

THE EFFECTS OF THE CURRENT GLOBAL ECONOMIC AND FINANCIAL CRISIS ON THE EU BUDGET*

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Abstract

The aim of this paper is to analyze the main effects of the current global financial and economic crisis on the European Union budget and the measures that were taken in order to support the EU member states with the purpose of limiting and counteracting its effects. The focus will be on the budgetary expenditure and on the new Treaty on Stability, Coordination and Governance. For this purpose, we developed a regression model using the Least Square method with three significant variables: a dependent variable – EU budgetary expenditure and two independent variables – budgetary deficit and unemployment rate of member states. According to our analysis, the crisis determined the increase of the EU budgetary expenditure, which was due especially to the increase of the budgetary deficit and rising unemployment in the EU member states. Our findings suggested that the budgetary deficit and the unemployment rate had a highly significant influence on community expenditure growth during the crisis, while the GDP growth and the public debt did not have any significance for the community expenditure growth.

Keywords: global crisis, EU budget, Community expenditure, Treaty on Stability, regression model.

* This work was supported by the project 'Post-Doctoral Studies in Economics: training program for elite researchers – SPODE' co-funded from the European Social Fund through the Development of Human Resources Operational Programme 2007-2013, contract no. POSDRU/89/1.5/S/61755.

1. Introduction

The global financial crisis affected the economies of countries around the world, including the EU member states and generated new challenges for the EU unity and stability. In order to counteract the negative effects of the current crisis, the authorities had to act through fiscal policies. Thus, the budget of each member state underwent many changes, especially in terms of revenue structure and expenditure destination. Significant changes also occurred in the EU general budget in order to limit the effects of the crisis and to ensure the stability of the EU.

The global financial and economic crisis became a topic for debate due to the complexity of the factors that triggered it and due to the fact that it was an issue which all economies had to deal with. However, the studies did not lead to a clear conclusion about the importance of the EU budget in limiting the effects of the current crisis. In this context, our paper will try to highlight the impact of the global financial and economic crisis on EU budget and the importance of the later for reducing the effects of the crisis.

The structure of the current paper is the following: section 2 presents a short literature review on the EU budget and its potential to counteract the effects of the current financial crisis. In section 3, we describe the methodology used, we present the data selection process, the characteristics of our sample and we report our results. Finally, we present our main conclusions.

2. Literature review regarding the global crisis and the EU budget

In the literature, the subject of the EU budget and the global financial and economic crisis was widely debated. The reason was that the EU budget was constantly restructuring and transforming as a result of the EU expansion. Also, the economists were especially interested in the financial crisis due to the complexity of its causes.

The current global financial crisis was one of the biggest crises after the 'Great Depression' between 1929 and 1933, and among the causes which led to its outbreak we could mention: mortgage securitization in the US market, excessive lending combined with low interest rates, financial innovations in capital markets, risk perception by investors and global economic imbalances (Bal, 2009; Stiglitz, 2010, p. 41).

The international financial crisis has been widely discussed in literature, being dealt with in the studies of Hellwing (2009), Arner (2009) and Verick and Islam (2010), which indicated that the current global crisis originated in subprime US housing market. On a deeper level, the last two authors were interested in the potential effects and the effectiveness of the policies implemented against the crisis, not only applied in the US, but also in countries from Europe, Asia, Latin America and the Caribbean. Even if the trigger of the global financial and economic crisis was considered to be the uncontrolled expansion of credit on the US housing market, the causes were much deeper, at macroeconomic and microeconomic levels, as mentioned in the studies conducted by Altman (2009), Buitier (2008), Blanchard (2009) and Isărescu (2009). According to them, there were multiple causes of the global crisis. Among the microeconomic causes that led to the initiation of the international financial crisis in US are mentioned: wanton

