should develop harmoniously.

### **The Romanian banking sector – sustainable development, prepared for further expansion**

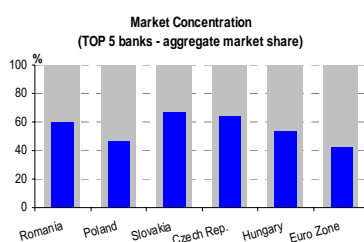
All these years, *the banking sector represented a trusted partner of the real economy from the point of view of the financial solutions and the perception of risks* incurred by different economic activities. Despite the financial intermediation, lower than in other countries (bank assets 51% of GDP and loans 27% of GDP), this should be regarded as a growth potential that could be capitalised on as the economy reaches new development stages.



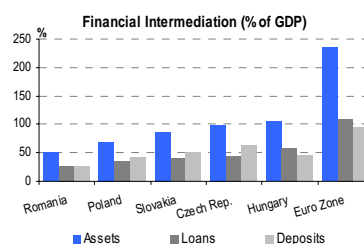
Source: EB Research, BCR Research.

**Figure 7**

Generally, the condition of any banking sector and its positioning as compared to other sectors in the region is reflected by 2 main factors: economic development stage (GDP/capita at PPS) and financial depth (assets/GDP, loans/GDP and deposits/GDP). It can be observed in the above chart that Romanian banking sector is positioned in the “emergent” area, together with Ukraine, Bulgaria, Serbia etc. The reality is more complex though, and the development of a banking sector should also be considered in terms of sophistication of the banking offer. From this point of view, Romania finds itself in the “developed” area, as its banking sector has an increased international profile (global and European market operators). The differentiation between peer countries (Czech Republic, Slovakia, Poland, Hungary) on one hand and Romania on the other hand in terms of financial services offer is insignificant, but less people are able to access such products and this is reflected by the lower financial depth of our country.



Source: ECB, NBR, BCR Research.



Source: ECB, NBR, BCR Research.

**Figure 8**

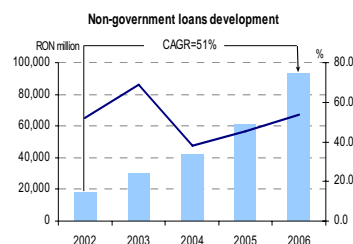
**Figure 9**

*The internationalised competition in the Romanian market induced an accelerated integration and smoothing of the banking market and generated higher growth rates than other industries, especially in the last years (including the alignment to the European standards), and this fact did and might generate further pressure on the economic growth, sometimes less sustainable.*

The competition in the Romanian banking market is growing, as Romania is currently one of the main arenas to accommodate global players. In fact, almost 90% of the banking assets are owned by foreign banks, most of them with significant presence in the Central and Eastern European Market. The effects of the competition will be seen in customer benefit (lower costs) and in a diversified range of financial products and services.

The first 5 market operators (major foreign banks) held 60% of the assets as by the end of last year, coming close to the concentration level posted by peer countries in Central and Eastern Europe.

#### **The banking sector in Romania – main pillar of the financial system**

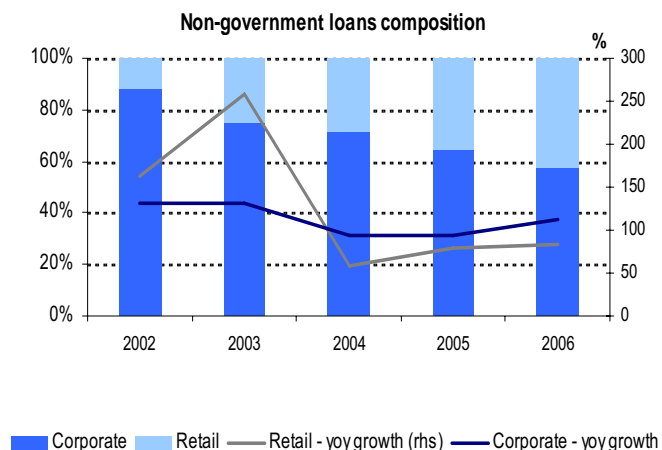


Source: NBR, BCR Research

**Figure 10**

The banks were and still are the main financing channel in Romania, as the equity market is less accessible for issuers (mostly large companies).

The loans granted to real economy grew last year by 54% up to a value of almost EUR 28 billion (+EUR 11 billion) and in the first 6 months of this year the outstanding loans were EUR 36 billion (equity and bond IPOs totalled EUR 323 million in 2006). At the same time, the Romanian equity market will continue to develop and present financing opportunities for a larger number of companies, as the economy consolidates and the market visibility of companies grows.



Source: NBR, BCR Research.

**Figure 11**

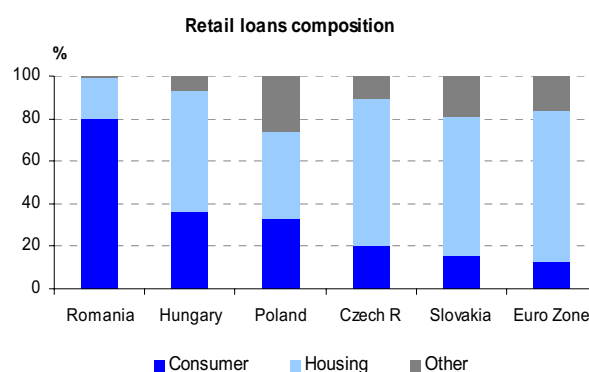
Starting with 2005, the retail loans became the main growth driver as households had higher purchasing power following the wage increases and the 16% flat tax introduction. Banks, including the foreign ones, focused on this segment, less volatile, offering a less attractive risk-benefit ratio. Competition, as well as disinflation facilitated to a large extent the access to loans. This way, in the first 4 years (2002 -2006), the retail loans increased their weight in total loans up to 42% as at the end-2006 (from only 11% in 2002).

*The significant focus of banks on the households resulted in a unprecedented development of loans that grew by almost 19 times up to EUR 11.6 billion between 2002- 2006.*

A major feature of the Romanian retail banking market is the consumer loans development that is significantly different from the other peer countries. The share of consumer loans as at end-2006 was 79% while countries like Czech Republic, Slovakia show figures close to Euro area figures (13%). Among the consumer loan drivers in Romania were the eligibility restraints of the housing loans, lack of housing subsidies, and the grey economy.

In terms of currency, 87% of the housing loans are foreign currency denominated as compared to only 33% of the consumer loans. Another peculiarity of the Romanian market is that consumer loans are taken for housing purposes.

Estimations show that housing loans share, taking into account the home equity loans (consumer loans for housing purposes) is about 40%.



Source: ECB, NBR, BCR Research.

**Figure 12**

Looking into perspectives, the loans for house purchase will continue to grow fast due to removal of restrictions by the central bank, real estate price hikes and the increased households' income.

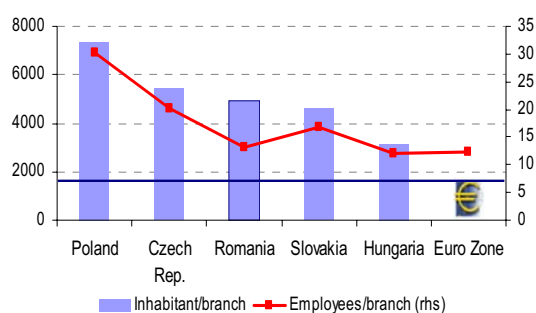
*On the corporate side, still dominant in total loans (60% as at end-2006), the competition is also rising. The banks are increasingly focusing on small and medium enterprises, with high growth potential but also*

risks (86% of SMEs did not fund themselves by bank loans as at the end-2006), some of the banks promoting aggressively on this segment. It didn't take long to see the results as in the first 5 months of the year, the share of the SME loans in total corporate loans grew by 67.5% as against 62% as at the end-2006, which shows an increase by 25% (up to EUR 12.8 billion).

Banks are still interested in large corporate customers – even if at lower interest margins – that ensure resources by sight deposits and for which cash management services are provided. At the same time, this customer segment is more and more targeted by foreign banks that operate on the Romanian banking market under the European single licence, bringing cheaper funding without being restricted by the high minimum reserves requested by the National Bank of Romania. The loans granted directly, as well as the syndications, bond issuing in the international market, are the main financing opportunities offered by foreign banks.

*Customer proximity and tailor-made relationship are a major advantage* of banks and the efforts for increasing the accessibility by customers were visible. The network expansion was a strategic target for many banks in Romania, as a number of 900 new branches were opened in 2006, and estimations for this year refer to other 1000 new branches, especially in the urban areas and cities with more than 250,000 inhabitants. The number of inhabitants per bank branch decreased significantly in the last 4 years, down to 4,900 at the end of 2006 (as against 6,500 in 2002), fact that places Romania before Poland and Czech Republic from this point of view.

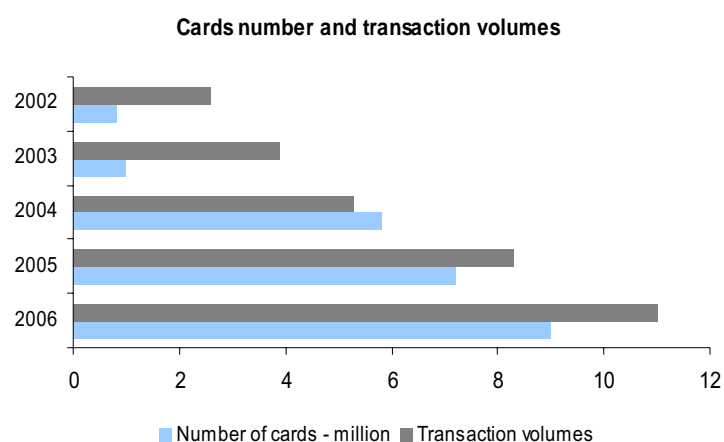
Banking penetration and employees per branch unit



Source: NBR, BCR Research.

Figure 13

The network expansion took account of the costs as many small branches with few employees were opened to serve especially small customers. As compared to the peer countries, Romanian bank branches post one of the lowest ratios of employees per branch (13.2), close to the Euro area benchmark (12.2).

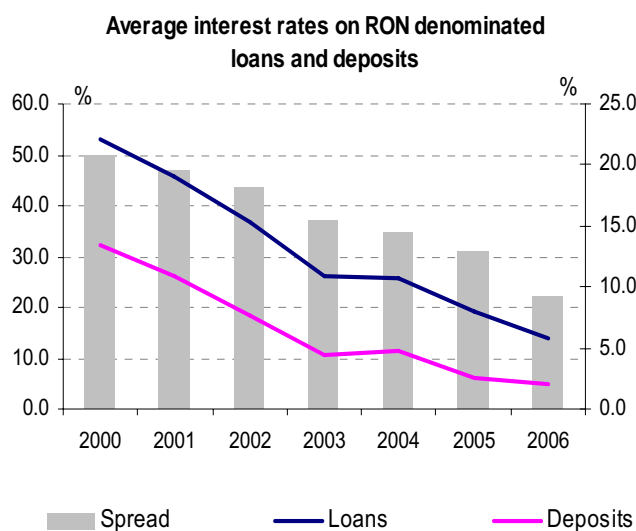


**Figure 14**

The banking products and services are closely related to the distribution channels, either traditional (especially the branch network, but also ATMs and POSs) or alternative (internet banking, telephone banking and mobile banking) and there are signals that banks will continue to allocate funds to improve the penetration and customer services.

As the customers get more sophisticated, the competition also gets tougher and new products and services for specific customer segments are launched. On the retail banking side, an increased segmentation is observed and products like loans, deposits and debit or credit cards are addressed to new types of customers: underaged, students, pensioners (pensions paid into their current accounts or on debit cards, or card associated accounts and other payment services), individuals with high living standards etc.



**Figure 15**

The cards and card associated services manifested a strong development in the last years, and their use as a payment mean (POS, ATM, internet) is increasing. Nevertheless, card penetration ratio indicates high potential. There were 419 cards per 1,000 inhabitants in 2006 in Romania, while the CEE 4 average (Czech Rep, Slovakia, Poland and Hungary) was around 7,500 cards per 1,000 inhabitants.

The banks had a pro-active attitude towards the card products, developing on one side the necessary acceptance infrastructure (POSs and ATMs), while trying on the other side to improve their attractiveness by zero commissions for cashless payments and by promoting cards co-branded with major retailers to boost the consumer loans.

The cards are increasingly offered together with other services (for example Internet banking) and are addressed to certain categories like students or affluent customers (Gold/Platinum cards).

The interest rate decline in the last years opened a new opportunity window: the refinancing loans offered now by almost all banks for previously engaged loans (mortgage loans).

At the same time, increases of certain individuals' wealth determined some banks to approach and develop the private banking business, offering dedicated products and bankers.

The pension reform is also creating opportunities for financial services providers, especially the banks that adopted a financial supermarket strategy.

Although the financial institutions selling life assurance and that are well reputed internationally seem to enjoy a competitive advantage, many banks can capitalise on the confidence the public vested them with.

For the entities operating like financial supermarkets, providing leasing, insurance, asset management, consumer finance, the private pension system will increase the opportunities of cross-selling.

As shown for the corporate segment, the banks extended and diversified their range of products and services dedicated to small and medium enterprises and also designed tailor made structured packages. The corporate business portfolio is also extended through derivatives that are becoming more important as the foreign currency risk perception grows.

*The Romanian financial market is now part of an enlarged market*, where the fast IT development is creating major competitive pressures. Removal of geographic barriers and increased financial integration implied that banks, insurance companies and asset managers are not operating any more on geographically segmented or even protected markets. The financial institutions' response was an improved operations efficiency and extension on new markets trying to build a competitive advantage in the new operating environment.

*The expansion implied also mergers and acquisitions, and 2006 was very productive* in this respect at an international level. Europe was the scene of some of the major M&A transactions (USA coming second), and the financial sector was one of the main factors to set the trend from this point of view. We expect 2007 to be also exceptional for M&A especially in Europe where the major operators will try to go to East in order to increase their size and overcome takeovers by the US giant companies.

*The Central and Eastern Europe was and still is an area with visible consolidation processes.* The privatisations of the former state-owned banks, as well as the fast economic growth of the countries in the region bolstered the M&A activities. The foreign capital from Austria, France and Italy entered the banking sector in this part of Europe, and today the foreign investors in these countries are endeavouring to be seen as the best banks in the region. The financial innovation, cost cutting, outstanding risk management systems, financial products diversification

are the major benefits of M&A and such benefits are more and more visible in the Romanian market. The Romanian banking market consolidation will continue the next years, and the movements in this market will be influenced to a large extent by the regional and international changes.

*The Romanian banking sector is healthy and operates in a well regulated market.* The capitalisation is adequate, even if declining in the last years as a result of the fast credit growth, and the stress tests carried out by the central bank simulating a strong depreciation of the local currency (-19%) and interest rate cut by 6% under no economic growth (zero growth) for two years, shows that the banking sector can absorb the negative shocks considered for this scenario.

*The prudent approaches, as well as the increasingly sophisticated risk management techniques were paramount for the sector stability,* and a relevant example for this affirmation is the low non-performing loans ratio, below 1%, especially while the credit grows fast. At the same time, the recent international turmoil that determined depreciation by more than 9% of the local currency in the short term hasn't had negative effects this proving the system is reacting well to external shocks. In this respect, the banks should strongly promote the *hedging* instruments, especially under the circumstances of high volatility in the FX market during some periods. The real sector is less protected for the foreign currency risk and generally it concerns a natural protection that does not cover the entire risk (especially for the companies that take foreign currency loans and don't export their products). The year 2008 will start under the auspices of the Basel II implementation in the Romanian banking market, this being a big step forward as regards the approach, assessment and management of the current and future risks (credit, market and operational risk) as well as the minimum capital requirements.

*The Romanian banking sector outlook is favourable and indicates further growth.* The low financial intermediation will represent the main growth factor, and the progress in the convergence to EU, and the development projects in the next years will be an important driver for the finance sector development.

The competition will remain high and banks, mainly the ones that focused on expansion and gaining market share, will now focus on cost efficiency and profitability (cost/income ratio was 70% at the end of last year, as compared to around 45-50% in the mature markets). At the same time, the non-banking sector will intensify their presence on the local market and become a stronger competitor for banks (banks structured as a

financial holding will have a competitive advantage from this point of view and capitalise on the group synergies).

The Romanian banking sector was and will be the main pillar of the real integration and convergence to EU, considering that, as mentioned above, it is one step ahead the other economic entities in terms of development stage. This could become an advantage as regards the stability necessary to ensure a sustainable economic growth in the years to come.

## SOME ASPECTS CONCERNING THE SENSITIVITY OF THE CAPITAL MARKET

**Gabriela ANGHELACHE**

*Ph. D. Professor*

Academy of Economic Studies, Bucharest

**Abstract.** *This article emphasizes a series of aspects concerning the risk which the capital market implies and which is inducing the sensitivity of this one.*

*The risk has an effect on the profitableness; therefore the correlation risk-profitableness is analysed under the circumstances, by specifying the aspects to be considered when making decisions.*

*The article points out as well the fact that on the market, the aleatory evolution of the exchange rates is much more than an intuitive process so that it is compulsory to apply to the statistical and econometric methods and models of analysis and interpretation.*

**Key words:** capital market; risk; profitableness; investor; market model; indicator.

Each and every decision we are making implies a risk undertaking, more or less important, which, from our position of rational consumers, we tend to minimize.

Starting from the basic principle which supports the rational behaviour of the investors, i.e., the correlation risk – profitableness, by this study we have focused on the analysis of the profitableness and volatility of a number of financial assets quoted at BVB, as well as on the BET index, which we considered as representative for the market portfolio.

By systematic risk we understand a complex of factors such as: the average rate of inflation, the average rate of exchange, the evolution of the market portfolio, the GDP, the rate of reference interest, the investors' behaviour, factors which to a larger or smaller extent may be tested on any market.

On a market which keeps on moving continuously, the future tendency of the evolution of the assets may represent a target hard to reach.

The aleatory evolution of the stock exchange rates is by far much more than an intuitive process, as, first of all, it implies a good knowledge of the market, of the factors which have an impact on it, hence a complex picture of the market.

If, at a first approach, events of a distinct nature seem to be not correlated, the statistics and the econometrics have established, with the support of the correlation indicators, such connections which are not to be identified from the angle of the graphic analysis.

*“Any system which is functioning with the aim of getting a result in the future operates by definition under uncertainty circumstances, even if the different situations are characterized by different degrees of risk, uncertainty or even non-determination. But the risk and the uncertainty are not a subject of option; they simply make part of the human condition”* (Giarini, Stahel, 1996, p. 103)

The daily concern of the investors on the financial market is aiming to forecast the evolution of the stock exchange indices, since the tendency of increasing or decreasing the value of the assets of a portfolio is linked to this evolution.

The relationship between the market profitableness, expressed by the stock exchange yield, and the profitableness of a certain asset, has been explained by the “market model” through the following mathematic relation:

$$E_i = R_f + (E_m - R_f)\beta_{im}$$

The assumption of the model consists of the fact that an asset is generally influenced by the changes of the general index of the stock exchange and, particularly, by the changes of the specific conditions of the companies issuing the respective assets.

Over the time, the specialist have included in the category of the systemic risk (market risk), a number of elements, such as: the GDP, the rate of inflation, the average interest rate, the exchange rate, the stock exchange indices, the culture etc.

According to the researches performed by William Sharpe, the correlation between the individual yield of a financial asset and the variability of the general profitableness of the market, is represented graphically by a regression:  $R_i = \alpha_i + \beta_i \times R_m + \epsilon_i$ , where:

$R_i$  = yield rate estimated for the asset  $i$ ;

$\alpha_i$  = function parameter;

$\beta_i$  = coefficient of volatility, which expresses the marginal profitableness of the asset  $i$  as against the variability of the general profitableness of the stock exchange market ;

$R_m$  = rate of profitableness on the market;

$\varepsilon_i$  = parameter specific to the asset  $i$ , which is measuring the individual risk.

The coefficient  $\beta$  is expressing the quantity of systematic risk of the assets: how many times the co-variation of their profitableness is higher (or lower) as comparatively to the market risk:  $\beta_i = \sigma_{iM} / (\sigma_M \times \sigma_M)$

“The capital market is representing the aggregate of the relations and mechanisms through which the available capitals, spread in the economy, are directed towards any public or private entities, applying for funds” (Anghelache, 2004).

The premises of the capital market in Romania have been created by the promulgation of the Law no. 31/1991 concerning the commercial companies to which the Law no. 58/1991 referring to the privatization of the commercial companies is to be added, as it underlined once more the need for the existence of a secondary market in order to properly satisfy the requirements of the assets issuers and investors.

The year 1992 counts as the year of issuing and distributing the ownership certificates, as well as the year of the execution of the first public offer of shares against cash.

In 1993 the Agency for Movable Values (AVM) is established, as an entity which created the minimum frame for regulation, needed for the starting point of the capital market, by elaborating the Regulations concerning the public offer for selling securities as well as the Regulations concerning the authorization of the companies acting as brokers of equities and the agencies for securities. Under these circumstances, the premises have been created for the revival of the Bucharest Stock Exchange and, later on, for setting up the RASDAQ market (Romanian Association of Securities Dealers Automated Quotations- the Secondary capital market from Romania).

In 1994 there are new institutions emerging on the market: CNVM, Bucharest Stock Exchange, depositing companies, register companies, professional associations having the statute of self-regulating organisms.

The year 1995 was an underlying year as far as the reconstruction of the capital market is concerned, by the re-establishment of the Securities Stock Exchange.

There is a significant number of players acting on the market, their capitals being significantly smaller than the total capital of the market. The dispersion of the capitals is reducing, to a large extent, the capacity

of doesn't matter which investor to influence by his actions the evolution of the prices for the assets being transacted on the capital markets so that the capital markets observe thus the assumption of a perfect competition.

Most of the times, the decisions of investment are aiming a specific horizon of time, as the investors are marked by a "limited" behaviour on the market. This situation is generated by the facts that the investors are frequently ignoring the events which might occur after the time horizon initially fixed. The model CAPM is referring to a financial market which runs over a specific horizon of time (Altar, 2002).

