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Budget Deficits Effects on Economic Growth

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Abstract
The budget deficit can not be analyzed autarchically, as it affects all the macroeconomic processes and, is itself influenced by all other macroeconomic indicators. Most analyses and studies on public finance and budget balance measure the impact that budgetary deficits accumulation has on economy. Therefore, the present paper aims at following and analyzing the mutual impact between budget deficit and another economic macro indicator, namely the economic growth.
Keywords: budget deficit, economic growth, fiscal policies

Introduction

Regarding budget deficits, literature in the field says that *"...it causes inflation. Budget deficits increase interest rates. Budget deficits cause trade deficits ... and finally ... Budget deficits are a mortgage on the future "* [1], the impact on future generations [2] .

Taking the final statement as a starting point, we want to test whether the public financial events in Romania's latest 10 years confirm

[1] Eisner, R. Budget Deficits: Rethoric and Reality, Journal of Economics Perspectives, Vol.3, No.2, Spring, 1989, pg. 73
[2] Niepelt, D. Starving the beast? Intra-generational conflict and balanced budget rules, European Economic Review, Volume 51, Issue 1, January 2007, pg. 145-159

the theoretical predictions, particularly referring to budget deficit-economic growth relationship.

Material and Methods

Empirical studies conducted in recent years either theoretically underline the causal link made visible by the economic theory, with subsequent identification of the specific conditions in which it is manifested; or they obtain contrary result to theoretical predictions. Obviously the economic theory has been primarily concerned with regulatory aspects of fiscal policies, which often is not matched by the positive side of fiscal policy; its implementation in contemporary economies is not achieved by following the principles promoted by the macroeconomic theory.

Economic and financial implications of budget deficit can be identified by performing simple econometric tests of linear regression type. These tests can confirm or deny the existence of a correlation between a dependent variable and one or more independent variables on one hand and, on the other hand, if the connection is tested, they can offer an estimation of its "strength".

In our case, we considered adequate to take the dependent variable macroeconomic growth as a rate of real GDP. As an independent variable, the amount of consolidated general budget account was used.

On account of theoretical predictions and the results of empirical investigated studies, we will econometrically test the following relationship:

$$RPIB_t = \alpha + \beta SBGC_t + \varepsilon_t$$

where:

RPIB - real GDP growth rate;
HBS – consolidated general budget account;
ε - stochastic variable;
α, β - scaling coefficients;
t - time.

The time series used for the two variables in the model consist of semestrial data for 2000, sem. I-2011, taken from the National Institute of Statistics and from the reports of the Ministry of Finance.

Literature review

Regarding *the state of* knowledge, it is revealed by a rich literature. Thus, the results obtained by Kneller, Bleaney and Gemmell (1999)[3] indicate the fact that budget deficits may have various effects on economic growth, depending on the way they were generated. Consequently while respecting budgetary constraints that governments are facing:

- If the budget deficit is due to a reduction in distortionary taxation, the effect on economic growth is positive;
- If the budget deficit is due to a reduction in non-distortionary taxation, economic growth will not be affected;
- If the budget deficit is due to an increase in productive public spending, the effect on economic growth is positive;
- If the budget deficit is due to an increase in non-productive public spending, the economic growth will not be affected or it will be affected negatively if the amplitude deficit is significant.

Adama and Bevan (2005)[4] have examined the relationship between budget deficits and economic growth for a group of 45 developing countries and have identified the existence of an inverse causal relationship between the two variables on one hand and, a level of deficit below which causality is blurred. Reduction of budget deficits to about 1.5% of gross domestic product is likely to positively influence the growth rate of GDP. A reduction in budget deficits below this limit, not only no longer produces positive effects on economic growth, but can also actually be detrimental if the reduction is due to a significant fiscal contraction.

Using both econometric regression and the so-called economic growth accountancy, Fisher (1993)[5] proves the opposite of theoretical

[3] Kneller, R., Bleaney, M. F., Gemmell, N. - Fiscal policy and growth: evidence from OECD countries, Journal of Public Economics, 74, (1999), pg. 171–190

[4] Adama, C. S., Bevan, D. L. - Fiscal deficits and growth in developing countries, Journal of Public Economics, Volume 89, Issue 4, April 2005, pg. 571-597

[5] Fisher, S. - The role of macroeconomic factors in growth, Journal of Monetary Economics, Volume 32, Issue 3, December 1993, pg. 485-512

predictions, on a consistent sample of countries. The results obtained show a reverse causal relationship between budget deficit and economic growth: the budget deficit leads to a reduction of both capital accumulation and productivity growth, with an obviously negative impact on the GDP growth rate.

In the case of the 39 countries with low per capita income, Gupta, Clements, Baldacci and Mulas-Granados (2005)[6] they have shown that maintaining a reasonable budget deficit is associated to economic growth, both on short and long term. Naturally, the composition of expenditures exceeding revenues is relevant to the overall impact of the budget deficits on economic growth. In countries where public expenditure is directed towards salaries, a lower growth rate of GDP has been recorded, while in the case of countries where public expenditure is oriented mainly towards investments and purchases of goods and services, the situation is reversed.

