

**A COMPARATIVE ANALYSIS OF THE PUBLIC DEFICITS RUN BY THE OLD  
AND NEW EU MEMBER STATES IN THE CONTEXT OF THE GLOBAL  
FINANCIAL CRISIS**

**Marius Sorin DINCA**

Faculty of Economic Sciences  
Transilvania University of Brasov  
Brasov, Romania

**Gheorghita DINCA**

Faculty of Economic Sciences  
Transilvania University of Brasov  
Brasov, Romania

**Ileana TACHE**

Faculty of Economic Sciences  
Transilvania University of Brasov  
Brasov, Romania

**Abstract**

*The issues of government debt and deficits became a current component of the public finances of virtually all the countries in the world since the Great Depression in the 1930's. The EU countries do not diverge from this picture and most of them display complex financial problems, in which consistent budgetary deficits have combined with negative net exports, with the ageing and pension system challenges and recently with the global financial crisis.*

*In our paper we analyze the evolution of the public deficits run by the old and new EU member states, trying to identify their main causes and to propose several courses of action in order to control the deficits. We started with a structural analysis of the income side of the budget, especially for direct and indirect taxes, followed by a quantitative analysis of the growing deficits in the EU countries. We identified some widespread causes of the public deficits, such as the growing share of the public social expenditures and of the public wages, or the increase in public investments.*

*Finally we presented some solutions for fiscal consolidation, which we think is essential in order to ensure the survival of the Euro and of the European Union.*

**Keywords:** public deficits, government revenues, government expenditures, direct taxes, indirect taxes, public debt

**JEL classification:** H62, H63.

## 1. INTRODUCTION

The issue of public debt and deficits has become of primary importance in the last years in the EU, especially because the global financial crisis made ever more difficult for the countries with high public debts and deficits to find convenient financing on the national and international financial markets. Countries from the Old Member States group (such as Ireland, Great Britain, Spain, Portugal or Greece) as well as countries from the New Member States group (especially the Baltic countries, Romania and Hungary) found themselves in difficult situations regarding the level of budgetary deficits, the level of public indebtedness or both. The intriguing fact is that most of these countries experienced an uninterrupted period of economic growth (most of them between 2000 and 2008), sometimes at paces well above the EU averages. Nevertheless this same aspect also represents an explanatory factor for the problems of these countries. The high growth rates of these countries were mostly due to expansion of the construction sector and to the lax consumer credit policies, without too much concern for the structure and main vectors of growth.

As regards the rules of the Stability and Growth Pact (SGP) in 2009 only four countries managed to observe them, respectively Denmark, Estonia, Finland and Sweden. The only country of the Eurozone 16 that managed to observe the provisions of the SGP is Finland.

In what follows we are trying to analyze the evolution of the budgetary deficits for the 2000-2009 period, pointing out the main influence factors and suggesting some improvements in order to ensure the sustainability of the public finances in the EU countries. We will also address the fiscal consolidation process, mainly for the NMS group.

The next section presents a literature overview regarding the issues of public debts and deficits. The third section analyzes the evolution of the government deficits and government debts for the EU countries since 2000. Section 4 realizes a comparative analysis of the public (government) deficits for the biggest economies of the OMS and NMS.

The last section contains the concluding remarks of our analysis and some proposed measures for the much needed fiscal consolidation, necessary especially in the NMS group.

## 2. LITERATURE OVERVIEW

Wagner (1892) was among the first to signalize the tendency for the fast growing of the public sector (he formulated the law of increased state spending), due to the overall progress of the society, but at the time his warnings were not considered of immediate importance. The 1930's economic crisis' experience has determined a change in the view upon the economic equilibrium and especially upon the consequences of significant economic imbalances.

After the Second World War, authors such as Strayer (1949), Ram (1986), Barro, (1989), Barro and Sala-i-Martin (1995), Rodrik (1998) outlined the accelerated growth in size of the public sector thru the level of public expenses and tried to identify and explain the causes of this dynamics.

Slowly but steadily the perspective of the minimalist state was replaced by the welfare state and the necessity of its intervention in the improvement of the negative effects of the market externalities and of the defective allocation of the financial resources in the economy. One characteristic of the welfare state, as it has been stressed by Tanzi and Schuknecht

(1997), is concerning the significant budgetary deficits and the high stock of the public debt.

At the same time, Sloman and Wride (2009) stated that a balanced budget may not always be the best strategy, whereas Alesina and Perotti (1996) outlined that implementing such laws to enforce setting a balanced national budget are neither sufficient nor necessary to ensure fiscal discipline.

Moreover, Alesina and Perotti (1996) consider that, on one hand, setting a balanced budget does not represent a solution when adopting anti-cyclical policies that involve using financial stimuli and on the other hand, the budgetary deficit allows the public authorities to promote policies for reducing the costs of taxation.

As a result, the budgetary imbalances that involve negative balances are no longer considered a failure of the public policies and the budgetary deficits can represent in many situations an instrument of ensuring a better allocation of the resources in the economy. However, we must not forget that the tolerant approach of the budgetary deficits does not imply the discretionary accumulation of deficits but rather maintaining them within certain limits considered sustainable.

Eslava (2011) considers that many fiscal deficits have political explanations and that they originate from three sources: electoral interests of the politicians, conflicts of interests between politicians' partisan preferences and conflicts of interest between different social groups or regions.

Antzoulatos (2011) engages the issue of twin deficits (current account and budgetary deficits). The two deficits usually go in the same direction, but the author states that under very permissive credit conditions the budgetary deficits can sometime decrease, but accompanied by a significant worsening of the current account deficit, as in the case of Greece.

In a recent paper, Hallett and Hougaard Jensen (2011) approach the relationship between the level of public debt and the public deficits trying to establish a new stable and enforceable fiscal framework for the Eurozone area countries. The two authors argue for public sector debt targets as a practical way to achieve such a set up, and they also propose an excess debt protocol in order to offer enforceable form to those targets. In the current EU context the issue of budgetary deficits is amplified by the manifestation of structural economic imbalances, such as the ageing problem connected with the sustainability of the pension system.

### **3. THE ANALYSIS OF THE PUBLIC BUDGETARY DEFICITS IN THE EU COUNTRIES**

The theory and practice of the public finances use several measures to express the imbalances of the public budget, such as: the consolidated budget balance, the conventional balance, the primary balance, the operational balance, the structural balance and the quasi-fiscal balance. The use of these measures depends upon the purpose of the analysis and it varies along with the nature of the information required by the analysis. However, in the context of the current financial crisis, it seems much more important to address the issue of perpetuated deficits rather than approaching the technical differences between the fore-mentioned budgetary balances.

