INTERNATIONAL JOURNAL OF ECONOMICS AND FINANCE STUDIES
Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227
Received: 21.02.2021 | **Accepted:** 12.05.2021 | **Published Online:** 05.06.2021

-RESEARCH ARTICLE-

PUBLİC DEBT AND FACTORS İNFLUENCİNG THE REAL GDP GROWTH: CASE OF ALBANİA

Elona Fejzaj

Faculty of Economy and Agribusiness, Tirana, Albania
E-mail: efejzaj@ubt.edu.al

Ilir Kapaj

Faculty of Economy and Agribusiness, Tirana, Albania
E-mail: ikapaj@ubt.edu.al
https://orcid.org/0000-0003-0349-044X

Ana Mane Kapaj

Faculty of Economy and Agribusiness, Agriculture
University of Tirana, Rruga Paisi Vodica, Tirana, Albania
E-mail: amane@ubt.edu.al
https://orcid.org/0000-0002-2406-2164

─Abstract─

The aim of the current article is to examine the role of public debt on the economic growth of Albania. For this purpose, the current study uses secondary data from the Bank of Albania, the Ministry of Finance, and the International Monetary Fund (IMF). This study has extracted the data from above mentioned resource for the period, 1981 to 2019. The present article executes the error correction model (ECM) and Granger casualty test to examine the nexus among the variables. Study findings show that the internal sources of public debt have a positive while external source of external debt have a negative association with economic growth. These results are helpful for regulators seeking to formulate, amend or implement laws, policies and regulations pertaining to public debt and economic growth.

Citation (APA): Fejzaj, F., Kapaj, I., Kapaj, M. A. (2021). Public Debt and Factors Influencing the real GDP Growth: Case of Albania. *International Journal of Economics and Finance Studies, 13* (1), 110-127. doi:10.34111/ijefs.202112227

Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227

Keywords: Real GDP Growth, Public Debt, Domestic Debt, External Debt, Debt Services

JEL Classification: H6, F43

1. INTRODUCTION

Albania remains highly vulnerable to foreign and domestic hazards on account of being an open small economy with insufficient levels of economic diversification. (Beqiraj, Fedeli, & Forte, 2018). Drought, continuous emigration of skilled personnel, population ageing, and overflows from decreased growth in important trading partners are all economic challenges faced by the country. Moreover, due to Albania's increasing public debt, comparatively greater number of financing needs, high uncertain liabilities, adverse intensive shocks to growth and destruction in regional financial matters can ultimately destabilize the country's public balance sheet and limit access to easy financing. More fiscal adjustments as well as budgetary formsmust be implemented. Over the medium/short term, encouraging the reduction in the public debt of the country will allow the management to remove or minimize the shocks by applying countercyclical fiscal strategies (Onafowora & Owoye, 2019).

Our country's public debt is particularly visible in the period after 1993. Before that period, the country must figure out which countries would be willing to cooperate, both, at the political and economic level, and the debt is taken as the external command (Mothibi & Mncayi, 2019). A number of statistical reports highlight that there was foreign funding. However, many facts mention the existence of foreign funding even under a communist regime. Prior to the 1990s, the state (government) clarified what economic activities would be carried out in the country, requiring their implementation across all sectors— specifying the percentages they were expected to achieve and, in most cases, the necessitating and surmounting strategy. The annual figures accurately depict the country's status, highlighting achievements and good results across all sectors of the economy (Gómez-Puig & Sosvilla-Rivero, 2018).

Albania's connectivity with surrounding economies substantially grew after 1991, and is increasingly being connected to global manufacturing networks on account of its reliance on foreign trade, technology, and equity (Yolcu Karadam, 2018). Financial, as well as the debt crisis, have left their impact, as the region ties to Europe and particularly the countries of the region have been impacted in this regard. This was a result of Albanian emigrants across Europe, particularly in Italy and Greece as well. Albania has a high degree of debt in comparison to other countries. It has frequently been criticised by the IMF, which has called for the consolidation of public budgets to be measured

(Shahor, 2018). The quick fluctuation in debt level, given the EU's constraints and the Maastricht Treaty standards, aggravates circumstances. If it was 57.7% of GDP in 2010, it increased in the following years to 65.5 per cent in 2013 and 71 per cent in 2014.

The purpose of exploring public debt management in this study is to demonstrate whether it is possible to sustain specific amounts of acceptable government loan while leading to productive economic goals, with the potential and ultimate possibility ofa achieving a favourable outcome in the form of total economic growth (Fukunaga, Komatsuzaki, & Matsuoka, 2019). According to public finance theory, public debt can be viewed as a vital shock absorber for the shock waves caused by the financial crisis. Public debt instruments can also be taken as a powerful tool to bring about development while a society understands the importance of development potential in comparison to opportunities. This topic is addressed in the Albanian context, which seeks development dynamics on the basis of internal as well as external loan instruments. However, given the current economic situation wherein the country has no more opportunity to enhance public debt to have desired benefits in the form of economic growth, except to utilize it in the future as a tool to absorb the shocks of potential crises (Senadza, Fiagbe, & Quartey, 2017). The most immediate goal is prudent public debt administration, defined as the means of developing and executing a public debt administration policy to obtain the desired amount of financing while maintaining cost and risk goals, and ultimatelty leading to the creation of an effective market for securities. This emphasises the need to enhance the accountability of both national and international regulatory governmental bodiesand audit structures , in case of public debt administration matters (Kim, Ha, & Kim, 2017). From an economic point of view, the origin of the loan is unidentified by the efficient audit of public debt. Thus, it becomes easy to learn about the nature of the debt, whether the debt has been taken for public service objectives or to satisfy corrupt agreements, or in order to have some specific economic or political goal (Pegkas, 2018).