securitization, fundamental flaws in the rating agencies' business model, pro cyclical behavior of leverage in much of the financial system and of the Basel capital adequacy requirements, privately rational but socially inefficient disintermediation and competitive international de-regulation. Simultaneously, at the macroeconomic level, there were two macroeconomic causes that contributed to the crisis: first, excessive global liquidity creation by key central banks (particularly the U.S. Federal Reserve System and the European Central Bank) and, second, an *ex-ante* global saving glut, brought about by the entry of a number of high-saving countries (notably China) into the global economy and by the global redistribution of wealth and income towards commodity exporters that also had, at least in the short run, high propensities to save. Thus, the global savings glut maintained the trend of excessive consumption in the US which determined the economic crisis, but the connections with the global financial system favored the spread of the crisis, affecting both developed and especially developing countries. In our opinion, these two types of causes are interconnected.

Once triggered in the US, the current global financial crisis spread to all world economies, affecting the EU stability. The EU intervention to counteract the negative effects of the financial crisis was an indirect one, allowing the Member States to take their own measures to overcome the crisis. The limited capacity of the EU for intervention against the financial crisis captured the attention of the researchers Dabrowski (2010) and Montani (2009) whose studies showed that the EU's own budgetary resources were very limited (approximately 1% of GDP). Moreover, those resources are strictly targeted to support some key policies at the level of the Union, mainly the Common Agriculture Policy, the Cohesion Policy, research and development programs and official development assistance. In this context, if EU wants to fight against the effects of the financial crisis, it has to increase its budget.

The researchers did not only analyze the overall effects of the crisis on the EU, but the studies of Gardo and Martin (2010), Groot *et al.* (2011) and Coccozza, Colabella and Spadafora (2011) present individual analysis of the EU countries, emphasizing the effects of the crisis and the effectiveness of different policies to deal with the crisis in the EU Member States, especially in the South-Eastern Europe. According to these three studies, the international financial crisis led to the reduction of the growth rate, increasing budgetary deficit and public debt.

An important analysis of the financial crisis was made by Gardo and Martin (2010). In their study, the authors analyzed the impact of the financial crisis on Central, Eastern and Southeastern European (CESEE) countries, especially in the states that had currently joined the EU: Czech Republic, Hungary, Poland, Romania, Bulgaria, Estonia, Lithuania, Latvia and Croatia. Using a quantitative descriptive method and time series, the authors, emphasized the changes that occurred in the evolution of the GDP and the budgetary deficit between 2002 and 2008. They also analyzed the fiscal indicators of vulnerability to the international financial crisis (budget balance – as percentage of GDP, public debt – as percentage of GDP and interest payments – as percentage of budgetary revenues), which try to capture the vulnerabilities in the public sector. The authors found that the fiscal indicators suggest a decline in the region's macro-fi-

nancial vulnerabilities over time, implying that the CESEE region was better prepared for the possible repercussions of a crisis than it was in 1998 or in 2001.

An important analysis was performed by Groot *et al.* (2011), who used a simple regression analysis to make correlations between the financial support provided by governments to the financial sector and the growth rate (as percentage to GDP) and between the balance of payments and unemployment rate. Following those two analyses, the researchers concluded that the measures taken by the government had a positive influence on the financial sector and on the unemployment rate. Therefore, the positive correlation between those indicators showed that those measures were efficient and they contributed to the absorption of international financial crisis' effects. In his study, Staehr (2010) also made an estimate of the budgetary positions during crisis. He used One Step System GMM method, with the basic model – 'Difference GMM estimation', a method developed by Arellano and Bond in 1991, and concluded that the independent variables, public debt and economic growth significantly influenced the budget balance. From the estimations made, the author also pointed out that countries like Estonia and Bulgaria had a balanced budget, better than expected before the analysis, and Latvia, Hungary and Slovakia had a balanced budget below expectations. Those differences were explained by the fact that each state adopted different decisions regarding the fiscal policy: Bulgaria and Estonia have maintained a tight fiscal stance; Latvia, Hungary and Romania had to turn to the IMF for support and have directed their fiscal policies towards satisfying the loan conditionalities; Slovakia has followed relatively expansionary (Keynesian-inspired) policies.