The investments are limited to the types of assets which are transacted on the market: *the risky instruments* consisting of fixed income instruments (bonds) and variable income instruments (equities, bonds, convertible bonds into shares, bonds with subscription ticket for shares) and *the instruments without risk* (such as, for instance, the treasury securities. The interest without risk may apply to both the credits and the investments and bares a unique fixed value. These instruments are accessible for the public, without any restriction what so ever. The model is excluding from the analysis those instruments which are issued but which cannot be transacted on the capital markets (securities issued by governments, municipalities or other local authorities).

The investors are not due to pay any tax on the profits they are cashing and, meantime, there are no transactions costs associated to the placements on the financial markets.

The market players have the same kind of expectations (the expectations are homogenous). All the investors on the market are rational and are basing their placement decisions on the mean (when estimating the expected profit) and on the variance (when estimating the risk). Practically, the CAPM model take over the assumptions of Markovitz's model of capital allocation.

All the investors are analysing the financial assets in the same way. The homogeneity of the investors' expectations as regards the expected future gains validates the application of Markovitz model, the existence of the efficient border and the unique optimum portfolio;

- All the market players have the same predictions regarding the yields and the risk of the financial assets, as well as the co-variance between them;

First of all, the portfolio management implies an analysis of the future yield associated to the assets but also, of the risk being associated to these assts (<http://www.finint.ase.ro>). Based on the Markovitz model for setting up an optimum portfolio by correlating the assets two by two, William Sharpe will simplify this model by correlating the assets with



the factors which are influencing their evolution. He proposed a segmentation of the total risk into systematic risk (market risk) and specific risk (characteristic to each asset). Using the CAPM model, he emphasized the possibility for the investors to reduce the specific risk by diversifying their portfolios "Don't put all your eggs in one basket", while the systematic risk, depending on macroeconomic factors, can't be eliminated. William Sharpe induced also the notion of volatility of an asset, which represents the sensitivity of the profitability of the asset to the market developments, known as BETA index.

The modern theory of the portfolio developed the idea of unpredictability of the equities rate, first of all by the apparition of the "market model" (Todea, Cornea). The coefficient  $\beta$  plays a central part when interpreting the connection profitability- risk in the frame of the market model.

The market risk is impossible to eliminate, so that each investor has to undertake it to a certain extent, the effect of the diversification applying for the specific risk only.

As it can be noticed out of the following relation, without cutting of the generalization, „assuming that all the individual assets bare the same specific risk  $\sigma(\varepsilon)$ ”, the risk of an equi-balanced, formed by N assets, would

$$\text{equal then: } \sigma^2(R_{pf}) = \beta_{pf}^2 \times \sigma^2(R_M) + \frac{\sigma^2(\varepsilon)}{N}$$

When  $N \rightarrow \infty$ , the portfolio variance tends towards  $\beta_{pf}^2 \sigma^2(R_M)$ , and the specific risk towards 0.

When estimating and analysing the stability of the parameters of the market model, the respective study used a sample of 49 companies, quoted at the Bucharest Stock Exchange, as well as an equi-balanced portfolio formed by these companies, for the period 2003-2007.

The study of case aimed to apply and test the validity of the CAPM model at both the individual level and portfolio level, and although the outcomes are verifying the assumption of the direct connection between the profitability and the market risk, the connection proved to be a weak one, so that the hypothesis on the fact that there are also other variables which influence one asset yield, has been issued: first rate effect, book to ratio etc.

Linked to this theme, I want to point out also the study concerning the low volatility of the financial markets, interests rates and exchange rates, between June 2004 – August 2006, for France, Germany, Italy, Japan, Sweden, UK and USA (According to „The recent behaviour of financial market volatility”- BIS papers, Nr. 29, August 2006).

A decreasing volatility may be associated to the increase of the financial stability indicators. The potential factors which generated the volatility decrease on these markets and which may occur on any capital market, have been classified by the author by the following categories:

- Macroeconomic factors: a sustained expansion in the respective countries, associated to a low level of the inflation, The Great Moderation;
- Factors depending on the specificity of the company ; it has been shown that there is a negative relationship between the volatility and the profitability and a positive relationship between the volatility and the uncertainty as regards getting a profit ;
- The development of the financial markets.

On the basis of this level of volatility there are both structural factors: the improvement of the financial system, improvement of the monetary policies, the strengthening of the payments balances of the companies which are listed at the stock exchange, but also factors of conjuncture, which justify the process on a short run basis only; the possibility of reducing the economic growth; the uncertainty as to the monetary policies. The stock exchange evolution is always, to a larger or smaller extent, wrapped up in uncertainty and the econometric researches are not able to quantify a stochastic process but on a short period only.

Analysing the determinant factors of the volatility of the prices for equities, the authors advance the conclusion that an increase of the volatility may be associated to baleful economic conditions, with a high aversion of the investors against the monetary policy.

In the context of the internationalization of the capital market, there is also the issue of the associated benefits and disadvantages which arouse. The analysis of the capitals mobility between the international markets is correlated with that variable which secures the access on the international market and sets up the limits of the government powers: the type of regime for the exchange rate (Obtsfeld, 1998).

The link between the liberalization of the capital market, the exchange rate and the monetary policy, “the trilema of the open economy” induces the impossibility to maintain this triangle, without recording negative consequence.

In the case of a fixed exchange rate, in the less developed countries, having no financial market well in place, the corporate creditors or the banks may ignore the possibility of a crisis, based on the government intervention as to keep the established exchange rate (the experience of Chile-1980).

Giving up the fixed exchange rate allowed the capital market break open and the utilization of the international financial resources, fact

which, at the first glance, seems to bare only positive effects for an economy. But there are problems which might arise as regards the fiscal and monetary decisions, the capacity of the State to meet the foreign demand, the currency capacity to confront stronger currencies and hence, the depreciation risk etc.

The liberalization of the capital accounts has taken the form of the financial crisis, spread at regional level ever since the years 1990, in the Latin America.

The liberalization of the capital circulation had a contribution to the increase of the financial instability world wise, on the ground of the development of the financial markets with insufficient information, which led to an arbitrary behaviour, to speculations and multiple balances.

If we are aware of the risks associated to the liberalization of the capital account, I do consider as compulsory to approach this issue in the case of Romania as well. In the context of the liberalization of the capital market it is necessary to take into consideration the foreign exchange regime since a flexible rate of exchange may lead to a lack of efficiency for the fiscal regime, while a rigid regime is correlated with a vulnerability of the State in front of the speculative attacks.

For the countries members of the E.U. or OECD, the process of liberalization of the capital account has been achieved in a gradual manner and in the situation where this condition wasn't yet accomplished, the financial crisis arouse shortly: Mexico (1994), then Thailand, Philippines, Indonesia, Korea and Malaysia (1996-1997), Bulgaria (1997), Russia (1998), Turkey (2000) and Argentina (2001).

The exchange and financial crisis have shown the high degree of irrationality associated to the investors' behaviour. The passage from an exaggerated optimism to the darker pessimism took place within a couple of days only, being followed by the immediate collapse of the currencies and local stock exchanges as well as by a longstanding recession, accompanied by the capitals run away (the net inputs of capital turning into net outputs of capital).

According to the economic studies, it has been demonstrated that the boom of the financial assets prices, the multiple balances and the arbitrary behavior may get developed on the background generated by the imperfect information which represents a prominent feature of the contemporary financial markets.

---

### References

---

- Altăr, M. – „Teoria portofoliului”, ASE, ianuarie, 2002
- Anghelache, Gabriela (2004). *Piața de capital: Caracteristici, Evoluții, Tranzacții*, Editura Economică, București
- Dăianu, D., Drăgulin, I., Voinea, L., Vrâncianu, R.: „Deschiderea contului de capital în România: Cat de mult și cât de repede?”, 30 septembrie, 2002
- Gerlach, Ș., Ramaswamy, S., Scatigna, Michela „150 years of capital market volatility”, sept. 2006
- Giarini, O., Stahel, W. (1996). *Limitele certitudinii*, Editura Edimpress Camro, București
- Lupu, R. „Aplicarea modelului GARCH la indicele BET”. *Jurnalul Economic*, NR.17
- Orlean, A.: „Les marches financiers sont-ils rationnels?”, *Le Problem Economique*, 2004
- Obtsfeld M., (1998). *The Global capital market: Benefactor or Menace?*
- Popescu Oana – „Investiții si comportamentul investițional”, Lucrare de doctorat
- Scheicher, M., „What drives investors risk aversion? Daily evidence from the German equity market”- BIS, Iunie 2003
- Stancu, I. (2003). *Finanțe: Piețe financiare și gestiunea portofoliului, Investiții reale și finanțarea lor; Analiza și gestiunea financiară a întreprinderii*, Editura Economică, București;
- Todea, A.; Cornea A. -, „Testarea modelului de echilibru al activelor financiare la Bursa de Valori București”. [www.hmarket.ro](http://www.hmarket.ro)
- Monetary and Economic Department. „The recent behaviour of financial market volatility”- BIS papers, Nr. 29, August, 2006
- [www.bvb.ro](http://www.bvb.ro)
- [www.bnro.ro](http://www.bnro.ro)
- [www.estatistici.ro](http://www.estatistici.ro)
- [www.eviews.com](http://www.eviews.com)
- [www.finint.ase.ro](http://www.finint.ase.ro)
- [www.kmarket.ro](http://www.kmarket.ro)
- [www.riskglossary.com](http://www.riskglossary.com)

## FROM MACROECONOMIC STABILITY TO SUSTAINABLE GROWTH IN ROMANIA

**Coralia ANGELESCU**

*Ph. D. Professor*

Academy of Economic Studies, Bucharest

**Aura-Gabriela SOCOL**

*Candidate Ph. D.*

Ministry of Economy and Finance

**Abstract.** *This paper evaluates the trade-off between output volatility and the variability of the inflation rate around its target. In addition, the study evaluates the quality of economic growth in Romania, in accordance with the macroeconomic stability process. In our opinion, the optimal choice for a central bank is the flexible inflation targeting. For this purpose, central bank must explicitates the loss function and the optimal monetary policy rule. We then argued that this Romanian authority can substantially improve their credibility under inflation targeting policy regime by becoming more accountable and transparent. Is the inflation targeting the best choice for the monetary policy regime in Romanian economy? Can Romania improves the sustainable growth?*

**Key words:** economic growth; inflation targeting strategy; macroeconomic policy; monetary policy.

**REL Classification:** 3B, 8M, 10J

Each and every government strategy has as objective the improvement of the society's prosperity. The economic development and, thus, the improvement of the prosperity at the society's level suppose the achievement of a sustainable economic growth. That is the reason why the economic policy mix used to achieve the objective of maximizing the prosperity is elaborated so that a fast economic growth. In Romania, the strategic objective is that of rendering the economic field operational so that its working mechanism could be consistent with the principles, norms

and operational mechanisms of the European economy. To emphasize this idea, in order to achieve this objective, a sustainable economic growth proves to be necessary. When speaking about sustainable growth, we take into consideration the positive trend towards a long-term evolution of a nation's output.

The economic growth process represents the essential engine for the living standard improvement. The importance of the economic increase within the market economy is revealed by accompanying the process with the strengthening of a country's economic power and with its increase of richness and prosperity (Angelescu, Stănescu, 2004).

The economic growth is a complex, long-term phenomenon which is subject to certain constraints, such as excessive increase of population; limited resources; inappropriate substructure; inefficient use of resources, especially of those related to X-type inefficiency; excessive government intrusion; institutional and cultural patterns which disturb the development etc.

Why is the process of macro-stabilization of an economy important? Why is the sustainable economic growth the essential objective of any transition economy (which is also the case of Romania)? The answer to these questions is that this process – the sustainable economic growth – appeared as a signal of successful macro-stabilization of that economy – a low inflation rate, the covering of the external debts by the public sector, the banking system stability in order to honour its obligations towards the deponents, the central banks' ability to keep a stable rate of exchange etc

Romania joined an institutional, judicial, economic, social, political etc. reconstruction process, which aims to the country's modernization and to placing itself on a favorable external position. In order to achieve all these aims and during the period of post-adherence to the European Union, the sustainable economic growth plays an important role – this sustained economic increase being a feature of the European increase pattern. The main principle of this complex transformation process is that only a real fast convergence towards the European pattern will have as a result a favorable integration of the Romanian economy within this pattern. Related to this European pattern, there is a strategy change regarding the economic increase process.

The neoclassical theory of the economic growth will be surpassed, being characterized by restrictive and non-operational hypothesis: the economy is stable and aims towards a full usefulness; the start will be given by the microeconomics strategy, by the households preferences; by

the company's production functions, by the markets' structures etc.; the investments have a short-term effect on the national income through the combined demand; their long-term effects develop through the increase of the potential national income; the savings decrease the consumption and the combined demand and that is the reason why they decrease the national income on a short-term; but, on a long-term, the savings finance the investments this leading to an increase of the potential income; there are decreasing efficiencies of the factors of production; on a long-term, the technological changes represent the main cause of the economic growth, together with the investments in capital and in new technologies; the economic growth, the increase of the degree of employment and redistributing of income within the society represent independent and potentially conflictual objectives. The next step is the endogenous growth theory, which views the technological change as a true determined variable which gives feedbacks to the market signals. The spread of technology is, also, determined, the investments present decreasing efficiencies and confer externalities, there are increasing efficiencies of the factors of production and the economic increase, the degree of employment and redistributing of income within the society are interrelated.

But, the relationship between inflation and economic growth is contradictory. The analysis of the new trade-off between the inflation stability and the gap of the GDP (Gross Domestic Product) (in fact, the economic fluctuations) became important. The economic theory defines the economic growth as a long-term process (a few decades); because of the monetary policy's influence on the real variables which occur only on short-term, therefore, along this work we shall analyze the relationship between inflation and the gap of the GDP.

If until a few years ago the economists were concerned only with the short-term trade-off between inflation and unemployment, at present, the economists focus on a new compromise. Taylor (1996) asserts that the attempts to stabilize the fluctuations of production and employment of labor will produce a fluctuation in the inflation rate. The inflation stabilization attempts will have as a result bigger fluctuations in production and employment of labor. Taylor made a synthesis of the ideas referring to this trade-off, giving it the form of two assertions: the first assertion, regarding which there were few disputes, is that there is no long-term trade-off between inflation rate and unemployment rate; the second assertion, regarding which more disputes occurred, is that on a short term, there is a trade-off between inflation and unemployment. This

can be best described in terms of the trade-off between the inflation variability and the unemployment variability. It means that the description is better than in terms of short-term percentage variations of these variables than that made from the point of view of their nominal level at a certain moment (Taylor, 1996). Taylor's suggestion is that, if the management focuses too much on maintaining inflation stable, there will appear undesired fluctuations of production. If they focus too much on maintaining the unemployment at a NAIRU level, there will appear fluctuations in inflation. An important aspect of this trade-off is represented by the attention paid to the stabilization policies and not to the attempts to aim to certain variables (such as an unemployment rate under the NAIRU level) which cannot be supported.

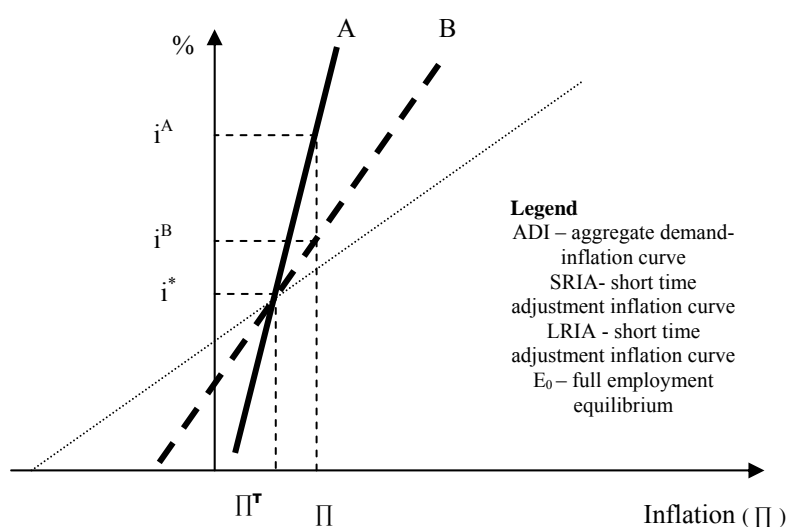
The empirical evidences reveal the fact that the transition countries, which proved a better price stability, achieved an increased rhythm of GDP growth. Though, the few observations, the essential difficulties in measurements and the statistics blanks render the identification of a stable relationship between the lower inflation and the strong increase of GDP rather difficult. The increased inflation countries showed a decreased rhythm of GDP growth, and the negative effect on the GDP growth (mainly caused by reduced investments and a little increase of productivity) is perceived in inflation rates of more than 10% and very big inflation rates – more than 40%.

A research made by Fisher et al (1996) shows that inflation stabilization precedes the GDP growth (when inflation decreased 50%, two years consecutively, PIB increases). There occurs a threshold-effect regarding the relationship between inflation and GDP growth. Ghosh (1997) shows that, for inflation rates less than 10%, there is a less perceivable effect on the GDP growth/persona; the increase GDP/per capita is generally bigger than under the terms of an inflation up to 3%. But, after the 10% threshold, the negative relationship between inflation and GDP growth becomes more evident. Lately, more governments from developed and developing countries decided to implement the inflation targeting strategy. We can use the ADI pattern (combined aggregate demand – inflation), in order to understand the implications of the inflation targeting strategy and the trade-offs within the macroeconomic policies field.

We consider that the central bank would have at disposal 2 rules of monetary policy. For both of the rules, the central bank inflation targeting is  $\pi_T$  and the balance level of the interest rate is  $r^*$ . If economy is at the full employment level, and inflation is at the settled target level, the

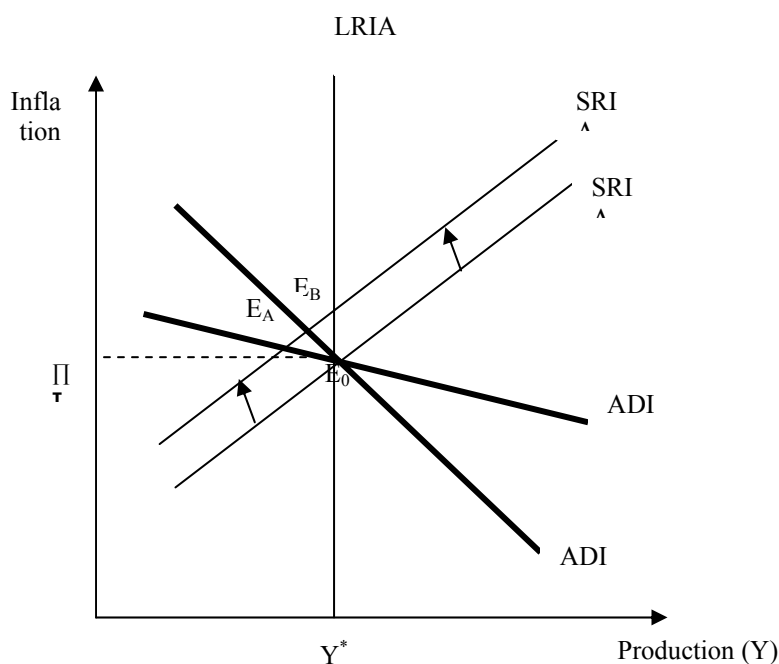


interest nominal rate ( $i^*$ ) will be  $i^* = r^* + \pi_T$ . The rule of policy A is more close to the vertical than the rule of policy B. According to rule A, the increase of inflation determines the national bank to increase the interest rate more than under the terms of using of the rule B. If inflation increases from  $\pi_T$  to  $\pi_1$ , the interest nominal rate will be increased up to  $i^A$  according to rule A and up to  $i^B$  according to rule B.



**Figure 1.** The choice of policy rule

Because of the fact that the real interest rate changes more within the rule of policy A, the change of inflation will have a bigger effect on the combined expenses than in the case of rule B. As a result, the ADI curve, under the terms of rule A, is more close to the horizontal than ADI under the terms of rule B.



**Figure 2.** Trade off between inflation stability and GDP stability

If we consider that the Romanian economy will be affected by a temporary inflation shock which moves the SRIA curve upwards (for example, the oil prices increasing or the raise of the inflation anticipations). If the national bank's policy is described by rule A, the new short-term balance will be attained in point  $E_A$ , and if rule B is applied, in  $E_B$ . Under the terms of the rule of policy A, the productivity decreases more, and the inflation increases less than under the terms of the rule of policy B. As a result of the movement of SRIA curve, the economy will encounter a more stable inflation level and a less stable productivity and labor employment level under the terms of using rule A, than using rule B. If central bank reacts a little aggressive to inflation (according to rule B), there will occur a bigger inflation fluctuation, but the productivity and labor employment level will become more stable.

This is the trade off between the inflation stability encountered by the national bank and the productivity stability. In practice, because of the temporal gaps between the interest rate change and the developing of the effects upon the economy, central bank must take into consideration the future evolutions, adjusting the inflation rates according to the anticipations regarding the future inflation. Within the last decades, the keeping of a lower inflation (prices stabilization) has become the main objective of the national banks around the world. In this period, the idea that the monetary policy is more efficient than the fiscal policy within the short-term stabilization processes was unanimously accepted. Though, on a long term, the monetary policy may influence only the nominal variables, such as inflation and the nominal rate of exchange (it cannot raise the medium level or the raising rate of the real variables such as GDP or employment, or it cannot influence the medium level of the real rate of exchange). In a better case, it can lower the fluctuation degree of the real variables.

On a short and medium term, the monetary policy produces effects both on the nominal variables, and on the real variables. Though, the complex mechanism of transmitting the monetary policy, the variable lags, the random shocks and the inherent incertitude render the fine-tuning necessary. More and more countries use the flexible targeting system of inflation strategy which proves that inflation is stabilized around a reduced target on a medium term (more than the inflexible targeting system of inflation, which attempts to stabilize the inflation in the shortest possible time).

Can we explain the success or the failure of a transition country by attaining or not of the sustained economic increase (and before that, the attaining of the economic macro-stabilization)? Yes, we can. Even if the short-term macroeconomic results are important, credibility is rendered by the sustainable economic growth within an economic operability. The macroeconomic stability is strongly related to the sustained economic increase. The macroeconomic performance can be explained through the management quality of the budgets belonging to the public sector and to their financing (the actions of the monetary and fiscal policies), policies oriented towards the development of the internal financial sector and the rate of exchange policy.

