

## **PUBLIC DEBT AS A DETERMINANT OF THE ECONOMIC GROWTH IN KOSOVO**

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### **Abstract**

This article investigates the impact of public debt on economic growth in Kosovo. By analyzing secondary data, we aim to determine whether increasing public debt levels have stimulated or hindered economic growth. The study employs an econometric model to quantify this relationship, providing valuable insights for policymakers and economists. The findings suggest a nuanced impact of public debt on economic growth, with implications for fiscal policy and sustainable development strategies in Kosovo. Empirical results suggest negative relationship between public debt and economic growth controlling for other determinants of growth trade openness, total investment, current account balance and primary balance. The results also confirmed the existence of a “U inverted” relationship between public debt and economic growth.

**Keywords:** public debt, economic growth, determinant, Kosovo

**JEL Classification Codes:** H63, E60, O10, O40

## 1. Introduction

Public debt has long been a contentious issue in economic policy discussions. For developing countries like Kosovo, understanding the relationship between public debt and economic growth is crucial for crafting effective fiscal policies. This study examines the role of public debt in shaping Kosovo's economic trajectory over the past 14 years, a period marked by significant economic and political changes. By focusing on this period, we aim to provide a comprehensive analysis that can guide future policy decisions. The macroeconomic implications of public debt gained huge public attention in the last two decades in many countries and regions around the world, and especially in the European countries. The reason behind this is the enormous and continuously growing level of indebtedness that occurred after the latest financial crisis in 2008. The crisis began in late 2007 as a combination of liquidity crunch, expansionary fiscal stimulus programs, recapitalization of banks and led to dramatic increase in public debt level. These implications have raised serious concerns about the fiscal sustainability and potential negative impact on the financial markets and economic growth in all European countries. The empirical investigation of the impact of public debt on economic growth was initiated by Sachs (1984, 1988), Cohen and Sachs (1986) and Krugman (1988) who advocated that countries with higher debt levels face difficulties in taking additional or new loans and therefore need to increase taxes to finance their debt obligations. In turn, the increased taxes will have negative impact on investments, accumulation of capital and thus will deteriorate the economic growth of the country. The deterioration of economic performance due to an increase in public debt of the country is known as public debt overhang theory (Reinhart and Rogoff, 2012) In the coming decades, many authors addressed the issue of the optimal debt level and its macroeconomic implications, whether by introducing theoretical models or conducting empirical analysis. Among the first group of economists, Aiyagari and McGrattan (1998) developed a model for the US economy and concluded that the governments should maintain an optimal public debt level at about two-thirds of the gross domestic product. Their finding was later confirmed, among others, by Flodén (2001), Desbonnet and Weitzenblum (2012) and Dyrda and Pedroni (2016). On the other hand, Röhrs and Winter (2016) and Chatterjee, Gibson and Rioja (2017) argued that more beneficial government behavior is to accumulate funds instead of generating public debt. The second group of economists has come to the general conclusion that the debt to growth relationship is non-linear, as debt has a positive impact on economic growth until a certain threshold, and after that begins to decrease the economic growth. In line with this, Reinhart and Rogoff (2010) found that across both developed countries and emerging markets, the high debt level (90 percent and above) is associated with notably lower growth rates. Similar results were found by Afonso and Jalles (2011), Cecchetti, Mohanty and Zampolli, (2011) and Baum, Checherita-Westphal and Rother (2012). Although the global financial crisis in 2008 prompted vast academic and economic debate on the relationship between public debt and economic growth, most of the empirical studies that investigate the impact of public debt on economic growth mainly focus on the most indebted peripheral Eurozone countries, while the other countries from Central and Southeastern Europe remained slightly neglected. In that regard, the specific aim of our paper is to empirically examine the impact of public debt on the economic growth performance in the Kosovo as a country from Southeastern Europe. We analyzed Kosovo, because this country may provide an interesting case study. Namely unlike other countries, Kosovo is known as a country with low public debt of 17% of GDP. Regarding the history of debt it is known that Kosovo had a public debt inherited from the time of former Yugoslavia amounting to 220.6 million euros. Kosovo got this fund on behalf of the debt from the World Bank. Eventually, in 2009 Kosovo managed to begin to apply the services for processing the external debt, which according to the agreement, the debt must be returned to the World Bank until 2031. In Kosovo even the internal debt started to function, which began to be realized through the issuing of bonds. Kolgjeraj and Vokshi (2017). With a tendency of development and strengthening of economic activity in the country, accompanied always with positive economic growth from year to year and if we consider the path of development of public debt over the years we can say that the low level of debt reflects high accountability because with the conditions that are offered to us today it is not too difficult to get into debt Kolgjeraj and Vokshi (2017). In our case, if we compare the public debt to GDP then we notice that the public debt has a very low