Other studies have tried to reflect the impact of the recent global crisis on the EU budget. Although the effects of the international financial crisis were analyzed in many studies, the subject related to the role of the EU budget in the context of the 2007 crisis was not extensively approached in the literature. An important analysis on that subject was performed by Ionescu, Ungureanu and Vilag (2010), who identified the main consequences of the international financial crisis on the Community budget: the loss of the fiscal discipline of the member states and the reorganization of the income share assigned to agriculture. Another study conducted by Sabău-Popa, Cociuba and Coroiu (2009) analyzed the evolution and the structure of the revenue and expenditure of the EU budget between 1958 and 2008. The paper was focused on the forecast of the revenue collected and expenditure of the Community budget for the period between 2009-2014, using the method of interpolation and extrapolation. Thus, Sabău-Popa, Cociuba and Coroiu concluded that starting with 2012, the expenditure would exceed the revenues collected and the Community budget would register a deficit which shows the evident character of the crisis.

In response to the global financial crisis, the European Commission developed an European Economic Recovery Plan (European Commission, 2008), approved by the Council of the EU during its summit in Brussels on December 11-12, 2008. The plan was designed to avoid a severe recession of the EU economies and it focused on two directions: an immediate budgetary impulse amounting to 200 billion Euro (about 1.5% of EU GDP) and a series of priority actions intended to adapt the EU economies to the

challenges emerging on international markets, while continuing the implementation of the structural reforms in order to enhance the potential growth of Member States.

3. Methodology

3.1. The model

In order to highlight the usage of the EU budget in the context of the current global financial crisis, we performed an econometric analysis using the Least Square Method. Through our model, we wanted to capture the changes registered after the 2008 implemented budgetary measures. Regarding that aspect, we considered as dependent variable the growth rate of EU budgetary expenditure and as independent variables: budgetary deficit (as percentage of GDP) and unemployment rate of the EU countries. The basic equation of the regression model is represented by the equation no.1.

$$EXPENDITURE_t = \alpha_0 + \alpha_1 \cdot DEFICIT_t + \alpha_2 \cdot UNEMPLOYMENT_t + \varepsilon_t \quad (1)$$

According to the survey conducted by Staehr (2010), the decline of the economic activity determined: the decrease of the economic growth rate; the decrease of the budgetary revenue; the excessive growth of the budgetary deficit; the increase of the public debt; the increase of the budgetary expenditure and the unemployment rate. In our analysis we only used the budgetary deficit and unemployment rate because according to Staehr (2010), those were the main indicators that could capture the economic deterioration in most EU countries. On the one hand, the increase of unemployment determined the increase of social expenditure and the decrease of government revenue and thus lowers living standards for the population, and on the other hand, the increase of the budgetary deficit conducted to the growth of public debt.

In the context of the financial and economic crisis, the EU expenditure recorded a significant increase. This is the reason for which our analysis tries to demonstrate that the increase of the EU expenditure is an effect of the deterioration of EU economic situation (measured by the deficit and unemployment level in EU Member States). Through community expenditure, EU tried to support its member states and thus, these expenditures were directed to the most affected areas such as agriculture, natural resources and small and medium enterprises.

At the same time, we were interested in checking the robustness of our regression model. To achieve that objective, we selected two control variables represented by the GDP growth rate and the public debt (as percentage of GDP), both of them for all EU countries. Under those conditions, in addition to the basic model, we estimated three different models by introducing each variable at a time and in the end, both variables.

3.2. Data and descriptive statistic

The data for the EU general budget, the budgetary deficit and the public debt of the European countries is available for the period 2000-2011 from the European Commission annual reports, and data for the GDP growth and unemployment rate is available for the same period from the database of the European Commission, Eurostat. The descriptive statistics for these variables are presented in Table 1.

