
Public Debt and Financing in the Economy: The Case of Kosovo

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Agim Berisha¹

Abstract:

Purpose: *In the framework of the paper, issues related to public debt and financing in the economy are addressed. The main purpose of this paper is to analyze public debt and financing in the economy with a focus on Kosovo.*

Design/methodology/approach: *Official data from local and international institutions were used to conduct this study. This article provides a theoretical overview of public debt and financing in the economy. For the finalization of this paper, the presented material has support including scientific literature, as well as reports and publications from the Statistics Agency of Kosovo. In order to achieve the main objective of this article, various sources of data were used, as well as analysis methods, comparative methods, etc.*

Findings: *In the context of the work and analysis we have done regarding public debt and financing in the economy with a focus on Kosovo, the results show that: public debt has had effects on the economic processes in Kosovo.*

In order to achieve the objectives, the analysis method is mainly used, tabular and graphic separately, comparative method, analyzing the dynamics of the issue of public debt and financing in the economy in the Republic of Kosovo. Through this study, the results and recommendations given are considered to be taken into account by policy makers in the Republic of Kosovo.

Keywords: *Budget deficit, budget, public debt, Gross Domestic Product.*

JEL codes:

Paper Type: *Research study.*

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¹Prof. Ass. Dr. College of Business, Economic Faculty, Republic of Kosovo.
e-mail: agim.berisha74@hotmail.com;

1. Introduction

It should be noted that today the budget has an important macroeconomic role that aims to balance the economic life of the country. Currently, the state budget balance is seen as something serious only when it is accompanied by economic imbalance. A fiscal deficit occurs when a government spends more than it collects on taxes and other revenues in a given time (Glllogjani and Balaj, 2021).

When state budget revenues are greater than expenditures, then the difference between revenues and expenditures is called the state budget surplus. In cases when expenditures are greater than revenues, the difference is the state budget deficit (Salko, 2010, Basics of Finance).

In this context, there are theories that today argue that under certain circumstances and within reasonable limits the budget deficit can be considered a good way to combat the economic downturn. The deficit grows into a recession and falls into a boom, even without any change in fiscal policy (Mankiw and Taylor, 2012, Economics/Macroeconomics).

To cover the budget deficit, governments are forced to borrow. The government can borrow domestically and abroad to finance the budget deficit. Governments finance budget deficits by borrowing in the bond market, and the accumulation of past government borrowing is called government debt.

National debt is the accumulated borrowing from all past deficits, excluding loans repaid. State or public debt, as it is otherwise called, represents the accumulated value of loans that the state has borrowed to finance past deficits. Government debt for a certain period of time is equal to the budget deficit of the same time.

In this perspective, the main purpose of this study is to analyze the budget deficit and the progress and effects on the economy of the public debt in the Republic of Kosovo in recent years.

The research questions of this study are the following:

RQ1: What is the public debt/GDP ratio?

RQ2: What is the effect of public debt on the economy in Kosovo?

The study is structured as follows. Section 1 presents the introduction, including the main aim of the paper, research questions and hypotheses. In Section 2 the literature review is presented. In Section 3 demonstrates the methodology and methods. Section 4 of the paper provides the result and discussion, as well as the correlation between public debt and GDP. Section 5 concludes the study.

2. Theoretical Framework

In financial theory and practice, public debt is one of the forms of public revenue to finance the public functions of the state, or public needs. Consequently, the budget deficit is the sum by which the costs of a government such as defense, social security, energy and infrastructure costs and the like exceed its revenues, which mainly come from taxes, customs and collection from their tariffs (Kryeziu and Durguti. 2019).

Loans accumulated by the government to cover the budget deficit constitute government or public debt (Koka, 2014, Macroeconomics). National debt, also called public debt, is the total value of government debt at a given time (Baumol and Blinder, 2010, Economics: Principles and Policy). To cover the budget deficit, the state must incur debt, which is negatively expressed in economic flows. These two concepts, deficit and debt are closely related because the government accumulates debt by reducing the deficit or reducing its debt by exceeding revenues.