The central bank preferences can be emphasized by analyzing its actions, at a certain moment. Thus, a flexible inflation targeting strategy, which may be credible and performant, surely contributes to a lower fluctuation of the interest rates and of the exchange rates. Concretely, the central bank should prioritarily use the rate of exchange tool (in case of adopting a strict system, at the beginning), and after that, the passing to a

flexible system should determine the bank to orientate towards the preponderant use of the interest rate tool (with a direct influence upon the combined demand, and thus, the attaining of a good trade off between inflation and productivity).

To conclude, we consider that the central bank should settle and give information about a losing explicit function for the monetary policy. The benefit of this process may be the fact the central bank could have stronger stimuli in order to achieve the mentioned trade off, there could be a much more efficient external monitoring and evaluation of the monetary policy, while the monetary policy objectives would become more and more transparent. The lack of transparency regarding the losing function may render continuous interpretations and questions such as: what importance does central bank give to the real economy stabilization, comparing to the stabilization related to the target level?

---

### References

---

- Angelescu, C., Stănescu I. (2004), *Politica de creștere economică*, Editura Economică, București
- Dinu, M., Socol, C., Niculescu, A. (2005), *Economia României. O viziune asupra tranziției postcomuniste*, Editura Economică, București
- Fischer, S., Sahay, Vegh, C., Stabilisation and growth in transition economies: the early experience, *Journal of economic perspectives*, 1996
- Gerlach, S., Svensson, L, Money and inflation in the euro area: a case for monetary indicators?, *Journal of Monetary Economics*, nr. 50, 2003
- Ghosh, A. Inflation in transition economies: how much? and why? *IMF Working Paper*, 1997
- Mishkin, F. S, Schmidt-Hebbel, K, One decade of inflation targeting in the world: what do we know and what do we need to know? *NBER Working Paper* 8397, 2001
- Svensson, L. How should monetary policy be conducted in an era of price stability?, *CEPR Working Paper*, 2003, [www.princeton.edu/svensson](http://www.princeton.edu/svensson).
- Svensson, L., Monetary policy and real stabilization, *CEPR Working Paper*, 2003, [www.princeton.edu/svensson](http://www.princeton.edu/svensson)
- Taylor, J., How should monetary policy respond to stocks while maintaining long-run price stability, Federal Reserve Bank of Kansas City, *Working paper*, 1996
- Walsh, C., Teaching inflation targeting an analysis for intermediate macro, *Journal of economic education*, 2002

## THE EFFECT OF INTEGRATION AND THE DISTRIBUTION OF CORRUPTION



**Constantin POPESCU**

*Ph.D. Professor*

**Alexandru TASNADI**

*Ph.D. Professor*

Academy of Economic Studies, Bucharest

**Abstract.** *Natural-human and un-human life evolves by bring in its shares into functional organic system, and they are transformed into sub-systems and other complex dynamic systems.*

*In accordance with human and social biology, the process of integration at the level of human life and communitarian life represents forms of evolution that are necessary to assure the survival of homeostasy and fulfilment of human individuals during their time and space of co-existence and succession.*

*The effect of integration of this main process for the evolution of life is power.*

*The power to survive, to dominate, to control the risk of evolution and to fulfil our life, looking for rising are the essence of the effect of integration.*

*Since, it is known only power can corrupt, and that means we can associate to any kind of human and social power the ability to divert from the exigencies of biological and social homeostaty, from the function and fulfilment as a part of the whole.*

*Therefore, corruption is a form of deviation of different human and social powers from the right evolution of the whole living including people, environment, organizations, communities, institutions and families who disturb the natural, biological and social homeostaty.*

*The distribution of corruption, as a form of deviation that disturb the evolution is both inside the human body, near to each powers, the power of mind, the power of heart, the power of soul and the power of*

*believe and hope, and inside the social body, near to different powers, as is legislative power, executive power, judicial power, the power of communication, etc.*

**Key words:** integration; biological homeostaty; social homeostaty; the effect of integration, corruption.



### **1. From biological homeostaty to social homeostaty**

The two natural-human and social processes that we are studying in this paper, the effect of integration and the distribution of corruption are based on the concept that "Human being as product of planet, its cosmic rapports, existed and could develop only inside the society, whom it supported material and spiritual, by the division of work and diligence and also by the reproduction of human species." (Adler, 1995, a)

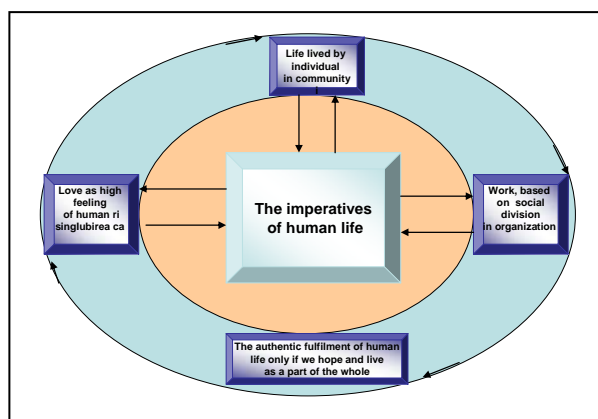
At the same time, the impulses that determine the living organism, including here human organisms to act are many and different. "A man's actions, the father of stress says – are determinted by actions as instinct satisfactions, the need to express itself, power and wealth thirsty aspiration to creative activity, the intention to reach its own goals and many other" (Selye, 1984, a)

The product of integration from nature and society, the human being "can not get progress in authentic development only if he lives and has desires as a part of the whole ... all our functions are calculated not to disturb people's collectivity, to tie individuals to society. To look for means to accept, to fertilize what comes to in front of your eyes. To see is not only a simple physiological process, it shows the man as a part of the whole, who receives and gives. Through sight, hearing and speaking we can associate one to another. A man sees, listens, speaks only when his interest is linked to the outside world, to the others. His reason, his common sense are submitted to the control of neighbors, the absolute truth and aim the eternal correctness. Our aesthetic feelings and conceptions, which inside them have the most powerful motive creation, have an eternal value only if they act into the torrent of evolution for the wealth of mankind. All the functions of our body and soul are developed

correctly, normally, healthy in the measure that they wear enough social feelings and are ready to co-operate.” (Adler, 1995, b)

From this point of view, we take into account that human virtue of integration expresses itself through the need to co-operate, and the vice of integration, as a negative outsider of this process, acts through the normal disturbing the co-operation. However, everything that means failure, as a negative outsider of the normal evolution of human society, is considered failure as it disturbs the community, through all the deviations from normal and desired direction, being a lack of contribution to the welfare of the community where the destiny of individual is to fulfil the imperatives of his life, to aim and live as a part of the living whole (figure 1).

If we take into account that a man knows more than he understands, we can appreciate the failures to integrate in life as a wandering, going round the evolution of direction, and if they could understand it they could abandon the wrong way and they could join the way of fulfilment of community where they live, work and love. ”All the adults and children’s wonderings, all the unpleasant character features – Adler says – showed in family, at school, in life, in the relationship with others, in their professional and with their love show the roots of their deficit to social binding feeling” (Adler, 1995, c).



**Figure 1.** *The imperatives of human life from the point of view of the whole living*

The more we can understand the fact that a human individual can not progress inside his authentic, true and healthy development, only if he lives, works, loves and hopes as a part of humanity, of community he belongs to, the better we can free ourselves from the failures of our public and private life, looking for causes of things in counter-sense in the absence of social education, those producing more or less deficit to social binding feeling.

The more we can understand the fact that each living organism, including the human body as a part of a whole and the whole as a part of another more complex whole, the better we can come close to the understanding that our whole living common is a system, and probably it belongs to the natural system of galaxies and to the Universe. This real and fascinating understanding of our whole living common is given by Doctor M. Scott Peck, at the microcosmic level of human biological homeostaty, as it follows. "Each cell wasn't only a system of its own, but also an infinitesimal part of a greater and more complex system.... As long as each cell belonged to a part of body's system, and each system belonged to body as a whole, wasn't it possible that my body belongs to a greater system? In other words, is it possible, that me – my inside individual – to be only a cell from an organ belonging to a huge organism?" (Peck, 2007, a)

If everything is a living system, that means the human individual, as a part of this system, lives, works and loves in human Families that together make the Family of Human Society. The more aware we are that the Family of Human Society is connected to waters, earth, forests and atmosphere, to our planetary ecosystem, the closer we are to profound and real effect of integration that each part lives it looking for its own sense in this evolution that happens at the level of the whole living.

The unconsciousness of this reality is the effect of a gap in thinking, that keeps us away from the universe of understanding that only pervaded with the spirit of the whole living, the part becomes what it is in: a little whole which evolves only in interchangeable with the network of a greater whole.

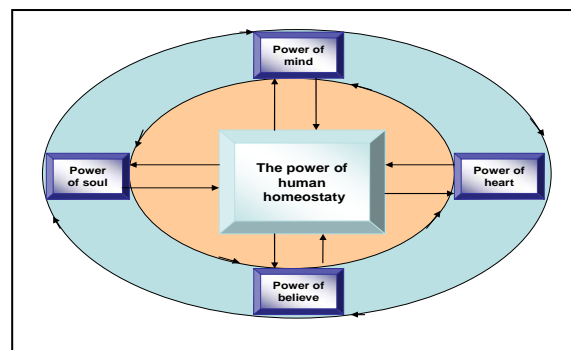
On this way it is created the effect of network as a form of interchanges that exist between the parts of a whole and between these parts and the system, as a whole. The effect of network and opened



interchanges are focused on the effect of integration that gives the limits of power to survive through fight/and or adaptation.

Through the authentic integration of human individual into the community where he hopes to fulfil his life's imperatives they try to change a minus-situation into a plus-situation that is a characteristic both for the evolution of the individual, and for the community, process known as "a continuous inferiority feeling, both for individual and for masses" (Adler, 1995, d). Instead of this feeling we are continuously looking for rising, we have goals in our life, we hope to emphasize ourselves, we are looking for superiority (Adler, 1996, a).

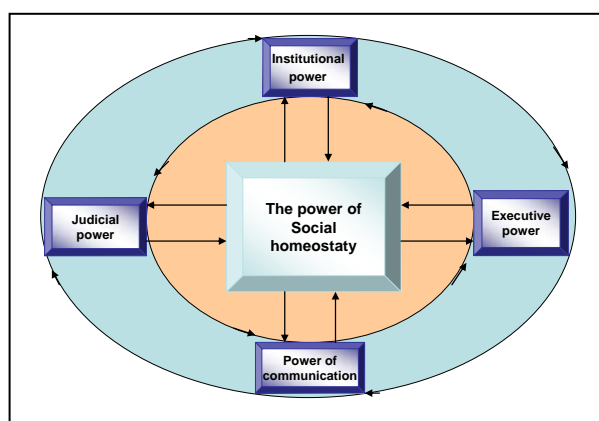
Our understanding for the agreement between biological homeostaty and social homeostaty, as a process developed by Walter Cannon – the creator of homeostaty – help us to show the relationship between the effect of integration and corruption from the point of view human body how it is organized and how it works (figure 2).



**Figure 2.** *Separation, integration and co-operation of powers in biological homeostaty*

As long as human individual will live and hope and be a part of the community, of the whole that he belongs, this whole, as a living social organism, will produce through the feeling of social community, the necessary elements to assure the equilibrium of common advancement. To maintain the social homeostaty by developing the feeling of social community at the level of all members of the society, or to a large majority give the necessary pre-requisites to control the negative outsiders given by power as an act of the effect of integration.

Through the consolidation of the state of social homeostaty, under the mechanisms given by the feelings of social community it is normally maintained, without a supplementary social effort the necessary equilibrium state, the individuals fulfil their life's imperatives, tightly connected to the exigency of self-preservation, survival and happiness, but also respect for understanding the real and true fulfilment of this can be realized only if we live and hope pervaded with need to deserve the appreciation and goodwill of the others (figure 3).



**Figure 3.** *The separation, integration and co-operation of the power of social homeostaty.*

It may be the family inside where we fulfil our love feeling, the family organization, where we fulfil the imperative of work, or the family where we fulfil the imperative of life lived in society – different human communities – the integration processes are motivated to assure a superior homeostaty to survive, to encourage adaptation and to look for with minimum human errors the right way to fight our inferiority complex, looking for rising and not for the circular of our common evolution.

To have a goal in your life, to fight to reach it means to emphasize our value, to be superior to the environment where we live, work and love "To have a goal in order to get superiority it will be done through the huge feeling of social community"(Adler, 1996, b).

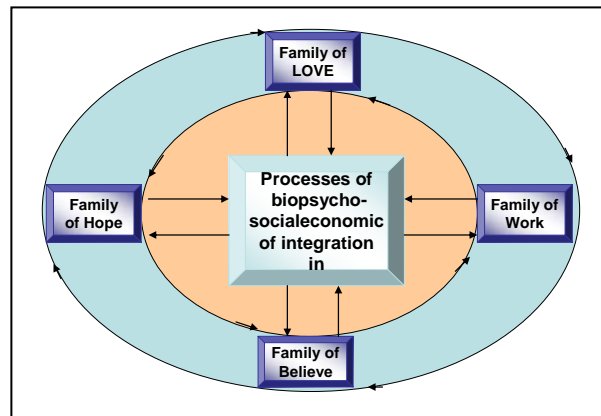
## **2. The characterization of the effect of integration**

Concerning from the point of view of the whole function, with a natural and social character, the process of integration seems to be unavoidable.

In the highlight of the first part of our study, this represents the human-natural shape of evolution of human and social biology from the perspective of assuring the homeostaty necessary for living organisms to survive and fulfil, as sub-systems of some systems that opened in space and time of the co-existence of our succession in life.

In accordance with dialectics of the whole living common, made by people, environment, organizations, institutions and families (Popescu, 2006, a) the normal functioning of these are done by specific processes of integration. So, we have processes of integration at the level of human individual, natural environment, human communities, organizations, institutions and families that are opened and closed through changed connections from positive to negative following the rule that each part belongs as a functioning directions to a system, and the system is an organic part of another system and the complexity of the last system makes the rule of an open and unfinished game of our common evolution.

With our study we come closer to the human individual – as a part of our whole living common -, and we can characterize the process of human integration from the point of view of the human life's imperatives as Alfred Adler thought of. As the human individual in order to get the authentic fulfilment has to hope and live as a part of the whole, here comes the need to see the processes of integration in the context of human Family where the imperatives of life have to get fulfilment. (Popescu, 2006, b). As we have already stated, hoping and living as a part of the functioning whole, of sense, the integration processes are individual and are connected to social homeostaty inside the family of Love, Family of Work, Family of Believe and Family of Hope, as spiritual-institutional elements that make and open the rules of the game in society (figure 4).



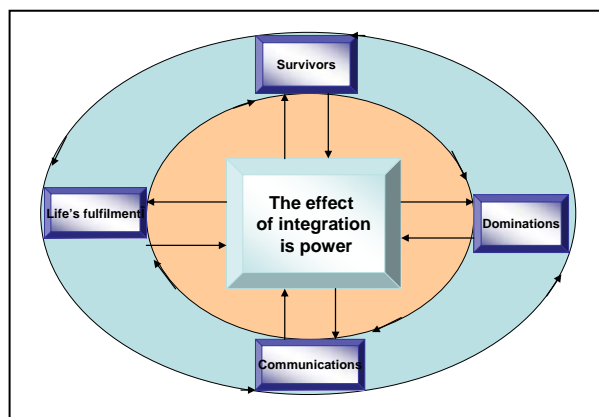
**Figure 4.** *The processes of integration in human Families*

Any process of integration, of human, biological, organizational, institutional, family and communitarian nature has as result a new power, an additional power to survive, to control the risks of evolution, to adapt ourselves to the unknown of evolution and to fight with natural weaknesses to overpass the complex of belonging.

In psychological terms, such a complex was defined as an inferiority complex, as an atavistic hope to look for rising, through improving the sense, or the counter-sense, that are generating positive and negative outsiders, favorable or unfavorable to human biological and/or social homeostaty (Adler, 1996, c).

The effect of integration on human individual level, with its destiny to hope to live from the perspective of the whole living common is power.

From the point of view of fulfilment the imperatives of human life, the effect of integration is the power to survive, to fulfil human life in many atmospheres, to communicate, to rule as sense and counter-sense (figure 5).



**Figure 5.** *The substance of the effect of integration.*

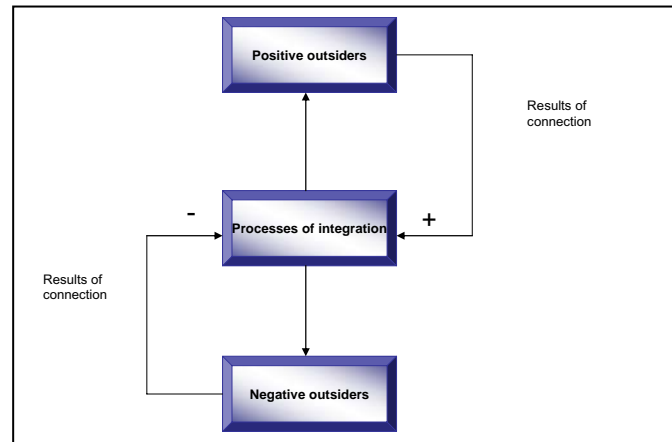
The effect of integration is materialized as the power to generate positive outsiders over the participants to social and human-biological processes that are going on space and time where the imperatives of life are acting.

Between the processes of integration, the effect of integration generated by these and the outsiders supported life of human individuals there are the opposite connections, with positive and negative links (figure 6).

Human individual was inherited with energy of transition given with (date, limits) on its birth, as a potential to survive through fight and/or adapt, fulfils the imperatives of life only if he hopes and lives as a part of a whole. That means the individual is permanently in different processes of integration, where from comes not only positive outsiders, but also negative outsiders.

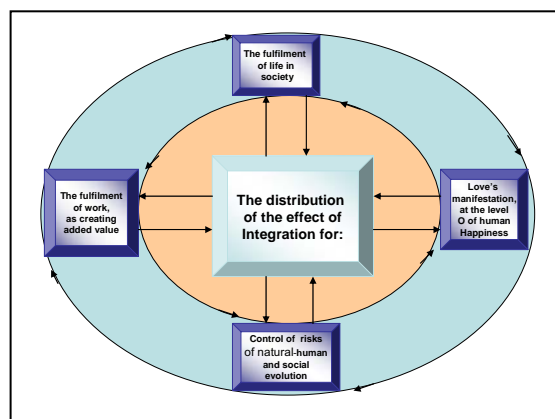
In this context, the effect of integration is the power to survive, to rule and to communicate, to fulfil our life lived in society, pervaded with the feeling of social community.

Therefore the effect of integration is power, in all its shape acting on human individual and community level, its manifestations brings into negative outsiders, and corruption is one of the most significant one.



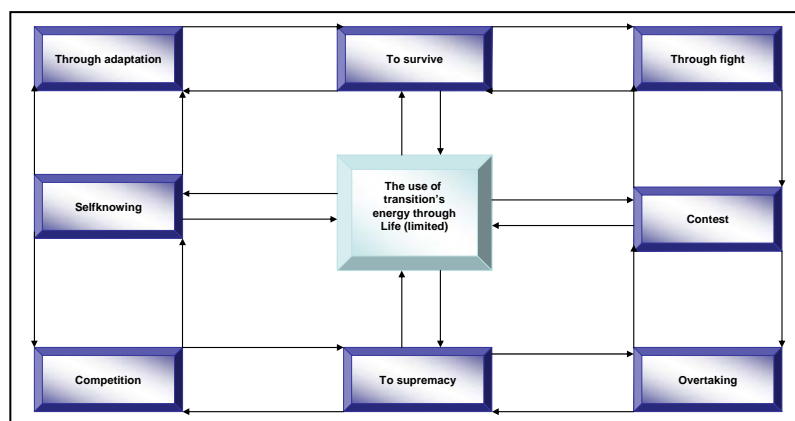
**Figure 6.** *The interchanges of opposite connections of the process of integration*

The effect of integration, as a result of the integration processes, are permanently under the connected influence of the imperative of human life, of the exigency of its evolution and we can understand the deviations during their time and space of their co-existence and our common succession the powers that are generated by this human-natural phenomenon. From human point of view, distribution of the effects of integration are subordinated to imperatives of human life in society (figure 7).



**Figure 7.** *The integration under the rules of the imperatives of human life*

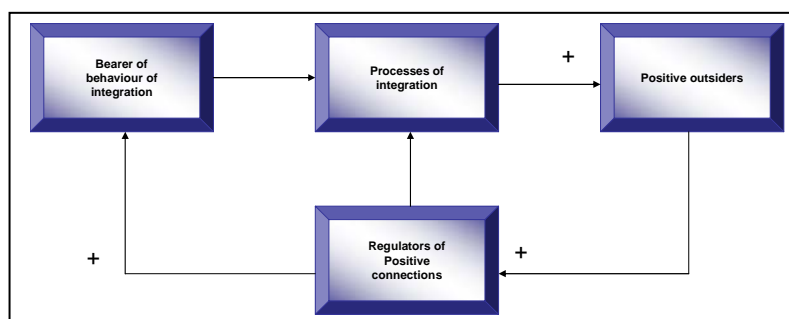
Therefore the processes of human integration need energy, and this energy, on individual level is given, is limited (Selye, 1984, b), the distribution of this resource is organic connected to vital processes of life's evolution in society, to survive and supremacy. In accordance with these processes, the integration has to generate added value to self-knowing and overtaking, to adapt and change (figure 8).



**Figure 8.** *The integration under the rules of overtaking*

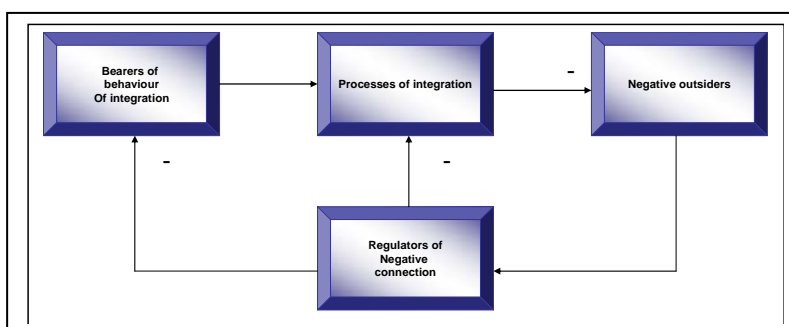
The viability of the processes of integration is the result of the environment where the positive and negative outsiders interchange and they act over the bearers of the components of integration.

