

Fiscal policy and economic growth: the case of Southeast European Countries

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Abstract

This paper analyses the effects of fiscal policy on the economic growth of emerging developing countries such as Southeast European countries. The discussion related to fiscal policy impacts on economic growth is quite current, as the development of appropriate fiscal instruments can lead to continued and sustainable economic growth of these countries. The method I used in this paper is the Panel data model, namely Pooled OLS, Fixed Effects, Random Effects and Hausman Taylor-IV, to assess the impact of fiscal policy on economic growth. The variables used in this paper are: GDP - economic growth, tax revenue and government spending. The impact of income and expenditure on economic growth was analysed with data from 1994 to 2015.

Keywords: *Fiscal Policy, Economic Growth, Tax Revenues, Government Expenditures, Panel Data Methods.*

Introduction

Fiscal policy has a major role in the development and economic growth in Southeast European countries. For this reason, the purpose of this paper is to analyse the link between fiscal policy and economic growth in open and developing economies such as Southeast European countries as it is essential and interesting to understand how public activity, through taxation policies and spending, has served to boost economic growth. Public finances underwent substantial and continuous reforms, aiming to reduce government spending and increase revenue. Fiscal policies are important determinants of economic

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developments. Often, government spending and tax decisions play a special role in speeding up or slowing economic growth. The economic and financial crisis made it important to stimulate fiscal policy to maintain macroeconomic stability and the repercussion of economic growth. Governments around the world should formulate and implement policies on public taxes and spending. These policies can have major impacts on economic growth, income distribution and poverty, and so they tend to be the focus of economic and political debates. In this case, the questions raised relate to the analysis of the concrete fiscal policy impacts on economic growth in the case of Southeast European countries? Have they boosted that economic growth in these countries? This research focuses on how the composition of government spending and revenue impacts the long-term growth rate. Answering these questions is quite difficult because the mechanisms for the transmission of fiscal policy effects are quite complicated, and above all, the effects take time to appear completely. To better understand the growth process, this study develops an empirical model using a time series approach to the specific case of the Southeast European countries. This is an attempt to examine the fiscal policy and its impact on sustainable economic growth in Southeast Europe. The rest of the paper is as follows: Section II includes a review of the literature, Section III explains the model procedure and data collection, also describes the methodology and section IV presents the empirical results. Finally, Section V presents the conclusions and recommendations.

Review of literature

The role of fiscal policy in the long-term growth process has been central to macroeconomics, especially since the emergence of endogenous growth models. Different authors have focused on different types of fiscal policy as well-balanced growth engines. In this part of the paper, I will analyse the empirical evidence on the impact of fiscal policy on economic growth and

will link the work with the opinions of other authors. In a study authors prove the correlation between fiscal policy and economic growth in Romania for the period 1990-2007. The correlation model between the real GDP growth rate and the budget revenue category shows a correlation between the negative causalities between economic growth and fiscal revenue. The authors conclude that some forms of tax policy and spending can boost or reduce economic growth. Study Benos analyzes whether a reallocation of public expenditure and income components can boost economic growth using data of 14 EU countries over the years 1990-2006. The results provide support for endogenous growth patterns. Examined the impact of fiscal policy on economic growth depending on the institutional conditions in OECD countries over the period 2000-2012. The analysis is based on panel regression methods and tests. From the results of the analysis, it is clear that in the case of government spending 1) has a positive impact on economic growth in countries with lower fiscal transparency; 2) has a negative impact on countries with higher fiscal transparency. In the least developed countries, there is a higher percentage of pro-growth spending within the total government spending. In the case of tax impact on economic growth it is evident that (3) the negative impact of taxation is more detrimental to economic growth in countries with worse institutional conditions. The explanation of this outcome can be related to the different fiscal transparency and the different economic level. The authors evaluated the long-term effect of fiscal policy on real economic activity in the small open economy of transition: the case of the Republic of Macedonia. The result shows that there are two statistically significant cointegration vectors. The first cointegration vector shows that an increase in government spending will generate a positive effect on real economic activity. The second cointegration vector shows that an increase in government spending will generate a positive effect on government revenue. Analyze the effect of fiscal policy on output and show a standard reaction Keynesian economy for both types of shocks: an increase in taxation has negative effects on production and consumption, while positive innovations in

public spending had a positive effect on these variables. According to the authors, who analyzed the effects of fiscal policy on economic growth in Albania, based on a model of endogenous growth policy. Regarding fiscal variables, the achieved results show that the general rate of economic growth is negatively influenced by government revenues and positively by government spending policies.

Data and methodology

To examine the relationship between fiscal policy and economic growth, we will apply the Panel's date method to Pooled OLS, Fixed Effects, Random Effects, and Hausman Taylor-IV. By these methods I am able to assess the impact of fiscal policy on economic growth in Southeast European countries from 1995 to 2015. I used the World Bank's annual data covering the 20-year period. In order to deal with the problem of endogenousness, I used instrumental variables. The Hausman-Taylor IV instrumental variables are considered to be the most appropriate model of random effects and fixed effects models. The dependent variable is GDP per capita - economic growth, while independent variables are government spending and tax revenues.

$$y_{it} = c + \beta_1(y_{it-1}) + \beta_2(\text{Tax revenue}) + \beta_3 (\text{Government expenditure}) + u_{it} \quad (1)$$

Where: y_{it} - represents economic growth (GDP)

c - represents a constant

y_{it-1} - represents the "First Lag" of GDP

Government expenditure $_{it}$ - represents government expenditure.

