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PUBLIC EXPENDITURE AND ECONOMIC GROWTH: AN EMPIRICAL ASSESSMENT FOR ALBANIAN ECONOMY

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Abstract:

The main purpose of this work is analyzing the role played by public finance policies in stimulating economic growth in Albania. Based on endogenous growth theory models is assessed the role played by public expenditure in growth performance in Albania relative to other transition economies with similar patterns of developments. The main findings of this study are: that macroeconomic stability of a country, trade openness, and investment in infrastructure are the main factors that have supported growth performance

Keywords: Economic growth, public expenditure, panel data analyze

1. Introduction

The focus of all policy makers in developing countries are effective policies that aim to attain sustained growth, improving living standards and eliminate poverty and disease. This paper is focused on the role played by government policies for sustaining economic growth in Albania. The motivation behind this is the fact that both set of variables, credible macroeconomic stabilization and a range of reforms are needed to sustain long term growth. Related to necessary reforms Albania has made considerable progress, we have a liberalized trade regime, we are member of WTO organization since 2000, and have signed many bilateral free trade agreements with neighbor countries[i], regarding to competition policies, in Albania is open the competition office, and since year 2002 is introduced the system of deposit insurance necessary for financial sector development.

Albania has had an impressive GDP growth rate over the transition period, in the last five years the growth rate has been sustain at 6 percent level, which is comparable with growth rate reported by our neighbor countries. In the last year Bosnia and Herzegovina, and Montenegro, have reported respectively 6 percent and 5.9 percent annual real GDP growth rate. The domestic inflation rate has been in the same line with that reported in Montenegro at about 2.8 percent, but high relative to 2.3 percent in Bosnia and Herzegovina[ii]. According to official sources the domestic growth rate of 6 percent is sustainable and is expected a small increase in the near future [17] but the impressive growth rate that Albania has reported in the beginning of transition period around 13 percent is considered unreachable in midterm. This impressive growth rate was supported by increase in total factor productivity, that since year 2000 have had a considerable decline[iii]. This paper will be focused on determining the role that government expenditure has played in sustaining growth rate in Albania. After making a review of theoretical and empirical growth evidence which help in underlying growth determinants, will briefly be analyzed Albania reality with growth enhancing factor relative to other transition economies, followed by econometric estimation and summary and conclusion.

2. Underlying growth determinants. Theoretical and empirical evidence

The Solow growth model (1956), shows that persistent long term growth must come from technological progress, but doesn't explain where technological progress come from. By treating exogenous growth determinants, this model leaves no room for government policy to affect long term growth rate. Late 1980 early 1990 some authors [4, 22], developed endogenous growth theory model that changed the view of the role of government in growth theory. The fact that Solow model makes the simplifying assumption that there is only one type of capital is stressed also by [24]. In the world of course there are many types of capital, business traditionally invests in equipment, government invests in road and infrastructure, and there is also human capital that is at least as important as physical capital. This point of view is supported by [5]. In his work is stressed that both factor accumulation and production efficiency influences the quality of nation's institution, including the government policy maker process. Bad government policies accumulate less capital and fail to use the capital they have as efficiently as they might. Other authors' [12], state that technological progress, depends particularly on investment directed towards human capital. The economic growth resulted from the increasing returns associated with new knowledge is the centre of new growth theory. In the framework of this theory [10] the policy makers need to pay careful attentions to all the factors that provide incentives for knowledge creation (R&D, the education system, macroeconomic expectation, and openness to trade).