A widely debated important problem is represented by the choice of an optimal way of financing the public budgetary deficits. As such, authors like Dornbusch and Fischer (1990)

consider that the public authorities can appeal to the following ways of financing the deficits:

- Financing by increased taxation;
- Financing by reducing budgetary expenses;
- Financing by monetary emission and
- Financing by public debt.

The financing by increased taxation was used by some EU countries which were strongly affected by the 2008 financial crisis. For example, Hungary and Romania, as part of their IMF financing deals, raised their rates of VAT by 5pp, from 20% to 25%, respectively from 19% to 24%. However, many criticize these measures, arguing that they may lead to increased inflation, increased fiscal evasion and reduced consumption, impairing as such the efforts of combating the effects of the crisis. The VAT has the advantage that it leaves unaffected the export competitiveness of the national products and it is equally distributed over the population (there are no exemptions, even if lower income population will see its purchasing power reduced more drastically). Normally, the economic growth is promoted when taxes are decreased and the investors feel confident again in the economic perspective of any given country.

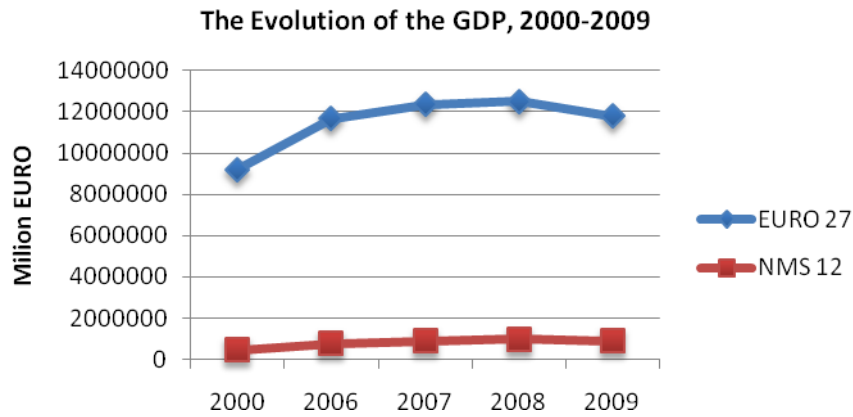
The financing by reducing budgetary expenses was more or less practiced by virtually all the EU countries in an effort of keeping the deficits controllable. Nevertheless, it may induce negative influences upon the economic rebound if the public investment projects are reduced at the same rate as the current expenses.

The monetary emission was ruled out for quite some time now by all the EU countries, whereas financing by public debt was given an important role in many EU countries. The most unfortunate case was that of Greece who saw its public debt reach very high levels in order to maintain the status quo for some categories of budgetary expenses, such as military and social protection expenses.

In order to have a better understanding of the overall current situation of the budgetary deficits of the EU countries we will start by studying the evolution of the GDP for the analyzed period, respectively from 2000 to 2009. We will continue with the analysis of the evolution of the budgetary revenues in absolute values and as a share in GDP and the evolution of budgetary expenses in absolute values and as a share in GDP, for the most representative old member states, respectively for the new member states.

### *3.1. The evolution of the GDP*

As it can be noticed in the graph no. 1 below, most of the 2000-2009 period was characterized by a steady increase in the GDP of the EU-27, turning the EU into the first economy of the world, even if 2009 marked an unexpected contraction of around 4%. The admission of East European economies in 2004 and 2007 contributed to the increase of the EU GDP, even if the cumulated GDP of those countries is only around 850 billion Euros. Under these circumstances it is somehow difficult to explain the extended budgetary deficits that exploded in 2009 virtually everywhere in the EU at levels well beyond the limits of the SGP.

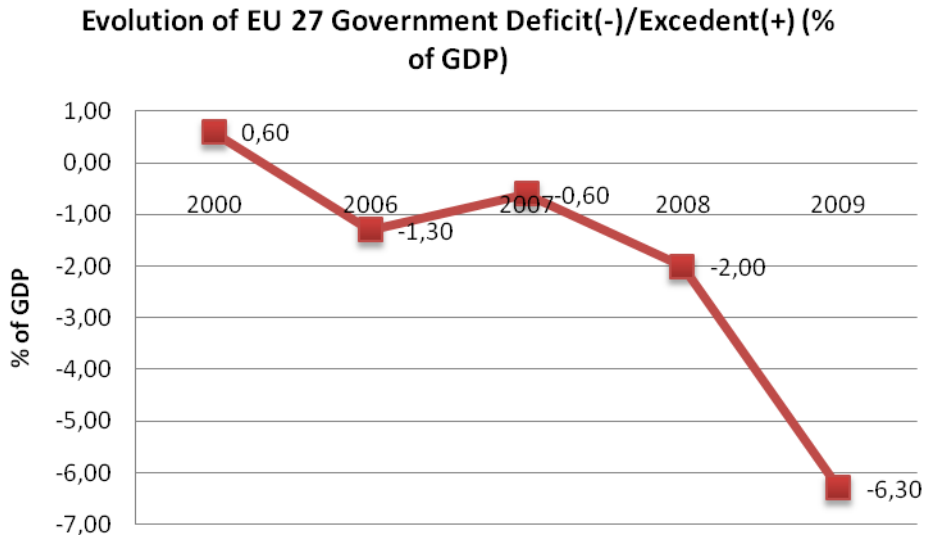


Source: [Made by the authors with data from the European Commission, Eurostat]  
**Figure no. 1 The evolution of the EU GDP, 2000-2009**

3.2. *The evolution of budgetary deficits for overall EU*

The cumulated budgetary balance of the EU countries for the 2000-2009 period evolved from a healthy surplus of 0.2% in 2000 to a high deficit of 6.8% in 2009. The worrying fact is that even in 2008 the balance was in fact a deficit of 2.3%. The problem is that the deficit evolved on a period of steady economic growth. During 2000 and 2008 the EU economy grew by 35.88%, from 9,200 billion Euros to 12,500 billion Euros.

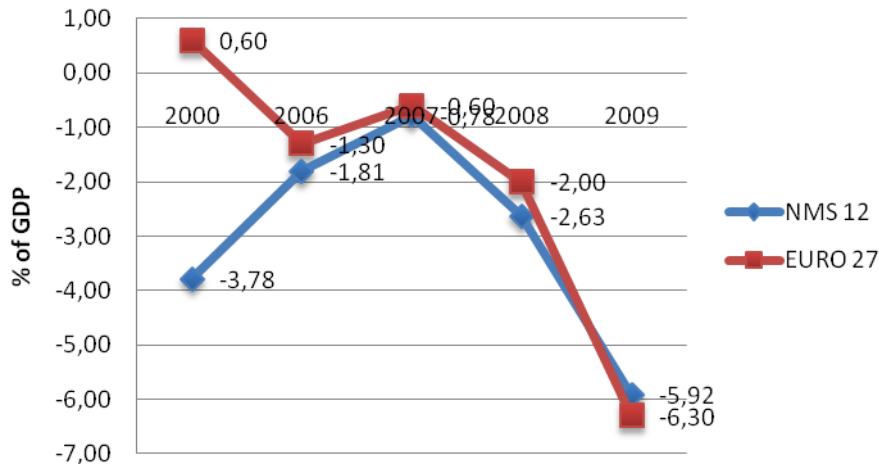
The situation of the budgetary deficits at EU level is depicted in the graph no. 2 below.



