The impact of public debt on economic growth in Albania

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Abstract
Public debt provides the necessary funds for governments to enable economic incentives in various sectors or industries. Public debt enables strategic investments that benefit the entire economy, which would otherwise be difficult to achieve. By using public debt governments do not reduce government spending in case of insufficient revenues. Public debt has become commonplace in today governments. For this reason, public debt has been in the attention of policymakers as well as experts of economies in recent decades. The focus of this study is the level of public debt and its impact on economic growth in Albania. The purpose of this study is to find the relation between public debt and GDP per capita. The first objective is to analyze the relation of total public debt with GDP per capita and the second objective is to analyze the external debt relation with GDP per capita.
To achieve the paper objectives, the analysis is based on a model build with secondary data using the least-squares method. In this paper, it has been concluded that total public debt has a positive impact on GDP growth per capita, while there is a negative relationship between external public debt and GDP per capita.

Keywords: public debt, external debt, GDP per capita, government consumption

JEL Classification: H63, H72, H74, O11

1. Introduction

The increase in public spending occurs for many reasons, like from rising living standards, infrastructure investments, or even due to updates on advanced technology which in turn leads to the need for public borrowing. However, as long as the investments made are efficient, and the government's goals towards a sector or interest group are achieved, it can be said that borrowing is justified. Public debt, like any other debt, has a cost because it will be repaid together with interests, so the efficiency in using the funds is very important. Public debt gives the perception that government is not able to manage revenues or reduce the corruption of tax agents in tax collection. However, governments are often faced with an indisputable need to borrow. Growing attention to public debt has become particularly sensitive for European countries and countries aiming to become part of the European Union. These countries seek to meet

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the requirements of the Maastricht Treaty and the Stability and Growth Pact, avoiding excessive deficits and maintaining public debt levels in the level of 60 percent of GDP.

According to the IMF (2014) total gross debt is referred to as total debt liabilities and consists of all liabilities that are debt instruments. A debt instrument is defined as a financial claim that requires payment(s) of interest and/or principal from the borrower. Public debt is closely linked to the budget deficit. The budget deficit is the result of rising government spending that will further lead to borrowing.

The attention of economic experts has always been an analysis of the reason for borrowing and the analysis of the effect that public debt has on the economy. Predicting debt performance in the future, sustainability or future changes in interest rates is a complicated undertaking.

Albania's economic performance has been positive during the last years. GDP has increased by 4.1% in 2018 which is higher than the growth rate of the year before, when the economy grew with a growth rate of 3.80%.

Since the level of public debt is calculated in relation to GDP than GDP growth has affected the reduction of the debt level. The change of ALL/Euro exchange rate has had a positive effect on reduction of the level of debt because the largest share of the external debt is in Euro. Eurobond issuance in 2010 increased even more external debt in the Euro currency.

The level of public debt in Albania has been declining since 2016. Thus, from 72.67% of GDP in 2015, public debt was estimated at 65.8% of GDP in 2019. There has been also a downward trend in the budget deficit since 2014. Figure 1 shows the performance of growth rate of GDP per capita and public debt in recent years.

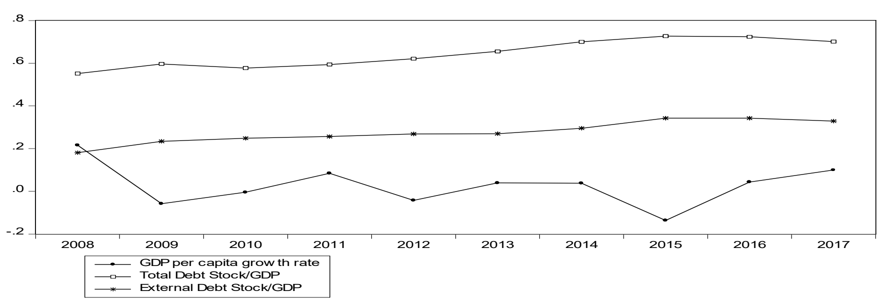

Figure 1 The performance of GDP per capita and public debt

Source of data: World Bank, Ministry of finance and economy

The situation of public debt has been positive not only from decrease in its level but also from the decrease of the interest rates. Interest rates have fallen in both, domestic and foreign markets, while is increased the share of debt with concessional interest rates. Domestic debt is more expensive than external debt, mainly due to the fact that it is a debt issued entirely in trade terms (Ministry of Finance and Economy 2017). The debt share with variable interest rates is reducing and the largest share of debt is now with a fixed interest rate. The declines of interest rates have had a positive effect on lowering the risk of interest rate and debt refinancing. Cost improvements have come from decrease of EUR / LEK exchange rate also (Ministry of Finance and Economy 2019).