Consistent economic development is a key objective for economies across the world, particularly in developing countries like Albania, who are grappling with issues such as political and macroeconomic stability, job creation, and EU membership by achieving 15 conditions put forth (Chiu & Lee, 2017). In Europe, the present debt crisis has remarkably diverted the attentions of a economists towards the increase in the amount of debt experienced in many developed or developing countries. Though Albania, unlike many progressed states, has successfully maintained a fast pace of economic development in the recent years i.e. 3-4%, it fell to about 2.21% in 2019 owing to the November earthquake, which resulted in the government missing its 4 per cent target (Chudik, Mohaddes, Pesaran, & Raissi, 2017).

Although Albania recently experienced macroeconomic stability, the domestic and international economists remain particularly concerned about the large amount of government debt. With anincrease in government loans above sixty per cent of GDP in

Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227

2019, to sixty five per cent, the ceiling set by the European Union for countries desiring to become an EU Member State, it has sparked large debate among policymakers. That is why, in Albania, public debt in the short term means a high probability of fiscal financing failure, however, in the medium run, rising public debt can stifle economic growth by restricting private sector credit and limiting the government's capacity to fund critical development projects. Economic development is also a driving force for any developing country seeking to reduce its budget deficit, despite the fact that it faces a number of hurdles in doing so (Ndubuisi, 2017).

The main focus of the study is the analysis of public debt, one of the most problematic issues in Albania economy. It does so by examining all general aspects of debt, state income and expenses, budget deficit and all sorts of lending. This is followed by an in-depth exploration of the three ways how public debt influences the country's economic growth via a number of transmission channels, the amount of internal and external debt, the medium-term strategy of public debt administration in Albania, cost of loan, liquidity and solvency indicators. Moreover, in order to achieve the objective of our study, the researcher analyzes the elements that affect real GDP growth, identifying domestic debt/GDP, external debt/GDP and debt service/GDP as variables of the study.

The government has several ongoing, forecasted, or contingent obligations. It has to design and implement several constructive and developing programs for the country's growth in the international market (Baharumshah, Soon, & Lau, 2017). For the fulfilment of these obligations and implementing these programs, different physical or human resources are needed. A specific amount is set aside in the budget for this purpose. At times, the government does not have an adequate amount of funds and is forced to borrow money in order to meet budgetary requirements. The most convenient way to acquire funds is to borrow money from the public as government spending and its budget affect the social and economic activities and, consequently, the economic growth of the country, which is indicated by the gross domestic product growth (Beqiraj et al., 2018). The need for the public debts for the country's growth forces researchers and scholars to pay heed to this issue. The main focus of our study is to analyze the significant role of public debt in the efficient performance of public obligations by the government and to check the contribution of public debts both from local people or foreigners into the achievement of a higher GDP growth rate. A long investigation has been conducted on the impact of public debts on the growth rate of real GDP. These studies have analyzed the influences of public debt either in a direct manner or discussed the impacts of public debts on 2 or 4 indicators of real GDP. However, the current study seeks to explore the impacts of public debt on GDP growth rate in detail and as a whole.

Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227

2. LITERATURE REVIEW

Many researchers and academics have attempted to gauge the influences of public debt in different countries and states with reference to different causal theories. The primary theory to public debt that has been considered by most past studies is the impact of public debts on economic growth, GDP, or GDP growth (Baharumshah et al., 2017). Studies are designed in a way as to check the impact of domestic debt, external debt, or total public debt on the GDP or economic development. Such approaches have been considered in different economies from countries having large amounts of debt under pressure from IMF, such as from developed to developing countries. What remains surprising is how often literary works can conflict in the forms of dissimilar findings found for the countries/groups of countries under study, and even for less or more the same time run, simply on account of the methodology they employ to arrive at their conclusions (Cavalcanti, Vereda, Doctors, Lima, & Maynard, 2018).

According to the arguments of Jacobs, Ogawa, Sterken, and Tokutsu (2020), public debt is a significant source of resource for the government to finance public spending and fill the gaps in the public budget. There are different sources of public debts like treasury bills, dated government securities (G-Secs), external assistance, and short term borrowings. This amount of money borrowed by the government to meet the developmental needs and goals of the budget helps raise fundsfor the government. These resources can be used to undertake developing or constructive projects (both, of a social and/or economic nature). In this way, the public debts raise investments, employment rate, and the productive capacity of all production-related factors. The public debts circulate the investments and bring a dramatic change in the overall production of the products and services in the country. Thus, the increased public debts though these government liabilities are a powerful tool to bring about an improvement in the real GDP growth rate. The study by Benfratello, Del Monte, and Pennacchio (2018) explores the impacts of government decisions and their execution on the country's position, which is indicated by the country's gross domestic product. This study shows that the borrowing of money from the general public within or outside the country becomes a major source of fundraising for the government. With access to more financial resources, the government gains the ability to put policies into practice, making it possible for the government to benefit from updated technology, and other physical and/or human resources. In this way, the government is likely to spur social and economic activities, which leads to an increase in the real GDP, helping the country maintain a superior position in the international market.