Source: [Made by the authors with data from the European Commission, Eurostat]  
**Figure no. 2 The budgetary deficits at EU level**

The situation is somewhat different for the Old Member States (OMS) compared to the New Member States (NMS), as reflected in the graphs no. 3 and 4 below.

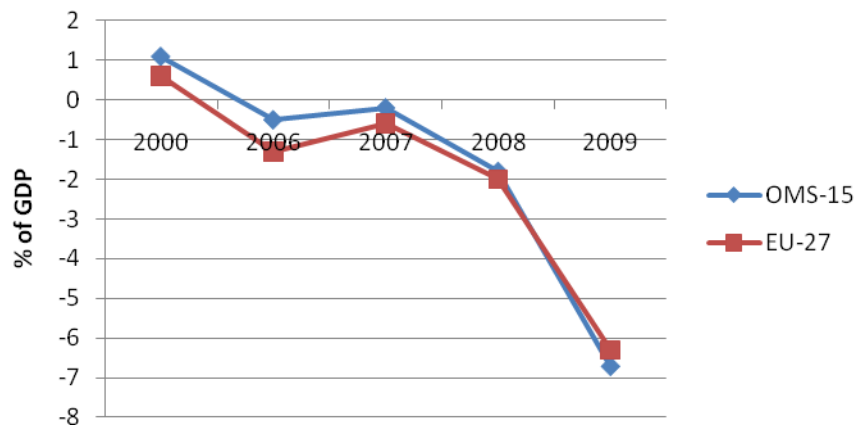
#### Evolution of Government Deficit for the NMS (% of GDP)



Source: [Made by the authors with data from the European Commission, Eurostat]

**Figure no. 3 The evolution of the budgetary deficit for the NMS, 2000-2009**

#### Evolution of Government Deficit (-)/Excedent (+) for the OMS 15 (% of GDP)



Source: [Made by the authors with data from the European Commission, Eurostat]

**Figure no. 4 The evolution of the budgetary deficit for the OMS, 2000-2009**

It can be noticed that the evolution of the OMS's budgetary balance is a far better match of the overall EU budgetary evolutions than that of the NMS. The NMS, even if they registered constant deficits, presented lower amplitudes of the deficits, ranging from only 1.81% in 2006 to 5.92% in 2009. The OMS displayed significant differences, oscillating

from a healthy surplus, of 1% in 2000 to a 6.77% deficit in 2009. In effect, the deficit was partly due to an attempt to combat the effects of the financial crisis and partly because some countries chose to maintain the vast welfare programs, while the budgetary revenues decreased significantly.

In what follows we will try to explain these overall evolutions, taking into account the revenues and expenses' components of the government budgets, both for the OMS as well as for the NMS.

We will study the evolution of budgetary revenues and especially as a share of GDP for overall EU, for the most representative old member states and the most relevant new member states in order to identify the common features as well as the special characteristics of the new and old member states for the interval 2000-2009.

### *3.3. The evolution of budgetary revenues at EU level*

During 2000 and 2009, the budgetary revenues increased by 24.09%, from 4,181 billion Euros in 2000 to 5,194 billion Euros in 2009. This increase may seem impressive, however their weight in the overall EU GDP decreased from 45.4% in 2000 to about 44% in 2009. This was mainly due to the following factors:

- The weight of taxes in the GDP decreased from 27.3% in 2000 to 25.3% in 2009. That represents 142% out of the overall decrease of the share of budgetary revenues in the GDP of 1.4 percentage points. The per se reduction of the weight of taxes in the GDP should not be worrying for the economy (in fact it could improve the competitiveness of European products), but rather for the sustainability of the vast social programs introduced in Western Europe after the second world war (the welfare state);
- The biggest contribution to the overall reduction in the share of taxes in the GDP was due to the evolution of direct taxes, which accounted for 75% of the fore-mentioned decrease in the weight of taxes in the GDP. In fact, the share of direct taxes in the GDP decreased by 1.5 percentage points, from 13.7% in 2000 to 12.2% in 2009. This is partly due to the overall tendency of decreasing the marginal taxation rates, especially in what concerns the direct taxes. The so called fiscal competition (especially in the area of direct taxes) created by the new member states, with the purpose of attracting direct foreign investments, and manifested through the introduction of flat single taxes in Latvia, Estonia and Lithuania (1994), Slovakia (2004), Romania (2005) and Bulgaria (2008), has determined some old member states to take similar actions. For example, prior to the crisis Germany announced the introduction of a flat 15% company income tax. All this may have contributed to the decrease of the share of taxes (and that of direct taxes) in the GDP, but the main factor was probably the financial crisis that started to produce consequences for the EU budgetary balances since 2007.

The tables no. 1 and no. 2 present the evolution of an important component of the direct taxes, the corporate income tax for the NMS and respectively the OMS. For several NMS the same rate is also applied for the taxation of individuals, through the single tax rate mechanism.

Table no. 1 The evolution of the corporate income tax rate (%) for the NMS, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>BG</b>	32.5	28	23.5	23.5	19.5	15	15	10	10	10
<b>CY</b>	29	28	28	15	15	10	10	10	10	10
<b>CZ</b>	31	31	31	31	28	26	24	24	21	20
<b>EE</b>	26	26	26	26	26	24	23	22	21	21
<b>LV</b>	25	25	22	19	15	15	15	15	15	15
<b>LT</b>	24	24	15	15	15	15	19	18	15	20
<b>HU</b>	19.6	19.6	19.6	19.6	17.6	17.5	17.5	21.3	21.3	21.3
<b>MT</b>	35	35	35	35	35	35	35	35	35	35
<b>PL</b>	30	28	28	27	19	19	19	19	19	19
<b>RO</b>	25	25	25	25	25	16	16	16	16	16
<b>SK</b>	29	29	25	25	19	19	19	19	19	19
<b>SI</b>	25	25	25	25	25	25	25	23	22	21
<b>NMS -12</b>	27.6	27.0	25.3	23.8	21.6	19.7	19.8	19.4	18.7	18.9
<b>EU 27</b>	31.9	30.7	29.3	28.3	27.0	25.5	25.3	24.5	23.6	23.5

Source: [European Commission – Taxation trends in the EU, 2009]

Table no. 1 illustrates the tendency of continual reduction in the level of the tax rate for most of the countries and for the overall NMS. The most dramatic decrease is registered by Bulgaria, which went from 32.5% in 2000 to 10% in 2009. The only exception is represented by Hungary, which registered a 2 pp increase in 2009 as compared to 2000. For the overall NMS, the decrease is of around 9 pp, from 27.6% in 2000 to 18.9% in 2009. The situation is almost similar for the OMS, as depicted in table no. 2.