On one side, the processes of integration are under the connected influence of positive outsiders, of senses, that give a normal, natural and desired human evolution over those, both on individual and on human community level (figure 9).



**Figure 9.** *The outsiders of integration in positive opposite connection.*

On the other side, the processes of integration are under the connected influence of negative outsiders, and these processes have a counter-sense influence over the components of integration, they deviate our attention from the positive advantages of these, with unfavorable consequences on normal, natural and desired evolution (figure 10).



**Figure 10.** *The outsiders of integration negative opposite connection*



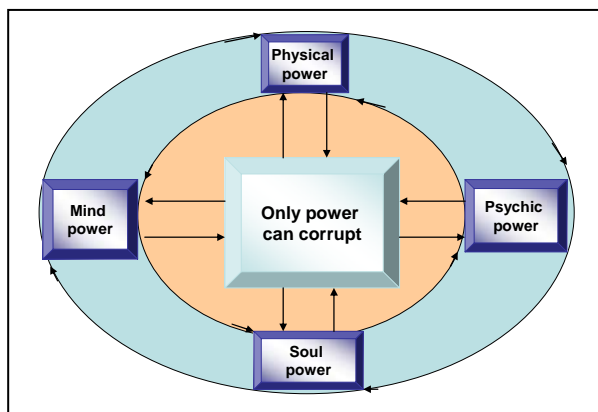
### 3. Corruption, a behavioral deviation that disturb biological and social homeostaty

In accordance with what we have stated, we can consider that the phenomenon of corruption has a general character, it represents a behavioral deviation of human powers from natural and normal evolution that disturb social and biological homeostaty.

If we sustain the thesis that only power can corrupt, only power, in different aspects, gives us a deviation from the sense of evolution, from the fulfilment of a part only from the perspective of the whole, we can appreciate that we have so many forms of corruptions, as many forms of powers exist.

The well-known maxim stated by Lord Acton „Power tends to corrupt, and absolute power is absolutely corrupted” (Peck, 2007, b) put under the highlights the organic connection among different aspects of power and their temporarily or permanent deviation from their mission that they were created for into the functioning mechanism of biological human and social life.

Therefore, in human biology, their homeostaty are in the hands of those four human powers, physical power, mind power, psychic power and soul power, they are separated and, in the mean time, they in a process where they work together and co-operate dictated by the equilibrium of advancement of human life (figure 11).

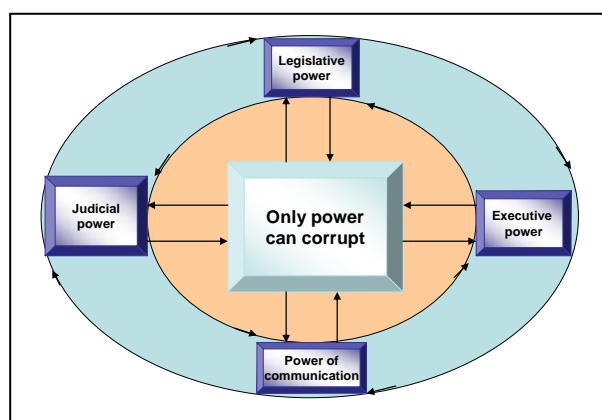


**Figure 11.** Inside forms of power and human corruption

In the area of a social organized life inside the community, the evolution until now devolved the four democratic powers, legislative power, executive power, judicial power and communication power, exerted by human communication instruments. At the level of each power we have, so many aspects of corruption, of deviated institutional evolution from normal, natural and desired sense from the point of view of social homeostaty.

Such a deviated process is the result of some changes, with institutional-spiritual character that Albert Szent-Györgyi, Nobel Awarded in Medicine – stated as follow "Institutions get older as people get older. In our era with rapid changes institutions get older rapidly, too. Institutions are made by people and their personal interests are identically with the institutions they are servant to, many of public institutions try to get more power and end as servant of their own interests, instead to serve people, they tend to be their master. All these brought to the hypocrite world of today, totally rejected by our young people. Not only institutions have to change, but the society also. Whilst the needs and conceptions that once created a institution were changed, the institution itself fought for its proclaimed archaic interests. This trend of our institutions to dominate us is encouraged by the fact that we have something of the attitude of a „cyclist”, so of a man that upside has a back arched position, and downside he pedals" (Szent-Györgyi, 1981).

Therefore, we naturally can have, deviations, as counter-senses for each aspect of communitarian power that result from democracy of human society evolution (figure 12).



**Figure 12.** *Communitarian forms of power and corruption*

It does not matter the aspects and levels where the processes of integration are acting, their effect are limited by human terms of fulfilment from the perspective of a life lived in community, organized work, love and control of the risks of evolution, based on new kinds of added value like win-win for all the parties.

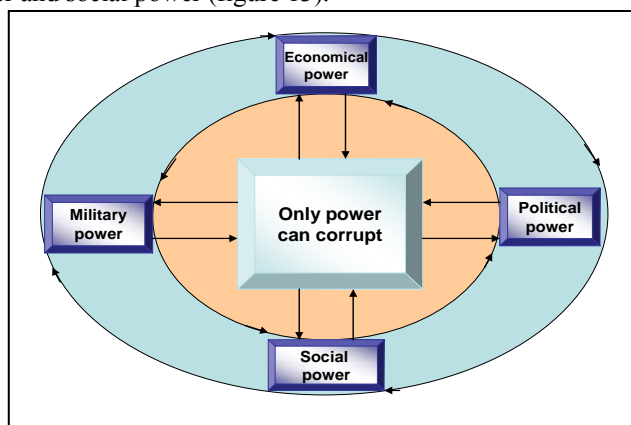
The distribution of the effect of integration, as a fulfilment of life is the result of social biology and how it succeeds to offer a right institutional answer to human biology.

The biology of social life tries to copy the separation and co-operation of the four human powers – the power of mind, the power of heart, the power of soul and the power of believe – under the institutional power (of democratic rules), executive power (to apply the rules), judicial power (as justice) and the power to communicate (for the transparency of information).

Human biological and/or social homeostaty is based on each one of these powers inside some specific processes of integration that can generate corruption.

Power is the one who corrupts, in any aspects of it. To corrupt means to use that power for other purposes than it was created and adapted by human and/or social life biology.

Therefore, we have corruption connected to mind's power, to heart's power, to soul's power and believer's power, but also, corruption connected to legislative power, governmental power, judicial power and the power to communicate to inform, but also economical power, military power and social power (figure 13).

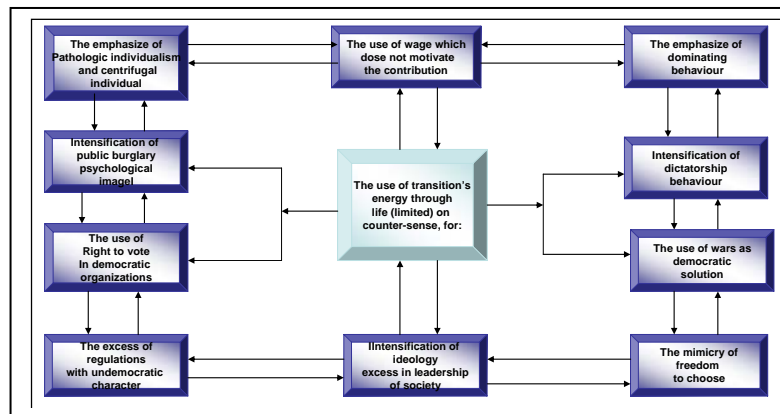


**Figure 13.** *Social aspects of power and corruption*

The distribution of these aspects of corruption is the result of some processes of unfair development of human powers or social powers that influence on human biological or social biological homeostaty.

The unfairness on injustice manifestations, on countersense of human powers or the powers of communitarian or social life are the result of some complex processes, contradictory processes from the perspective of fulfilment of the imperative of human life lived as individuals inside society, that disturb the equilibrium of common advancement, it disturbs the evolution of fulfilment from the perspective of the health of the whole living common.

Here are some processes: the emphases of the phenomenon of pathological individualism, centrifugal individual; to break up education from the fulfilment of human life; formation, consolidation and development of dominant behaviour on individual level, social group, political, economical, military, social, religion power; the leadership of human communities by breaking up agreed democratic rules, through political mechanisms and dictatorship measures, discriminatory measures; a profound and long lasting deviation of national and international organizations from their initial goals, as were democratic and institutional agreed; the use of some public fiscal measures that bring in the physiology of "public burglary" from personal incomes the selling of some public goods that belong to the community of villages, towns, regions and national goods in stead of the general interest, of the right owners; the use of unfair wages that are not in accordance with the right work done to the added value of the organization; the promotion of some unfair measures of competitions to take over markets, in the benefit of some aggressive, monopoly behavior to use the right to vote, by some economical, military, social powers for different organisms that from the point of view of institution have a democratic character; to use war as an attitude to solve domestic and international problems by great economical, military, social powers; to arouse, under color of forecasting some enemies with terrorist character, in fact some interests to rule over; the physiology of dominating power in excess that bring fuel to act for your own interest, in behalf of false identity; the use of excess of ideology to promote a certain culture of power, the power to dominate; the promotion of religious power in disgrace with the purpose to choose believe and hope for better life (figure 14).



**Figure 14.** *The causes of corruption in society*

In our vision, we appreciate that the distribution of corruption – as deviated from the normal and desired sense of fulfilled life, from the point of view of the whole living common, including people, environment, communities, organizations, institutions and families – have its domestic and functioning roots in social and biological homeostay.

Therefore, the power of mind corrupts as dose military or legislative power. Where ever it may be a power, in biological and social homeostaty are created also the bases of deviations from the sense, normal, natural and desired evolution from the perspective of the health of the whole living common.

Problems rising for the organisms created by man, as are the economical, social, military, political or of any deviated nature, as of legislative, executive, communication or judicial give to moral and institutional un justice, is to find an equilibrium of these forces, as the forces of human organism, to assure the control of the risks of evolution, negative outsiders, as the deviations that, today, we name it, corruption. Important is that these deviations of power that can corrupt do not disturb the fulfilment of the imperatives of human life inside community. These mean that they do not have to disturb the evolution of social homeostaty of them. As long as, the human individual will hope and live as a part of the whole, community can control the negative outsiders of powers created by man in society.

---

**References**

---

- Adler, A., (1995, a). *Sensul vieții*, Editura IRI, București, p. 35  
Selye, H., (1984, a). *Știință și viață*, Editura Politică, București, p. 327  
Adler, A., (1995, b), *Op. cit.*, p.201  
Ibidem, c) p. 203  
Scott, P. (2007, a). *Drumul către tine însuși și mai departe*, Editura Curtea Veche, București  
Adler, A., (1995, d), *Op. cit* p. 35  
Adler, A., (1996, a),. *Cunoașterea omului*, Editura IRI, București, p. 97  
Popescu, C., (2006, a), *Raționalitate și speranță*, Editura Renaissance, București, pp.33-42  
Ibidem, b) p.37-38  
Adler, A., (1996, b). *Op. cit*, p. 95-113  
Selye, H., (1984,b),. *Op. cit.*, p. 312  
Scott, P. (2007, b). *Op. cit.*, p. 194  
Szent-Györgyi, (1981). *Pledoarie pentru viață*, Editura Politică, București, p. 210

## ROMANIA 2007. MACROECONOMIC INSTABILITY IS BACK?

■

**Cristian SOCOL**

Academy of Economic Studies, Buchaest

**Dorin Emil MANTESCU**

*Ph. D. Candidate*

Ministry of Economy and Finance

**Abstract.** *After several years of perseverant implementation, the reform policies we have been pursuing have led to significant and identifiable results. Romania's economy has continued to perform strongly, although growth is expected to moderate to 6 percent in 2007 on account of prolonged drought effects on agricultural production. Taking into account the annual inflation rate increasing to 6.03 percent (mainly due to a steep increase in food prices and an adverse impact of recent turbulences on world financial markets), National Bank of Romania (NBR) revised the inflation target by 0.7 pp to 5.7% for current year. The general government recorded a small cash surplus during the first nine months of 2007 (0.19% of GDP), largely on account of slow execution of the capital budget. Regarding the economy's external situation, the already large current account deficit has continued to widen. In 2007, the current account deficit is possible to attain about 14 percent of GDP, with a similarly high level projected for 2008. There are mixed results, which show there are strong risks of macroeconomic instability in the short and medium term, threats which have analysed in this paper.*

**Key words:** macroeconomic risk; macroeconomic policy mix; sustainable public finances; financial programming.

**REL Classification:** 3B, 8M, 10J



Before January 2007, the confluence of positive factors that have contributed to Romania's favorable growth and inflation outcomes cannot be counted on to continue, especially on negative influence of four risks.

**Risk 1: Potential contagion of the negative effects of international financial crisis in Romania, in the medium term.**

A series of signals admonish on the possible contagion of the negative effects of international financial crisis in Romania especially because of the fast advance in credit and the high level of the checking account deficit. The record level of current account deficit in our country (2007 prognosis is 14% of GDP), high volatility of the Bucharest Stock Exchange, the massive income of speculative cash, low sustainability of public finances, the high level of external debt increase and the interest rise in developed countries could stimulate the possible breakout of the financial turbulences in Romania. On short term (2-3 years), internal analysts consider that low balance of internal debt, bank system stability and high international currency reserves abate that risk.

*Symptoms.* The financial turbulences in Romania could be triggered by the appearance of three effects. *Contagion effect* – disequilibrium propagation from one region to the other – becomes more and more acute in a globalised world to which Romania has connected itself. The growth in homogeneity between great commercial powers' business cycles gives substance to the idea of global economy. China, one of the biggest markets that absorbs of raw materials but also one of the biggest markets for capital assets and hard-goods, is more and more connected to USA – the largest goods consumer in the world – European Union and Japan, other two large, important markets for selling goods and raw materials.

Contagion effect is almost always followed by the *additive causality effect* – the situation when the disequilibrium from one region overlaps to the disequilibrium in other areas – creating a shock with major impact. Three month ago, when USA announced a slow-down of its economy growth and the Chinese Stock Exchange showed signs of exhaustion, raw materials and goods suppliers for all around the world panicked. For them, this is translated into lower profits, smaller demands, more choiceful markets etc. Thereby, if one of the stock exchanges in USA, China, EU and Japan shows signs of overheating, "response cells" around the world look for solution to isolate the economies from the



global shock. Stock markets investors understand this movement as slow-down in demand for goods and raw materials from developed countries, hence a slowed-down in demand for most companies in the world. The effect propagates in the technological chain of every industry because a slow-down in demand represents a slow-down in company's revenue thus lower dividends and a drop in stock prices on the market.

„Flock” effect also should not be neglected under globalized financial markets effect. Speculative capital investments funds managers – that have an ever stronger position in Romania – gain the best areas for profit opportunities together but, in the same time, they leave areas where profit opportunities narrows together. They act as a flock. Today, world economy is more and more globalised so that international stock exchanges volatility is much higher. Loan on mortgage crisis and the possible recession of the USA economy, the fear of a large speculative crisis, the rumours about Chinese authorities enactment of new rules to tax worth surplus on financial markets, but also the rise in concern on Iran's nuclear program nourish the sudden drop in investors optimism and could trigger a moment of adjustment with negative effect on Romania at any time.

The channel trough which the Romanian stock market shock wave will be transmitted is connected to foreign investment funds' activity. In case the global situation worsens this funds will leave emergent, more immature markets (like Romania) first and will return on this markets only as a last resort unlike developed countries where they will appear with capital infusions as soon the negative waves passes. Large investments funds perception could read the temporal or recurrent nature of shocks produced on emergent financial markets like Romania.

High interest rates and economic boom have attracted important investors at Romanian stock exchange. Excess money fuel consumption credits. Economic crisis can be triggered when interest rates rise in developed countries – as it is the case at the moment – and investors transfer their money home. For Romania, the worst possibility would be if massive cash withdrawal of speculative investors (portfolio) materializes which leads to further devaluation of the Leu, increased inflation, difficulties in financing external debts, etc. Changing the structure of checking account financing is a source of risk that should concern the Romanian authorities. Thereby, the abatement in cash from privatization and direct foreign investments and the increase of volatile finance sources especially from portfolio investments create uncertainties on non-inflationary defrayment of the checking account balance. What is more, according to stress analyses on the impact of currency exchange on main

macro-economic indicators, Romania's Convergence Program for 2006-2009 shows that a 5% currency devaluation will have a negative impact on all of Romania's macro-economic indicators leading to a stop-and-go comeback to the structural policies.

*Prevention Solutions.* Structural solutions for increasing Romanian exports competitiveness that Romanian authority should adopt and strict requirements imposed by the European Union on member states will not allow the breakout of a financial crisis in Romania. Through early warning procedure, European Commission will impose public expenditures rationalization, restrictive currency and tax policies in order to stabilize the macro-economy on short term.

Strict regulation from Stocks and Shares National Commission (CNVM) for investments funds that are in play on Romanian stock exchanges will strengthen financial market discipline.

National Bank of Romania's increase in currency reserves for a possible intervention on the market in case of a major disequilibrium on the market is strictly necessary.

BNR ought to promote a restrictive monetary policy, especially under the condition of Romanian economy risk of overheating. BNR ought to closely monitor bank system activity through strict bootstrapping of the prudential rules in order to maintain a high financial stability.

Last but not least, it is necessary that the Ministry of Finance to bootstrap a non-cyclic tax policy that consolidates public finances' sustainability.

**Risk 2: The increase in vulnerability of the pension system in Romania.**

Public pension system in Romania can collapse in a short period of time. Demographic crisis, strong migration and the small percentage of GDP for the budgetary revenues are all signals that show Romanian public pension system's vulnerability. The blocking of the pension system could lead to an increase of the budgetary deficit, the cut of budgetary allocation for other domains (education, research-development, infrastructure, public administration, etc.) causing delicate problems in respect of following Romania's commitments to NATO and European Union.

According to a study elaborated by World Bank's (WB) experts "there will be pensioners who paid more money in taxes then the pension they will be receiving after their contribution period will be over". State pension could be cut-down to 30% of medium net salary around year 2030. But on long term, besides the forecast tendency to lower the renewal rate in the public system, sudden increment of the pension point and the delay in equalising retirement ages will lead to public pensions

smaller than the 35 years long contribution. To these factors one could add the deficit that the mandatory private pensions will create to the social system budget as between 2.5 and 6% from CAS will go to private funds. The so called "transition cost" has been estimated at around 0.7% of GDP from 2007 to 2017 by the World Bank.

On the other hand, World Monetary Fund (WMF) fiercely criticised Romanian authorities for doubling pensions in the following two years because this would re-inflate inflation and would be a risk for overheating economy. Thus, increasing pensions would nourish inflationary pressures and would be responsible for exacerbating checking account deficit. In WMF view not spending extra budgetary revenues is one necessary condition for fiscal aggrandizement. WMF experts consider that if revenues from pension funds as a result of increasing hire rate are spent at once for the present pensioners' fiscal sustainability will not be improved.

Concurrent, Standard & Poor's experts consider that Government's plans to double the pensions in the following two years aggravate the risks of rapid deterioration of Romanian economy's stability. Experts warn that money spent for pensions are actually "opportunity costs" considering that it could have been spent for other sectors becoming an important stimulus for raising the checking account deficit enhancing the risks for overheating the economy.

Delay in the introduction of the II and III pension pillars in Romania aggravates the risk for public pension system to collapse. Private pension system advantages go from higher output ratio of the pension fund to stock and shares market development. But there are also risks about new pension system functionality. Financial risk is a consequence for defective stocks and shares market's development in Romania: hence a lower possible output ratio, maybe lower than inflation plus the brokerage liveable by pension funds managers. Opposition from unions that want to have the power to decide about pension funds management also creates risks. There is also the risk of transition period so that contribution will be capitalized from the moment that II pillar is initiated until its maturation so that it could not be used to pay the current generation of pensioners. Finally, we draw attention on the surveillance risk caused by pensions fund surveillance institution dilemma and the informational society risk, incidental to the fact that youngsters have a late start on the labour market and alternate activity and inactivity periods (intermissions for professional training are also longer).

*Prevention solutions.* Public pension system consolidation ought to start from including people working in the agriculture as contributors to the pension fund to cutting the level of contribution to the pension system.

Discouraging early retirement by setting a low quantum for pensions, equalising retirement age for men and women, rising seniority limits required for full rights retirement and the introduction of a minimum pension are other feasible solutions for reforming the public pension system.

In respect of bootstrapping private pension system contributors information programs, IT system functionality and adequate surveillance of the private management pension funds are fundamental.

**Risk 3: Soft sustainability of public finances.**

Sudden rise of pensions, ill-advised salary policy, the avalanche of demagogical legislative initiatives in Parliament and inconsistency of the budgetary policy are elements that favour a major disequilibrium of the public finances.

*Symptoms.* Passing Law of pensions regarding the rise of the pension point starting from the 1<sup>st</sup> of January 2008 at 37,5% from the gross medium salary and at 45% starting the 1<sup>st</sup> of January 2009 partially takes away a social risk but can exacerbate macro-economic discrepancies caused by the lack of medium term financial support.

Acting as rational actors to maximize their votes, supporters of the sudden rise of pensions call down social argument (medium pension in Romania is 342 RON, half of the minimum monthly consumption basket of 680 RON; medium pension is only 31% of the medium salary in the economy; percentage of pensioners with less than 300 RON is high, that is 54% of a total of 5.9 million pensioners).

Pension increase could determine demand inflammation, increase in consumption and deepen checking account deficit which already exploded in 2007 (so that for the first 3 month it is 115.8% higher than the same period last year).

Sudden pension increase could lead to on increase in public expenditures, exceeding the 3% target of deficit (appointed as a criteria by the European Union the ) inflationary pressures and macro-economic instability.

The avalanche of financial non-sustainable economic initiative tabled in Parliament by the main political parties consolidates the risk of public finance system sideslips. Cumulative, the measures could double the current deficit targets to be reached on the medium term. In case that public sector salary increase unprovided by the budget (0.3% of the GDP budgetary impact), non-taxation for the reinvested profit (1.1 of the GDP), providing holiday vouchers (1.1% of the GDP), amends for those who deposits at CEC for buying Dacia (0.2% of the GDP), a special fund for building social houses (0.04% of the GDP), subsidizing 50% of the rent pay by those under 35 years old (the impact is impossible to estimate,

subsidizing gas and electricity prices and legislative changes in respect of VTA (whose effect will be a drop in budgetary revenues of 0.6% of the GDP) would be adopted they could create a strong pressure on the state budget disequilibrium. At that, Government's proposal for cutting 4-6% of social insurance contributions (that could lead to a 0.8-1.2% of the GDP deficit) and also increasing academic researchers salaries (0.01% of his year.