Macroeconomic literature especially Keynesian school suggested that government spending accelerate economic growth. It is broadly accepted that physical infrastructure and a limited set of public goods are necessary for economic development. However as government move beyond these core functions economic growth is adversely affected [18]. In an attempt to find optimal size for government spending [9], is found that government size from 19 percent to 30 percent is growth enhancing[iv]. In other studies [26] is found that not only the government size but also expenditure composition matters for economic growth, especially in counties when the government is week. Some authors [15, 32] have incorporated the overall fiscal balance variable in standard growth model and have found empirical support for positive impact of fiscal surpluses in enhancing economic growth. Other authors have done a disaggregated analyze of government expenditure on growth, in order to measure the impact and direction of different expenditures categories in growth. Empirical support for modern growth theory is found by [6, 13]. These authors state that educations is an important key variable to economic prosperity, and recommend allocation of scare government resources towards education sector. The relationship between growth and nine major areas of government expenditure is analyzed by [33]. They have found that different expenditure have different impact on growth. Highways were related to growth positively, expenditure on environment, housing, administration and insurance trust had a negative impact. They didn't found evidence that the education expenditure was statistically important to growth, but expenses in education were positively related to growth. Other authors [14, 28, 34] have found evidence that political stability, government effectiveness, public spending on education, quality of labor force, control of corruption and property right are important determinant for growth. Empirical support for positive impact on growth of government expenditure in infrastructure and education together with other variables like FDI and trade openness is found by [25]. Empirical support for positive impact of FDI in growth is also found by [1, 2, 8, and 27].

For developing countries in standard growth models are often incorporated variables that measure the macroeconomic stability of a country (inflation rate and trade openness) and variables that measure the level of financial development. Related to inflation the empirical work has supported the negative relationship between inflation and growth [3, 7, and 16]. The negative relationship is supported even by theoretical perspective, because inflation undermines the confidence of domestic and foreign investors, and worsens long run macroeconomic performance of the county. The level of financial development is found to be positively related with economic growth [29]. In countries with underdeveloped financial system remittances have found to be beneficial to economic growth [30].

In this work consistent with similar studies that are mention above, the role of government sector in economic growth is not studied separately but together with other important growth determinant factors.

3. Albanian economic performance and growth enhancing factors

Albania has experienced an impressive economic growth relative to other transition economies. After the initial decline in output in the beginning of transition process, the Albania economy started to grow since year 1993, with high growth rates of about 10 percent until year 1997, the collapse of pyramidal schemes, which was accompanied with sharp decrease in growth rate of about 7 percent. The positive growth rates started to recover from year 1998 due to combination of successful macroeconomic policies. From 1998 until 2009 the growth rates has been about 6 percent in Albania, one of the highest in south east Europe. The main force behind this impressive growth performance has been macroeconomic stability. During this time is followed a cautious fiscal policy that has helped in consolidation of public finances, this was evident with the reduction of overall deficit and domestic borrowing. Monetary policy has been prudent. The main objective is maintaining price stability, and Bank of Albania has managed to keep inflation within the band of 2 -4 percent for all the time under survey with the exception of 1997, year in which state institutions ceased to function. Other important factor supporting the growth has been increase on total factor productivity, that has recorded a good performance after the initial stabilization reforms was implemented, and started the process of reallocation of resources from low productive sectors to service and construction sector. Another factor sustaining economic growth has been expansion of consumption that during all this period is strongly supported by private transfers of Albanian emigrants, that hasn’t decline with the development of transition process in the country.