Table no. 2 The evolution of the corporate income tax rate (%) for the OMS, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>BE</b>	40.2	40.2	40.2	34	34	34	34	34	34	34
<b>DK</b>	32	30	30	30	30	28	28	25	25	25
<b>DE</b>	51.6	38.3	38.3	39.6	38.3	38.7	38.7	38.7	29.8	29.8
<b>IE</b>	24	20	16	12.5	12.5	12.5	12.5	12.5	12.5	12.5
<b>EL</b>	40	37.5	35	35	35	32	29	25	25	25
<b>ES</b>	35	35	35	35	35	35	35	32.5	30	30
<b>FR</b>	37.8	36.4	35.4	35.4	35.4	35	34.4	34.4	34.4	34.4
<b>IT</b>	41.3	40.3	40.3	38.3	37.3	37.3	37.3	37.3	31.4	31.4
<b>LU</b>	37.5	37.5	30.4	30.4	30.4	30.4	29.6	29.6	29.6	28.6
<b>NL</b>	35	35	34.5	34.5	34.5	31.5	29.6	25.5	25.5	25.5
<b>AT</b>	34	34	34	34	34	25	25	25	25	25



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>PT</b>	35.2	35.2	33	33	27.5	27.5	27.5	26.5	26.5	26.5
<b>FI</b>	29	29	29	29	29	26	26	26	26	26
<b>SE</b>	28	28	28	28	28	28	28	28	28	26.3
<b>UK</b>	30	30	30	30	30	30	30	30	30	28
<b>OMS - 15</b>	35.4	33.8	32.6	31.9	31.4	30.1	29.6	28.7	27.5	27.2
<b>EU 27</b>	31.9	30.7	29.3	28.3	27.0	25.5	25.3	24.5	23.6	23.5

Source: [European Commission – Taxation trends in the EU, 2009]

It can be noticed that under the impact of the fiscal competition, created by the NMS, the OMS had to respond so they decreased their average corporate income tax rate by 8.2 pp, similar to the decrease registered by the NMS. The difference is that the decrease of the OMS was from 35.4% to 27.2%, which of course is significantly higher than the 18.9% average level of the NMS in 2009. But the difference is also perfectly justifiable since the two categories of countries have different objectives. The NMS are trying to attract more foreign investment and to promote economic growth after 45 years of economic confusion and stagnation (as the case of Romania, whose real growth was about 0% between 1973 and 1990), whereas the western developed countries reduced their taxation rates in order to avoid a full scale relocation of the productive capital into the NMS areas.

- The indirect taxes also had a downward trend for the period. Their share in GDP decreased from 13.4% in 2000 to 12.8% in 2009. The global financial crisis took its toll on the level of indirect taxes collected as a result of the decreased consumption;
- The only gain was marked by the social contributions, whose share in GDP actually increased from 13.9% in 2000 to 14.2% in 2009. This evolution is explained through the increase in the level of social contributions paid by the companies and individuals (due to the ageing problem and the increased pensions). In 2008 and 2009 some countries tried to increase the budgetary revenues by the mean of social contributions, as they seem to be easier to collect.

#### 3.4. The evolution of budgetary expenses at EU level

The budgetary expenses have shown a consistent increase at EU level, both in absolute value and as share in the GDP, as presented in table 3 below. If we compare the evolution of the budgetary expenses with the evolution of budgetary revenues, presented above, we can find that the elasticity of the expenses is higher than one, telling us once more that the path taken by most EU government is unsustainable in the current and future economic context. At EU level the elasticity of the government expenses to the GDP for the 2000-2007 period is 1.0421:

$$E_{gdp07/00} = \frac{\Delta\% Exp}{\Delta\% GDP} = \frac{35.81\%}{34.36\%} = 1.0421$$

At EU level the elasticity of the government expenses to government revenues for the 2000-2007 period is 1.09536:

$$E_{rev07/00} = \frac{\Delta\% Exp}{\Delta\% Rev} = \frac{35.81\%}{32.69\%} = 1.09536$$

If we refer to the 2007-2009 period we even get negative elasticity, as follows:

$$E_{gdp09/07} = \frac{\Delta\% Exp}{\Delta\% GDP} = \frac{5.95\%}{-4.52\%} = -1.3148$$

$$E_{rev09/07} = \frac{\Delta\% Exp}{\Delta\% Rev} = \frac{5.95\%}{-6.48\%} = -0.91847$$

Table no. 3 below presents the evolution of government expenses as share in the GDP for the EU countries in the 2000-2009 period.

*Table no. 3. The evolution of the weight of government expenses as share in the GDP, 2000 – 2009.*

	2000	2006	2007	2008	2009		2000	2006	2007	2008	2009
EU27	45.2	46.7	46	46.8	50.7	EU27	45.2	46.7	46	46.8	50.7
BE	49.1	48.6	48.4	50	54.2	BG	42.6	36.5	41.5	37.3	40.7
DK	53.6	51.6	50.9	51.8	58.6	CY	37.0	43.4	42.2	42.6	46.4
DE	45.1	45.4	43.7	43.7	47.6	CZ	41.8	43.7	42.5	42.9	46.1
IE	31.3	34.4	36.6	42	48.4	HU	46.9	52.0	49.8	49.2	49.8
EL	46.7	43.2	45	46.8	50.4	EE	36.1	34.0	34.8	39.9	45.4
ES	39.1	38.4	39.2	41.1	45.9	LV	37.3	38.1	35.7	38.6	42.9
FR	51.6	52.7	52.3	52.8	55.6	LT	39.1	33.6	34.8	37.4	43.0
IT	46.2	48.7	47.8	48.8	51.9	MT	41.0	43.7	42.4	44.8	44.3
LU	37.6	38.3	36.2	37.2	42.4	PL	41.1	43.9	42.2	43.3	44.5
NL	44.2	45.5	45.5	45.9	51.6	RO	38.5	35.3	36.0	37.6	40.4
AT	52.1	49.5	48.7	49	51.8	SK	52.2	36.9	34.4	34.8	40.8
PT	43.1	46.3	45.8	46.1	51	SI	46.7	44.5	42.4	44.3	49.5
FI	48.3	36.9	34.4	34.8	40.8	NMS 12	41.7	40.5	39.9	41.1	44.5
SE	55.6	54.1	52.5	53.1	56.5						
UK	39.1	44.1	44.2	47.3	51.7						
OMS-15	45.5	45.2	44.7	46.0	50.6						