Debt at a given time is the sum of all past budget deficits. So, in a year with a deficit, the debt increases, in a year with a surplus, the debt decreases (Rosen, 2003, Public Finance). The relationship between debt and deficit or surplus can be explained by a simple analogy. As you enter water into a tub ("run a deficit"), the accumulated volume of water in the tub ("debt") increases. Otherwise, if you release the water from the tub ("run a surplus"), the water level ("debt") drops.

Analogously, budget deficits increase national debt, while budget surpluses reduce it (Baumol and Blinder, 2010, Economics: Principles and Policy, Eleventh Edition). If borrowing is done continuously, the size of the debt increases over time. When the government has a budget deficit, its debt increases, and when there is a budget surplus, its debt decreases. Debt financing is the use of borrowed funds to finance government spending (Hyman, 2011, Public Finance). The state loan can be considered useful if the funds from the loan are used for (Kadriu, 2012, Public Finance).

- *Long-term investments in those spheres of activity in which the rapid economic-social development is ensured,*
- *Financing of irregular expenditures,*
- *Rehabilitation of the situation after the war or elimination of the economic crisis.*

The ever increasing debts of the state, the ever increasing to be financed by means of borrowing, the ever present tendency in many countries for the expansion of the state's financial activity are increasingly actualizing the problem of the debt entry limit the state (Berisha, 2022, Public Finance).

The debt crisis in Europe has drawn the attention of many governments and international organisations to the rising levels of debt in many emerging or

developed countries. Most economists agree that some government debt is necessary and not harmful to an economy, but opinions diverge when the debt levels rise. Kosovo, unlike many other countries in the region and beyond, managed to maintain a low level of public debt (Qehaja and Qehaja, 2018).

Public debt in the Republic of Kosovo is mostly issued with fixed interest, therefore it is exposed to very little interest risk. As long as the interest rate paid for public debt is lower than the rate of economic growth, the impact of debt on economic growth and social welfare can be positive (Riinvest, 2019).

According to the Law on Public Debt (Law No. 03/L-175), the State may borrow:

- to cover the budget deficit;
- to finance investment projects that are of national scope and foreseen in the medium-term spending framework;
- to refinance state debt received earlier;
- to pay state guarantees in case the parties fail to meet their obligations;
- to pay the costs of general debt service as well as various expenses in case of various national emergencies announced by the assembly.

3. Research Methods

Official data from local and international institutions were used to conduct this study. This paper provides a theoretical overview of public debt and the progress of public debt in Kosovo, from 2018 to 2022. For the finalization of this paper, the presented material has support including scientific literature, as well as reports and publications from the Ministry of Finance, the Kosovo Statistics Agency, which deal with issues related to public debt, namely the impact and economic effect of public debt in Kosovo.

The methodology of the study is based on a broad dimension in the review of theoretical and empirical literature. In order to achieve the main objective of this paper, different sources of data were used, as well as the method of analysis, comparative method, correlational analysis. Also, the relationship between the independent variable of public debt and the dependent variable of GDP is presented, which is presented through correlational analysis.

A more detailed description of the relationship between public debt and GDP is given in the section on the correlation between gross domestic product and public debt.

Through the work and analysis carried out in relation to public debt and the effect of public debt on the economy, including the correlation between GDP and public debt, the relevant conclusions and recommendations are given at the end of the work.

4. Research Results

When the government spends more for a longer period of time on public needs and cannot cover these expenses with regular revenues such as taxes and other non-tax revenues, it owes debt. Government loans, although treated as irregular inflows, are considered an important resource for both developed and developing countries. The state loan can be considered useful if the funds from the loan are used for (Kadriu, 2012, Public Finance).

- *Long-term investments in those spheres of activity in which the rapid economic-social development is ensured,*
- *Financing of irregular expenditures,*
- *Rehabilitation of the situation after the war or elimination of the economic crisis.*

In the Republic of Kosovo, the matter of public debt is regulated by Law no. 03 / L-175, on public debts in the Republic of Kosovo, which defines the forms of debt and the manner of its management. In Kosovo, the limit of state debt entry is provided in Article 5 of Law no. 03 / L-175, on public debts in the Republic of Kosovo, which set limits on the General Debt, which should not exceed 40% of Gross Domestic Product (GDP).