*Prevention solutions.* The Ministry of Public Finances ought to adopt a plan for rationalizing public expenditures, so that it increases efficiency in financial management at macro-economical level.

We need that the Ministry of Public Finances bootstraps EU procedure for multiannual budgetary planning in order to assure medium sustainability for Romanian public finances.

Conformation to targets provided by the Convergence Program (2007-2009) ought to be incessantly closely monitored, so that possible sideslips of the public finances system will not affect consolidation of the deflation process.

Inside the Ministry of Public Finances there is a need for a Tax Policies department, which through econometric models to stimulate macro-economic effects of the budgetary and tax changes.

Ministry of Public Finances' experts ought to be in a constant dialog with those who decide BNR's money policy, those ensuring the bootstrapping of a coherent mix of economic policies in Romania, all in an integrated strategic manner.

#### **Risk 4: Romania has a low rate of European fund absorption**

Romania's integration in the European Union success or failure depends on its capacity to access and absorb structural and cohesion funds. Solving the trade-off between macro-economic plan and modernization at micro-economic level could find its substance in important financing allocated to Romania by the European Union in the period of 2007-2013. Absorption of at the very most 20% of the structural and cohesion funds allocated to Romania by the European Union makes the costs-benefits matrix in the first year after adherence to be derogatory to our country.

From more than 30 billion non-refundable Euros from the EU that Romania will potentially benefit from in the period of 2007-2013, about 19.66 billion will take the form of structural and cohesion funds (12.66 billion are structural funds part of the "Cohesion" objective, 6.55 billion are allocated through Cohesion Fund and 0.45 billion are allocated to "European Territorial Cooperation" Objective).

The money from the European Union will be destined to infrastructure projects (42% of the total), environment protection (24%), increasing economic competitive (13%), human capital development (18%) and strengthening administrative capacity (3%).

Although the absorption rate for counties that joined European Union in 2004 was rather low, Romania needs to avoid negative records in the field of accessing European funds. If Hungary and Slovakia spent only 23% of the structural fund allocated in 2004-2006, especially as a consequence of a poor functionality of the public-private partnership, Poland and the Czech Republic dealt with problems in running European financed projects, especially due to slow system of public acquisitions thus absorbing only 20% (Poland had an absorption rate of only 20% in the first two years after joining while the Czech Republic only 18% of the allocated funds).

Romania ought to learn from Ireland, Austria, Spain and Germany's experience; all countries that managed to absorb over 60% of the funds allocated from the EU budget in 2000-2006 (Ireland 74%, Austria 68%, Spain 67%, Germany 64%) strongly developing infrastructure, environment, agriculture and industry and a high convergence of incomes with the most developed countries in the EU.

In any event, new member states experience from 2004 shows that European Social Fund (ESF) is the hardest to access where the Czech republic absorbed only 16.51% (during 2004-2006), Hungary 20.85%, Slovakia 22.30% and Poland only 19.56%. There are also difficulties in respect of European Regional Development Fund (ERDF). The Czech Republic absorbed only 18% from the total allocation of the fund, Hungary 22%, Slovakia 20.33% and Poland 18.52%.

Romania's experience of accession European funds is not in our favour. Between 2001 and 2005, Romania only managed to absorb only 11.6% of a total of over two billion Euros non-refundable ISPA funds for transport and environment. At that, a large number of environment and transport projects were started with a delay of two years and they are still not finalized. According to the 2005 Public Report of the Court of auditor ministries of Transportation and Environment only managed to absorb 262 million Euros of a total of 2.25 billion.

*Symptoms.* In case that Romania will not manage to reach a level of European funds of at least 20% in the period of 2007-2008, governmental programs' objectives of economical and social convergence with the EU states (2006-2007 National Program of Convergence, National reform Program, National Plan of Development etc.) are almost impossible to achieve.

The real convergence with the European Union will be impossible to achieve and the sustainable economic growth will remain just a desideratum. Technological research, innovation, entrepreneur spirit, communicational infrastructure development, environment and investment in transportation, energy, education and health and social infrastructure will be under-financed areas thus correcting the regional disequilibrium inside Romania or compared to the developed regions in the EU (beta convergence) will not be obtained.

The targets presented in the National Program of Reforms in the fields of training, professional reconversion and creating new jobs and also those related to social inclusion will not be achieved. Hence, lack of financing from the European Social Fund will determine blockage in respect of rising occupancy, unemployment prevention, educational system reform, creating partnerships between universities, research institutes and companies and improving dialog between social partners.

Thus, Romania's mission to achieve objectives of the Lisbon Agenda will be made impossible by the low capacity of attracting European funds. Three of the Lisbon Agenda objectives are directly connected to structural and cohesion funds financing.

The engines that would assure a high rhythm of economic growth – physical infrastructure's development and human capital development (together with an increase in investments in researched and informational and communication technology) – could be simultaneously seized if Romania does not capitalizes its chance of absorbing European funds.

*Prevention Solutions.* European funds Management Authorities ought to appropriate European Union's documentation on accessing and absorbing European funds, especially in respect of creating public-private partnerships and performing training activities for human resources involved in conceiving and bootstrapping the projects.

Adopting a Strategic pact at political level in which an increased capacity of European funds absorption in the period of 2007-2013 is presented as an objective. Achieving this strategic objective will ensure the needed vehicle for reaching the intermediate targets connected to macro-economical stability, infrastructure and human capital development, increasing economic and social cohesion with the European model and productivity and incomes with EU-27 member states.

Also, there is a need to conceive clear operational programs which provide objectives, instruments, finance resources, responsible institutions and fair financing terms. Providing concrete action plans and institution functionality (Management Authorities) that will coordinate information about European funds absorption monitor the stage of accessing European

funds and that will provide concrete actions for increasing the level of absorption in order to ensure better efficiency to the accessing system.

Without continuous information of all the beneficiaries about the possibility of accessing European funds the risk of asymmetrical concentration of the positive effects from the province to the centre is very high and with negative effects on country's balanced development.

This is why the Solicitor's Guide ought to be as concise as possible so that applicants and consulting companies in the field could easily elaborate the projects for every program.

So that it is necessary that in this stage coordinating institutions elaborate the Guide for Public-Private Partnerships, to ensure training for experts for this type of operations and to facilitate beneficiaries' access to contract bank credits for co-financing the projects. An important role is played by civil servants training in providing projects that EU would finance.



## ECONOMIC AND SOCIAL COHESION OF EU – FROM ACQUIS TO CONCEPT



**Dorel AILENEI**

*Ph. D. Professor*

Academy of Economic Studies, Bucharest

**Abstract.** *The success of EU project depends of its economic and social cohesion. Unfortunately there are an important delay and much hesitation in official approaching of the concept of economic and social cohesion. A system theory approach is very useful to clarify the core problem of economic and social cohesion. Relating this approaching with Krugman-Venables model of spatial agglomeration, we could introduce centripetal and centrifugal forces to define a complete concept of cohesion.*

**Key words:** regional economic integration; economic and social cohesion-dynamic system; centripetal and centrifugal forces.

**REL Classification:** 2D, 16D, 16F, 16G, 13D



Cohesion of a supranational system use to be sustained by military force, e.g. the empires. It was necessary both military force and an important administrative capacity to maintain the emperies durability. It was necessary a new administrative structure in a new conquered territory. Even spatial extension of the empires had been limited to the military and administrative capacity of space coverage. Never the less, the emergence of economic factors through forefront of historical stage brought about the failure of supranational system based on military force. The European empires disintegration after the First and Second World Wars fully prove the throw above mentioned.

Even so we could not to observe the fact that the bases of CEE constitution had an important military substrate:

- Military and economic implosion of Western Europe after the Second World War;
- The clash of two great military opposite powers – USA and Soviets Union – who create an important pressure over Western Europe;
- Great interests for strategically resources (energetically and raw materials: coal, steel, atomic energy);
- Reconstruction of Western Europe production capacity as a warranty for military force;
- Political awareness about the fact that a stable western European peace must be based on German French reconciliation.

We could conclude that western european military implosion and the fear against external military forces (American and soviets) have permitted to develop the center of economic interests as a new gravitational core of Europe.

The objectives of Treaty from Rome (article 2) relieve the economic items drawing:

- ♦ The promotion of a continuous, harmonious, sustainable and balanced development through the EU;
- ♦ A high level of employment and social protection;
- ♦ Equality between men and women;
- ♦ Sustainable and non-inflationary growth;
- ♦ A high degree of competitiveness;
- ♦ Raising the standard of living and quality of life;
- ♦ Protection and improvement of the quality of the environment;
- ♦ Economic and social cohesion and solidarity among the member states.

The means to achieve these objectives (article 3) better relieve the importance of economic factors:

- ♦ The creation of a common market and an economic and monetary union and by implementing common policies;
- ♦ The elimination of customs duties and quantitative restrictions on intra-group trade;
- ♦ The freedom of movement for goods, persons, services and capital in the internal market;
- ♦ The assurance of an undistorted competition in the internal market;

- ♦ The establishment of a common commercial policy towards third countries;
- ♦ The adoption of common policies in agriculture, transport, employment, environment, industrial competitiveness, and research and development;
- ♦ Coordination of social policies and sustaining those by European Social Fund.

However, the idea of economic and social cohesion isn't in the first line of the CEE objectives, those two features was been approaching separately. Thus, in the *Preamble to the Treaty of Rome* it was mentioned: *member states of the European Community are anxious to ensure their harmonious development by reducing the differences existing between the various regions and the backwardness of the less favored regions*. Never the less, only in 1975 the European Fund for Regional Development was established and a unitary approach of regional policy was achieved only in 1983 with Terremolinos Chart establishment. In the same way the social objectives of CEE has been too broadly established in the Treaty of Rome. The Article 117 of Treaty included references that member states recognized the need to improve living and working conditions of the people. The greatest achievement of the Treaty of Rome was the setting up of European Social Fund as a support for social common policy. Never the less, the text of Treaty is rather enough broadly in its terms as to reassure that member states welfare role was not to be usurped. There was an agreement to collaborate in specific field of labour legislation, working conditions, trade union and collective bargaining matters and so on.

Less sharply approach of economic and social features could be explained by the newness of common enterprises in the Treaty of Rome. The forwarded measures about equal pay for men and women, free mobility for manpower, equal treatment of migrants with indigenous workers etc. represent big step in social policies harmonizing for the member states.

The separation of the two dimensions of European cohesion was based on a substrate dilemma of EU project: since the main of objectives achieving was a single functional market, there must to recognize the competitive markets trend toward a great inequity. In those circumstances economic and social inequities diminishing was approaching as a necessary correction to the single market functioning rather an item of European cohesion. This feature appear in the cohesion concept definition in literature European integration (Mole, 2001): *cohesion has no clear*

*definition. It is best understood as the degree to which disparities in social and economic welfare between different regions or groups within the Community are politically and socially tolerable.*

The major impulse for economic and social cohesion increasing has been made from business environment, by the proposal made by executive managers of Philips (Wisse Decker) and Volvo (Per Gyllenhammer) in 1983, for a program of a single market creation. This proposal was the start point for the Programme for the Completing of the Internal Market in June 1985. This was an important step for Single European Act adoption in 1987. The importance of two acts consists in:

- Removal of non-tariff barriers (NTB) for internal trade;
- Increased competition within C.E.E.;
- Unification of factor markets through full liberation of factor mobility;
- Monetary integration;
- Promotion of cooperation among firms in R&D;
- Social Charter.

Since Single European Act (came into force on July 1987) the economic and social cohesion concept was officially introduced into CEE documents. The importance of this concept is growing with the European integration process became deeper. Thus, Treaty of Maastricht was setting to consolidate economic and social cohesion: *the policy for economic and social cohesion is focused to delay diminishing between different regions and the lag of less favoured regions*. At the same time there was definite the Mechanisms of Social Europe and the concept of citizen of UE Further more it was setting a new fund – Cohesion Fund. *Agenda 2000 for a Stronger and Wider Union (1997) and European Council from Lisbon brought concept of economic and social cohesion in the forefront of E.U. objectives*. A comparison between the Single European Act and European Council from Lisbon is very concluding:

**Strategies: Single European Market and Lisbon strategy for 2010**

*Table 1*

	<b>SEA</b>	<b>Lisbon</b>
Ultimate aim	Integration and growth	Growth Social cohesion Employment
Intermediate objectives	Cuts on cost of cross border transactions for products and services	Advances in education and innovation Increase in R&D spending

	SEA	Lisbon
		Liberalization of service industries Increase in labour force participation and employment
Means	Elimination of border controls Harmonization and approximation of laws	Definition of common targets Performance reporting and benchmarking
Instruments	E.U. directives Enforcement by case law of courts	Mostly national *spending, taxation, regulation).

**Source:** Sapir et al. (2003).

Nevertheless, those documents brought an important challenge for economic and social cohesion – EU eastern enlarging. With economic indicators further less than EU average, with democratic systems in construction, with ethnical and social in the fields of economic and social cohesion. The setting of an important preadhesion funds (PHARE, ISPA, SAPARD) for the preparation of the new states integration, the considerable increasing of the EU budget (from 213 billion Euro in 2000-2006 to 862 billion Euro in 2007-2013), the establishment of Regional and Social Agendas, didn't succeed to restore the degree of economic and social cohesion since 2000. Real complexity of this problem makes necessary a new approaching for economic and social cohesion concept.

#### **A new definition of economic and social cohesion concept**

To define the cohesion concept ought to appeal to General Theory of Systems. According that *cohesion refers to the cause of the dynamical stabilities that are necessary for the continued existence of a system or system component as a distinct entity. These stabilities arise from the constraints which dynamical interactions within a system impose on the dynamics of its components* (Collier, 2006).

*A dynamical system is a set of interacting components that is characterized and individuated from other systems by its cohesion.*

Using a definition it results that the economic and social cohesion is the most important problem of EU well functioning. Very important is the fact that by cohesion the EU defines intrinsically itself, by the relationships between the member states, but delimits itself from the rest of world, obtaining a distinctive identification on the international stage. The main properties of cohesion are:

1. Cohesion comes in degrees and is been sustained by forces and flows who emerge in different ways, dimensions and intensities.
2. Cohesion must involve a balance of the intensities of centrifugal and centripetal forces and flows that promote the inward or that promote dispersion.
3. Cohesion must involve a balance of propensities of centrifugal and centripetal forces and flows that favors the inward, or dispersion. This balance is conditioned by the space and time fluctuation and distribution of centrifugal or centripetal forces and flows.

The derived aspects of cohesion now follow from the basic properties:

A1. A dynamical system will display a mix of cohesive and non-cohesive properties.

A2. Cohesion then is not just the presence of interaction.

A3. A property is cohesive only where there is appropriate and sufficient restorative interaction to stabilize it.

A4. Cohesiveness is perturbation-context dependent with system properties varying in their cohesiveness as perturbation kinds and strengths are varied.

A5. The interactive cohesive support of nominally system properties may extend across within-system, system-environment and within-environment interactions.

A6: Cohesion characterizes all properties, including higher order process properties that are interaction-stabilized.

According to this approach the analysis of EU cohesion by perspective of economic, social and regional disparities is unproductive while there are not pointed out the forces and the flows who make these differences. These kinds of forces were identified by P.R. Krugman:

- Concentration or centripetal forces are vertical linkages, thick labour markets, economies of scale and agglomeration, local knowledge spillovers and intermediate transportation costs.
- Dispersion or centrifugal forces are : immobile factors, land rent.

By social perspective the disparities must have a correlation with some concentration forces like that: native language, relative linkages, ethnic group membership, nationality, cultural traditions, political membership etc. Similarly, the dispersion forces are: modernist attitudes, international membership feeling; nonconformance, individualism, isolated ethnic group membership, anarchism, adherence to opposite values against majority etc.

The analysis of space and time distribution and propensities of centrifugal or centripetal forces and flows could be most usefully rather simple systems of disparities measurements. From this point of view an economic approach of group interests is very productive. According to this approach individuals accept to be member of a group if the benefits are greater than the cost membership (Dows, 1957). From this point of view we could better understand the long series of controversies and hesitations from EU constructions and the delay in promotion of economic and social cohesion as the first order objective of common policies. The analysis of economic and social cohesion as a distribution of dynamical interests, of economical, political and military forces is more productive. An important argument in this sense could be the fallow one (Jovanovic, 2005): *Lasting friendship, durable alliances, lifelong understanding and enduring gratitude in international relations simply do not exist. They have never existed on long term. What exists and lasts is only the politics of national self-interest.*

### Economic and social disparities as distances

While EU economic and social policy focuses on *delay diminishing between different regions and the lag of less favoured regions* that mean the measurement of cohesion degree could be based on a system of distances (metrics) who identify development differences. For that a division of the analyzed system on the classes is usefully, by using some criteria and then we could measure the distances between these classes. An useful example to understand this procedure it is income distribution measurement with Lorenz curve and Gini index. To define a distance into a space we could use this procedure:

Let be a set of object E. An application  $d(.,.): E \times E \rightarrow R_+$ , will be named distance and it has the following properties:

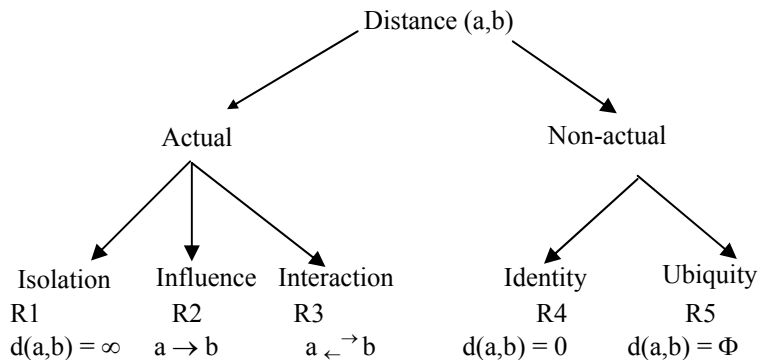
1.  $\forall x \in E, \forall y \in E, d(x,y) = 0 \Leftrightarrow x = y$
2.  $\forall x \in E, \forall y \in E, d(x,y) = d(y,x)$

$$3. \forall x \in E, \forall y \in E, \forall z \in E, d(x,y) \leq d(x,z) + d(y,z).$$

The number  $d(x,y)$  is named „distance from  $x$  to  $y$ ” and point out „the proximity of  $x$  to  $y$ ”, less  $d(x,y)$ , more „ $x$  is near  $y$ ”.

Disparities diminishing as a mean to maintain economic and social cohesion means to get acceptable limits for efficient functioning of a system. Exiting the upper limits diminish the force of functional relationship between system items, while the diminishing of the distances under the low limits mean too tied connections and too low flexibility. It is evidently on this approach the fact that diminishing of economic and social inequalities don't mean nor uniformity nor great differences, but tolerable limits to assure the functional efficiency and flexibility of the system. The problem of limits estimating is really complicated and therefore E.U. institutions avoid establishing such limits. Nevertheless, an important example is the parameters for the nominal convergence into ERM II.

Because there is a big diversity of economic and social disparities estimations it is necessary a broad definition for distance concept.



For the cohesion approaching it could be usefully de definition of Jaques Levy (Auriac, 1986):

Let be to item  $a$  and  $b$  of a space. We could make the following structure for  $d(a,b)$ :

For example, a regional disparities overtaking into a zone relating on its membership space could produce a distance of R1 gender, isolation.

While the cohesion means an analysis of centripetal and centrifugal forces, the distances maintaing into acceptable limits is important to assure functional degree of gravitational forces between system items (as in regional gravitational models).



For example, the people flows between two cities could be estimated:

$$F = A \frac{P_1 \times P_2}{D^2}$$

Where:

$P_{1,2}$  – population of every city

$D$  – distance

$A$  – a constant.

It is obviously the fact that an increase of distance diminishes the interaction force between the two cities. This example is usefully to understand the nature of centripetal and centrifugal forces in economic and social cohesion. If the distances rest in acceptable limits it is assured the stability on some optimal orbits for system items development and for the whole system. The limits of the distances depend of attractor's pattern within economic and social system of EU, but not by administratively established limits.

We could define different types of cohesion: functionally, procedurally, sequentially, logically, in time, communicational, or coincidentally and therefore different patterns for distances, attractors, centrifugal and centripetal forces and flows.

On this conceptual basis we could to better observe the fact that problem of economic and social cohesion assurance is the most important one for the success of EU project.

### References

- Ailenei, D., (1999). *Piața ca spațiu economic*, Editura Didactică și Pedagogică București
- Ailenei, D., (2002). *Economia Sectorului Public*, Editura Bren, București
- Armstrong, H., Taylor, J., (1993), *Regional Economics and Policy*, Harvester-Wheatsheaf
- Auriac, F., Brunet, G., (1986). *Espaces, Jeux et Enjeux*; Foyard/Fondation Diderot
- Bohm, D., *Plenitudinea lumii și ordinea ei*, Editura Humanitas, 1995
- Collier, John, (2006). *Hierarchical Dynamical Information Systems With a Focus on Biology*, University of Natal, South Africa
- De Groove, J., *Economics of Monetary Union*, Oxford University Press, 2003

- Eisenberg, Avigail, *Pluralism, Consociationalism, Group Differentiated Citizenship and the Problem of Social Cohesion*, University of Victoria, 2006
- El-Agraa, A.M., (1998). *The Economics of European Community*, Harvester-Wheatsheaf Editura All, București
- Jovanovic, M. N., (2005). *The Ecoomics of European Integration*, Edward Elgar Publishing Inc.
- Marcus, A. (2005). *The Conceptual Cohesion of Classes*, Wayne State University Detroit Michigan,
- Molle, W., (2001). *The Ecoomics of European Integration*, Ashgate
- Pop, I., (1990). *Topologie Algebrică*, Editura Științifică, București
- Li, Shuyan, Li Xiumin, The Positive Research on the Tendency of Industrial Agglomeration and Forecasting, *China-USA Business Review*, Volume 4, No. 8, Aug., 2005

## THE ESTIMATION OF PRODUCTION FUNCTION IN ROMANIA

**Marius-Corneliu MARINAS**

Candidate Ph.D. Assistant  
Academy of Economic Studies, Bucharest

***Abstract.** In this study, I have researched the relevance of investments and exports in explaining the economic growth process in Romanian economy, between 1999 and 2006 years. For this, I have used a traditional Cobb-Douglass production function. The results of its estimation show that the growth rate was positively influenced by capital stock and exports while the employment contribution was negatively. The real GDP elasticity to the capital stock variation was 1.02 in the case of the standard production function and 0.72 for the one that has as explained variable the exports too.*

**Key words:** Cobb-Douglass; economic growth; elasticity of real GDP; capital stock; employed population.

**REL Classification:** 8C; 8E; 10D.

Economic theories as well as empirical studies have proven the significance of exports and investments for economic growth process. Thus, Romer (1989) and Edwards (1992) showed that exports' expansion generates a better allocation of productive resources and a capital accumulation in the economy. Both consequences will generate an increase of total factor productivity, which positively influence potential output growth (Edwards, 1997). According to neoclassical theory of international trade, commercial integration process will induce in the Central and East European countries (characterized by lower capital stock and cheaper labour force) a reduction of the relative prices for the labour intensive goods and a rising of capital intensive goods' weight in total exports. The foreign trade generates a quicker technology transfer in the countries with lower level of GDP per capita, which supports their real convergence process (Ben-David, Loewy, 1998).