Results and Discussion

The idea according to which governments accept budget deficits in order to achieve public investments meant to generate long-term growth was promoted for the first time by the famous English theorist John Maynard Keynes,[7] which stated this thesis as a recommendation to the governments of developed countries at that time, in order to overcome major global economic crisis and subsequent economic recovery.

In the modern theory of public finance, Musgrave and Musgrave (1989)[8] have synthesized the three roles that any state should accomplish in the economy: allocative, distributive and stabilizing role. As a corollary to the role of stabilizing the economy that governmental authorities are supposed to have, the idea of a budget deficit may be drawn (due to the increase of productive public spending or to the reduction of distortionary taxation) accepted in order to place the economy on a stable long term growth line.

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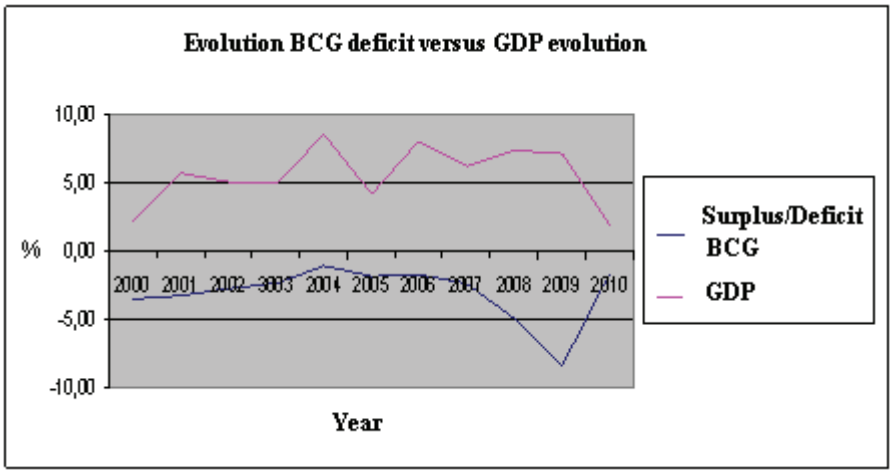
[6] Gupta, S., Clements, B., Baldacci, E., Mulas-Granados, C. - Fiscal policy, expenditure composition, and growth in low-income countries, Journal of International Money and Finance, Volume 24, Issue 3, April 2005, pg. 441-463

[7] Keynes, J. M. - The General Theory of Employment, Interest and Money, Macmillan Cambridge University Press, Royal Economic Society, 1936

[8] Musgrave, R. A., Musgrave, Peggy, B. - Public Finance în Theory and Practice, 5th international edition, McGraw-Hill, 1989

The report progress of economic growth and budget deficit in nominal prices in Romania during 2000-2010, can be seen on the following chart:

Figure nr. 1. Evolution BGC deficit versus GDP evolution



The evolution of the two macroeconomic indicators in Romania during year 2000 does not definitely highlight the interdependence between them, which means that other factors have influenced them in an important way. But what stands out on the chart is that the obvious manifestation of excessive budget deficits since 2008 is accompanied by a significant decline in the gross domestic product. Moreover, empirical studies[9] revealed that a budget deficit above 3% of GDP is a brake on its growth. Similarly, a lower deficit of 1.5% has zero effect on economic growth so, it is neutral to this.

Furthermore, the scientific value of these data will be tested by using econometric estimation performed by the E- Views software package, shown in the following table:

[9] Cochrane, J.H., Understanding policy in the great recession: Some unpleasant fiscal arithmetic, European Economic Review, Volume 55, Issue 1, January 2011

Table 1. Estimation results between the real GDP growth rate and the general consolidated government balance relationship

Dependent Variable: RPIB
Method: Least Squares
Sample: 1 22
Included observations: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SBGC	0.971122	0.461554	2.104025	0.0482
C	3.114116	1.028590	3.027559	0.0066

R-squared	0.181231	Mean dependent var	1.754545
Adjusted R-squared	0.140293	S.D. dependent var	4.048366
S.E. of regression	3.753661	Akaike info criterion	5.569848
Sum squared resid	281.7994	Schwarz criterion	5.669034
Log likelihood	-59.26833	F-statistic	4.426919
Durbin-Watson stat	1.602901	Prob(F-statistic)	0.048228

Results generated with E-Views 5

The results indicates that on a level of statistical significance of 5% general government balance is positively correlated with the GDP growth rate in the long run. Standard error, lower than the estimated coefficient for the independent variable, the corresponding value of t-statistic test, the low probability that the value for this coefficient is incorrectly estimated (only 4.82%) indicates that the coefficient is correctly estimated.

This way, taking also into account the estimated coefficient for the independent variable (general consolidated government balance), a 1% reduction in the budget deficit will increase GDP growth rate by 0.97%.