The Government through the Ministry of Finance, in addition to the basic legislation on public debt has drafted relevant rules and procedures to increase management transparency and the definition of management responsibilities. To cover the budget deficit, governments are forced to borrow. In this context, public debt becomes a tool for covering the budget deficit (Ristiq and Ristiq, 2014, Fiskalna Ekonomija i Menagment javnog sektora). The value of the nacional debt for a certain period of time is equal to the value of the budget deficit of the same time (Limani, 2018, The economy of Kosovo). To cover the budget deficit, governments are forced to borrow. In this context, public debt becomes a tool for covering the budget deficit (Berisha, 2022, Public Finance).

Law No. 03 / L-175, On public debts in the Republic of Kosovo, Article 1 of this law gives the right to the Government of the Republic of Kosovo to borrow money, to provide loan guarantees, to pay the costs of borrowing and to paid the principal and interest of its State Debts. Total Debt is defined by the Law on Public Debt as the totality of state debt and municipal debt. Kosovo's total debt is a state debt, as the Republic of Kosovo does not yet have a municipal debt.

The sources of financing to which the Government of the Republic of Kosovo has access are internal sources - domestic debt, and external sources - international debt. Based on Law no. 03/L-175, On Public Debt, enables the Government to borrow, to provide loan guarantees, to pay off borrowing costs, and to pay principal and interest on its public debt.

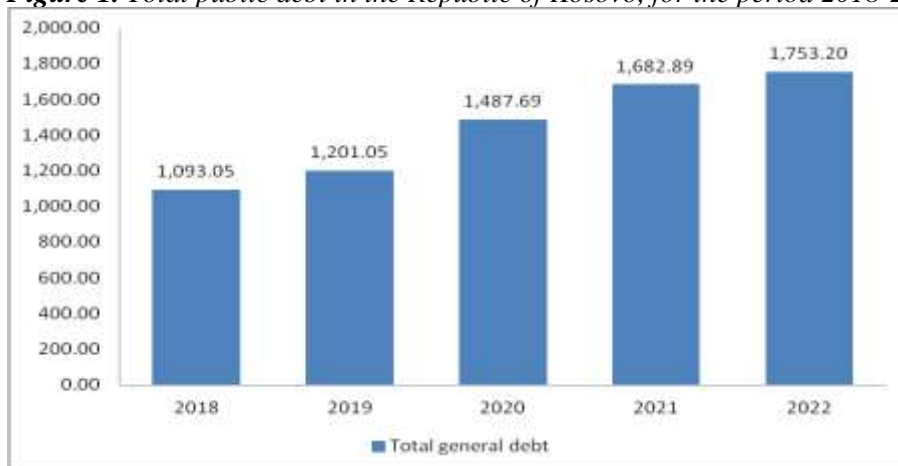
Domestic debt is part of the public debt that the state owes to economic entities and its citizens (Limani, 2013, Macroeconomics). External debt is the debt that a country owes to foreign countries or international financial institutions from which it has borrowed (Limani, 2013, Macroeconomics). Kosovo's external debt is the debt owed to Kosovo by external creditors, with most of the debt owed to the World Bank and the IMF. The national debt, also called the publik debt, is the total value of the governments indebtedness at a moment in time (Baumol and Blinder, 2012, Macroeconomics- principles and Policy). The following Table 1 shows the total debt by type.

Table 1. Total public debt in the Republic of Kosovo, in the period 2018-2022
- in million euro

Category	2018	2019	2020	2021	2022
International debt	416,43	409,10	525,80	576.75	641.20
Central level	364,53	359,45	479,50	532.30	594.19
Sub-borrowings	51,90	49,65	46,29	44.44	47.01
Municipalities	0,00	0,00	0,00	0.00	0.00
Domestic debt	676,62	791,94	961,90	1,106.14	1,112.00
Municipalities	0,00	0,00	0,00	0.00	0.00
Total general debt	1.093,05	1.201,05	1.487,69	1,682.89	1,753.20
Public Guarantee	44,00	42,68	31,65	30.63	29.61
Total debt (% GDP)	17.12	17.51	21.83	23.34	20.74