An empirical studies tested correlation between exports dynamic and economic growth process. The Granger causality was used to detect the causal relation among these variables. Pereira and Xu (2000) estimated that exports does Granger cause growth and growth does Granger cause exports. Thus lagged values of exports (economic growth) provide statistically significant information about future values of economic growth (exports). Subasat (2002) showed that exports represent a source of convergence in the countries with average level of development. He did not estimate a significant causal relation between exports and GDP growth rate for the economies characterized by lower/higher level of development. Dritsakis (2004) demonstrated a cointegration relationship among economic growth rate, investments and exports for Bulgaria and Romania.

Related to investments, neoclassical theory explains the positive role of capital accumulation for the countries with GDP per capita less than their steady-state levels. The sources of investments are domestic private savings and foreign direct investment flows (FDI). If the last ones suppose technology transfers too, then the real convergence process will be on the long-run. For the new members of the European Union, the FDI flows positively influenced the economic growth rate, through increase in capital stock and in national exports.

I used a Cobb-Dougllass production function with capital and labour as exogenous variables to explain the sources of economic growth in the Romanian case. I added to traditional model exports and degree of economic openness (DEO), because these variables may influence the Solow residual (total factor productivity). Thus, more efficiency is generated by increase in exports and in openness economic degree, the last through capital import.

I used quaterly data for the 1999:2 and 2006:4 years for estimating national production function. The source of data is Eurostat and the number of observations for each variable is 31. Population employed refers to working force (between 15 and 64 years old). The capital stock is estimated for the initial level of capital adjusted by gross investment and capital depreciation:

$$K_1 = K_0 + \text{Net investment} = K_0 + (\text{Gross Investment} - \text{Capital depreciation})$$

I calculated the gross investment as sum of gross fixed capital formation and changes in inventories. I supposed a constant rate of capital depreciation of 6 percents per year. The value used in the Convergence Romanian Program for the 2006-2009 is 5 percents. For finding the initial

capital stock ( $K_0$ ), I presumed that its value is 66 percents of GDP level in the first quarterly of the 1999 year (where 0.66 represent the capital share in the total output). The values of capital stock, exports and degree of economic openness (measured by the sum of exports and imports as share of GDP) are in millions of euro at prices of 1995. Because of quarterly data series, I used Tramo-Seats function for their seasonal adjustment.

Initially, I estimated the production function with capital stock and labour, then I added other variables – exports and DEO respectively.

$GDP = A \times K^\alpha \times L^\beta$ , where:

A – Solow residual or total factor productivity;

K – capital stock;

L – population employed;

$\alpha$ ,  $\beta$  – output elasticities in respect with capital and labour, respectively or the labour and capital shares of total output.

To explain the GDP dynamics, I estimated the logarithms of production function:

$$\text{Log GDP} = \text{Log A} + \alpha \times \text{Log K} + \beta \times \text{Log L} \quad (1)$$

$$GDP = 4.74 \times K^{1.02} \times L^{-0.5}$$

$$\text{Log GDP} = 0.675 + 1.02 \times \text{Log K} - 0.5 \times \text{Log L} \quad (2)$$

The results confirm other empirical studies, which showed that capital stock has a positive contribution to output and labour has a negative one. The output elasticities relative to capital and labour is 1.02 percents and -0.5 percents, respectively. The  $\alpha$ ,  $\beta$  coefficients are significantly different from zero (at 5% level), adjusted R-squared is 0.94, (i.e. a higher statistical significance of regression) and Durbin-Watson statistic test is 0.67, that indicate the presence of positive autocorrelation. For its rejection, I used Cochrane-Orcutt procedure, which supposes the finding of autocorrelation parameter  $\rho$  (rho).

$$y_t = a_0 + a_1 x_{1t} + a_2 x_{2t} + \varepsilon_t.$$

$$y_{t-1} = a_0 + a_1 x_{1t-1} + a_2 x_{2t-1} + \varepsilon_{t-1}.$$

$$y_t - \rho y_{t-1} = a_0(1 - \rho) + a_1(x_{1t} - \rho x_{1t-1}) + a_2(x_{2t} - \rho x_{2t-1}). \quad (3)$$

The regression (3) will be re-estimated until the statistical stability of the coefficients  $a_0$ ,  $a_1$ ,  $a_2$ . If we replace equation (3) with equation (1), it results:

$$\text{Log GDP}_t - \rho \times \text{Log GDP}_{t-1} = \text{Log A}(1 - \rho) + \alpha \times (\text{Log K}_t - \rho \times \text{Log K}_{t-1}) + \beta \times (\text{Log L}_t - \rho \times \text{Log L}_{t-1})$$

Using statistical software NCSS2007, I found the value of autocorrelation parameter:  $\rho = 0.6924$ . The actual value of Durbin-Watson test is 1.91 that shows no evidence of autocorrelation errors. This procedure doesn't modify the structure of primary regression.

According to the equation (2), the national production function is characterized by diminishing marginal returns to labour ( $\beta < 1$ ) and increasing marginal returns to capital ( $\alpha > 1$ ). The sum of coefficients is 0.52, which it's specific to diminishing returns to scale (diseconomies of scale). The labour evolution is explained by decrease of employed population between 2001 and 2005 years, while the economy has continued to grow with high rates. Within employed population (estimated at 9.15 millions in the 3-th quarterly of 2006 year), roughly 3.5 millions live in countryside and produce mostly for their self-consume. Thus, a decrease of population that live in countryside doesn't overmuch influence the rate of economic growth. If increases the share of employed population in the sector services, then the output elasticity relative to labour will be positive.

To check up the hypothesis of diminishing marginal returns, I wrote the function of GDP per worker with capital-labour ratio as exogenous variable.

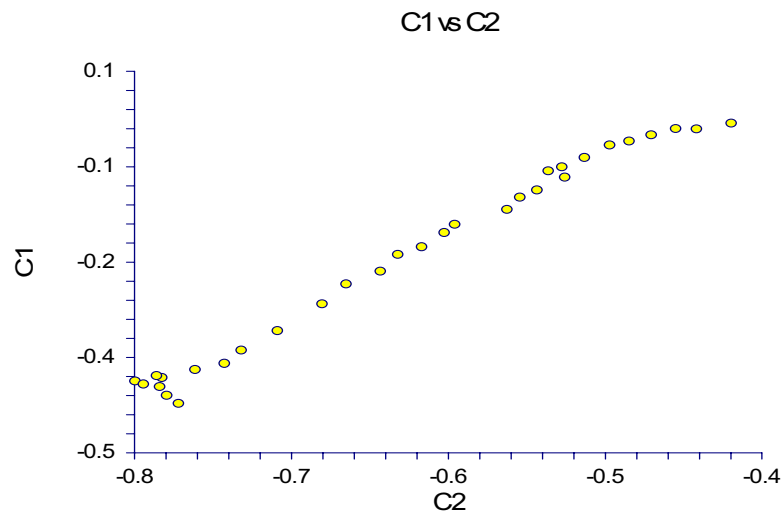
$$\begin{aligned} \text{GDP} &= A \times K^{\alpha} \times L^{\beta}; \\ \frac{\text{GDP}}{L} &= A \times \left(\frac{K}{L}\right)^{\mu}, \end{aligned}$$

where,  $\mu$  represents the GDP per worker elasticity relative to the capital-labour ratio.

The results from regression of GDP per worker are the following:

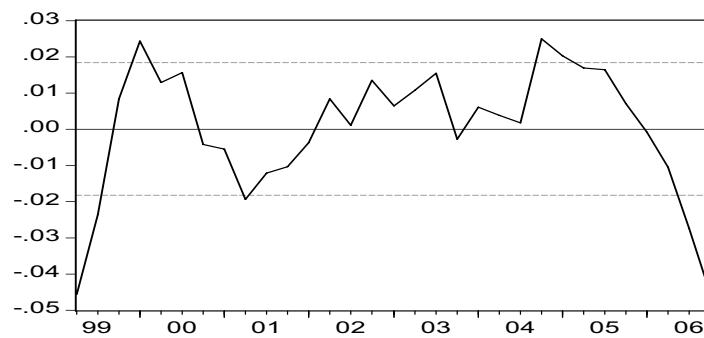
$$\begin{aligned} \frac{\text{GDP}}{L} &= 9,40 \times \left(\frac{K}{L}\right)^{0,65}; \\ \text{Log} \frac{\text{GDP}}{L} &= 0.97 + 0,65 \times \text{Log}\left(\frac{K}{L}\right) \end{aligned} \quad (4)$$

The coefficients of this regression are statistically significant (at 5% level) and the value of adjusted R-squared is 0.95. The initial value of Durbin-Watson test was 0.96, which indicates a positive autocorrelation. For its rejection, I used Cochrane-Orcutt procedure and I obtained a value of Durbin-Watson test of 1.68. The coefficient of GDP per worker elasticity ( $\mu$ ) is less than unity, which indicates diminishing marginal returns (as in figure 1, where C2 is capital-labor ratio).



**Figure 1.** *Romanian production function (1999-2006)*

The national production function estimated in this study shows a tendency for diminishing returns from the last four quarterly of this analysis. Thereby, the rise of capital-labour ratio will generate a slower economic growth rate. Thus, the single solution for sustainable growth is an increase of total factory productivity, through higher efficiency at microeconomic level, quality of business environment and education. Its evolution was positive between 2001 and 2005 years and negative in 2006 (figure 2).



**Figure 2.** *The residual of the Romanian production function (1999-2006)*

We obtain the followings results after adding export variable in the primary Cobb-Douglass function, it results:

$$GDP = A \times K^{\alpha} \times L^{\beta} \times Exp^{\gamma} \quad (5)$$

$$\text{LogGDP} = \text{LogA} + \alpha \times \text{LogK} + \beta \times \text{LogL} + \gamma \times \text{LogExp} \quad (6)$$

where,  $\gamma$  represents the GDP elasticity to the exports variation.

The 6-th regression is characterized by positive autocorrelation of errors (the Durbin-Watson test is 0.7), but I rejected autocorrelation using the Cochrane-Orcutt procedure.

$$GDP = 3,45 \times K^{0,72} \times L^{-0,23} \times Exp^{0,17} \quad (7)$$

The coefficients  $\alpha$  and  $\gamma$  are statistically significant (at 5% level), while  $\beta$  isn't different from zero (with a probability of 13%, the value of t-student being -1.55). The value of adjusted R-squared (0.95) validates the high significance of this model. The GDP elasticity with respect to labour is less than in first estimation of traditional production function. So, the decrease in employed population by 10 percents has generated an increase in real GDP by 2.4 percents (through the rise of labour productivity). The total factory productivity reduction (from 4.74 at 3.45) may be explained through export's inclusion. The exports growth has been accompanied by higher investment and productivity in the export sectors of economy. So, the increase in exports by 10% has induced an average growth rate of 1.7 percents between 1999-2006 years (*ceteris paribus*).

Between 1999 and 2006 the capital stock of economy was the most important factor of economic growth in Romania, which is specific to the economies with low levels of development. The production function (equation 7) has diminishing marginal returns to capital, because the value of the GDP elasticity with respect to capital stock was 0.72. As well, its returns to scale are diminishing, because the sum of coefficients  $\alpha$ ,  $\beta$  and  $\gamma$  is less than 1.

The following regression resulted by replacing exports variable with degree of economic openness (DEO) in equation (5):

$$GDP = A \times K^{\alpha} \times L^{\beta} \times DEO^{\lambda} \quad (8)$$

where,  $\lambda$  represents the GDP elasticity to DEO variation.

$$GDP = 4,97 \times K^{0,84} \times L^{-0,35} \times DEO^{0,03} \quad (9)$$

The GDP elasticity respecting with DEO are not statistically significant, the value of t-student being 0.34. Thus, the inclusion of this variable negatively affected the significance of model, so adjusted R-squared being 0.78 compared to 0.94 in regressions 2 and 7. The GDP elasticity respecting with employed population is -0.35, which is different from zero with a probability of 94.4%. The 9-th regression is characterized by positive autocorrelation of errors (the Durbin-Watson



test is 0.7), but using the Cochrane-Orcutt procedure, I rejected autocorrelation (the new value of Durbin-Watson is 2.11).

In conclusion, Romania's economic growth was positively influenced by capital stock and exports, while the labour's impact was negative. The degree of economic openness didn't statistical influence the real GDP growth (as in table 1).

#### The results of production functions' estimations

Table 1

	GDP elasticity with respect to K	GDP elasticity with respect to L	GDP elasticity with respect to Exp	GDP elasticity with respect to DEO
$GDP = A \times K^\alpha \times L^\beta$	$\alpha = 1.02$	$\beta = -0.50$	-	-
$GDP = A \times K^\alpha \times L^\beta \times Exp^\gamma$	$\alpha = 0.72$	$\beta = -0.23^*$	$\gamma = 0.17$	-
$GDP = A \times K^\alpha \times L^\beta \times GDE^\lambda$	$\alpha = 0.84$	$\beta = -0.35^{**}$	-	$\lambda = 0.03^*$

\*) statistically significant at 5%, 10%; \*\*) not statistically significance at 5%.

#### References

- Ben-David, D. (1996), "Technological convergence and international trade", *CEPR Discussion Paper*, nr. 1359
- Bourbonnais, R. (2004), "Econometrie", 5<sup>e</sup> edition, Dunod, Paris
- Dritsakis, N. "Exports, investments and economic development of pre-accession countries of the European Union: an empirical investigation of Bulgaria and Romania", *Applied Economics*, Taylor and Francis Journals, vol. 36(16), 2004
- Edwards, S., "Trade orientation, distortions and growth in developing countries", *Journal of Development Economics*, nr. 39, 1992
- Edwards, S. (1997), "Openness, productivity and growth: What do we really know?", *Economic Journal*, nr. 108, 1997

- Engle R. F.; Granger C. W. J., "Cointegration and Error Correction: Representation, Estimation and Testing", *Econometrica Revue*, nr. 55, 1987
- Granger, C. W. J. "Developments in the Study of Cointegrated Economic Variables", *Oxford Bulletin of Economics and Statistics*, nr. 48, 1986
- Pereira, A.M.; Xu, Z., "[Export Growth and Domestic Performance](#), [Review of International Economics](#)", *Blackwell Publishing*, vol. 8, 2000
- Sarkar, A., "A Model of Brokers' Trading, with Applications to Order Flow Internalization", *Review of Financial Economics* 11, nr. 1, 2002
- Subasat, T., "Does Export Promotion Increase Economic Growth? Some Cross- Section Evidence", *Development Policy Review*, vol. 20, 2002

## CHARACTERISTICS OF INVESTMENT POLICY AND EUROPEAN CONVERGENCE

**Dragos HURU**

*Ph. D. Senior Lecturer*

Academy of Economic Studies, Bucharest

**Abstract:** *Romania makes today, not for the first time in history, a recovery process, at least economical one, through the West Europe. The news is finding the target, European Union, and the way the recovery is made, from the political inner of Europe not only from the geographical space. The recovering policies are defined as convergence, and it is identified with development policies. Regardless of scientific terms the way to the economical progress is made as always through real investments. This paper is analyzed the manner how the investment policies during the last years defines the way the convergence/development objective is attained.*

**Key words:** investment policy; competitive advantage; European convergence.

**REL Classification:** 8I; 8D; 13C; 18C.

From a conceptual and functional point of view the investment represents a scientific category with big interpretation valences. What I want to emphasize in this paper is due to the real capital need, which every economy suffers from, even though the Romanian economy. I can make this affirmation without a statistical argument of the Romanian recent economy position, in the context where the real capital adds are been considered as an increase potential for each national economy system. The understanding of the investments leads to the real capital creation, like a functional and developer support for complex business and it is determined on the economical efficiency as real rate of return. The most important thing is to create a comparative advantage, of competition advantages that the investment can create.

The European integration of Romania started after the changing of the previous 1990 system and, in this way, the investment policies analyze has two parts. The first one started during the 1990. Back then, from a political point of view, it has been abandoned the socialist economical view, the running of the economy was lead to the West countries. The set of economical values, believed to be chosen criteria for the resources allocation, has lead Romania to a geopolitical sense. Up to 1990, due to productive activity priority, the investment process was driven to set up a real capital structure much more biggest compared with the availability of the resources, or beyond the market capacity of absorption by the national companies (it's no need to talk about foreign companies back then in Romania, even thought we are taking into account the variety of the common participation in the investments of the countries from Warsaw Pact). The systematic allocation of resources available for investments in function from political principles, even technically justified, driven to the waste of important resources. The engineering justifying for many times something that economically is impossible. If one investment is technically possible to realize, the economical objective was in concordance with political desideratum, then the decision to invest was doing. Passing-by economic rationality, ideologically voluntarily, with accumulation of some tension in allocation, after the disappearance of "order and control" mechanism in economy induced to extremely "jumpy" equilibrium during the last decade of the past century. The distortions in resources allocation induce by the inadequate competitive and allocation market obstruct the whole system of resources allocation. Public policy was oriented to the abiding substantial social costs implicit generated, and implicit impossible to stick in condition on nonperformance economy, the economic equilibrium was settled forth of development potential area. Living standards was on the level of European competitively standards for business made in Romania. Private property just finds the benefit from circulation area. Denial the tendency state as political and social requested of integration to the Eastern Europe from West (West Europe more exactly) is manifested through orientation with predilection of public expenditure on the way of abstraction for some social costs. The state was transformed in to a extremely loving parents bat over amplified one as presence, as intervention, as forced inclusion in to the economy, in to the society, and thus ruinous for which fallacious continued to consider his children-economy apart on Romanian national territory.

The allocation of some important monetary funds for consumption, alongside high inflation ratio corporate an important barrier in the front of the migration for accumulated capital in the market system. It is the same effect produced by the high supplementary taxes. (Auerbach, 1989). Present value of capital is fooling down and actual cost of exploitations grows. In this way the opportunity cost for investments or for property rights transfer to the private property grows very much.

The obvious result was the deep taint of value of resources. The ratio for externality from resources allocation and consumption transformed the Romanian economical system into the almost un-performance space. Is hard to say now which investment made before first. European integration wave was capable to manage in the new competitive advantage specific from Western Europe. The economic advantage is not different in the market system from the advantage in to the centralized system, but their value and pertinence is different. Forgetting that in a sparrow's nest the cuckoo is the noisiest, the state rather in a lack an investment policy spoiled the real capita accumulated in economy before 1990. Is hard to say how much thereof is present today in economy, even for the business that keeps going on the market, under else image and with another property rights system, because these overdone the short terms in economy, through investment these business catch up the long period, their competitive advantage was modified. The standard of economic performance affected in centralized system is impossible to be so much different from performance in market system (the conclusion is true for the unexpected system changes not for a long term historically and normally changes). The important decrees of real GDP level, the immense value of inflation ratio shows the depreciation of value system in economy. The weak performance of Romanian economy in '90 years is explained in this context through a penurious investment policy in a resources allocation system out of market rules, in a opposite case, European experience(Eichengreen 1996) show a different result.

The single inconsequential moments with that orientation was the financial depletion period of meet the expenses with macroeconomic externalities from central budget what liable for sudden restriction, excuse economic rationality for economic system. The tendency of generalized collapse on the level where any kind of economic activity is impossible was stopped by the restriction of economic activity itself. Blocking the lack of balance from resources allocation was realized by the obstruction

of mechanism itself. In real terms that are mean same firms closing. The result was the same: fall of capital stock.

In the first point of view the investment, the capital, was depreciate, source for competitive advantage is obstructed and gradual disappear among non-performances sources. In the second case, the existing advantage for firm naturally disappears. In the lack of same reorganization process abide to reconsideration of advantage and objectives as competitive market elements, many real capitals from Romania irremediable disappear. Economic dynamics don't afford to conserve the market advantage on the long terms. The effects was truly disastrous for real capital because in Romanian the economic system was build up as one powerful interdependent, the economic activity was hard vertical integrated (horizontal integration was a flaw characteristic in the '90 years). Hereby the costs over the market level, the externalities from enforced under this level for many specific firms affected entire economic system. Resisted only that investment witch can succeed to escape from system and functioned as autonomic privet investment.

Gradually this vision starts to become obviously erroneous. Thus the vision itself begins to force towards to changes alongside by the necessary dictated by economic rationality. This moment came of in horizon 1998/2001 in significance financing the investment from growth of firm performance, pull the investment in private system. The moment coincides with starting of the second wave of integration towards European Union in this case. Investment policy begin to called "European integration policy"- everything in Romania today have this name, or have this mark. But, from complexity of investments acts, from decision specific, from importance, the investment appears clearly, in a specific way. In Romania is started to resolve the entrepreneurial crisis and competitive system crisis (Huru, 2007).

The principal characteristics of the new integration system for investment policy consist in:

- 1) The competitive advantage for firm obtained by and from investment policy is changed. The Romanian firm functioned in a wider and more free market. The homogeneity for choice is changed in a wider diversity. The elasticity for substitution for resources and for final products is in huge changes (Eisner, 1970). The decision for monetary capital allocation to the investment process has to consider the wider resources market who result into a wider space for alternative technical choice. The decision about economic efficiency came into a new view

having more importance. From economic efficiency can devolve a lot of advantage in the market, from production costs, from quality and structure for final products. Moreover, the specialization in economic activity for performed European firm, the quality and the level of competition in Europe implies an attempted determination in allocation can be possible to realize as well as possible concordance towards the firm products.