*Source: [The European Commission, Government Finance Statistics, no. 1/2010]*

These results show that the government expenses continued to grow in 2008 and 2009 even if both the GDP and the government revenues decreased as a result of the global financial crisis. The result would be normal should it express the efforts of governments of EU countries of spending more money in times of economic downturn, especially by making investments in the infrastructure, environment or other public investment projects. The data are worrying if we acknowledge that a great part of the imbalance comes from maintaining a high level of social benefits, part of the welfare state system and from the compensation of the public employees. The situation is obviously worse off for the NMS that are trying to match the OMS' developed social systems but with far fewer resources. The NMS have to balance the need for economic development (which often means attracting more foreign investments by lowering the level of direct taxes) with the need for ensuring better social conditions for their citizens (which involves higher governmental expenses). Twenty years ago Kornai (1990) described the situation of the NMS as the "premature welfare state". In the communist times, many citizens of these countries were used to get a lot of public goods and they did all they could to preserve those benefits, without too much concern for the ef-

forts put up by their countries in order to adapt to the tough requirements of the market economy. Other NMS citizens resorted to the free rider behavior or to tax evasion in order to access a better living standard. Tax evasion generated something that Browning (1976) called the marginal cost of public funds, which places a higher tax pressure upon the honest taxpayers, even the official taxation rate appears to be lower in the NMS.

The NMS joined the EU with structural fiscal deficits, and now confront on the one hand, with high macroeconomic vulnerabilities, fiscal imbalances and institutional inadequacies; on the other hand the EU membership requires the implementation of strong fiscal position for achieving the reform in tax and pension systems, labour market, subsidy programs, under conditions of increasing expenditure pressures related to an ageing population within a sustainable medium- to long-term macro-fiscal framework (Schwartz et al., 2008). As countries emerge from the transitional recession, they need to manage the normal economic cycle and answer the question: how should the structural budget deficit be managed?

This is a new situation for the NMS given that prior to accession their fiscal situation was not the subject of regular and binding surveillance. Furthermore, the NMS are obliged by the Accession Treaty to join the Economic and Monetary Union (EMU) at some moment, and meeting the fiscal convergence criteria is perhaps the most serious obstacle along this road, for some EMU candidates at least (Dabrowski et al. 2006).

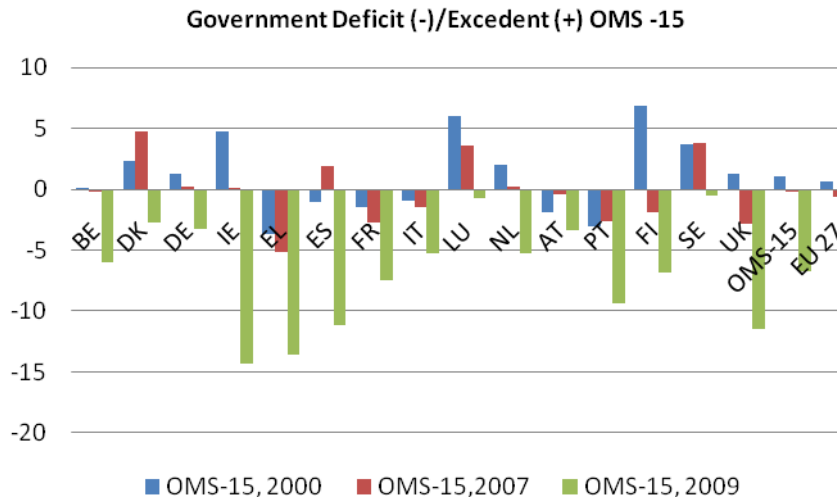
#### **4. A COMPARATIVE ANALYSIS OF THE PUBLIC DEFICITS IN THE OMS AND NMS**

Vis-à-vis the overall EU evolutions, there are countries where the situation improved, and countries where things went in the opposite direction.

An interesting indicator that we will analyze in this section is represented by the relation between the percentage increase in the public debt and the economic growth of a country. Normally, a country should use indebtedness to invest in its economy and that should lead to an increase in its GDP. Of course, the economic growth of any given country also depends on the investments made by the private sector (including the FDI). However, in the context of the global crisis some countries have started to use national debt to pay salaries and pensions (the cases of Hungary and Romania). This measure shows interesting results for most of the OMS countries; however caution must be taken in the case of the new member states.

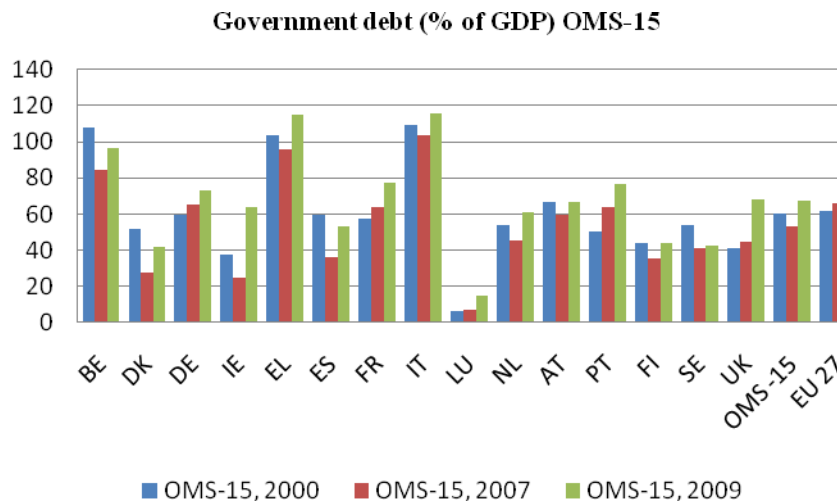
##### **a. The Old Member States – OMS**

The overall situation of the government debts and deficits in the OMS is presented in figures no. 5 and 6.



Source: [Made by the authors with data from the European Commission, Eurostat]

**Figure no. 5 The evolution of the OMS's government deficits 2000 to 2009**



Source: [Made by the authors with data from the European Commission, Eurostat]

**Figure no. 6 The evolution of the OMS's government debts, 2000 to 2009**

Denmark has succeeded to maintain the share of budgetary revenues in the GDP at 55.8%, in 2009 as compared with 2000. Denmark is almost boring (in the positive sense of course) in its evolution, the only notable thing being the increase in the share of the social benefits, from 17.5% in 2000 to 18.4% in 2009, respectively by 80 billion DKK or 9 billion Euros. The country is one of the four EU countries that managed to observe the provisions

of the SGP even in 2009, displaying a low deficit and an acceptable degree of public indebtedness.