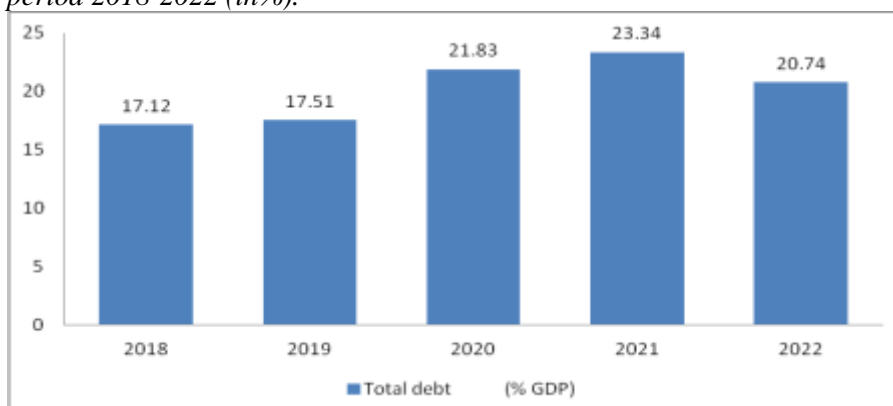
Source: Ministry of Finance, Annual Bulletin 2017, On Public Debt, p. 8. Ministry of Finance, Annual Bulletin 2018, On Public Debt, p. 7. Ministry of Finance, Annual Bulletin 2019, On Public Debt, p. 7. Ministry of Finance, Quarterly Data on Total Debt, Fourth Quarter 2021, Pristina, 2021, p. 5. Ministry of Finance, Annual data on the general debt January-December 2022, Pristina, 2023, p. 5.

Figure 1. Total public debt in the Republic of Kosovo, for the period 2018-2022.



Source: Own study.

Figure 2. Total public debt in relation to GDP in the Republic of Kosovo, in the period 2018-2022 (in%).



Source: Own study.

Table 1 and Figures 1 and 2 show that the public debt of the Republic of Kosovo includes, in addition to external debt, also domestic debt. Public debt in Kosovo in the period 2018-2022, has had an increasing performance, increasing from 1.09 billion euros as it was in 2018, to 1.75 billion euros in 2022. Regarding the public debt in the Republic of Kosovo, there is a performance in growth over the years, which mainly results from the new issues of Securities, belonging to domestic debt.

At the end of 2022, the Total Debt reached the value of 1.75 billion Euros, compared to the previous year which marked an increase of 195.20 million Euros. In 2022, within the total debt, the domestic debt reached the value of 1.1 billion euros, while the international debt in the amount of 641.20 million euros.

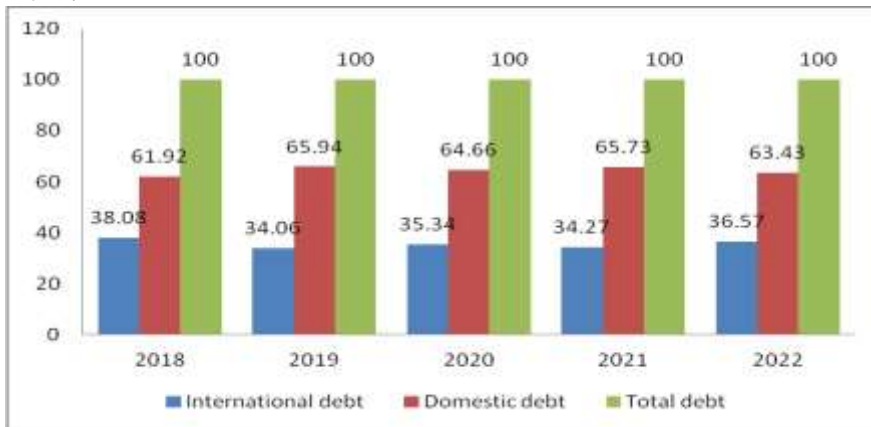
Also, public debt in the Republic of Kosovo has increased in terms of share in GDP, increasing the share of public debt in relation to GDP from 17.12% in 2018, reaching this share in 2022 at 20.70%. In this regard, during the last two years the debt/GDP ratio has increased slightly, at the end of 2019 it was 17.51% while at the end of 2021 reaching 20.70%. The following Table 2 shows the performance of domestic debt and external debt to total debt in Kosovo in the period 2018-2022.