Table 1: Descriptive statistics

VARIABLE	EU BUDGET			
	Median	Std. dev.	Skewness	Kurtosis
EU Budget expenditure	0.0061	0.0114	1.2357	3.2286
GDP	0.0200	0.0210	-1.8919	6.3538
Budgetary deficit	-0.0240	0.0200	-1.0221	2.7626
Unemployment rate	0.0895	0.0082	-0.8134	2.7727
Public debt	0.6260	0.0808	1.2137	2.7865

Source: Authors' calculation

During the period of 2008-2011 the current global economic crisis has manifested in EU countries by increasing the budgetary deficit and the unemployment rate. This is the reason why these two indicators are significant at the 0.1 level in our analysis, while for GDP and public debt the results are insignificant. According to our model, increased EU expenditures only depend on the unemployment rate in the EU countries and their deficit. Our findings suggested that for the initial model, the budgetary deficit had a highly significant influence on community expenditure growth during the crisis period. The unemployment rate was significant at 5% level.

Going further, we were interested in checking if our model was valid, even if we changed the initial conditions. For that purpose, we reconsidered our model by introducing each time one of these two variables: public debt and GDP growth. The estimated models are presented in Table 2 (more details about the models are provided in Annex 1).

Table 2: Sample model – Community Budget

VARIABLE ^a	Basic Model	Model 1	Model 2	Model 3
Constant (C)	0.0524 ** (0.0255)	6.5227 ** (2.5731)	0.9591 ** (0.0351)	0.0953 ** (0.0369)
Budgetary deficit	-0.5908 *** (0.1316)	- 0.8218 *** (0.2032)	-0.6419 *** (0.2213)	-1.1029 *** (0.3211)
Unemployment rate	-0.6898 ** (0.3182)	-0.9574 ** (0.3528)	-0.6513 ** (0.3600)	-0.0653 ** (0.3502)
GDP	-	0.2228 (0.1550)	-	0.3098 (0.1713)
Public debt	-	-	-0.0174 (0.0589)	-0.0653 (0.0583)
R-Squard	0.6963	0.7586	0.6996	0.7952
Adjusted R-squard	0.6288	0.6681	0.5870	0.6783

*** ** * - Indicates significance at the 0.1 level, 0.05 level and 0.01 level

^a - Dependent variable is represented by Community expenditure growth rate

Robustness check for our model suggested that, even if we included the other two variables in the model, it remained valid. The two other secondary variables did not have any significance for the basic model and also for the community expenditure growth.

In the first model, besides the basic indicators we introduced the indicator of economic growth. According to our results, the validity of the model is maintained, but the last indicator introduced is insignificant, having no influence upon the budgetary expenditure growth. Even if the drop of economic growth may have as effects the increase of the budgetary deficit and unemployment rate, this indicator is insignificant in our model because the economic deterioration of the EU countries had many negative effects, not only the ones we have based our model on (i.e. decrease of living standards, decrease of consumption, reduced production, limited access to credit). Since these were not included in our model, the decrease of the GDP is insignificant for the growth of EU expenditure.

In the second model, besides the basic indicators we have introduced the public debt indicator, which turned out to be insignificant to our analysis. This phenomenon could be explained by the fact that public debt is one of the Maastricht Treaty criteria according to which it should not exceed 60% of GDP. Given that, many EU countries (such as Greece, Italy, Ireland and Portugal) during the current crisis exceeded even the 100% level, and that the role of EU expenditure is to support states in difficulty and not to encourage them to ignore the obligations imposed by treaties.

In the third model, in addition to the basic model we introduced the variables that we have previously analyzed: GDP growth and public debt. According to the results of the first two models, they are not significant even in the third model. Therefore the increase of the EU budgetary expenditure was due especially to the increase of the budgetary deficit and rising unemployment in the EU member states. We can explain our results using the assumption that during the crisis, EU assisted member states by increasing community expenditure as a result of the increase of certain funds level.

Therefore, in the context of the financial crisis, the anti-crisis measures implemented by the EU member countries were completed by the actions of the EU in order to support economic recovery.