In the case of Denmark's neighbor, Sweden, the share of budgetary revenues in the GDP, diminished from 59.3% in 2000 to 55.7% in 2009. Yet this evolution is acceptable, since Sweden's GDP increased in 2009/2000 by 35.86% and the budgetary deficit was only 0.5% in 2009. Also, Sweden registered a 0.5 pp increase in the share of social benefits in the GDP, in 2009 compared to 2000, respectively by around 17 billion Euros.

Germany saw its budgetary revenues diminished as a share in the GDP, from 46.4% in 2000 to 44.3% in 2009. Nevertheless, for the same period, Germany's GDP increased by 16.71% together with a 43% increase in government debt. That means each percentage of extra debt accumulated by Germany created 0.38 percentage points of GDP growth. Or it took 2.63 percentage points of extra debt to generate 1 percentage point of GDP increase.

Germany's total expenditures increased during the period by 23.09% and their share in the GDP also increased from 45.1% in 2000 to 47.6% in 2009. Combined with the evolution of budgetary revenues in the GDP for the same period we get the budgetary balance moving from a surplus of 1.3% in 2000 to a deficit of 3.3% in 2009.

The main factors that contributed to this unfavorable evolution were the increase in the social benefits, whose share in the GDP rose from 25.8% in 2000 to 26.6% in 2009 and the increase in the intermediate consumption, whose weight increased from 4% to 4.7%. These two factors combined represented 60% from the general increase in the share of public expenditures in the GDP and hence an important contribution to the aggravation of the budgetary deficits.

France registered a reduction in the share of budgetary revenues in the GDP (in 2009 compared to 2000) to a level of 48.1% from 50.2% in 2000. For the same period, the France's GDP increased by 35.29%, whereas its government debt increased by 80.18%. That means each percentage point of extra debt accumulated by France contributed by 0.44 pp to the increase in its GDP. It took 2.27 percentage points of extra debt to France to get 1 percentage point of GDP increase. The budgetary deficit for the 2000-2009 period increased five times, from 1.5% to 7.5%, in explicit violation of the SGP.

The government expenditures contributed significantly to the escalation of budgetary deficits as their share in the GDP grew from 51.6% in 2000 to 55.6% in 2009. The social benefits increased dramatically both in absolute values and as a share in the GDP, from 22.1% in 2000 to 25% in 2009. Another worrying factor, which contributed to the deepening of the budgetary deficits, was the decrease of the weight of direct taxes in the GDP from 12% in 2000 to 9.7% in 2009.

The Netherlands succeeded to increase its budgetary revenues as share in the GDP in 2009 compared to 2000, respectively to 46.3% from 46.1%. Its GDP increased during this period by 36.42% (similar to the French evolution) but at a cost of only 54.39% increase in its government debt. This means that one percentage point of extra debt accumulated by the Netherlands contributed by 0.6696 pp to the increase in the country GDP. Or it took only 1.5 percentage points of debt to generate 1 percentage point of GDP increase, which is quite remarkable as compared to the performance of Germany or France in the same matter. It actually means that the Netherlands managed to invest a much higher share of its debt in lucrative projects than Germany or France. The problem is that the budgetary deficit reached 5.3% in 2009, well over the acceptable levels of the SGP, compared with a 2% surplus registered in 2000.

The main contributors to the deepening of the Netherland's deficit were the increase in the share of intermediate consumption in the GDP by 3 percentage points, from 5.2% in 2000 to 8.2% in 2009, respectively by 19 billion Euros and the increase in the share of social benefits, from 22.1% to 22.6% in 2009, respectively by 43 billion Euros.

Spain was one of the success stories of the late EU entries. The Spain's GDP grew by 51.92% between 2000 and 2009, although in 2009 it shrank by 9.36% compared to 2008. Spain's government deficit also evolved from a very decent 1% deficit in 2000 to an almost incredible 11.2% deficit in 2009. The only reassuring thing in this direction is the public debt, which remained within the limits of the SGP, namely 53.2% of GDP.

The main factors that contributed to the severe deterioration of the Spain's public finances were:

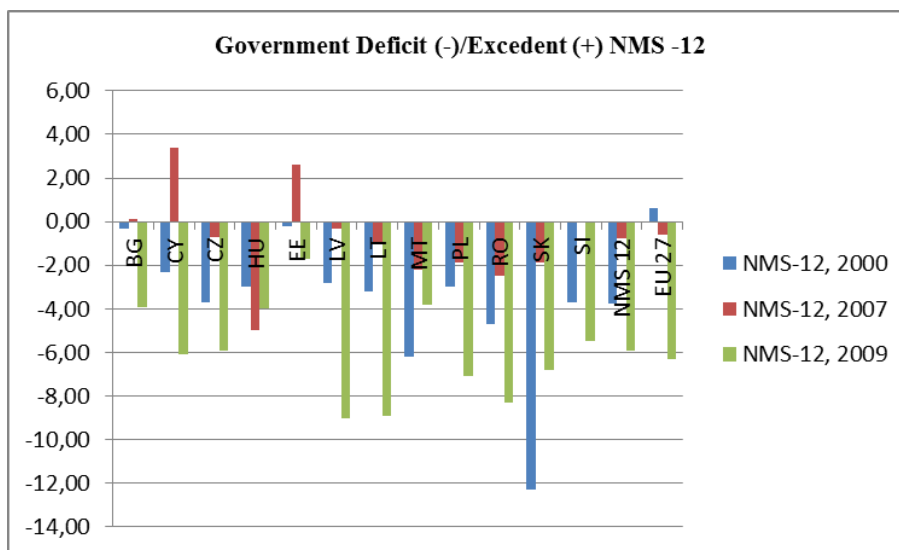
- The social benefits more than doubled in 2009 as compared to 2000, even if their share in the GDP increased by only 3.2 pp, evolving from 14.2% to 17.5%;
- The compensation of employees followed almost the same pattern, respectively they almost doubled and their weight in the GDP increased from 10.3% in 2000 to 11.8% in 2009.

A good evolution was registered by the public investments, whose share in the GDP increased by 1.4 pp in 2009 compared to 2000, respectively by 23 billion Euros.

The most worrying fact for Spain is that its government debt increased by 13.5 pp or by 127 billion Euros in just one year. This evolution placed Spain in the PIGS group of countries and raised concerns about the future of its public finances.