2. Literature review

Governments are increasingly turning their attention to the public debt due to the fact that it is an immediate source of funds without changing fiscal policy. Funds are provided without changing tax rates and without reducing public spending so borrowing is an opportunity to increase government spending. The public debt must be seen in the light of fiscal policy for understanding better its impact. Aghion and Kharroubi (2007) conclude that in economies where fiscal policy has been more counter-cyclical the industries have grown faster.

Borrowing can have different effects on different economic indicators. Many researchers have analyzed the effect of public debt on economic growth and other important indicators of the economy. Thus Nguyen (2018) emphasizes that in long run an increase in external debt leads to a decrease in GDP and a growth of unemployment and unemployment needs to be controlled for the impact that has in national expenditure. Švaljek (2000) conclude that public debt should be used for stabilization purposes, which means that it should be used in times of great crisis, in order to avoid declining disposable income in these periods. Since any loan must be repaid in the future and if the goal is not to increase tax rates in the future then borrowing is not the right decision because it will act contrary to this purpose.

Brkić (2016) analyzed Greece' experience and concludes because of a high level of government debt and strong dependence on foreign borrowing a country will find itself in a severe debt crisis in a case of an economic downturn. Bökemeier and Greiner (2013) find in their study that exists a negative relation between public debt and economic growth in subsequent periods. When the debt to GDP ratio is high at the beginning of the period the real GDP per capita will decrease. Debt should be reduced in order to stimulate economic growth. Also Balassone, Francese, and Pace (2011) who analyze the relation between debt-to-GDP ratio with per capita GDP growth in Italy and found that the debt-to-GDP ratio has negative influence on per capita GDP growth and this influence work mainly through reduced investment.

Kose et al. (2020) conclude that countries with higher levels of government or private debt were associated with stronger financial crises. At the same time, the higher cost of debt service and low reserve coverage increased the likelihood of a crisis. In periods of economic downturn public debt may be temporarily appropriate as part of anti-cyclical fiscal policy. High government debt can also limit the effectiveness of fiscal stimulus during an economic downturn. Zouhaier and Fatma (2014) have achieved the result that external debt negatively affects the economic growth of countries and there is a negative interaction between external debt and investment in the countries under consideration.

Some authors have analyzed the impact of public debt on GDP per capita and have also found the level where debt has a negative impact. Checherita-Westphal and Rother (2012) in their study they find a nonlinear impact of public debt on GDP per capita and a negative impact of debt-to-GDP on long-term growth, when debt reaches 90-100% of GDP however, the negative effect of public debt may start at a level of about 70 to 80% of GDP. Akram (2016) studied the consequences of public debt on economic growth and poverty in developing countries. The most important result of the study is that public external debt has a negative relation with the GDP growth rate. While domestic debt negatively affects the GINI coefficient and can reduce income inequality. According to Nautet and Van Meensel (2011), there are several ways in which a public debt increase in economic activity has a long-term negative impact. An increase in public debt reduces net national savings and this tends to increase interest rates, which in turn will cause a decline in investment and the rate of increase in capital stock. The slow accumulation of capital will reduce labor productivity.

Spilioti (2015) in her study of the impact of government debt on GDP growth concludes that public debt has a positive impact on the economic growth of EU countries because debt develops the economic activity. Kim, Ha and Kim (2017) the impact of public debt on economic growth is also influenced by corruption. This emphasizes the need for transparent and integrity institutions so that the public debt has a positive impact on economic growth.