percentage in relation to GDP, this situation shows accountability and macroeconomic stability, also helped by the relevant institutions of the country which had set fiscal rules through the Law on Public Financial Management in Kosovo. Now it is clear that each state conducts various economic analyses to see how the public debt would affect the economy, on this basis the country is normally focused on creating social and economic stability, not to worsen the situation in country. According to Law for Public Debt in Kosovo, the limit of the public debt should not exceed the level of 40 % of Gross Domestic Product (GDP). The contribution of this paper is multiple. Firstly, he deals with a small volume of economic literature on the Kosovo economy. In conditions of a significant deterioration in the country's fiscal position and a steady increase in public debt, the attention of economists and the public on this subject is growing, although economic literature is still scarce. Secondly, the theoretical adjustment of the dynamics of the debt to actual developments of the Kosovo economy is a good basis for further analysis and its assumptions and claims can be included in the development of theoretical models of the general as an explanation for the behavior of the states. Thirdly, labor analysis can be a useful material when creating governments documents and economic strategies, where findings can serve as a benchmark when creating future macroeconomic policies. The structure of the paper is as follows. After the Introduction, in Section 2 will be given an overview of the empirical literature that deals with this issue. Sources of the data employed as well as methodology are presented in Section 3. Section 4 presents the empirical results and section 5 concludes the paper and gives policy recommendations.

## **2. Literature review**

The relationship between public debt and economic growth has been extensively studied, with varying conclusions. Keynesian economics suggests that public debt can stimulate growth through increased government spending, especially in times of economic downturns. Conversely, neoclassical economists argue that high levels of public debt can crowd out private investment, leading to slower growth. Studies on emerging economies often highlight the importance of the debt threshold, beyond which the negative effects outweigh the benefits. In the context of Kosovo, limited research exists, making this study particularly relevant. In this section we present a brief sublimite of empirical literature concerning the relationship between public debt and economic growth. In the literature there are empirical studies that analyze the impact of public debt on economic growth, both on individual countries such as Smyth, and Hsing (1995) in the USA, Egbetunde (2012) in Nigeria, Balassone et al. (2011) for the case of Italy and in the panel set of countries. (Clements et al. (2003) Reinhart, and Rogoff (2010) Schclarek (2005) among the others). According to Bilan and Ihnatov (2015) the empirical literature dealing directly with the effects of public debt on economic growth became more consistent only in recent years, in the context of the adverse European and international developments. Namely, previous empirical studies focused on developing countries, especially those with low incomes due to their dependency on foreign capital investment (Krugman, 1988; Weeks, 2000; Patillo et al.,2002; Karagol, 2002; Schclarek, 2004). Abbas and Christensen, 2007) pointed out several reasons that explain this situation: a) until recently the size of public debt has not been assessed as problematic in most developed countries, b) the lack of comparable datasets for a large number of countries; c) public debt was mainly considered as an endogenous variable and not as an exogenous one, whose size affects macroeconomic outcomes. The results of most of empirical studies are mixed and inconsistent, differing upon the group of countries and the time framework of the analysis, and research methodology. Namely, while the first studies on public debt and economic growth such as Modigliani (1961), Diamond (1965) sustained that an increase of public debt always contributed to economic growth, more recent work (Pescatori, Sandri и Simon, 2014; Eberhardt и Presbitero, 2015) has presented different results. Bearing in mind the purposes of our study, in sequel of the paper we will focus only on studies that cover primarily the countries from Central and Southeastern Europe and Kosovo. Ferreira (2009) analyzed the relationship between public debt and growth of per capita GDP for a group of OECD countries, over the period 1988 - 2001. Based on the VAR methodology and Granger causality test, he found that there was bidirectional relationship. Namely higher GDP growth rate reduces public debt but, at the same time, an increase of the latter negatively affects economic growth. Časni et al (2014) analyze the long