The literary investigation of Esteve and Tamarit (2018) analyzes how the formation and execution of government policies regarding loans affects their budget and economic position in the international market. This investigation posits that when the government has a flexible loan policy and can borrow money from the general public at any time

Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227

when required, it can better fulfil its developing or constructive goals that lead to stimulation in economic activities leading to more efficient communication, higher productivity, and a larger number of employment opportunities. all enables the country to achieve higher GDP and attain a better position in the international market. The literary article of Shahor (2018), defines public debt as the amount of money borrowed by the government from the public. According to the views of the author mentioned in this article, public debt is an important source of resources for the government to finance public spending and cover the costs of the overall budget. In this study, public debt has been shown as a percentage of GDP, which is usually taken as an indicator of the capability of the government to fulfil its future obligations. According to this research, public debt may be internal or external. The internal public debts enhance the government's ability to be prepared for contingent needs, giving them an opportunity to fulfil the instant needs of public spending by supporting the public budget. External public debt is the amount of money borrowed by the government from foreigners to fill budgetary gaps. External debt enables the government to import the resources needed for developmental or constructive projects, which leads to an increase in the production of different forms of products and services. Thus, both the internal and external forms of public debts increase the social and economic activities within the country and thus, leads to a high GDP growth rate.

The influence of external debt on Kenya's economic development during 1970-1995 has been investigated by the United National University Institute. Researchers employ a growth equation to look at the influence of investment and external debt on economic development, and the results show that external debt has a negative influence on economic growth during the period, the period with one lag, and debt services relating to exports. Wairimu and Gitundu (2017) take a new approach to examine the impact of government debt by looking at the impact of external debt on Kenya's GDP from 1970 to 2010. A negative relationship between external debt along with its interest and country's economic growth has been shown with a linear logarithm regression of several elements like inflation, workforce, investment, external debt, interest on it, and debt services. Similarly, a study has been written by Shkolnyk and Koilo (2018) to analyze the influence of external debts on a country's economic development. This study is based on facts and figures from 1980-2011, and finds a negative impact of external debts on the economic growth rate.

According to the views of Ighodalo Ehikioya, Omankhanlen, Osagie Osuma, and Iwiyisi Inua (2020), external debt has no numerically considerable impact on economic growth. However, in their opinion, domestic debt has a significant positive influence on economic growth. Economic growth by 3.3% for each increase by one unit of it. Similarly, the Institute for Economic Research Solvenia, in a research published in 2014, analyzes the impacts of public debt on economic growth in 25 EU countries for the period 1995-2010. It is found that in the short term, there is a positive effect of debt on

Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227

economic growth, while in the long term, there is a positive effect of debt on economic growth. This study records a 0.1% positive effect in old members and 0.038% in new members . The researchers are able to successfully determine the optimal positive impact before the start of the negative impact; 84% to 90% for old members, and for new members, it's been 53% to 54% debt for the size of GDP.

Albanian Public Debt

It's crucial to figure out how much of the debt is financed domestically and how much is financed internationally. External public debt is crucial not only because of its size but also because of changes in the role of official creditors, particularly multilateral creditors, whose influence extends beyond the amount of debt they supply (Shahor, 2018). Creditors are trained to administer public debt, and continue to be big bettors on the stock markets. The majority of loans in emerging economies are provided by international creditors. The economic stability of a country is the most important aspect in determining debt repayment credibility. Macroeconomic stability and credibility have grown in recent years. The World Bank, IMF, and regional development banks like the Research and Development Bank (RDB), including the Development Bank, the InterAmerican Bank, and other financial institutions, make up multilateral lenders. All the financial institutions discussed above play a critical role in ensuring provision of debts to individual states facing challenging liquidity conditions. RBD has a specific set of goals that are similar to that of the World Bank. Concessions are frequently made in exchange for sponsorship from a huge multinational firm.

For emerging countries, domestic souces of financing are higher for they are in a position to access foreign capital markets (Saungweme & Odhiambo, 2018). For such states, bonds and treasury bills are the main sources of financing. The entities who are expected to buy these bonds or treasury bills as debt holders are individuals or second-tier banks. İt has been highlighted here that in most countries with progressed financial markets, most investment funds, pension funds, insurance companies, and other financial institutions take the debts (Lartey, Musah, Okyere, & Yusif, 2018). For the circulation of a large number of debts, progressed financial markets are needed. The situation in our country is different as here the financial system is exposed to many flaws. İn developing countries, there is more focus on public debt analysis on external debts. Even in Albania, a developing country, the government mostly has internal debts as opposed to external ones; nevertheless, external debts have also been growing over recent times. In recent years, some emerging states have formulated certain policies to minimize the impact of external debts, having replaced them with domestic sources (Ahlborn & Schweickert, 2018). Normally, internal debt should be prefered as it is less risky for the state and its financing decisions. Nevertheless, debt comes with its own set of liabilities and risks, therefore loan managers should hesitate even when thoroughly and exclusively relying on internal debt. The foreign debt maybe prefered for two reasons. First, domestic debt

Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227

only stimulates the transfer of resources within the country's boundaries, whereas access to other funding resources increases with external debts. However, these days, with the rise of financial integration and unfettered capital movement, the conventional difference between internal and external debt may no longer be relevant (external debt means all the debts emitted in the international market, and by internal debt refers to all the debts circulating in the domestic market) (Jacobs et al., 2020).