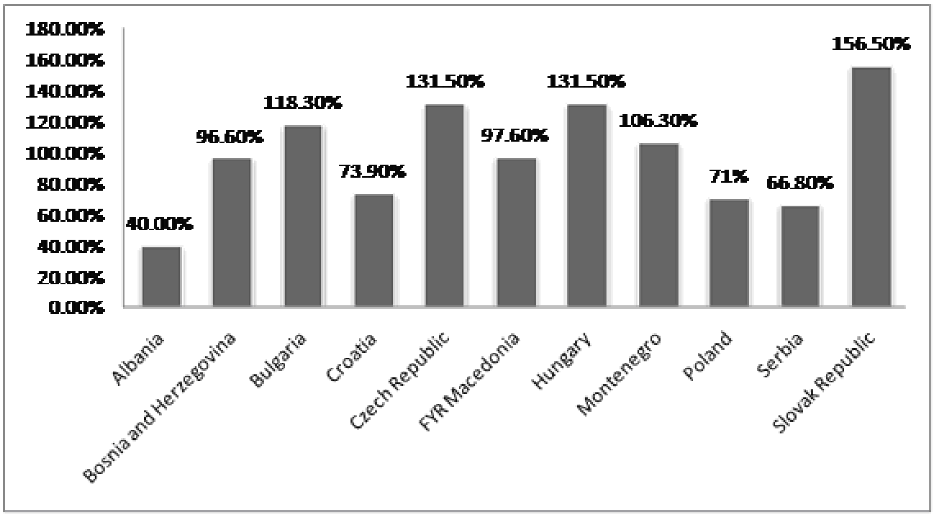
In literature it is broadly accepted that especially in transition and emerging counties trade has e key role in economic growth [11].

In the figure 1 it is shown the level of trade openness in Albania economy relative to other transition economies for year 2009. Based on the reported data, Albania trade openness is smaller relative to other transition economies. Some transition economies have impressive trade openness rates that exceed 100 percent of GDP, like Slovak Republic, Hungary, Czech Republic, Bulgaria and Montenegro, where the impact of trade openness in economic growth is expected to be higher relative to Albania economy where trade openness is account for 40 percent of GDP, even though its impact in Albania economic growth has been important [23], and is expected to increase in the future. Membership of Albania in WTO organization, and signature of many bilateral free trade agreements with neighbor countries have helped Albania in increasing the total trade volume and promoting competitiveness. The fact that we are behind other transition countries means that more should be done in this direction.

In the figure 2 are reported other important growth enhancing factors, the level of investment relative to GDP and credit to private sector relative to GDP. Albania level of investment relative to GDP is in the same line with other transition economies. The level of credit to private sector is smaller relative to all other transition economies, with the exception of Serbia that for year 2006 has reported about 18.9 percent of GDP relative to 21.7 present in Albania. Credit to private sector, is used in literature, as an indicator that measures the level of financial development of the country. Low reported levels means underdeveloped financial sector in the country. The relationship of this variable with economic growth is positive [20]. In some empirical work such as [31] have shown that in countries with low level of financial development is found an uncertain positive relationship between financial developments in growth, but positive relationship was uncontestable for countries with intermediate and high level of financial development. For developing countries with borrowing difficulties a substitute for financial development is fund to be private remittances [19], which therefore are determined growth enhancing variableIn the table 1 are shown some dates which give information about the government size in some transition country, the expenditures made in health and education and an index measured by EBRD for progress made in infrastructure in respective counties. In this work it is utilized aggregate measure of government size, the ratio government expenditure to GDP. From the reported dates could be easily noticed Albania have the smallest government sector relative to other transition economies. Albania fiscal adjustments that have started since September 1992, is basically focused on expenditure cuts. Measures on the revenue side were introduction of VAT late 1997, after 1999 the adjustment occurred through cut on public expenditure [17]. It is understandable that public investment made in the specific country will depend on the government size of that country. The highest health and education expenditure are accounted in countries where the government sector was above 45 percent of GDP, such as Hungary, Bosnia and Herzegovina and Croatia. Even in countries with government size around 30% like Albania, is noticed a higher health and education expenditures. Albania government size is much smaller relative to EU 15 countries. The same could be said about health and education expenditure.