#### b. The New Member States

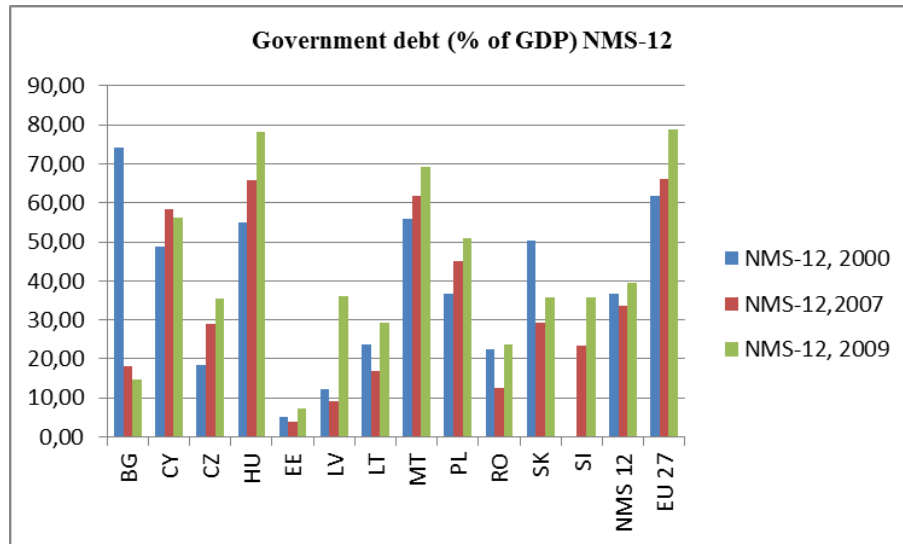
The overall situation of the government debts and deficits in the NMS is presented in figures no. 7 and 8.



Source: [Made by the authors with data from the European Commission, Eurostat]

**Figure no. 7 The evolution of the OMS's government deficits 2000 to 2009**

The new member states marked very different situations in what concerns the share of budgetary revenues in the GDP and their deficits.



Source: [Made by the authors with data from the European Commission, Eurostat]

**Figure no. 8 The evolution of the OMS's government debts, 2000 to 2009**

Poland, the biggest economy of the NMS, registered a slight reduction in the share of budgetary revenues in the GDP, from 38.1% in 2000 to 37.4% in 2009. Its GDP increased by 80.36% in 2009 compared to 2000 and the most remarkable fact is that Poland's GDP increased even in 2009 compared to 2008 by 1.3%, being one of the few European countries that managed to grow in the crisis' context. Poland's debt increased in the same period by 150%, which means that it took 1.86 percentage points of extra debt to generate 1 percentage point of GDP growth, level which is better than that of France or Germany. The budgetary deficit evolved from 3% in 2000 to 7.1% in 2009, situation which can delay the moment of joining the Eurozone.

The main contributor to the worsening of the Poland's budgetary deficit was the increase in the capital investment's share in the GDP by 3 percentage points, from 2.4% to 5.3%, but it seems this was actually instrumental in achieving economic growth in time of economic crisis.

The Czech Republic managed to increase the share of budgetary revenues in the GDP from 38.1% in 2000 to 40.3% in 2009 and hereby getting closer to the levels exhibited by the developed Eurozone countries. The Czech GDP increased by 65.68% during this period, while its government debt grew by 216.29%. The use of debt was not that efficient in case of the Czech Republic, since it took 3.29 percentage points of extra debt to generate 1 percentage point of economic growth, one of the lowest efficiency levels registered. The budgetary deficit evolved from 3.7% in 2000 to 5.9% in 2009, situation which impairs the country's capacity to join the Eurozone.

The evolution of the budgetary deficit of the Czech Republic is due to the increase of the social benefits as a share in the GDP from 17.3% in 2000 to 19.9% in 2009, as well as to the increase in the compensation of the employees by 1 percentage point, from 7.1% in 2000

to 8.1% in 2009. Together, the two factors contributed in a 63% proportion to the increase of overall government expenditures, respectively by 18.5 billion Euros.

Hungary represents an important new member state of the EU, with specific characteristics. The GDP of Hungary grew by 95.53% during this period, while the share of budgetary revenues into GDP remained near to the OMS average, oscillating from 43.8% in 2000 to 45.8% in 2009. The public debt of Hungary increased during this period by 178.23%, resulting 1.86 percentage points of debt increase to generate 1 percentage point of GDP growth. The budgetary deficit increased during the period from 3% in 2000 to 4% of the GDP in 2009.

The Hungarian budgetary deficit increased mainly as a result of the dramatic increase in the share of the social benefits in the GDP, from 15.1% in 2000 to 19% in 2009, or by 146% (around 10.51 billion Euros).

Romania, which was considered one of the most promising East European economies before the advent of the crisis, was also among the hardest hit countries by the effects of the crisis. Romania's budgetary revenues (as weight in the GDP) still display levels commonly met for the developing countries rather than for EU members. In 2009 Romania's budgetary revenues represented only 32.8% of the GDP, a decrease by 1 percentage point as compared to the 2000 situation. In nominal terms, Romania's GDP increased by 506.62% in 2009 compared to 2000. During the same period, the government debt increased by 540.74%. If we use the same measure as before, we notice that it took only 1.06 percentage points of debt to get 1 percent increase in the GDP. This result could seem impressive; nevertheless we must acknowledge that this is mainly due to the high volume of FDI received by the country between 2000 and 2009 and not necessarily because of the efficient use of the external public debt contracted during this period.

Slovakia, one of the two NMS which succeeded to join the Eurozone, has registered a spectacular evolution as well and managed to attract an impressive volume of FDI, which boosted its GDP from 31.15 billion Euros in 2000 to 63.3 billion Euros in 2009 (a 100.95% increase). We have to mention though that the inspired introduction of the single flat tax in 2004 contributed a great deal to the great increase in the stock of FDI in Slovakia. The example was followed by Romania and Bulgaria but their results were not so impressive. The budgetary deficit was reduced from 12.3% in 2000 to 6.8% in 2009, although in 2008 it stood at only 2.3%, within the limits of the SGP. The government debt increased moderately during the period, by 44%, generating the best use of marginal debt in the EU: it took only 0.44 percentage points of extra debt to generate 1 percentage point of GDP growth. This result is also influenced, as in the case of Romania, by the significant impact of the FDI, offering less credit to the government's efficient management of the borrowed money.

## 5. CONCLUSIONS

The current problems faced by most of the NMS and by a good share of the OMS are not simply of a financial or fiscal nature. The solving of the current global crisis and of the financial budgetary and debt problems of EU countries requires a new economic and financial strategy, both in the private and in the public sector with a strong orientation towards creativity, technology, eco-sustainability, fiscal consolidation and solving of the ageing problem.

The measure that we introduced, the correlation between the economic growth and the use of marginal public debt, offers some insights about the efficiency of the government ac-



tion, still has to be looked upon with caution as it does not reveal certain specific features of the analyzed countries, such as the effect of the foreign direct investments or the base effect. The measure exhibits values between 1.06 in Romania (level that has to be very carefully examined as it would express a high governmental efficiency) and 3.29 in the Czech Republic (level that would express a low efficiency of the governmental action). Of course, the GDP does not increase just as a result of the marginal public debt contracted by the government, but it can reveal enough about the use of the government debt.