In comparison to the previous years, the community expenditure increased annually by 2% over the crisis period, between 2008 and 2011. The highest increases were recorded in sustainable growth, preservation and management of natural resources, security, freedom, citizenship and justice, administration and EU as a global player. To highlight the support of the EU budget to the member states, we present in Table 3 the budget evolution according to expenditure categories.

Table 3: Evolution of EU budgetary expenditure (billion EUR)

COMMITMENT EXPENDITURE	2008	Change from 2007	2009	Change from 2008	2010	Change from 2009	2011	Change from 2010
1. Sustainable growth	58	5.7%	60.2	3.2%	64.3	3.3%	64.5	0.4%
2. Natural resources	55	-1.5%	56.1	1%	59.5	5.4%	58.7	-1.4%
3. Security and citizenship	0.7	16.7%	1.5	12.3%	1.7	10.5%	1.8	8%
4. EU as global player	7.3	14.7%	8.1	7.3%	8.1	0.5%	8.8	7.5%
5. Administration	7.3	4.4%	7.7	5.7%	7.9	3.8%	8.2	3.2%
Total	129.1	2.2%	133.8	2.5%	141.5	3.6%	141.9	0.3

Source: <http://ec.europa.eu/budget/library/biblio/publications>

Regarding sustainable growth, the most important increases were seen in the case of funds used for reducing the development gap between the EU countries; more than 61% of the funds (including the European Social Fund and European Regional Development Fund) were directed towards the less developed regions. Through the Cohesion Fund, the EU provided to the member states about 35 billion EUR to improve infrastructure and wastewater management. 500 million EUR were also provided annually for the Globalization Adjustment Fund in order to help the employees who lost their jobs to find another employment (European Commission, 2011a).

Regarding the field of natural resources, the EU assisted the rural areas providing two funds: European Agricultural Fund for Rural Development and European Fund for Fisheries. In the context of the financial crisis, those funds increased annually by 4%.

More than 100 million EUR (European Commission, 2011b) was allocated annually through the 'Security and freedom protection' program in order to finance and develop some systems for the management of future crises.

As a global player, EU allocated money to secure its borders, even more during the crisis period when all countries of the world were affected and EU security supposes the stability of member states and also the stability of the surrounding regions. However, because the EU prepared new extensions, about 5 billion EUR was allocated through the Development Cooperation Instrument for the new candidate states.

Therefore, the impact of the global financial and economic crisis on the EU budget manifested itself through an increase of community expenditure in order to assist the EU countries for economic recovery and in order to ensure and maintain the EU stability.

Considering that the multiannual financial framework 2007-2013 is almost due, another financial framework for 2014-2020 entitled 'Europe 2020' was launched in 2011. For that period, the ceiling for payment was established at 972.2 billion EUR, representing 1% of EU GNI and global commitments ceiling was set at 1.025 billion EUR, representing 1.05% of Community GNI. The new financial framework is different both in terms of orientation of government expenditure and in terms of the own resources system. For example, according to the financial framework 'Europe 2020', EU policy areas were modified so that 'sustainable growth' was included in the second component and comprised the management of natural resources and the 'smart growth inclusion' was introduced in the first area. This slight modification of the multiannual financial framework structure was determined by the inclusion of new funds for economic development of member states. Thus, the first component of the multiannual financial framework 2014-2020 introduced a new facility called 'Connecting Europe Facility' and it would finance the pan-European infrastructure related to transport, energy and Information and Communication Technologies (ICT) (European Commission, 2011c). Under that heading, European Regional Development Fund (ERDF), European Social Fund (ESF) and the Cohesion Fund were united in a common strategic framework that included two other funds: European Agricultural Fund

for Rural Development (EAFRD) and European Fund for Fisheries and Maritime Affairs; European Globalization Adjustment Fund (EGF) would increase its actions in order to reduce the impact of new trade agreements on farmers. The European Commission proposed the decreasing of EGF from 500 million EUR to 429 million EUR because the amounts allocated to it had never been fully used during the financial framework 2007-2013. Also, the European Commission proposed a 500 million EUR annual amount as a reserve for crisis management in the field of agriculture. Regarding the Instrument of Flexibility and Reserve for Emergency Aid, the Commission proposed to increase to the maximum the amounts of those funds. The Commission representatives reached that conclusion because, in the context of the international economic and financial crisis, the need for the two instruments increased and the EU needed more resources to face the challenges of the international markets.