Second, central banks in emerging nations are unable to issue currency in sufficient quantities to settle the external debt. İt is a more important issue in a time of economic crisis to keep high debts in a foreign currency in countries having unrestrictable capital accounts to move. However, countries which have a high level of debts, and have it in domestic currency, do not have face a problem as grave as the existence of debt in the foreign currency. The more worrying concern is the matter of repaying the foreign debts as there may be a change in the value of external debt (Kharusi & Ada, 2018). This does not however mean that internal debts are easy and not pacifying and problematic. It is also significant in its own unique way. The value of the local currency may vary as a result of it, and in the case of foreign currency, the value may also change as a result of it, as it has an impact on the foreign exchange rate. The government's decision to enhance the internal debt attracts the interest and attention of banks and other financial institutions. This may be a threat to the financial stability of the country. The banks can be liquidated, and as a result, there is a rise in interest rates. Furthermore, with the expansion of the public bond market, there are good externalities for the bonds of private firms. İn this case, there may be a risk that the public sector may indulge in private ones (Ahamad & Islam, 2020). The worldwide private market is an important source of funding for economies in need of liquidity even long before the financial crisis. The World Bank and the International Monetary Fund, of course, intervene. There may be fluctuations in the borrowing market from one time to the next asthis is inevitably an increasingly globalised market. In terms of the global market, conditions are ideal for the development of the borrowing market, with low values and a large number of loans (Intartaglia, Antoniades, & Bhattacharyya, 2018).

The international elements consist of imposing interest rates on the highly developed economies and overcoming unwelcoming hurdles in capital inflows resulting from rarely occurring or crisis type events. The important thing is that perception about the trends that show the probability of borrowing public debts are optimistic they must be treated with caution. Moreover, for the sake of the significant internal and external debts, it is critical to examine the role of fiscal and monetary policies (Silva, 2020). These policies are of remarkable significance not only to the size of debt and any changes in it, but these policies are also helpful in reducing debt and mitigating its adverse effects on future generations. Effective implementation of these combined policies is the solution to overcome inflation, interest rates, or a large tax increase. The implementation of a single macroeconomic policy will not be an appropriate way. A similar conclusion

Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227

before the deputy governors of developing economies in the meeting conducted in Basel in 2012 (Chen, Yao, Hu, & Lin, 2017). To them, control of international crises requires critical policy cooperation. Though the fiscal gives a rapid solution, it iss better to issue domestic currency bonds. İn this country, the fiscal policy to provide debts is not highly effective and this sort of policy influences individuals and the savings. Despite the fact that informality and evasion have been combated for some time, particularly in the last two or three years, there is still much that remains to be done. While we believe that it is preferable to take on debt because tax rises influence us directly, whereas loan payments are spread out over generations. However, we disagree with the latter; therefore, the situation is difficult (Ndoricimpa, 2017).

It is tempting to blame the government for the size of the debt, although this is rarely the consequence of excessive or poorly managed public spending, electoral campaigns, or other factors. In terms of monetary policy, it is preferred to use long-term instruments rather than short-term ones, as the latter can lead to inflation (Saungweme & Odhiambo, 2019). İt is best if both, the fiscal and monetary policies worked together to ensure that any fiscal adjustment is compensated by inflation and that there is no harm to consumption or consumption reduction. On the basis of the theory developed by and they conduct further analysis on this, it is linked with the time limits of the budget. İn order to develop compatibility among the two policies, it is imperative to abide by this limit. We will see a decline in interest rates if fiscal, as well as monetary authorities, do not cooperate and the Central Bank enhances the supply of money. Fiscal policy, on the other hand, will keep on running large deficits. There may be a shift in the level of public spending. Thus, there is the shift in AD that leads to a shift in the price level and directional shifts in inflation. This explanation takes on a new level in a monetary union where a single monetary authority interacts with fiscal agencies. It must be highlighted that overwhelming expenditure by one or more member states results in a heterogeneous inflationary union, which poses a number of challenges, particularly for a single emerging economy (Zaghdoudi, 2020).

İn this context, it is not easy to carry out effective regulation of public spending that results in a any considerable shift in the size of the debt. This lack of convenience occurs as it is not clear which sort of monetary policy suits fiscal policy (Ko, 2019). There is however one more issue: search for a time monetary policy, but sustainability is also a critical matter in this regard. State and its budget are constrained by the requirement of current expenditures on products and services, including actual debt, is equal to tax revenue, including new debts. Privatization is another type of debt. However, it does not represent a long-term solution. As pubic assets are limited, not all the earnings can be utilized to pay back debts. The advantages that these activities have to offer are compromisedlost. Privatizations started in 1992 with limited revenue, however, between 2000 and 2010, privatisations brought in substantial sums of money. Concessions are another tool employed in this regard (Mohanty & Panda, 2020).

Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227

3. METHODOLOGY

This study has examined the impact of domestic and external debt and debt services' impact on the real GDP growth of Albania. The data has been extracted from the Bank of Albania, the Ministry of Finance and the IMF. The data has been extracted from 1981 to 2019. The method used in this study is the error correction model (ECM). The analysis has been performed through the Granger causality test to determine the direction of the causality between the variables. The researcher explores the relationships among variables by ECM and causality between them. This study has taken four variables i.e., real GDP growth which is used as the dependent variable, while "external debt/GDP, domestic debt/GDP and debt service/GDP" have been used as the independent variables. Thus, based on all the variables mentioned above, the equation for the study is given as under:

$$RGDPG_t = \alpha_0 + \beta_1 ID_t + \beta_2 ED_t + \beta_3 DS_t + e_t \quad \textbf{(1)}$$

Where;

RGDPG	=	Real GDP Growth
t	=	Time Period
ID	=	Internal Debt
ED	=	External Debt
DS	=	Debt Sevices

The study has examined the nexus among variables with correlation matrix and has also checked the stationarity with the Augmented Dickey-Fuller Test (ADF). The ADF equation is given as under:

$$d(Y_t) = \alpha_0 + \beta t + \Upsilon Y_{t-1} + d(Y_t(-1)) + \varepsilon_t \quad \textbf{(2)}$$

The equations for the individual ADF test to check the stationarity of individual variables are given as under:

$$d(RGDPG_t) = \alpha_0 + \beta t + \Upsilon RGDPG_{t-1} + d(RGDPG_t(-1)) + \varepsilon_t \quad \textbf{(3)}$$
$$d(ID_t) = \alpha_0 + \beta t + \Upsilon ID_{t-1} + d(ID_t(-1)) + \varepsilon_t \quad \textbf{(4)}$$
$$d(ED_t) = \alpha_0 + \beta t + \Upsilon ED_{t-1} + d(ED_t(-1)) + \varepsilon_t \quad \textbf{(5)}$$
$$d(DS_t) = \alpha_0 + \beta t + \Upsilon DS_{t-1} + d(DS_t(-1)) + \varepsilon_t \quad \textbf{(6)}$$

If all the variables are stationary at level, then the ECM model is deemed to be the appropriate model to test the relationships among the variables. The equations for the ECM model are mentioned as under:

Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227

a) Long Run Estimation Equation

$$Y_t = \acute{\alpha}_0 + \beta_1 X_t + \beta_2 X_t + \beta_3 X_t + \varepsilon_t \quad \textbf{(7)}$$

b) Short Run Estimation Equation

$$\Delta Y_t = \acute{\alpha}_0 + \beta_1 \Delta X_t + \beta_2 \Delta X_t + \beta_3 \Delta X_t + \varepsilon_t \quad \textbf{(8)}$$

The ECM equation by using the understudy variables is mentioned below:

$$\Delta RGDPG_t = \acute{\alpha}_0 + \beta_1 \Delta ID_t + \beta_2 \Delta ED_t + \beta_3 \Delta DS_t + \Upsilon ECT_{t-1}\, \varepsilon_t \quad \textbf{(9)}$$

Finally, the present study also examined the casualty among the variables by using the Granger causality test. The equations for the Granger casualty are mentioned below:

$$Y_t = \beta_0 + \sum_{j=1} \beta_{1j} Y_{t-1} + \sum_{h=1} \beta_{2h} Y_{t-p} + \varepsilon_t \quad \textbf{(10)}$$

$$X_t = \acute{\alpha}_0 + \sum_{s=1} \acute{\alpha}_{1s} Y_{t-s} + \sum_{t=1} \acute{\alpha}_{2t} X_{t-m} + \varepsilon_t \quad \textbf{(11)}$$

4. RESULTS

This part of the findings demonstratesthe nexus among the variables through a correlation matrix, and the results reveal that all the predictors, such as internal debt, external debt and debt services, have a positive association with GDP growth. Table 1 presents these figures for all variables of the study.

Table 1: Correlation Matrix

Variables	RGDPG	ID	ED	DS
RGDPG	1.000			
ID	0.476	1.000		
ED	0.391	0.619	1.000	
DS	0.245	0.304	0.240	1.000

The ADF results have shown that all the variables are stationary at level, and when all the variables are stationary at level, then the ECM model is deemed a suitable choice to check the nexus among the variables. Table 2 shows these figures.

Table 2: Unit Root Test

Augmented Dickey-Fuller Test (ADF)	Level	t-statistics	p-values
RGDPG	I(1)	-3.013	0.001
ID	I(1)	-2.682	0.005
ED	I(1)	-1.156	0.013
DS	I(1)	-2.956	0.000

Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227

Table 3 has shown the co-integration that is necessary for the ECM model. The result of the Johnson co-integration test have shown the six co-integrations, indicating that the present study could successfully be applying the ECM.

Table 3: Unrestricted Co-integration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.802545	183.9858	125.3466	0.0001
At most 1 *	0.747755	134.5850	87.34145	0.0003
At most 2 *	0.617248	50.00024	45.24578	0.0000
At most 3 *	0.492809	33.42697	23.01090	0.0018
At most 4 *	0.324110	12.98773	9.39771	0.0210
At most 5 *	0.174088	4.885634	2.841466	0.0131

According to the results of the current study, we can conclude that the three independent variablesconsidered for this model are statistically significant. So, for the variables "Internal debt /GDP" (0.0024<0.05) and "External Debt on GDP" (0.0032<0.05), we conclude that they are significantly crucial for 95% security level. While for "Debt Service on GDP" (0.0608<0.07), we conclude that it is significantly essential for 93% security level. Moreover, we can conclude that the model we have chosen is significant and explains the dependent variable "GDP real growth" (0.000818<0.05, R^2 = 0.821251). Table 4 providesthese figures.