Table 2. Structure and performance of domestic debt and international debt to total debt in the period 2018-2022 (%)

	2018	2019	2020	2021	2022
International debt	38.08	34.06	35.34	34.27	36.57
Domestic debt	61.92	65.94	64.66	65.73	63.43
Total debt	100.00	100.00	100.00	100.00	100.00

Source: The Government of Kosovo, Ministry of Finance, *Quarterly data on total debt – Q3, Q4 Pristine, 2017, page,12. Ministry of Finance, Quarterly data on total debt, Quarterly 2021, Pristine, 2022, page, 14. Ministry of Finance, Anunual data on the gjeneral debt January-December 2022, Pristina, 2023, page, 14.*

Figure 3. Report of domestic debt and international debt to total debt in the period 2018-2022.



Source: Own study.

Looking at Table 2 and Figure 3 it can be seen that, while in previous years public debt was dominated by external debt, at the end of 2022 domestic debt had a higher share in total public debt. External debt in the period 2018-2022 is observed to have a declining trend in terms of participation in total debt, where in 2018 the international debt was 38.08 percent, having a declining performance in the following years.

Thus, in 2022 there was a share in the total debt of 36.57 percent. Domestic debt in the period 2018-2022 had an increasing performance of the share in the total public debt, where in 2018 the domestic debt had a share in the total public debt of 61.92 percent, increasing in the following years. So in 2022 the share of domestic debt in total public debt was 63.43 percent.

Increasing debts of the state, the growing tendency of the legislative and executive bodies of the government, to finance many expenditures from the competence of the state with loan means, the tendency always present in many countries to expand the financial activity of the state are actualizing the problem of the state debt entry limit (Jelcic, 1985, Science on Finance and Financial Law). In Kosovo, the state debt entry limit is provided in Article 5 of Law no. 03/L-175,

On public debts in the Republic of Kosovo, where the limits are set on the General Debt, which should not exceed 40% of GDP. State debt in particular is present in underdeveloped countries, which burdens, even in many problems, the economy and the population of these countries, especially when it is known that government debt poses a great burden on the economy and population of the country, as it is returned with interest and as such burdens, respectively reduces, national income.

The following Table 3 presents the international debt contracted and ratified during the years 2009-2021 for the financing of projects belonging to the sectors of the economy.

Table 3. Ratified International Debt by Sectors

- in million euro

Types of Sectors	Amount of funds ratified from 2009 to 2021	Division by %
Education Sector	10.69	1.12
Financial Sector	27.60	2.90
Agriculture Sector	35.95	3.78
Export Sector	14.30	1.50
Energy Sector	67.86	7.13
Railway Sector	81.90	8.60
Water Infrastructure Sector	184.73	19.40
Central Heating Sector	5.00	0.53
Public sektor	73.63	7.73
Road Infrastructure Sector	226.97	23.84
Health Sector	107.49	11.29
Social Welfare Sector	75.90	7.97
Private Sector Financial Support	40.00	4.20
Total	952.03	100.00

Source: Ministry of Finance, Labor and Transfers - Kosovo Treasury, annual bulletin 2021 on public debt, Pristina 2022, p. 16.

Table 3 shows the sectors of the economy in Kosovo in which projects have been financed by international debt from 2009 to 2021. International debt has influenced through the financing of projects in various sectors of the economy by creating preconditions for economic development. The public debt in Kosovo, respectively the international debt over the years in Kosovo is mainly oriented to the economic sectors such as the Road Infrastructure Sector of 23.84%, the Water Infrastructure Sector of 19.40%, the Health Sector of 11.29%, etc.

4.1 Correlation between Gross Domestic Product and Public Debt

Correlational analyzes were used in this article to measure the strength of the relationship between the independent variable public debt (X) and the GDP dependent variable (Y). The result of the correlational study is obtained by the correlation coefficient. The correlation coefficient values are between - 1 and + 1. Its + 1 value indicates that both variables are in complete linear relation and in the same direction which means that all points lie in a straight line with coefficient positive angle.