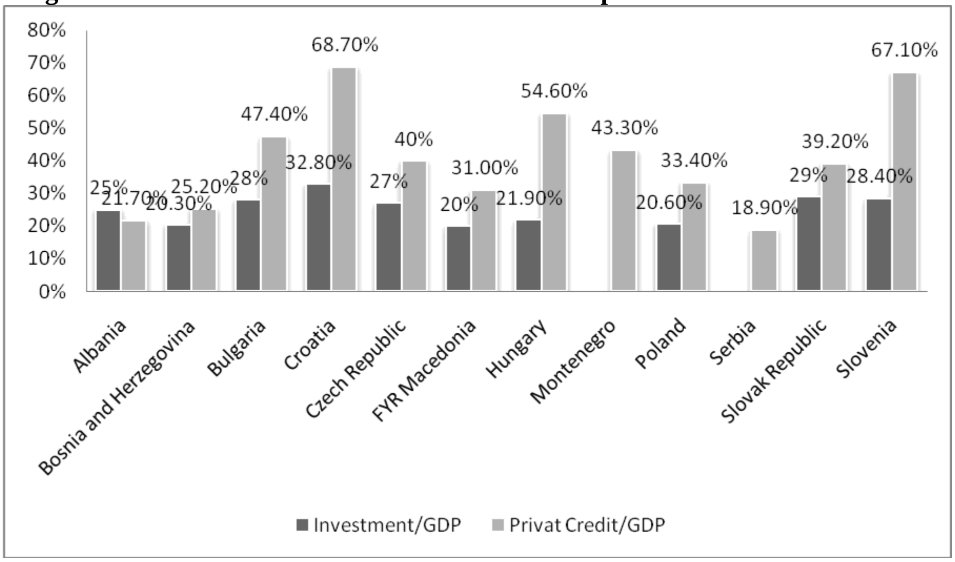
Investments in roads are done through public investment, and can indirectly improve the productivity in private sector, and therefore have a positive impact on growth. Despite the continuing investments done in infrastructure by Albania government, there is a low level of this index relative to other countries, with the exception of Serbia and Montenegro. In the advanced transition economies this index is around three percent.

Figure 1. Trade Openness



(Source EBRD Transition Report)

Figure 2. Investment relative to GDP and credit to private sector relative to GDP



(Source: EBRD Transition Report)

4. Data description and methodology

Econometric analyze of major growth factors is based on Panel data methodology. In this part we are focused on analyzing the role of government policies on growth performance in Albania relative to other transition countries with similar patterns. The early years of transition are not included in the model in order to avoid the distortion that came from the early reform such as price liberalization in these countries.

For econometric work are used annual data for the period, year 1994 –2009, for nine transition economies. In econometric analyze are considered two set of variables. In the first set of variables are included the variables that are related to overall macroeconomic condition of a country, such as CPI, trade openness, a variable that measure development of financial system, represented by credit to private sector. In the second set of variables are included fiscal variables represented by total government expenditure rate relative to GDP, and the EBRD infrastructure index. We have used the average annual GDP growth rate as the dependent variable.

The regression form for a country *i* is as follows:

$$GDP_{growth\,i} = \alpha_i + \beta_{1,i} CPI + \beta_{2,i} TRADE + \beta_{3,i} CREDIT + \beta_{4,i} INVEST + \beta_{5,i} BUDGET\ EXP + \beta_{6,i} EBRD\ Infrastructure\ Index$$

Table 1. The decomposition of government expenditure (Source: EBRD Transition Report and Eurostat data)

Country	Government expenditure/GDP	Health expenditure/GDP	Education expenditure/GDP	Infrastructure index
EU 15	47.3%	6.6%	5.2%	n/a
Albania	28.4%	2.9%	3%	2.3
Bosnia Herzegovina	47.9%	10%	n/a	2.3
Bulgaria	35.5%	2.7%	4.2%	3
Croatia	47.7%	6.1%	4.7%	3
Czech Republic	42.3%	6.5%	4.5%	3.3
FYR Macedon	34.1%	5.7%	3.4%	2.3
Hungary	53%	5.4%	5.9%	3.7
Montenegro	41.9%	6.4%	5.4%	2
Poland	43.3%	4.2%	5.6%	3.3
Serbia	42.1%	7.3%	n/a	2
Slovak Republic	37.3%	5.3%	4.4%	3
Slovenia	45.2%	6.5%	6.6%	3
Estonia	33%	4%	6%	3.3
Lithuania	34%	4.7%	5.5%	3

Source: EBRD Transition Report and Eurostat data

CPI is average annual inflation, TRADE is the ratio of export plus import relative to GDP, CREDIT is total credit to private sector relative to GDP, INVEST is total investment to GDP ratio. In the short run is expected positive impact on growth of total budget expenditure relative to GDP.