Table 4: Error Correction Model (ECM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.089336	0.012535	-7.410512	0.0097
ECT(-1)	-1.185095	0.023059	-51.394033	0.0000
D(ID)	0.497484	0.136804	3.636473	0.0024
D(ED)	-0.660033	0.072250	-9.423945	0.0032
D(DS)	0.872527	0.430362	2.027426	0.0608
R-squared	0.821251	Mean dependent var		0.043900
Adjusted R-squared	0.820502	S.D. dependent var		0.020628
S.E. of regression	0.015635	Akaike info criterion		-5.293929
Sum squared resid	0.003667	Schwarz criterion		-5.095099
Log likelihood	54.29232	Hannan-Quinn criter.		-5.260279
F-statistic	22.53892	Durbin-Watson stat		1.851767
Prob(F-statistic)	0.000818			

Source: Study data, EVIEWS

Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227

From the Granger causality test, we are able to see that domestic debt causes real GDP growth. (0.0025<0.05). External debt influences GDP, (0.00082<0.05). Debt service causes an impact on GDP (0.0252<0.05. Table 5 illustrates these relationships.

Table 5: Granger Causality Test

Null Hypothesis:	Obs	F- Statistic	Prob.
Internal Debt on GDP does not Granger Cause Real GDP growth	18	4.77101	0.0025
Real GDP growth does not Granger Cause Internal Debt on GDP		1.19159	0.3373
External Debt on GDP does not Granger Cause Real GDP growth	18	13.2137	0.00082
Real GDP growth does not Granger Cause External Debt on GDP		0.60002	0.5645
Debt Service on GDP does not Granger Cause Real GDP growth	18	5.32996	0.0252
Real GDP growth does not Granger Cause Debt Service on GDP		1.22689	0.3275

Source: Study data, EVIEWS

5. Discussions and Conclusions

The study results indicate that public debt has a positive relationship with real gross domestic product. The study implies that the borrowing of money from the general public raises the financial resources of the government available for funding social and economic constructive projects. Thus, a large amount of public debt results in increase the real gross domestic product of the country. These results are in line with the past study of Maitra (2019), which investigates the impact of government decisions and actions on the growth rate of real gross domestic product. This study demonstrates that the acquisition of public debts is one of the most significant sources of funds for the government. With a large amount of public debt, the government has a strong position to make effective policies and implement them efficiently in order to uplift social and economic status of individual citizens.. Both social and economic progress leads to a rise in the real GDP growth rate either directly or indirectly. These results are also in line with the previous study of Dombi and Dedák (2019), a research study that particularly analyzes how the nature of government policies regarding the loans and borrowings and their implementation affects its budget and the economic growth. This study elaborates that when the government has an inscription in the policy to meet the discrepencies or deficits in the budget, having borrowed money from the general public in the country as

Vol: 13 **No:** 1 **Year:** 2021 **ISSN**: 1309-8055 (Online) (**pp.** 110-127) **Doi:** 10.34109/ijefs.202112227

well as we international, regional or domestic government entities, it is more likely for a country to stimulate economic progress in the form of high GDP growth rate. These results are also supported by the literary work of Tarek and Ahmed (2017), who show that government can borrow money in different forms from the general public or foreign entities. This enables the government to acquire the resources needed for the success of constructive or developing programs, ultimately, leads to sustainable growth in the real GDP. The literary article of Brady and Magazzino (2017) also corroborates the results of the current study. This article looks into the contribution of public debts to improvement in the GDP growth rate. This study throws light on both, internal public debts and external public debts. This study suggests that the amount received through internal & external public debts enhances the level of available public funds, which can be used for the launch of government programs needed for socio-economic uplift of citizens. This raises productivity and employment levels in the country, which in turn, leads to a high GDP growth rate.

The current study carries a number of theoretical and empirical implications. This study holdstheoretical significance on account of its remarkable contribution to the economic literature on the subject. This study examines the importance of public debt for an incumbentgovernment. It throws ample light on the contribution of favourable government policies pertaining to public debts and their effective implication into the achievement of a high real GDP growth rate. A large number of studies have been conducted to explore the impacs of public debts on the growth rate of real GDP. These studies seek to gauge the influences of public debts in a direct manner or either on two or three factors that may cause a change in the real GDP growth rate. However, the present study gives a detailed description of the acquisition of public debts and its impacts on the real GDP of the country. This study aims to analyze the influences of public debts on the maximum number of factors that further contribute to the growth of real GDP. This study is also empirically useful for an emerging country because it provides guidance on how to improve the real GDP growth rate of the country. This study suggests that by formulating favorable policies regarding acquisition of both internal and external public debts and their effective implementation, the real GDP growth rate can be improved as it brings a positive change in terms of other factors affecting the real GDP.

The budget deficit has been one of the major factors seen to influence the increase of public debt in a direct manner, despite the fact that the latter was completely funded. Policymakers must be wary not minimize public expenditure as their best choice for reducing the budget deficit; instead, they must increase tax collections. The easiest way to achieve this is to impose regulations and broad sanctions on those who refuse to pay taxes. Furthermore, tax money must be made transparent to the broader public since it fosters public trust in the government/State. İn this way, taxpayers will be more aware that their money is going to be spent in their interest. Infrastructural improvements are

also necessary for the development of novel businesses and the citizens' movement. The effective utilization of borrowed cash has a potentially significant impact on the Albanian economy and citizens' well-being.