- 2) Same consistent investments orientated towards consolidation of real or institutional infrastructure with effects in functionality of European economy appear as strongly necessary. On one hand, I'm talking about infrastructure for real connection in Europe and about specific institution situated in the base of European construction. On the other hand, at company level, it is required to make those investments which make possible the transaction of its products on the entire European market, meaning the realization of the necessary standards and conditions for commercialization agreed and validated by the all participants to European Union, even though this standards and conditions are the result of special conventions or are dictated by the specialized European organisms.

Romanian firms begin to enjoy less and less by the position of principal and, like new actors on the European markets have to know the position of agent. Even though the European Union supposes political common agreements the acceptance of the Romanian accession must be seen as a market new entrance. In these conditions the entrepreneurs will be motivated to invest more (Hubbard, 1998), in the attempt of becoming principal on the market. Also the principal funds for investments start to come from private system, funds are starting to come from financial markets. The stability, solidity and fluidity specific for financial market, as a component of monetary policy, start to increase in importance of the public and private investments policy terms. The objective of the monetary quotations stability has to take into account also the objective of the monetary market fluidity, which is more important in some inflation ratio limits for development.

The principal investment flux evolves to the recuperation of normally economic development structure tendency into the all analyzed period. The predilection in orientation of available capital for investments through specialized sectors in production and the sales of services is making only a retrieval comparing with a developed economy situation.

In addition the material goods production could retrieve in this period technological and from the production methods point of view. The drop of the industrial production didn't happen only due to the lack of consistent competitive advantages. It can be due to the general lack of available real capital from investments in economy. The initial big costs necessary for investments lead to resize the initial calculus. The gigantic company where the real capital was huge couldn't be sustained anymore in the real market through real replacement investments at necessary amount. The time needed to reorient the sales policy from automated distribution mechanism existing in centralized economy to the mechanism of market allocation has been generating costs and lack of rate of returns. The result is rational expected-business is resizing at the level of efficient functioning.

In addition the innovational necessary asked by the condition of free market in selling policy, strategy and implementation methods into the market are changing the substitution elasticity between labor and capital (Kalt, 1978). The possibility of the increasing result for production function would mean the existence of a labor factor undifferentiated from asymmetric information status capable to sale what capital produce. But the labor factor doesn't have the necessary knowledge in situation of free market where the products don't sale itself like in monopoly situation.

Encounter same manifestation that can look unusual in manifestation of investments policy. In convergence process towards European Union the migration for labor factors can be seeing like an investments, as an elements of real convergence. The employment for Romanian people in western European economy represent an actively factor for decreasing informational asymmetry in Europe. The process don't implies explicit costs, but inherent in that process is developed skills abilities, is gained work techniques, is improved behavior, is going to the multiculturalism integrated in economical process (Eriksson, 1991). Even that migrated labor forces don't take high hierarchical position that's don't mean a decrease of individual condition for workers.

They are practically new on the labor market. Every new employers start to the lower level in correspondence with his qualification. For a lot of business personal carrier started from the lower ground. Practically people invest in their selves. In addition, the earnings gained on West European markets allow accumulation of an important personal patrimony which can transform the social society and small business in Romania.



In the unique market of Europe the Romanian investments can count on purchasing power of all union market. Till this integration wave the incoming limitation of internal markets under European level expected rate of returns were decreasing a lot. The obvious economic growth during the last years, which can not be apart of European convergence, is improving the actual economic situation. The Romanian space became more attractive for foreign direct investments through the increasing of market dimensions (Davidson, 1980). The companies traditionally developed in closed economies must learn to produce in order that their products could be commercialized on the market with different culture. The cost of adaptation to different cultural and consumption customs are much lower then the proficiency growth. Also the UE principle to develop the same cultural behavior in union space leads to the increases the market dimension with lowest adaptation costs.

Through the manifestation of present integration tendency, investments policy is transforming from an essential component of economic development policy to a recuperation and convergence one, to a social and economical model desirable for politics and society aspects. The obstacle from distortion in resources allocation, the elements outside the free market can be made as real costs randomly supported (public or private; company or society; etc.) in Romania and the fundamentals of moving away from convergence target, the European economic model.

---

### References

---

- Auerbach, J. A. „Tax Reform and Adjustment Costs: The Impact on Investment and Market Value”, *International Economic Review*, Vol. 30, No.4 (1989), pp. 39-962
- Davidson, H. W. „The Location of Foreign Direct Investment Activity Country Characteristics and experience”, *Effects Journal of International Business Studies*, Vol. 11, No.2, Autumn, 1980, pp. 9-22
- Eisner, R. „Tax Policy and Investment Behavior: Furter Coment”, *The American Economic Review*, Vol. 60, No. 4, Sept. 1970, pp. 746-752
- Eichengreen, B. (1996). *Institution and Economic Growth: Europe After World War II` in Crafts*, in *Economic Growth in Europe since 1945*, Cambridge, pp. 38-72
- Eriksson, G. „Human capital investments and labor mobility”, *Journal of Labor Economics*, Vol. 9, No 3, (July 1991), pp. 236-254

- Hubbard, R. G. „Capital market imperfection and investment”, *Journal of Economic Literature* vol. 36, No.1, march 1998, pp. 193-225
- Huru, D. (2007) *Investiții. Capital și Dezvoltare*, Editura Economică, București, pp. 159-173
- Kalt, P. J. „Technological Change and Factor Substitution in the United States: 1929-1967”, *International Economic Review*, Vol.19, No. 3, (Oct.1978) pp. 761-775
- Postolache, T. – (Coordonator) (1991). *Economia României-secolul XX*, p. 434, Institutul Național de Cercetări Economice, Editura Academiei Române, București

# THE GROSS DOMESTIC PRODUCT AND DIRECT FOREIGN INVESTMENT

Constantin ANGHELACHE

*Ph. D. Professor*

Academy of Economic Studies, Bucharest

**Abstract.** *In this article I focused on the analysis of the GDP in 2006 and the attracting of the direct foreign investments.*

*I have emphasized a number of essential elements, such as: the factors of the GDP growth, its structure depending on the utilizations and ownership forms etc.*

*Meantime, I have considered also the development of the direct investment of foreign capital having in mind the perspective of the integration in the European Union.*

*The analysis is accompanied by a number of comparative volutions of the GDP by means of diagrams and significant tables.*

**Key words:** Gross Domestic Product; ownership; structure; utilization; direct foreign investment.

## 1. The Gross Domestic Product evolution

In 2006, the estimated GDP counts for 342,418 billion lei, meaning an increase of 7.7% comparatively to the outcome of the year 2005.

Here we have to note that this increase has been affected by the reduced contribution of the agriculture, counting for 0.3% only.

The level of the GDP increase in 2004, namely 8.4%, has been equalized to a certain extent, but it is hard to forecast it for the forthcoming period, mainly for the first post-adhesion to the European Union years, when a lot of adjustments are required, without depending on the will or on the actual situation in our country only but on the European Union policy of harmonization as well.

The Gross Domestic Product per habitant recorded an increase of 14.8% as comparatively to 2005, which is significantly for the level of Romania.

If comparing the GDP increase level with some other countries out of the European Union, we shall see that, without any exception, this was the highest rate of growth within this group of states (UE-25 recorded 2.9%) .

Thus, the Netherlands recorded an increase of 2.9% only, Belgium 3.1%, Germany 2.7%, Italy is recording an increase of 1.9%, Finland 4.4%, the United Kingdom of Great Britain and North Ireland 2.7%, Denmark 3.2%, and on the overall basis of the European Union (the 25 countries), the average index of the GDP increase leveled up to 2.9%.

If inserting it into this series of data, we can see that Romania is placed on the top position as for the GDP increase level.

**GDP growth 2006/2005**  
**Romania and some of the EU countries**

Table 1

- % -

ROMANIA	7.7
E.U. (25)	2.9
Austria	3.1
Belgium	3.1
Denmark	3.2
Finland	4.4
United Kingdom	2.7
Germany	2.7
Italy	1.9
Lithuania	7.5
Holland	2.9
Spain	3.9
Sweden	4.4
Hungary	3.9

**Note:**

- Estimated GDP 2006 = 340,418 billion lei
- GDP growth in (7.7%);
- GDP/capital grew by 14.8%.

### The GDP increase factors by categories of resources

In 2006 the GDP has been achieved on the account of the activity carried out in the frame of the main branches of the national economy.

However, their contribution differed from the point of view of the gross added value recorded at the level of each branch. The net tax on product brought a contribution of growth counting 0.9%, services activity contributed with 3.6%, constructions with 1.2% and industry with 1.7%.

The contribution of the agriculture, forestry and fish breeding was lower, counting for 0.3% only.

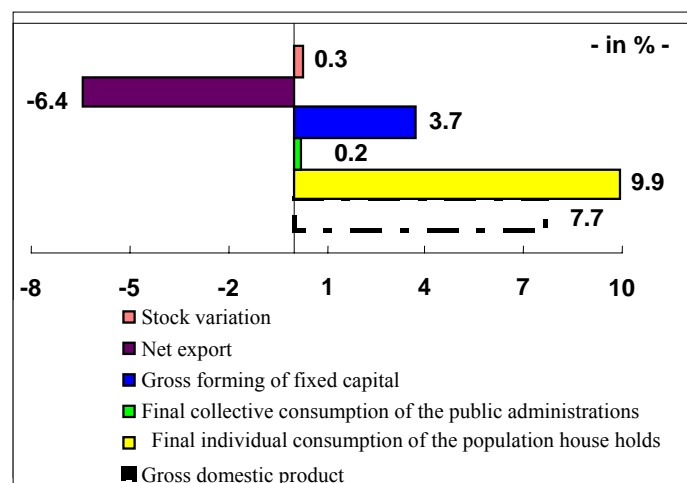
By categories of resources, the Gross Domestic Product has been achieved by the contribution of the developments recorded within the following branches: agriculture with an increase of 3.3%; industry with an increase of 6.9%; constructions with an increase of 19.4%; services with an increase of 7.3%. On an overall basis, the gross added value recorded an increase of 7.7%, while the net taxes on product increased by 7.9%. Hence, we can state that achievement of the Gross Domestic Product is due to the positive influence of all branches of the national economy.

### The branches contribution to the GDP forming in 2006 % as comparatively to the year 2005

Table 1

<b>Gross Domestic Product</b>	107.7
Agriculture	103.3
Industry	106.9
Constructions	119.4
Services	107.3
<b>GAV – total</b>	<b>107.7</b>
Net taxes on product	107.5

The activities carried out by services, industry and constructions, together, brought in a contribution of 80.5% to the GDP forming which means a positive feature for the Romanian economy under the circumstances of its restructuring process involving the need of giving up a number of industrial along with the commitment on the way of developing the services production, constructions and so on, which element has to be considered as such.



**Figure 1.** *The influence factors of the GDP growth in 2006 by categories of resources*

- **The GDP achievement by categories of utilizations**

From the point of view of the “utilizations”, in 2006 the GDP has been achieved by the contribution of: the stocks variation, the net export, the gross forming of fixed capital, the final collective consumption of the public administration, the final individual consumption of the households.

When analyzing the data available for 2006, we have to consider as starting point the actual situation being recorded by our country during this year.

Thus, for instance, the stocks variations recorded a contribution of 0.3%, while the net export, namely the difference between exports and imports, recorded a negative effect, counting for –6.4%.

Under such circumstances, we find that, from the point of view of the utilizations, the GDP has been achieved by the contribution of the following factors: gross forming of the fixed capital by 3.7%, final collective consumption of the public administration by 0.2%, final individual consumption of households by an increase 9.9%, which implies the following conclusions:

- From the point of view of utilizations, positive influences on the GDP achievement have been recorded by the final individual consumption of households, the final collective consumption of the public administration and the gross forming of fixed capital;
- Negative influences on the GDP forming have been recorded as to the net export and stocks variation which generated a depreciation of -6,4%.

#### Structural evolution of GDP in 2006

- % as comparatively to 2005 –

Table 3

<b>Gross Domestic Product</b>	107.7
Actual final consumption	111.5
Actual final individual consumption of the population households	112.6
Actual final collective consumption of the public administrations	102.7
Gross forming of fixed capital	116.1
Export of goods and services	110.6
Import of goods and services	123.0
<b>Domestic demand</b>	112,8

The analysis of the influence factors of the GDP increase by categories of utilizations may be emphasized within this chapter by the analysis of rhythm at which the categories of utilizations considered for the GDP achievement increased in 2006, as comparatively to 2005.

Thus, the actual final product, namely the final individual consumption of households and the final collective consumption of the public administration together, increased with 11.5%.

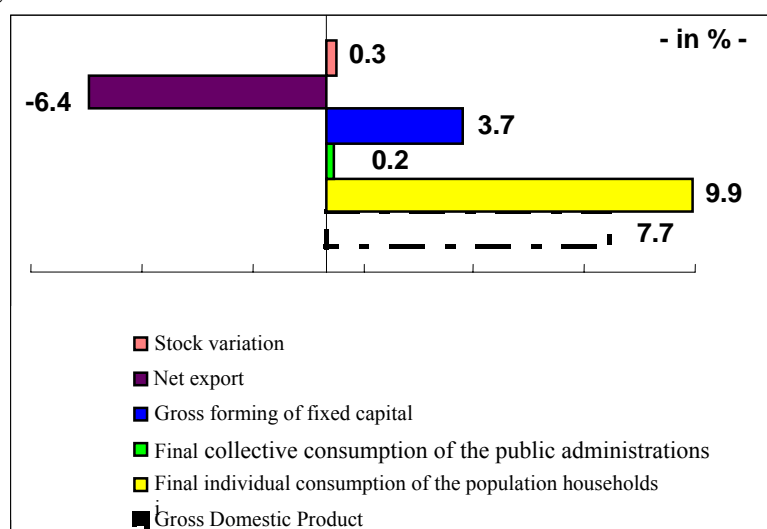
A more marked increase, counting for 12.6%, has been recorded by the final individual consumption of households, while the final collective consumption of the public administration increased by 2.7% only.

Another positive contribution has been brought by the rhythm of increasing recorded by the gross forming of fixed capital, 16.1% respectively.

If considering the field of external economic exchanges, the evolution shows that the export of goods and services recorded an up-warding rhythm, increasing by 10.6% as comparatively to the previous year, while the imports of goods and services increased by far more rapidly, by 23.0%, which led to the unbalancing of the external commercial balance, involving an immediate effect of consumption

counting for 6.4% of GDP, which has been offset on the account of the other factors (utilizations).

Out of the analysis of the overall data, it is to note the fact that the domestic demand for goods and services increased by 12.8% during the year taken into account.



**Figure 2.** *The influence factors of the GDP growth in 2006, by categories of utilizations*

#### • The GDP achievement by ownership forms

Out of the performed analysis, it results that as far as 2006 is concerned, even if data are still provisional, the private sector contributed with 69.8% to the GDP forming. The decrease of the weight of the private sector has been generated mainly by the gross added value in the agriculture. Such an influence is a normal one if one considers that in 2006 the agriculture has to face negative natural conditions, too.

If comparing the weight of the private sector in the GDP achievement with the figures recorded for the previous periods, we find out that this weight is lower comparatively to the year 2005 (71.5%) but

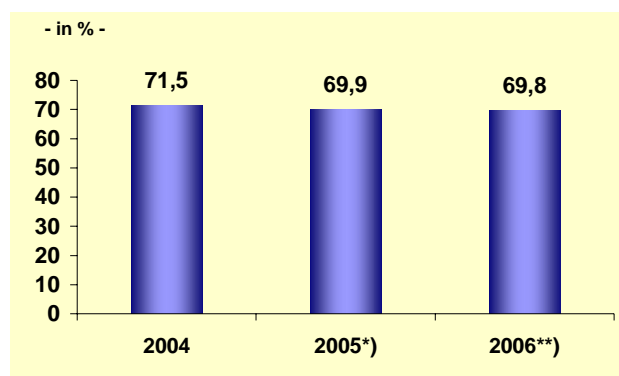


higher than all the periods being analyzed as from the year 2000, even as from the year 1990, up to date.

During the year under analysis, 2006, we find that the weight of the public sector in the gross added value increased as for the constructions field, as a consequence of the process of repairing the infrastructure and the houses being damaged by floods, a process which was financed from the state budget. Therefore, the private sector which plays a smaller part in this field had a smaller influence on the GDP forming.

What is really important is the fact that the up-warding rhythm of the increase recorded as to the weight of the private sector in the achievement of the gross added value, by branches of the national economy and, eventually, to the GDP forming, kept on maintaining and get even more pronounced. There is still a weight of 30.2% which must be considered as an element of valorization during the forthcoming periods. In this respect, it is obvious that the privatization of other branches of activity or extending the privatization at the level of branches already privatized will have the targeted effect.

Here we have to underline the fact that such an analysis is not always pertinent since there will be and remain sectors of activity absolutely important for the national economy for which the state must keep its attributes of sole owner.



<sup>1)</sup> Semi-final data. <sup>2)</sup> Provisional data

**Figure 3.** *Gross Domestic Product*  
- weight of the private sector in 2003 - 2006-

#### 4. Direct foreign investment

2006 was a year when a series of sectors of activity kept on getting privatized while those already privatized kept on increasing their patrimony (capitals) by attracting new autochthonous and foreign investments which, from the point of view of the effects on the national economy structure, is an important aspect to consider.

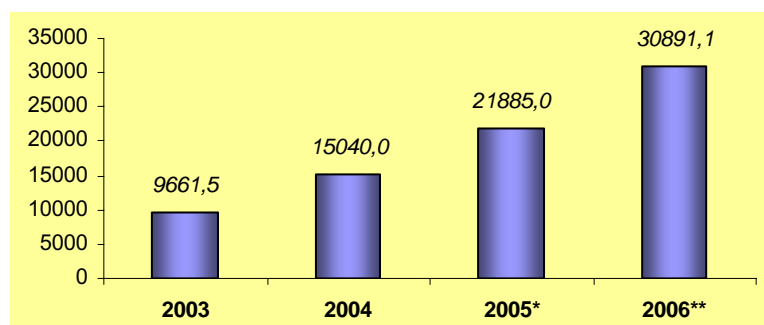
The direct foreign investment increased rapidly during 2006, on the expenses of the setting up new companies with foreign participation, the increase of the social capitals other items at the level of the already existing companies or by means of privatizing, with foreign participation, important sectors of activity.

Under the circumstances, according to the data provided by the NRB, it results that in 2006 the total value of the direct foreign investment in Romania reached the level of 30.8911 billion euro. This level means an increase of more than 9 billion euro, comparatively to the previous year which is a very important aspect to consider. Out of this amount, a sum of 3.75 billion euro has been generated by the privatization process of the Romanian Commercial Bank.

Thus, the direct foreign investment in Romania increased in 2006 by 41.2% as comparatively to 2005.

In 2006, 76.2% of the direct foreign investment was placed in the sector of "participations to capital", 23.8% only being placed with the sector "other capitals".

Meantime, by the end of 2006, the direct investment of the Romanian residents abroad counted for 210.9 billion euro, this being the contribution evaluated by the documentary system available in the country.



\*) Revised data. \*\*) Provisional data.

**Data source:** NRB.

**Figure 4.** *Direct foreign investment (ISD) in 2003-2006*

**THE CYCLES OF TRANSITION  
– AN EPISTEMOLOGICAL PERSPECTIVE  
ON GLOBALIZATION –**



**Marin DINU**

*Ph. D. Professor*

Academy of Economic Studies, Bucharest

**Abstract.** *The particularity of the emergence of Central and Eastern European economies sits under the sign of a double-target: the break-off with the model of the planned economies of the communist type and the starting of the transformational processes leading to the market economies of the capitalist type – on one side, and the engagement in the project of integration into the European Union – on the other side. Both targets suppose gradients of change not just under the impact of the strategical options for different forms of transition, but also on the axis of time, marking true cycles of the emergence. We can elementarily distinguish two cycles, one specific to attaining the parameters of a functioning market economy and the other belonging to the beginning of convergence toward the standards of the European model of the economy. Substantially different as an integration of transformational alignments, the two cycles are within continuity – as a process of emergence – on the path of realizing an effective rupture with the bureaucratic mechanisms of regulation and with the functioning of the regulating mechanisms of the coordinated market. In fact, the cycles could be named: the interior transition (post-communist transition) and the exterior transition (integration in the E.U.).*

*What factors must be taken into account at the conclusion of the transition? Is there an inter-conditioning of the paths followed between the two cycles? Are there priorities for the strategists on assuring the finalities of the emergence on the two cycles? To what degree do the*

*failures of the first cycle reverberate in the other cycle? Is there a space of national creativity in the integrative processes? These are a few of the issues which the present study tries to bring to light.*

**Key words:** interior transition; exterior transition; ordinate principle; Pre-global Age; Global Age.



### **Referentials**

The emergence of the economies of European post-communist countries follows a path with two successive anchors: the first corresponding to the interior transition, of an abstract nature, and the second specific to the exterior transition, of a contingent nature (Dinu et al., 2007). In the case of the destructuring of the planned economy of the communist type and the structuring of the market economy of the capitalist type the logic followed was that of conforming to a theoretical matrix deduced from a historical process of a few centuries, in which development was centered on the market. In the case of achieving compatibility with the parameters of functionality and performance of the European model of economy, the evolution follows a trajectory of the concretely assumed communitarian experience – as active and reactive part, while the finality of the integration process is being approximated.

Beyond the faith in consistency founded on the ideal values contained by the abstract matrix of change in the cycle of the interior transition, the emergence of post-communist economies constitutes a process in which the effects are not necessarily spontaneous, and the causes are not superiorly determined every time. The changing of the regulating mechanism – from plan to market – is not linear nor radical, as it is not either immediate or complete. In concordance with the framework of reference of the adaptive projects to modernity, the change in social systems takes the form of a learning process, whose features derive the truth that nature does not take any leaps. For change to be radical it has to be superiorly determined. In the absence of the internalized projection – of the rational actors of change, as well as of the

vision shared by a critical mass of people – there is no chance of it occurring. If nature refuses the ordering through shock, society – as order of the human nature – will make the ruptures relative and will approximate the continuity.