Whereas the value - 1 of the correlation coefficient indicates that the variables are in complete linear relation and in the opposite direction. For correlation analyzes, it has been argued that the correlation coefficient is a summary measure describing the

degree of the statistical relationship between two variables; the dependent variables and the independent variables (Leroux, 2009). Indicators of the Correlation Analysis of public debt and GDP are presented by the Correlation Coefficient (r), the Determination Coefficient (r^2) and Alliance / the Contingency Coefficient (ka). On the basis of correlational analyzes we analyze the impact of public debt on GDP. For public debt and GDP, the correlation analysis covers the period from 2017 to 2021.

Table 4. Data are expressed in EUR millions over the period 2017-2021

Years	Public debt X1	GDP Y1	X1-X	(X1-X) ²	Y1- \bar{Y}	(Y1- \bar{Y}) ²	(X1-X)* (Y1- \bar{Y})
2017	996.42	6,328.6	-295.8	87,497.64	-482.22	232,536.12	142,640.676
2018	1,093.05	6,572.9	-199.17	39,668.68	-237.92	56,605.92	47,386.52
2019	1,201.05	6,988.8	-91.17	8,311.96	177.98	31,676.88	16,226.43
2020	1,487.69	6,679.3	195.47	38,208.52	-131.52	17,297.51	25,708.21
2021	1,682.89	7,484.5	390.67	152,623.04	673.68	453,844.74	263,186.56
Total	1,292.22	6,810.82	0	326,309.84	0	791,961.17	495,148.396

Source: Own study.

$$r = \frac{\sum(X1 - X) * (y1 - \bar{Y})}{\sqrt{\sum(X1 - X)^2 * \sum(Y1 - \bar{Y})^2}}$$

$$r = \frac{495,148.396}{\sqrt{326,309.84 * 791,961.17}} = \frac{495,148.396}{508,354.91} = 0.97$$

Covariance- The covariance of choice is defined as follows:

$$S_{xy} = \frac{\sum(x1 - x) * (y1 - \bar{Y})}{n - 1}$$

$$S_{xy} = \frac{\sum(x1 - x) * (y1 - \bar{Y})}{n - 1} = 495,148.396 / 5 = 99,029.67$$

Correlation coefficient:

The correlation coefficient is $r = 0.97$ From this we see that we have a positive average correlation, and that there is a positive average correlation between public debt and GDP.

Determination coefficient:

$r^2 = (0.97)^2 = 0.94$ From here it results that **94.00%** of the public debt variation is explained by the variation of GDP.

Alliance coefficient:

$Ka = 1 - r^2 = 1 - 0.94 = 0.06$ It results that **06.00%** are other unexplained factors affecting public debt.

5. Discussion

The ever-increasing tendency of the countries entering the public debt, that many expenses from the competence of the state are financed by means of loans, are increasingly actualizing the problem of the limit of entering the state's debt. The public debt present in developing countries, including internal debt and external debt in recent years, represents the trend of increasing the share of debt in GDP.

From the obtained results, it can be seen that we have an average positive correlation between public debt and GDP. Public debt in the Republic of Kosovo compared to countries in the region remains at a lower level in relation to GDP, but developing countries and Kosovo should continue to be careful in managing public debt.

6. Conclusion

This study is very important due to the nature of the research. Government debt is present in various countries, especially in underdeveloped countries, which burdens, already faced with many problems, the economy and population of these countries. Kosovo, unlike the countries in the region, has the lowest level of public debt in relation to GDP. Kosovo has a low level of public debt in relation to GDP, but there is an increasing trend in 2020 and 2021.

From the analysis carried out regarding the budget deficit and public debt in recent years, we present some of the conclusions and recommendations:

The budget deficit must be carefully managed and allowed within the limit set in relation to GDP.

The public debt mainly finances the sectors of the economy that promote economic development in the country. Public debt from internal borrowing and external borrowing should be oriented towards public investments and development projects.

Public debt, especially its internal component, has reached a significantly higher intensity and dynamics in recent years, therefore in the management of public debt attention should be paid in the medium and long term as well as its effects on macroeconomic processes, on fiscal stability and effects on economic growth and social welfare.

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