Also, regarding its own resources system, the EU proposed the introduction of a reserve margin up to 0.03% of EU GNI, in order to limit the unforeseen circumstances with a major impact on the EU and its members. Another major change in the system of own resources was the simplification of correction mechanisms (reductions in annual contributions to the GNI resource) for the four member states – United Kingdom, Germany, Netherlands and Sweden, by replacing all existing corrections with a lump sum system (a onetime payment of money, as opposed to a series of payments made over time), simple and transparent, depending on the prosperity of the Member States (Romanian Government, 2011, p. 59).

In the context of the current global financial and economic crisis, the multiannual financial framework aimed at assisting the European economic recovery by implementing new development projects and economic growth, but also by developing the existing ones. The measures taken under the new financial framework are particularly aimed at strengthening the EU policies so that all EU countries (and especially the countries with emerging economies) will be able to overcome the international financial crisis and to limit the future adverse effects of turmoil on domestic or international financial markets, thus promoting healthy and sustainable growth. Strengthening the EU's common policies and financial stability of the community would be achieved not only through the new financial framework, but also by implementing the measures from the Treaty on Stability, Coordination and Governance in EMU. The Treaty on Stability introduced a number of rules on national budgets, so that maintaining a healthy and sustainable public finance and the prevention of very high budgetary deficits became premises for ensuring a balanced budget in the EU countries. The Treaty provided that member states' budgets must be balanced or in surplus, accepting a structural deficit of 0.5% of GDP or 1% of GDP, but only when the ratio of government debt to GDP was significantly below 60% (European Commission, 2011c).

Even if most EU member states were affected by the global crisis, the ones from the Euro area (EU 17) had recorded excessive budgetary deficits and public debt levels exceeding 100% of the GDP. In such conditions, the Treaty on Stability was intended to strengthen budgetary discipline of member states, so that in the future they could cope with the financial shocks that could occur in the global economy.

4. Conclusions

Following the analysis of the determinants of the EU expenditure growth, we concluded that the economic deterioration of the EU economies (which manifested through the increase of the budgetary deficit and higher unemployment rates) led to an increase of the EU expenditure by 2% annually. Significant increases in the EU expenditure were meant to reduce the gap between developed and emerging countries, to develop the rural sector and to support the integration of immigrants from third countries in the Community.

According to our analysis, increased EU expenditures depend only on the unemployment rate in EU countries and their deficit. Our findings suggested that the budgetary deficit and the unemployment rate had a highly significant influence on community expenditure growth during the crisis. We can explain our results using the assumption that during the crisis, EU assisted member states by increasing community expenditure as a result of the increase of certain funds level.

The two other secondary variables (GDP growth and public debt) included in our analysis did not have any significance for the community expenditure growth. Therefore, the increase of the EU budgetary expenditure was due especially to the increase of the budgetary deficit and rising unemployment in EU Member States.

The EU actions to limit and counteract the financial crisis would be consolidated into the new multiannual financial framework entitled 'Europe 2020'. The main changes were the removal of its current resources based on VAT and the introduction of financial transactions tax. These changes were designed to reduce the contribution of the member states to the EU budget without affecting their future financing purposes. Strengthening EU's common policies and financial stability of the Community would be achieved not only through the new financial framework, but also by implementing the measures of the Treaty on Stability, Coordination and Governance in EMU. According to the Treaty, maintaining sound and sustainable public finances and preventing very high budgetary deficits should be the prerequisites for ensuring a balanced budget in all EU Member States.