Public debt has a number of benefits when utilized in the right manner, in moderation, and with clear objectives, however its impact is negative when not capitalized on in the right manner. When examining the relationship between public debt and economic growth, it is clear that the economy has a downward trend when there is a rise in the level of public debt and vice versa. The debt service cost channel, the net savings channel, and the NCL channel are the transmission channels of the influence of a rise (reduction) in public debt on economic development in the long term. Potential creditors will have the ability to sense the danger posed by the government and its debt instruments as the level of public debt has risen to above 60 per cent in recent years. As a result, the rules were revised in June 2016, according to which the debt size must decline yearly until it achieves a level of 45 per cent should establish a schedule and a well-defined programme.

As it is totally financed by the latter, the budget deficit is the primary factor that directly influences increase in public debt. The most effective strategy to lower the deficit is to boost tax revenues having held audits or enforcing punishments on individuals who do not pay their taxes. A better channelling of finances might be another option, which significantly impact on Albania's economic development and help improve the welfare of all residents. More opportunities for enterprises and citizen movements would result from effective infrastructure expenditures, generating more profits for firms and more income for the government's budget. The above investigation should be continued by the other researchers to depict and analyse the impact of debt on economic development using different empirical models and research designs.

REFERENCES

Ahamad, K. M. U., & Islam, M. M. (2020). The Effects of Public Debt on Economic Growth in Bangladesh: An Evidence from the ARDL Bound Testing Approach. *International Journal of Economics and Financial Research, 6*(5), 87-95. doi:https://doi.org/10.32861/ijefr.65.87.95

Ahlborn, M., & Schweickert, R. (2018). Public debt and economic growth – economic systems matter. *International Economics and Economic Policy, 15*(2), 373-403. doi:https://doi.org/10.1007/s10368-017-0396-0

Baharumshah, A. Z., Soon, S.-V., & Lau, E. (2017). Fiscal sustainability in an emerging market economy: When does public debt turn bad? *Journal of Policy Modeling, 39*(1), 99-113. doi:https://doi.org/10.1016/j.jpolmod.2016.11.002

Benfratello, L., Del Monte, A., & Pennacchio, L. (2018). Corruption and public debt: a cross-country analysis. *Applied Economics Letters, 25*(5), 340-344. doi:https://doi.org/10.1080/13504851.2017.1321831

Beqiraj, E., Fedeli, S., & Forte, F. (2018). Public debt sustainability: An empirical study on OECD countries. *Journal of Macroeconomics, 58*, 238-248. doi:https://doi.org/10.1016/j.jmacro.2018.10.002

Brady, G. L., & Magazzino, C. (2017). The Sustainability of Italian Public Debt and Deficit. *International Advances in Economic Research, 23*(1), 9-20. doi:https://doi.org/10.1007/s11294-016-9623-7

Cavalcanti, M. A., Vereda, L., Doctors, R. d. B., Lima, F. C., & Maynard, L. (2018). The macroeconomic effects of monetary policy shocks under fiscal rules constrained by public debt sustainability. *Economic Modelling, 71*, 184-201. doi:https://doi.org/10.1016/j.econmod.2017.12.010

Chen, C., Yao, S., Hu, P., & Lin, Y. (2017). Optimal government investment and public debt in an economic growth model. *China Economic Review, 45*, 257-278. doi:https://doi.org/10.1016/j.chieco.2016.08.005

Chiu, Y. B., & Lee, C. C. (2017). On the impact of public debt on economic growth: does country risk matter? *Contemporary Economic Policy, 35*(4), 751-766. doi: https://doi.org/10.1111/coep.12228

Chudik, A., Mohaddes, K., Pesaran, M. H., & Raissi, M. (2017). Is There a Debt-Threshold Effect on Output Growth? *The Review of Economics and Statistics, 99*(1), 135-150. doi:https://doi.org/10.1162/REST_a_00593

Dombi, Á., & Dedák, I. (2019). Public debt and economic growth: what do neoclassical growth models teach us? *Applied Economics, 51*(29), 3104-3121. doi:https://doi.org/10.1080/00036846.2018.1508869

Esteve, V., & Tamarit, C. (2018). Public debt and economic growth in Spain, 1851–2013. *Cliometrica, 12*(2), 219-249. doi:https://doi.org/10.1007/s11698-017-0159-8

Fukunaga, I., Komatsuzaki, T., & Matsuoka, H. (2019). Inflation and public debt reversals in advanced economies. *Contemporary Economic Policy, 15*(2), 19-27. doi:https://doi.org/10.1111/coep.12537

Gómez-Puig, M., & Sosvilla-Rivero, S. (2018). Public debt and economic growth: Further evidence for the euro area. *Acta Oeconomica Acta Oeconomica, 68*(2), 209-229. doi:https://doi.org/10.1556/032.2018.68.2.2

Ighodalo Ehikioya, B., Omankhanlen, A. E., Osagie Osuma, G., & Iwiyisi Inua, O. (2020). Dynamic Relations Between Public External Debt and Economic Growth in African Countries: A Curse or Blessing? *Journal of Open Innovation: Technology, Market, and Complexity, 6*(3), 88. doi:https://doi.org/10.3390/joitmc6030088

Intartaglia, M., Antoniades, A., & Bhattacharyya, S. (2018). Unbundled debt and economic growth in developed and developing economies: An empirical

analysis. *The World Economy, 41*(12), 3345-3358. doi:https://doi.org/10.1111/twec.12626