The somewhat unusual thing about the latest financial evolution is that the countries that were the hardest hit by the effects of the economic crisis were the countries that registered the highest economic growth in the 2000-2009 period, such as Romania, Greece, Spain or Hungary. That happened because these countries did not manage to capitalize on their growth, respectively they did not manage to contain the expansion of public expenditures and they did not take consistent measures for fiscal consolidation.

Government deficits have deteriorated markedly, reaching levels unprecedented in recent times in the EU. With real economic growth having fallen to -4.2% in 2009, there has been an automatic decrease in revenues and increase in spending as a share of GDP.

Support measures introduced to stimulate both the aggregate demand and the financial sectors have added to the burden on the public finances. The majority of stimulus measures are fortunately temporary and planned to expire by 2011. These measures have had positive effects on employment and economic activity during the crisis. However, once economic growth resumes, such measures, if left in place, would lead to an intolerable burden for the public finances. Also, the policy of very cheap money cannot continue indefinitely as it can ensure an easy way to the financing even for the companies that do not actually fit in the current global trends for eco, bio and sustainable development.

The crisis has shown that the divergent growth patterns in the EU and growing macro-economic imbalances implied contingent budgetary risks. In particular, the countries that suffered the greatest deterioration in their public finances during the crisis had typically experienced increasing external imbalances and booming credit and domestic demand in the pre-crisis years, while the countries that suffered the smallest deterioration generally had displayed stable or falling macro-financial risks. Especially in the NMS, credit market has played a key role in this context by feeding persistently buoyant tax revenues and hence allowing excessive public expenditure growth during the booms, followed by large tax revenue shortfalls. In the OMS, the observed deterioration in budgetary positions was largely the result of a higher expenditure-to-GDP ratio which was mainly due to higher social benefits and transfers in the analyzed period.

As regards the needed fiscal consolidation, we consider that expenditure cuts are more effective and have a more long-lasting impact than consolidation by tax increases. However, the consolidation requirements from many EU member states make it virtually impossible to achieve it only by the means of a sustainable reduction of expenditures. Tax-based consolidation, especially by broadening tax bases and simplifying tax systems, can also prove efficient when starting tax-to-GDP ratios are relatively low and implementation is gradual. The appropriate mix between expenditures and revenues depends on the characteristics of the country concerned.

The case of Romania remains interesting to be observed for the coming period. The Romanian government has taken measures for fiscal consolidation both in what concerns the rationalization of public expenses (the dismissal of an important number of public employees together with the diminishing by 25% of the public salaries) and in the direction of

increasing the public revenues (the most important measure being the increase of the VAT rate from 19% to 24% as of first of July this year). Given the 0.3% advance of the GDP in the second trimester of 2010, the first one after six trimesters of negative growth, it will be quite interesting to see the impact of the 5 pp increase in the rate of the VAT upon the economic growth. Generally, the increase in taxes is not very well received by the economy as people often see the increased public spending as a near waste of valuable financial resources.

The overall conclusion is that, on the medium and long term the economic considerations should prevail. The economic environment has to be attractive for both the companies and the individuals and should encourage investments and employment. Nevertheless the task of improving and making sustainable the economic growth in the EU is made even more difficult by the necessity of fiscal consolidation, which should in fact support the economic recovery.

### References

- [1] Alesina, A., Perotti, R., Budget Deficits And Budget Institutions, *NBER Working Paper Series*, 1996
- [2] Antzoulatos, A.A., Greece in 2010: A Tragedy Without (?) Catharsis, *International Advances in Economic Research*, Volume 17, Number 3, p. 241-257, 2011.
- [3] Barro, R.J., Sala-I-Martin, X., *Economic Growth*, The MIT Press, pp.152-161, 330-462, 1995.
- [4] Barro, R.J., A Cross - Country Study of Growth, Saving and Government, *NBER Working Paper Series*, 1989.
- [5] Browning, E., The marginal cost of public funds, *Journal of Political Economy* 84(2), pp. 283-398, 1976
- [6] Dabrowski, M., Antczak, M., Gorzelak, M., Fiscal Challenges Facing the New Member States, *Studies and Analyses* 295, Center for Social and Economic Research, Warsaw, Poland, 2006.
- [7] Dornbusch, R., Fischer, S., *Macroeconomia*, Editura Sedona [1997], Timișoara, 1990.
- [8] Eslava, M., The political economy of fiscal deficits: a survey, *Journal of Economic Surveys*, Vol. 25, Issue 4, p. 645-673, Sept. 2011
- [9] Eurostat, European Commission, *Taxation trends in the European Union*, 2009 edition, at <http://www.europa.eu/>
- [10] European Commission, Eurostat, *Government Finance Statistics*, 1/2010, with data for 1996-2009, at <http://www.europa.eu/>
- [11] European Commission, Eurostat. *Government Finance Statistics*, 2/2009, with data for 1996-2008, at <http://www.europa.eu/>
- [12] Hallet, A.H., Hougaard Jensen, S.E., Stable and enforceable: new fiscal framework for the Euro area”, *International Economics and Economic Policy*, Volume 8, Number 3, p. 225-245, 2011
- [13] Kornai, J., *The road to a free economy – shifting from a socialist system: The case of Hungary*, New York: Norton, 1990.
- [14] Ram, R., Government Size and Economic Growth: A New Framework and Some Evidence from Cross-Section and Time Series Data, *American Economic Review*, 76, pp.291-203, 1986.
- [15] Rodrik, D., Why Do More Open Economies Have Bigger Governments?, *The Journal of Political Economy*, Vol.106, No.5 (Oct.,1998), pp. 997-1032, 1998.
- [16] Sloman, J., Wride, A., *Economics*, 7-th ed., Prentice Hall, Harlow, England, 2009.
- [17] Strayer, P.J., Public Expenditure Policy, *The American Economic Review*, Vol.39, No.2 (Mar.,1949), pp. 383-404, 1949.
- [18] Tanzi, V., Schuknecht, L., Reconsidering the Fiscal Role of Government: The International Perspective, *The American Economic Review*, Vol. 87, No.2 (May., 1997), pp. 164-168, 1997.

- [19] Schwartz, G., Corbacho, A., Cui, Q., Ganelli G. , Manasse, P., Macro-fiscal policy challenges and public investment in new EU member states, EIB (European Investment Bank) Papers, Vol. 13, No.1, pp. 114-151, 2008.
- [20] Wagner, A., *Grundlegung der politischen Ökonomie*, Part 1, vol. 1. 3rd edn. Leipzig: Winter, 1892.