Taking into account the fact that EU member states are still facing the financial crisis, our research could be developed by extending the period of analysis, so that the effects of the crisis on EU members and the increase of EU expenditure during the crisis could be identified on a long term basis. At the same time, in order to test the validity of our model, the analysis could be extended by introducing new variables, so that the new model could verify if the significance of the initial model remained unchanged.

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ANNEX 1

Summary Output – EUROPEAN UNION BUDGET

Basic model

Dependent Variable: EU budget expenditures

Method: Least Squares

Date: 05/28/12 Time: 17:34

Sample: 2000 2011

Included observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.052415	0.025526	2.053377	0.0702
Budgetary deficit	-0.590897	0.131603	-4.489984	0.0015
Unemployment rate	-0.689876	0.318268	-2.167594	0.0583
R-squared	0.696355	Mean dependent var		0.010000
Adjusted R-squared	0.628879	S.D. dependent var		0.011433
S.E. of regression	0.006965	Akaike info criterion		-6.883471
Sum squared resid	0.000437	Schwarz criterion		-6.762244
Log likelihood	44.30083	Hannan-Quinn criter.		-6.928353
F-statistic	10.31996	Durbin-Watson stat		3.110461
Prob(F-statistic)	0.004684			

MODEL 1

Dependent Variable: EU budget expenditures

Method: Least Squares

Date: 05/28/12 Time: 11:18

Sample: 2000 2011

Included observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.522750	2.573125	2.534952	0.0350
GDP	0.222884	0.155085	1.437170	0.1886
Budgetary deficit	-0.821840	0.203245	-4.043600	0.0037
Unemployment rate	-0.957424	0.353877	-2.705528	0.0268
R-squared	0.758664	Mean dependent var		1.000000
Adjusted R-squared	0.668163	S.D. dependent var		1.143336
S.E. of regression	0.658622	Akaike info criterion		2.263868
Sum squared resid	3.470265	Schwarz criterion		2.425504
Log likelihood	-9.583209	Hannan-Quinn criter.		2.204025
F-statistic	8.382940	Durbin-Watson stat		2.577944
Prob(F-statistic)	0.007497			

MODEL 2

Dependent Variable: EU budget expenditures

Method: Least Squares

Date: 05/28/12 Time: 17:38

Sample: 2000 2011

Included observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.059125	0.035198	1.679777	0.1315
Budgetary deficit	-0.641920	0.221320	-2.900419	0.0199
Unemployment rate	-0.651386	0.360038	-1.809215	0.1080
Public debt	-0.017456	0.058968	-0.296020	0.7748
R-squared	0.699645	Mean dependent var		0.010000
Adjusted R-squared	0.587012	S.D. dependent var		0.011433
S.E. of regression	0.007348	Akaike info criterion		-6.727698
Sum squared resid	0.000432	Schwarz criterion		-6.566063
Log likelihood	44.36619	Hannan-Quinn criter.		-6.787541
F-statistic	6.211728	Durbin-Watson stat		3.156101
Prob(F-statistic)	0.017448			

MODEL 3

Dependent Variable: EU budget expenditures

Method: Least Squares

Date: 05/28/12 Time: 11:50

Sample: 2000 2011

Included observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.095344	0.036962	2.579533	0.0365
GDP	0.309828	0.171327	1.808403	0.1135
Budgetary deficit	-1.102930	0.321158	-3.434234	0.0109
Unemployment rate	-0.917709	0.350229	-2.620307	0.0344
Public debt	-0.065344	0.058393	-1.119033	0.3001
R-squared	0.795286	Mean dependent var		0.010000
Adjusted R-squared	0.678306	S.D. dependent var		0.011433
S.E. of regression	0.006485	Akaike info criterion		-6.944380
Sum squared resid	0.000294	Schwarz criterion		-6.742335
Log likelihood	46.66628	Hannan-Quinn criter.		-7.019184
F-statistic	6.798496	Durbin-Watson stat		2.765480
Prob(F-statistic)	0.014686			