Jacobs, J., Ogawa, K., Sterken, E., & Tokutsu, I. (2020). Public Debt, Economic Growth and the Real Interest Rate: A Panel VAR Approach to EU and OECD Countries. *Applied Economics, 52*(12), 1377-1394. doi:https://doi.org/10.1080/00036846.2019.1673301

Kharusi, S. A., & Ada, M. S. (2018). External Debt and Economic Growth

The Case of Emerging Economy. *Journal of Economic Integration, 33*(1), 1141-1157. Retrieved from http://www.jstor.org/stable/26418778

Kim, E., Ha, Y., & Kim, S. (2017). Public Debt, Corruption and Sustainable Economic Growth. *Sustainability, 9*(3), 433. doi:https://doi.org/10.3390/su9030433

Ko, M.-C. (2019). Fiscal policy, government debt, and economic growth in the Kaleckian model of growth and distribution. *Journal of Post Keynesian Economics, 42*(2), 215-231. doi:https://doi.org/10.1080/01603477.2018.1503056

Lartey, E. Y., Musah, A., Okyere, B., & Yusif, N. (2018). Public debt and economic growth: Evidence from Africa. *International Journal of Economics and Financial Issues, 8*(6), 35-45. doi:https://doi.org/10.32479/ijefi.7057

Maitra, B. (2019). Macroeconomic impact of public debt and foreign aid in Sri Lanka. *Journal of Policy Modeling, 41*(2), 372-394. doi:https://doi.org/10.1016/j.jpolmod.2019.03.002

Mohanty, R. K., & Panda, S. (2020). How Does Public Debt Affect the Indian Macroeconomy? A Structural VAR Approach. *Margin: The Journal of Applied Economic Research, 14*(3), 253-284. doi:https://doi.org/10.1177%2F0973801020920092

Mothibi, L., & Mncayi, P. (2019). Investigating the key drivers of government debt in South Africa: A post-apartheid analysis. *International Journal of eBusiness and eGovernment studies, 11*(1), 16-33. doi:https://doi.org/10.34111/ijebeg.20191112

Ndoricimpa, A. (2017). Threshold Effects of Debt on Economic Growth in Africa. *African Development Review, 29*(3), 471-484. doi:https://doi.org/10.1111/1467-8268.12282

Ndubuisi, P. (2017). Analysis of the impact of external debt on economic growth in an emerging economy: Evidence from Nigeria. *African Research Review, 11*(4), 156-173. doi:https://doi.org/10.4314/afrrev.v11i4.13

Onafowora, O., & Owoye, O. (2019). Public debt, foreign direct investment and economic growth dynamics. *International Journal of Emerging Markets, 14*(5), 769-791. doi:https://doi.org/10.1108/IJOEM-01-2018-0050

Pegkas, P. (2018). The Effect of Government Debt and Other Determinants on Economic Growth: The Greek Experience. *Economies, 6*(1), 10. Retrieved from https://www.mdpi.com/2227-7099/6/1/10

Saungweme, T., & Odhiambo, N. M. (2018). The Impact of Public Debt on Economic Growth: A Review of Contemporary Literature. *The Review of Black Political Economy, 45*(4), 339-357. doi:https://doi.org/10.1177%2F0034644619833655

Saungweme, T., & Odhiambo, N. M. (2019). Government debt, government debt service and economic growth nexus in Zambia: a multivariate analysis. *Cogent Economics & Finance*, *7*(1), 1622998. doi:https://doi.org/10.1080/23322039.2019.1622998

Senadza, B., Fiagbe, K., & Quartey, P. (2017). The effect of external debt on economic growth in Sub-Saharan Africa. *International Journal of Business and Economic Sciences Applied Research (IJBESAR), 11*(1), 10.

Shahor, T. (2018). The impact of public debt on economic growth in the Israeli economy. *Israel Affairs*, *24*(2), 254-264. doi:https://doi.org/10.1080/13537121.2018.1429547

Shkolnyk, I., & Koilo, V. (2018). The relationship between external debt and economic growth: Empirical evidence from Ukraine and other emerging economies. *Investment Management and Financial Innovations, 15*(1), 387-400.

Silva, J. (2020). Impact of public and private sector external debt on economic growth: the case of Portugal. *Eurasian Economic Review*, *10*(4), 607-634. doi:https://doi.org/10.1007/s40822-020-00153-2

Tarek, B. A., & Ahmed, Z. (2017). Governance and public debt accumulation: Quantitative analysis in MENA countries. *Economic Analysis and Policy, 56*, 1-13. doi:https://doi.org/10.1016/j.eap.2017.06.004

Wairimu, M. M., & Gitundu, E. W. (2017). Macroeconomic determinants of non-performing loans in Kenya. *Research Journal of Finance and Accounting, 8*(4), 97-105.

Yolcu Karadam, D. (2018). An investigation of nonlinear effects of debt on growth. *The Journal of Economic Asymmetries*, *18*(C), 1-1. doi:https://doi.org/10.1016/j.jeca.2018.e00097

Zaghdoudi, T. (2020). Threshold Effect in the Relationship Between External Debt and Economic Growth: A Dynamic Panel Threshold Specification. *Journal of Quantitative Economics, 18*(2), 447-456. doi:https://doi.org/10.1007/s40953-019-00182-y