These limitations also mark the exterior transition, even though in this cycle of the emergence the objectives explicitly resonate with the expectations of people, with supplemental impulses especially in the support for social, economical and territorial cohesion.

The ideal image of the first option and the real image of the second generate not only complementarity problems which must be solved, but also problems of redefining the dependencies that visions are made of. The experience generated by the transition thought along an ideal scheme leaves no room for initiative, often not even in the case of alternative solutions. This is legitimized through assumptions, in an initial stage under the resurrectional guise of the imperative “believe and do not question”.

Generating the exterior transition, in the historical variant of the integration in the European Union – which is sustained on conditions of entry, seems to eliminate the freedom of choice, in fact proposing by the joining unlimited scope for the freedom of rationalization – both in the conception of the model as well as in the implementation of ideas validated by experience and accepted through negotiation.

The multi-layering of the emergence has coherence problems because the referential matrices, even though they are from the same class, have different constituents which move in an order of different prevalences. The ideas tested on a contextual experience should extend it beyond the primary context - in the case of the interior transition – and the transformation of the context resulted from the first stage of the emergence should adapt, on the path of adopting the good practices – therefore operating with the principle of experience, through trial and error, seeing and doing – for a model which is, in its turn, under configuration.

The measure of consistency of the two cycles of emergence is done with different instruments adhering to different founding principles. The theoretical projection of post-communist transition – based on the assumptions of the Washington Consensus – is judged in terms of a natural order, with spontaneous rationality and infallible self-regulation.

The vision of exterior transition uncovers the option for a construction on-the-go, with perpetually corrected architectural sketches, with procedures negotiated for the testing of good practices, with the empirical sterilization of the world of ideas and with the anti-utopia vaccination of the global world.

The different consistence of the two stages of emergence in Central and Eastern Europe has an aporetic nature and it leads to the ever more visible confrontation of paradigms in today's world. Collision is among the founding principles:

- a) that of the uniqueness of the explanation (Verlet, 2007) assured by the acceptance of the hierarchical order – the Creator, the Idea, the Sovereign (the Hegemon) – in the case of the Washington Consensus;
- b) that of the relativity of the explanation assured by the empirical reference points of the communitarian context, as a functional order of the competencies in the horizontal plane, with vertical transactions – the Actor, the Expertise, the Whole (the Community) – in the case if the European model of integration.

The principal positioning in the vision of the interior transition denotes the option for a paradigm, which sustains the centrifugal order in which performance is a product of the cementing of the dependencies between the center and the periphery, on the alignment of the management of powers. The alignment of a country to the tutelary tendency of organizing a world made up of parts happens on the path of the interior transition, the whole is the sum of the composing parts. It is the order resulted from parts which chose independence in order to fructify their dependencies. The tension between the ideal - independence - and the real - dependence - creates the hierarchical type of order. The limit of the evolution of this tension sublimates hierarchy and selects the center. One part eventually cuts through the hierarchy through the discretionary control of dependencies, it assumes the role of the system's center by a functional view, although in reality it is the absolute hierarch. The coherence of the explanation is realized by relating to a unique theory representing the framework-vision, founder of the global order, which belongs to hegemonism.

By the interior transition – especially as a reflex of the model of the shock therapy, in its orthodox, non-institutional version – a country elects to join an order built on hierarchical dependencies. It is globalization **under-stretched** on the principle of the uniqueness of the explanation. We have ascertained that this globalization is a logical error (Dinu, 2006). The ordinate principle on which this globalization is self-legitimized is that of adversity, the sole binder of “top down” hierarchical systems.

The principal positioning in the vision of the exterior transition highlights the option for functional dependencies among parts which permanently transact the rationalization of the whole. The model contains paths of pertinence for the homogenization of performances, built on the principle of the relativization of the explanation for the definition of the optional common space. The functional links are tested progressively on the horizontal plane of dependencies, and the bonds of transversal competence are legitimized in the cohesive space, of the integrative type of the common sharing of sovereignties.

The degrees of performance generated by the expansion, especially toward the center and the east of the European continent – which opens the Pandora’s Box represented by the center-periphery relationship, have a temporal value limited by the mechanisms of convergence, as a function of the model of integration. The parts manage their dependencies tending to imitate the behavior of the whole, while the whole is permanently approximated with the performance of the parts, in their effort of acting in the negotiating space of the community. The coherence of the explanation is build on the framework-theory generated by the principle of the relativity of the visions on reality held by the public actors, as parts which negotiate their interdependencies beginning with what is being approximated to be the common whole. The parts cooperate for the competitiveness of the common space, transaction its enlargement and deepening, propose the convergent action in the approximation of the global order.

The European integration, as the formula of an exterior transition and part of the emergence of European post-communist countries, underpins the experience of opened systems of a “bottom up” type. Change as a learning process sits at the base of the ordinate principle of the harmonic competition of cooperative nature, which opens the

founding path of globalization, as a founding paradigm of an idea of global order other than the hierarchical one.

Traversing the cycles of post-communist emergence, the interior and exterior transitions represent, on one side the ending of the pre-global experience, and on the other side the entrance into the actual global experience. It signifies the exit from the model which preceded and achieved the first modernity, and the opening towards the model of the second modernity (Beck, 2003). Through the interior transition the emergent post-communist countries have experienced at a reduced scale and in a limited time frame a historical process, which otherwise would have lasted centuries in order to situate itself on the side of the trend in the evolution of the structuring of the world order. While by the external transition they have made a direct leap toward the crest of the wave of the change of the order-founding paradigm. Which means they have exited the Preglobal Age and have entered the Global Age.

There is a formula for the representation of the alignments of the continuity of process between the two cycles of emergence. What is generally considered as a finality of the interior transition, is eminently a vague expression, with no rigorously measured guidelines, susceptible to the political hijacking of its constituents. Appreciating the fulfillment of the interior transition according to the so-called status of “a country with a functional market economy” is at the discretion of subjective conjunctures. In reality you cannot even enumerate the sufficient and necessary qualities for describing a functioning of the market economy along the transformational path which begins with the de-structuring of the bureaucratically coordinated economy. Such an exercise, had it not been considered gratuitous it would nonetheless prove useless, because due to the lack of epistemic consistency and rigor of the instruments of evaluation it cannot be rationally explained.

Somewhat paradoxically, the interior transition does not let itself ended by incontestable rules of evaluation. This very fact has an explanation, even one which belongs to the specifics of the emergence of post-planned economies. The two cycles of emergence share a common closure. This we do not find by measuring the finality of post-communist transition, but the finality of a pendant of it, highlighted autonomously to a lesser extent because it is hidden in the paradigm of the exterior



transition as a post-capitalist transition (Drucker, 1999), of which we will talk further down.

The end of transition is generally attested through a parameter of the route of compatibility with the model of the second cycle: attaining the standards relating to the real convergence; in the first place, because the public perception of the indicators of revenue is more sensitive. Post-communist transitions ends together with the conclusion of the real convergence with the model of post-capitalist transition.

### **The challenges**

The success of the emergence is dependent on the coagulation of the vision over its cycles. If the entrance into emergence is superiorly determined, in other words it is a problem of the propagation of the force of the global context, the finality of the emergence appears as possible in the conditions of an epistemological rupture; if the option for a changing of the founding paradigm of the world order becomes effective. The rational choice targets not just the coexistent alternative in the configuration of the world, but the paradigm which will found the experience after the rupture as well. A paradigm which will reveal the potential to under-stretch evolution on a trajectory on which the limit-problems of the old paradigm find solution in the solving of the problems specific to the new paradigm. The coexistence of the visions creates an aporia which cannot be overcome by itself without the radical modification and replacement of the founding principle of legitimacy and uniqueness of the explanation by the founding principle of legitimacy and relativity of the explanation (Verlet, 2007).

The cycling of the emergence in European post-communist countries being the result of the adherence to another founding theory of the world order, contains a paradox: in order to be sure of the success of the transformations in the first cycle, the transformations specific to the second cycle must start. The option was for a change which cannot be finalized unless the move is made toward another change, which holds the first as a necessary condition in order to surpass it. The two cycles of transition are continuous in appearance, because in reality the cycle of the exterior transition comes with a paradigm. This paradigm will transform the first into a particular case placed in a remodeled context which will

permanently lose its potential for universalization through uniqueness. The already given verdict (Brzezinsky, 2000) that the hegemonical option of world order is the final one, announcing the end of the Preglobal Age, is related to the paradigmatic rupture between the two cycles of the emergence of post-communist countries and to the option for the European model of approximating the world order, which heralds the dawn of the Global Age.

This is why the models followed in the two stages of transition are and continue to be perceived as conflictual. They bring competition close to the visions on world order, not because they represent differently instrumentalized interests, but because they have, in spite of the politically correct silence, different ideological signatures. The ever more visible dispute among the two visions of world order tends to become more acute as the optional relevance changes in favor of the European model for the approximation of globalization. Rightfully speaking, we are the protagonists of the twilight of the vision centered on the uniqueness of an explanation destined to legitimize itself as is, only in the hierarchical systems of the management of power and at the same time of the birth of the vision coagulated around the principle of the relativity of the explanation. These are tested empirically in closed, self-organizing systems (Prigogine, Stengers, 1997). In these, the parts assume negotiated competencies with transitive surroundings, the management of powers being the expression of participative horizontality in an integrative process which amends itself on the go.

The historical position of the European post-communist countries confers them the privilege of witnessing and participating in an epistemological fracture at the level of the framework-theories regarding the world order. In an extremely short time interval for making true the change of paradigm, the post-communist countries falsify (Popper, 2001) the theory of capitalist order after the break-off with the theory of communist order by approximating the structuring of the founding theory of another paradigm, of an eminently post-capitalist consistency. The double rupture has no historical precedent. It opens a breach in the evolution of the world which will act as a milestone marking the end of the Preglobal Age and the birth of the Global Age. Within the interlude in between these fault lines the escape from the totalitarian communist orbit

happens abruptly, as it does the trek interrupted by the communist episode, which is the transition to capitalism, both experiences belonging to an age about to be extinguished.

The irony of history is found in the fact that the abandoning of communism as a formula of the management of powers is simultaneous with overcoming the adversely structured capitalism. This is heading to both a post-communist as well as post-capitalist version of world order. The cycle of the external transition, which bears the pragmatic form of the European integration project, represents the revolutionary leap in the mechanisms of progress. It also, evidently, stands for the prefiguration of the new formula for the management of powers, with a new ordinate principle, that of harmonious competition of a cooperative type. This is the founding principle of the world order perceived as a different modernity.

The alternative of the antagonistic or adversative systems of the management of powers represents a specific substantiation of the first modernity, stemming from the Enlightenment's project and brought into effect by the industrial and national revolutions. Capitalism and communism have stayed in the trail of the propensity of the dependencies in various planes. The entwining of destiny repeats the biblical experience of the brothers who burdened the beginnings of humanity with the act of the calculated extinction of the other. There is no survivor under the rule of intolerance! Symbolically, the double rupture of paradigmatic order in the transition of Central and Eastern European countries signifies a moral compensation for them; they are attributed the role of drawing the curtain over the failure of adversity as an ordinate principle, of announcing the death of the fratricidal heroes of the first modernity, capitalism and communism, and as well of approximating the values of the second modernity.

That these "rational wonders" happen in this part of the world is a certification of the belief that after having gone through both of the faces of this Golgotha of the first modernity, the experience of change in which utopia is limited can be built, and social engineering can be excluded. The rationality of the experience (Habermas, 2000), including that of individual discernment, is fortified by the living in the alternative, not just by the theoretical reference - even a critical one. Post-capitalism could not have emerged anywhere but where post-communism has been lived! The exit from the alternative was, for the countries of Central and Eastern

Europe which are now integrating into the European Union, the break-up with all the forms of orders belonging to the first modernity.

### **The breakthroughs**

The reality of the European construction has gone way ahead of the framework-theory of the global order. It can be perceived as in insinuation of a breakthrough of experience through the emptiness of the theory. In fact, the breakthrough has the value of a scientific revolution (Kuhn, 1976) which although real, did not manage to dislodge the credible rules of the “normal science”. The order explained by the founding principle of adversity has generated habits of orientation and psychological comfortabilities so powerful that they resist falsification. As long as the phenomenology of the pre-global world covers the perception of the real, the breakthrough suggested by the coming into effect of another principle is refused as an absurd request, and the phenomena it generates are being minimized.

Fitting the way of relating to the constitution of reality is a complicated operation of accrediting the propensity towards another ordinate principle. Foregoing a founding principle of global order bears some resemblance to the process of the challenging of Newtonian physics by the Einsteinian physics: the theory of general relativity, by changing the perspective over the fundamentals, has enlarged the horizon of the explanation and transformed the theory of universal gravitation into a particular case inserted into the new conceptual universe (Barrow, 1999).

The changing of principles spurs a process of unification both at the level of theory as well as of the real world. This process moves the limits of the explanation and those of experience – of society in our case – to new, broader horizons in which the powers grow, including the powers of understanding or of knowledge. The principle of harmonious competition of a cooperative type frames in other contexts – especially of negotiation – the various expectations, imposing a positive vision over the limits and limitations under which the individual discernment is transacted.

The most significant alignment of the paradigmatic transgression specific to the European construction is the movement of the constitutive values. We can distinguish two trends: one of the reincorporation of some values from the old model, and another of the testing of specific values.

The generative mechanisms of the European model of globalization – as a new experience of world order – are both evolutionary and revolutionary. Essentially, the particularity derives from the vision that the real is the reason and goal of knowledge, while knowledge both unravels and creates the real.

The sense of the functioning of the relation between the model and the phenomenon is a game of compensation between continuity and rupture. The dosage respects the grading of difficulty in the process of learning, the renewal of paradigms being, in the end, nothing other than a learning process. Time is an immanent variable which marks the grading of the complexity of the systems – imitating the anthropic route: birth, adolescence, maturity, death – on the symbolic path: entries, transformation, exits. Evidently, just the subjective time is finite (Hawking, Mlodinow, 2007). The model of the order approximated by the European integration respects the rules of opened, self-organizing natural systems. It is a society model which favors the redefinition of the subjective times in the space of sustainable co-living, exactly because this space – being recreated in common – is freed from adversity.

The conciliation of a paradox between individual freedom and the negotiated social context, therefore between the principle of individualism and the principle of community, defies the perception honed by the postmodernist paradigm, especially the belief in the end of history (Fukuyama, 1994) through the absolute triumph of liberalism. The explicative models offered by the „superb” theories (Penrose, 2001) are not the result of „tabula rasa” type of operations; the models hold determinants of the precedents and add others which change the perspective, enlarge the referential horizon, multiply the power of understanding new phenomena etc.

The recovered values in the European model of globalization are mainly the market - in its institutional form, and democracy – cleansed of the aporias of political correctness. It essentially ads values such as: cohesion – with its social, economical and territorial dimensions, communalism – shielded against the propensities of mass, multi-level government – ejecting hierarchical reflexes, convergence – clearing the center-periphery blockages, post-national space – coming out from the taboo of non-negotiable sovereignty, Europeanization – as a formula of

identification with the performance of identities which stay diverse etc. The European model of integration is overlaid on a set of values different from those accredited by the first modernity. These are the values of the second modernity, those of the Global Age, as time of the global world.

We must notice the fact that the breakthroughs of the European model of globalization can be interpreted within the guidelines of the continuity-discontinuity tensions specific to scientific revolutions, of the change of paradigm. Evidently, the perception of the change of the frame of reference, of the acting context comes first and is evaluated as a change which embodies reconfirmed tendencies and unleashed trends.

In a surprising way, the European model of globalization is permissive to the reconfirmation of some determinants which have outlived both the exterior transition – of a post-capitalist essence, as well as the interior transition – of post-communist essence. The mixing seems contradictory if we analyze by the particular logic of the models which have suggested the intermediate values of postmodernism as a formula of survival (Dinu, 2006). It was, admittedly, an attempt of the adversative models of keeping their natural placenta, even with the help of postindustrial invention as a technical support for postmodernism.

The natural failure of the artificial mix of the determinants in making autonomous the convergence of the adversative systems on exclusively positive principles (Kolakovsky, 2007) does not constitute an argument of precedence for attesting the validity of the European paradigm of globalization. The European approximation of globalization is not the resuscitation of the theories of the convergence of systems and the orchestration of a new social engineering, because it simply does not combine the constitutive values of the preceding models of order, nor does it summarily arrange their ordinate principle. The European model of globalization – as of formula for world order – is built on another ordinate principle, that of harmonious competition of a cooperative type – and not that of adversity.

Thought out and structured adversatively, the capitalist and communist systems had constitutive values which were reciprocally exclusive. The system of the global world, approximated through the European integrative process, complements the values even when they appear to be divergent. The regulated market, for instance, is not the

exclusive market of the “invisible hand” capitalism, nor is it the bureaucratic decision of the uniform planning of the communism of the “visible hand” (of the state). The visions of adversity are practically left behind by mechanisms of control which operate in a regime of extremeness. The departure is made with the ideological perspective to get to the formula in which the expectations about the finality of the system are sorted by how they can be better satisfied and not by what instruments are used. The approach seems utilitarian, but it offers the possibility of getting out of the irreducible contradiction of the founding principles of an adversative nature.

In the same way, the common space, as a result of the decision of using sovereignties in common, of breaking out of the constraints of the identity values of the ideological nature of the nation-state, does not signify an option to the detriment of individualist principle of liberty, but the functioning of a transactional mechanism of balancing the rights and responsibilities, centered on the prevalence of individual discernment in valuing the natural rules of living together, which in essence is about the fulfillment of the individual as a social being.

### **The Teachings**

For a country inside the European Union the approximation of globalization is naturally assumed both as an offer of opportunity and as a historical obligation. It is the opportunity to burn through the stages, being in the trend, to get to the crest of the wave represented by the new order. For Romania the chance of being an insider in a fundamental process of the contemporary world is salutary, of course, only if it is valued as a support for the gains toward modernity (Attali, 2007). In this regard there are a few priorities which should make their mark on the process of integration in its institutional and individual dimensions.

Firstly, there is the loading of the public conscience with the specific vision of the evolution of the European model of globalization which Romania is part of. There is no other alternative compatible with this goal other than initiating and sustaining a process of learning of the values of the model, of disseminating the knowledge into the public space and internalizing this knowledge at the individual level of action and decision making.

It evidently is not just a passive process of learning but one which engages the innovative initiative of performance and of change at the level of the model, this being an evolution through the approximation of the finality, which draws upon both common and individual creativity.

Secondly, there is the treating of the integration exactly for what it represents for Romania: an extreme project for breaking out from the condition of the periphery. This supposes the acceleration of the evolutions on the road of recovering the fulfilling of the values of the first modernization, with its significant components of an economical and power management nature, specific to post-communist transition, and also the diminishing of the lack of potential of convergence as a result of the accelerated adherence to post-capitalist transition, defined by the European model of globalization. In a grinding way, this means that Romania should at once go through two started and unfinished projects, to adjust on-the-go the performance to the standards of a project which bears a different logic to the systems of order adversely coagulated and creators of perpetual ruptures. The cultural ingredients for such a leap in social experience are few and inadequate, which complicates the approach, determines an unfitting rhythm of change and produces incompatibilities with the context.

Thirdly, there is the urgent need for the definition of a pertinent road in the dosing of the own effort of adapting to the model and of the supporting factors generated for the cohesion toward the model. The gravitational force of the model is absolutely necessary in use, but is not sufficient for maintaining the correct trajectory of integration in the absence or scarceness of the own effort, of the inertial impulse sustained by the will for integration. This supposes the understanding of the entry into the European model of globalization as a coherently assumed project for the passage to the second modernity, as a chance of escaping the complications of the failures in the fulfillment of the first modernity (Dinu, 2007). The own effort concentrated to the maximum is destined to recover the un-mature processes specific to the first modernity, such as industrialization, not necessarily by finalizing them but especially by bringing into effect the processes specific to the second modernity, suggested by the specific evolutions of the knowledge society, as a



formula for the approximation of the determinants of the global society in the European version.

The European dream (Rifkin, 2006) deserves to be the Romanian's too, but for this it is not sufficient for the illusions and comfortabilities to be abandoned, but also for the destiny of identity to be re-thought so that it reconfirms itself through communitarian performance.

---

### References

---

- Attali, J. (2007). *Scurtă istorie a viitorului*, Editura Polirom, Iași
- Barrow, J. D. (1999). *Despre imposibilitate. Limitele științei și știința limitelor*, Editura Tehnică, București
- Beck, U. (2003). *Ce este globalizarea? Erori ale globalismului, răspunsuri la globalizare*, Editura Trei, București
- Brzezinski, Z. (2000). *Marea tablă de șah. Supremația americană și imperatiile sale geostrategice*, Univers Enciclopedic, București
- Dinu, M., „Globalizarea. Modelul explicativ”, Supliment al revistei *Economie teoretică și aplicată*, Seria Sinteze, 2006, București
- Dinu, M., „Modernitate după modernitate”, în *Economie teoretică și aplicată*, nr. 8(513), August 2007, pp. 53-60
- Dinu, M. et al. (2007). *Modelul european de integrare*, ediția a II-a, Editura Economică, București
- Drucker, P. F. (1999). *Societatea post-capitalistă*, Editura Image, București
- Fukuyama, F. (1994). *Sfârșitul istoriei și ultimul om*, Paideia, București
- Habermas, J. (2000). *Discursul filosofic al modernității. 12 prelegeri*, All Educațional, București
- Hawking, S., Mlodinow, L. (2007). *O mai scurtă istorie a timpului*, Humanitas, București
- Kolakowski, L. (2007). *Modernitatea sub un neobosit colimator*, Editura Curtea Veche, București
- Kuhn, T. S. (1976). *Structura revoluțiilor științifice*, Editura Științifică și Enciclopedică, București
- Penrose, R. (2001). *Mintea noastră... cea de toate zilele. Despre gândire, fizică și calculatoare*, Editura Tehnică, București

- Popper, K. R. (2001). *Conjecturi și infirmări. Cercetarea cunoașterii științifice*, Editura Trei, București
- Prigogine, I., Stengers, Isabelle (1997). *Între eternitate și timp*, Humanitas, București
- Rifkin, J. (2006). *Visul european. Despre cum, pe tăcute, Europa va pune în umbră „visul american”*, Editura Polirom, Iași
- Verlet, L. (2007). *Cufărul lui Newton*, Editura Nemira & Co, București