3. The relation of public debt on growth, the results Data and Methodology

After the analysis of the literature review as a dependent variable is determined GDP per capita, while as independent variables are used the ratio of total debt stock to GDP, the ratio of external debt stock to GDP, export as a percentage of GDP and government consumption expenditure as a percentage of GDP. The general reason for using GDP per capita as a dependent variable is because this variable explains how public borrowing has affected individuals' incomes. The ratio of total debt stock to GDP is the best representative of public debt. The other representative indicator of public debt is the external debt stock ratio to GDP. This indicator is used because firstly, one of the objectives of this paper is the impact of external debt on the economy and secondly because most of the public debt continues to be domestic debt, so the ratio of total debt stock to GDP is a very good representative of the ratio of domestic debt to GDP. Despite the financial crisis of 2008, public spending is not reduced and for this purpose has helped the debt. The most useful indicator by various authors as a representative of the development of trade and the impact it has on economic growth and vice versa is export as a percentage of GDP. All variables are used in the Ln form.

For the development of this study, a model is constructed using the least-squares method, which is tested by the Eviews. The model is built with secondary annual data, covering the years from 2008 to 2017. In 2008 in Albania the fiscal package has changed, which was followed in 2010 by the first issue of Eurobond, and this is why 2008 has been used as the starting year for analysis.

The data are provided by the World Bank through the World Development Indicators database, the Ministry of Finance and Economy of Albania and the Institute of Statistics of Albania.

Empirical approach

In table 1 are presented the results of the model.

Table 1. Summary of results

Independent variables	coefficient	Std error	t-statistic	probability
c	2.864201	1.226306	2.335632	0.0667
Total Debt Stock to GDP	0.869536	0.222607	3.906154	0.0113
External debt stock to GDP	-0.739431	0.142041	-5.205743	0.0035
Exports (% of GDP)	0.856568	0.160758	5.328297	0.0031
Government consumption (% of G	0.858204	0.430858	1.991848	0.103

R^2	0.88271
Adjusted R^2	0.788877
Prob (F-statistic)	0.015109

From the results of the model, it is concluded that there is a significant positive relationship between total debt stock to GDP and GDP per capita. The positive impact of total public total debt, which is dominated by domestic public debt, shows that funds have been allocated efficiently and have contributed to GDP growth per capita. External debt stock to GDP has significant negative links with GDP per capita. It seems that the two independent variables of assessing the impact of public debt on the country's economic growth contradict each other, and for this it is required a detailed analysis of the impact of public debt.

Export is also an important positive variable, an expected impact on an economy. Government consumption has a positive relationship with GDP per capita but insignificant.

F statistic and the corresponding probability of 0.015109 indicate that the model is statistically significant, so independent variables together influence the dependent variable. From the model testing, it is revealed that there is no serial correlation between the variables up to 2 Lag and from Breusch-Pagan-Godfrey test resulted that the model is homoscedastic. The data are normally distributed.

Conclusion and discussion

At the focus of this study is the impact of public debt on growth of GDP per capita, to understand whether the debt has been effective in the economy and has increased the income of individuals. The growth of GDP per capita rate has not always been positive and the analysis of the constructed model concludes that public debt has had a significant positive relation with GDP per capita for the period under consideration. The result is also supported by the conclusion of Spilioti (2015). The positive relation between government spending and GDP per capita is statistically insignificant. As a result, the government must be careful not to unnecessarily increase spending and especially not to use external public debt for this.

The negative relationship with external debt shows a lack of efficiency in the use of this debt. This result may come due to investments of these funds in the wrong direction for the economy or from mismanagement of this debt by the existence of corruption as concluded by Kim, Ha and Kim (2017). External debt has a negative impact on the level of GDP per capita, as well as the risk of interest rate, the refinancing debt also has the exchange rate risk. According to the literature review, countries with high levels of public debt go straight into the financial crisis, so the government must be careful in public borrowing and must reduce external public debt.

This paper has some limitations. In this paper it was not analyzed whether there is a maximum level of total public debt beyond which the impact on GDP per capita may be negative. There are also other important variables that affect GDP per capita for which data availability was limited.

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