It is also worth mentioning that the value of R^2 determination coefficient is low (only 0.18), which indicates that GDP growth rate has other significant determinants. The equation proposed describes the time evolution of the real GDP growth rate only in proportion of 18.12%.

Conclusion

The theme of the present research has found motivation in the particular attention that Lisbon process assigns to the public finance reform in order to stimulate economic growth. The main purpose of the analysis model is to bring light into the relationship between public finances and economic growth in Romania, as an EU member. This requires determining whether public finance provides policy tools that contribute to a higher growth trend, or to identify if there is a short-term impact on economic performance at its best. Following the approach of studies in this area which exploit the properties of time series data, some persistent deterministic changes have been revealed in per capita rates of GDP growth and public finances. However, when we look at stochastic trends, it appears that both variables regarding public finances and growth rates of production have been stable. This model does not exclude a long-term effect of fiscal variables themselves, where expenditure and income have opposite effects on the long term. Using panel co-integration techniques recently developed, there is a overwhelming evidence of co-integration between both *"sides of the budget,"* as it would be expected on theoretical grounds.

We estimate the long term effect of fiscal policies on economic growth using a widely used approach. The main findings are that the expenditure side of the budget seems to constantly affect long-term growth of the business cycle. Specifically, the size of government and governmental consumption are found to have a clearly negative effect on economic growth, while public investment,[10] a positive influence. On the revenue side, there is evidence for a negative effect resulted from direct taxation on economic growth. Moreover, a strong negative impact generated by direct taxation on capital accumulation is confirmed by the survey data to which we referred. This impact appears to work primarily by taxing labor income, which could lead to wage pressures, thereby reducing profits and investments of European labor markets.

The causality relationship that can be established between economic growth and the budget deficit is that positive economic growth generates additional public resources. It is the authorities choice to adopt whether a cyclical, or a counter-cyclical fiscal policy. While a negative economic growth generates both contraction and consequently

[10] Johansson, P., Debt Relief, Investment and Growth, World Development, Volume 38, Issue 9, September 2010, pg. 1204-1216

adjustment of the public sector, we conclude that an expansionary fiscal policy, with a large budget deficits accumulation, is incorrect in terms of macroeconomic policy rules in periods of positive economic growth.

On the other hand, which at first seems incredible is that tax evasion[11] in a dynamic environment, but in a country with high corruption can be a powerful driver of economic growth. This aspect is highlighted in a long term analysis. The result derived from the basic principle of the model considered, according to which evasion stimulates investment, accumulation and economic growth. But on the other hand, it reduces tax revenues. More specifically, according to the Laffer curve, this result derives from the behavior of tax revenue in a static framework. As a result, if policymakers want to maximize the growth rate, they must determine the appropriate tax rate. This limit value varies according to the level of monitoring and is specific for the "internal honesty" of the country. In particular, given the "internal honesty" of the country, a lower tax rate leads to tax revenue maximization and generates a lower level of monitoring.

Bibliography

Adama, C. S., Bevan, D. L. (2005). *Fiscal deficits and growth in developing countries*, Journal of Public Economics, Volume 89, Issue 4, pg. 571-597

Cerqueti, R., Coppier, R. (2011). *Economic growth, corruption and tax evasion*, Economic Modelling, Volume 28, Issues 1-2, pg. 489-500

Cochrane, J.H. (2011). *Understanding policy in the great recession: Some unpleasant fiscal arithmetic*, *European* Economic Review, Volume 55, Issue 1, pg. 2-30

Eisner, R. (1989). *Budget Deficits: Rethoric and Reality*, Journal of Economics Perspectives, Vol.3, No.2, pg.73

Fisher, S., (1993). *The role of macroeconomic factors in growth*, Journal of Monetary Economics, Volume 32, Issue 3, pg. 485-512

Gupta, S., Clements, B., Baldacci, E., Mulas-Granados, C. (2005). *Fiscal policy, expenditure composition, and growth în low-income countries*, Journal of International Money and Finance, Volume 24, Issue 3, pg. 441-463

[11] Cerqueti, R., Coppier, R., Economic growth, corruption and tax evasion, Economic Modelling, Volume 28, Issues 1-2, January-March 2011, pg. 489-500

Keynes, J. M. (1936). *The General Theory of Employment, Interest and Money*, Macmillan Cambridge University Press, Royal Economic Society

Kneller, R., Bleaney, M. F., Gemmell, N. (1999). *Fiscal policy and growth: evidence from OECD countries*, Journal of Public Economics, 74, pg. 171–190

Johansson, P. (2010). *Debt Relief, Investment and Growth*, World Development, Volume 38, Issue 9, pg. 1204-1216

Musgrave, R. A., Musgrave, Peggy, B., (1989). *Public Finance in Theory and Practice,* 5th international edition, McGraw-Hill

Niepelt, D. (2007). *Starving the beast? Intra-generational conflict and balanced budget rules*, European Economic Review, Volume 51, Issue 1, pg. 145-159