Table 2. Regression Results: Dependent variable real GDP growth (fixed effect estimation), Sample for nine countries. Method: GLS (Cross Section Weights)

	Coefficient	**Std. Error**	**t-Statistic**	**Prob.**
BD expenditures	0.011	0.566	0.207	0.836
CPI	-0.073	0.035	-2.095	0.039
CREDIT	0.020	0.040	0.497	0.620
EBRD Infrastructure index	2.507	0.722	3.475	0.000
INVEST	0.126	0.053	2.377	0.020
TRADE	0.046	0.021	2.200	0.031
Country fixed effect coefficients				
Albania	0.69			
Bulgaria	-2.00			
Croatia	-3.69			
Czech Republic	-2.55			
Hungary	-4.82			
Poland	-3.98			
Romania	-1.12			
Slovakia	-1.51			
Slovenia	-3.01			
R –Squared	0.83	Mean dependent var	5.615998	
Adjusted R-squared	0.79	S.D. dependent var	2.369696	
S.E. of regression	1.08	Sum squared resid	66.45800	
F-statistic	56.99	Durbin-Watson stat	1.559132	
Prob(F-statistic)	0.00			
Number of observation 72				

Source authors' calculation

5. Results and discussion

On the bases of analysis for nine transition economies, the main results can be summarized as follows:

The impact of total government expenditure ratio relative to GDP is positive for the countries under survey, which is consistent with economic theory related to short time relationship between these variables. This variable is not statistically significant. One possible explanation for this is that fiscal consolidation in developing countries is basically based on reduction of government expenditure. The EBRD infrastructure index is positive related to growth and statistically significant. This result is consistent with the work of [25] that determines the role of infrastructure key growth enhancing factor.

The impact of inflation, which is used to measure the impact of stabilization macroeconomic policy on growth is negative and statistically significant

Financial development measured by ratio credit to private sector relative to GDP has a positive impact, but is not statistically significant. Other empirical studies [21] have found that in countries with low level of financial development an uncertain positive relationship between financial development and growth, but positive relationship was uncontestable for countries with intermediate and high level of financial development. For developing countries with borrowing difficulties a substitute for financial development is fund to be private remittances [19].

Investment and trade openness relative to GDP have a positive significant impact on growth.

6. Conclusion

In this paper are analyzed the main forces that have driven the economic growth in Albania relative to some Southeast and Central European countries, from the beginning of transition period year 1993 until 2009. The study has found that macroeconomic stability of a country, trade openness, and investment in infrastructure are the main factors driving growth. The impact of total government expenditure ratio relative to GDP is positive for the countries under survey, which is consistent with economic theory related to short time relationship between these variables. Infrastructure index is positively and statistically significant related to economic growth. This means that government should direct its scare resources towards this sector because a change in infrastructure expenditure improves the productivity in private sector.

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[i] In December 2006, Albania together with neighbor countries substitute bilateral free trade agreement with a single agreement of free trade, and signed an extension of free trade agreement with Central European Countries which will bring a further trade liberalization

[ii] The dates are taken from 2007 transition report published by EBRD. About 6 percent growth rate is

achieved in countries with different exchange rate regime. In Albania is applied managed float regime, in Bosnia and Herzegovina Currency board pegged to euro and in Montenegro Unilateral Euroization to euro.

[iii] IMF Albania selected issue 2006. According to this report total factor productivity growth seem to have stabilized in recent years at the low levels in Albania. One reason for this stagnation determined in the report was less advancement in structural reforms in the Country.

[iv] The size of government in the world faster growing counties is generally less than 20 percent