Tax revenue $_{it}$ - represents tax revenue.

u_{it} - represent exogenous disturbances.

Empirical results

Table 1. Shows the results of regression coefficients and all coefficients are statistically significant. As can be seen from Table 1, the results of the tax reclassification coefficient are 0.0461881 (that is 0.2142978) therefore statistically significant. This indicates that an increase of 1% of tax revenues will have a positive effect

on economic growth of 0.04%, while keeping other variables constant. This result is consistent with previous studies, such as Kneller and others (1999) and Benos (2009). The role of tax revenue on economic growth is largely dependent on the macroeconomic policy applied, so according to the result, tax revenues have a positive impact on economic growth in Southeast European countries. Revenue growth supported the region's fiscal balance. According to the World Bank the average revenue ratio to GDP for the Western Balkans rose from 34.8 percent of regional GDP in 2015 to 35.8 percent in 2016. Despite better revenue mobilization, lack of efficiency in tax collection, the spread of tax exemptions and foreigners continue to pose major problems for fiscal policy. Reducing tax exemptions would make the previous unpolluted revenues go back to the budgets of most Western Balkan countries.

The other fiscal policy variable involved in this research is the variable of government spending. The result shows that the government spending coefficient is -0.0793733 (that is 0.1548039), which means increasing government spending by 1% will affect the economic growth rate by 0.15%, while keeping other constant variables. In order for government spending to have an impact on economic growth, structural reforms should be undertaken to guide government spending in sectors that have a potential for economic growth in a country. Most countries slowed the growth rate of spending, but spending cuts focused on capital investments.

Table 1. Results from Pooled OLS Models, Fixed Effects, Random Effects and Hausman Taylor

	Pooled OLS	Fixed effects	Random effects	Hausman Taylor IV
Variables	GDP	GDP	GDP	GDP
Gdplag1	.3161526** 1378168	.3058253** .14381	.3161526 ** .1378168	.3096811* * .1396705
Tax revenue	.0247872* .2081887	.0167035* .2661385	.0247872* .2081887	.0461881* .2142978
Government expenditure	-.0627713* .1430121	.0409208* .3094175	-.0627713* .1430121	- .0793733* .1548039
Constant	2.385874* 3.657157	.7038022* 7.502987	2.385874* 3.657157	2.423861* 3.703917
Observations	64	64	64	64
R-squared	0.1002	0.0886		
F	2.23	1.51		
Chi2			6.68	6.73
Model	OLS	Fe	Re	-
Command	Regress	Xtreg	Xtreg	Xthtaylor
Number of ID	-	7	7	7

Note: () statistically significant at level 5%, (**) statistically significant at level 10%*

Conclusion

The main purpose of this paper is to analyze empirically the relationship between fiscal policy and economic growth in Southeast Europe. Based on empirical results can conclude that tax revenues have a positive impact on economic growth, while government spending has a negative impact on economic growth in Southeast Europe. In conclusion, careful drafting and proper enforcement of fiscal rules can help Southeast European countries guarantee solvency and debt sustainability. Policy instruments that encourage fiscal sustainability, such as fiscal rules, have attracted the attention of other countries in need of

fiscal consolidation. One of the fundamental objectives of fiscal rules is to increase the credibility of fiscal policy as a basis for economic growth. Fiscal policy consists in using tax revenues and government spending as tools to influence macroeconomic indicators in a country. Government expenditures affect the overall level of expenditure in the economy, ie the level of GDP and consequently on the level of employment, inflation and so on. Fiscal policy has a direct or indirect impact on the domestic economy. If government spending levels follow its current path, it would be very difficult for Eastern European countries to maintain a long-term path of sustainable economic development.

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APPENDIX

Hausman Taylor

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. xtaylor gdp gdplag1 taxrevenuegdp governmentexpendituregdp code, endog(governmentexpendituregdp)

Hausman-Taylor estimation      Number of obs   =      64
Group variable: code          Number of groups =       6

                               Obs per group: min =       6
                               avg =      10.7
                               max =      18

Random effects u_i ~ i.i.d.    Wald chi2(4)     =       6.73
                               Prob > chi2         =      0.1511
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	coef.	Std. Err.	z	P> z	[95% Conf. Interval]
TVexogenous					
gdplag1	.3096811	.1396705	2.22	0.027	.0359319 .5834304
taxrevenue-p	.0461881	.2142978	0.22	0.829	-.3738279 .4662041
TVendogenous					
government-p	-.0793733	.1548039	-0.51	0.608	-.3827834 .2240368
TIexogenous					
code	-.040872	.2905478	-0.14	0.888	-.6103353 .5285914
_cons	2.423861	3.703917	0.65	0.513	-4.835682 9.683404
variance-covariance of u_i					
sigma_u	0				
sigma_e	3.5725104				
rho	0	(fraction of variance due to u_i)			

Note: TV refers to time varying; TI refers to time invariant.