run and short run relationship between debt and economic activity in Central, Eastern and Southeastern European countries, and uses pooled mean group estimator for the period for 2000 and 2011. The empirical results show that public debt has a statistically significant negative impact on the growth rates both in the short and the long term. Based on their findings, they have recommended the development of policies aimed at increasing exports, long-term investments, as well as supporting fiscal consolidation in order to boost economic growth. Mencinger et al (2014) empirically analyze the transmission mechanism regarding the short term impact of public debt and growth in panel dataset of 25 member states of the EU. They divided a sample of EU countries into subgroups of the so-called 'old' member states, covering the period 1980–2010, and NMS, covering the period 1995–2010. Their results in all models indicate a statistically significant non-linear impact of public debt ratios on annual GDP per capita growth rates. Further, they have concluded that the threshold value for the 'new' member states is lower than for the 'old' member states Bilan and Ihnatov (2015) have investigated a non-linear (quadratic) relationship for a panel of 33 European countries (28 European Union Member States and 5 candidate countries to European accession) over the period 1990-2011. Their results show the presence of a too wide a debt threshold at the level of 45-55 % of GDP. In doing so, it came to the conclusion that the benchmark threshold is lower in the less developed countries of the analyzed group (eg Bulgaria and Romania), and it is entirely lower than in the more developed countries of the European Union. Gál and Babos (2014) conducted a comparative analysis of the effects of public debt on economic growth in Western European and EU NMS of the European Union for the period 2000 - 2013 and came to the conclusion that, although the NMS are less indebted, the high levels of public debt are much more harmful to them, so keeping debt under control is particularly important for these countries. In analyzing the application of panel analysis on the effect of public indebtedness on economic growth with the involvement of 11 countries from Central and Eastern Europe in the period 1994 - 2013. Dinca and Dinca (2015), using time-fixed effects regression for the 1999-2010 period explores the relationship between the ratio of government debt to Gross Domestic Product (GDP) and the per capita GDP growth rate for a sample of 10 former Communist countries, members of the EU 27. In their model they used ten independent variables: gross government debt as a share of GDP, openness of the economy, nominal short-term interest rate, government fixed investments, government fixed investments, population growth rate, gross fixed capital formation, government revenue, gross national savings and labor productivity. Their results show that only four variables have a statistically significant impact upon the GDP growth rate: gross government debt as share in GDP, nominal short term interest rate, openness of the economy and total government revenue as percentage of GDP. They also found that the government debt turning point is around 50%. If the government debt to GDP ratio exceeds this level, it could generate a negative impact on the GDP growth rate. Kolgjeraj and Vokshi (2017) were analysed impact of public debt using simple regression. They were concluded that public debt has an impact on economic growth in Kosovo and this increase is estimated to be a negative impact, but in a very small degree, and it does not have any visible effect on the economy. Balaj and Lani (2017) were analyzed impact of public expenditure on economic growth of Kosovo over the period 2000-2016. They were used is the OLS model. The overall conclusion of the paper is that all public expenditures dealt with in the econometric model do not have an impact on economic growth of Kosovo, so public expenditure for the period 2000-2016 has had unproductive characteristics that did not have a direct effect on economic growth of Kosovo, but only the effect of internal consumption for non-economic purposes Bajrami et al. (2020) aimed to investigate the relationship between public debt and economic growth. According to recent surveys, transition countries tend to see positive impacts on GDP growth when public debt constitutes 30-50% of GDP; however, surpassing this threshold often leads to negative consequences for economic growth. The study focused on assessing the current status of public debt and its potential effects on the Republic of Kosovo. Employing an empirical approach, the researchers utilized the R program to analyze data and discern the influence of public debt on economic growth in Kosovo. Through the VAR model, the study evaluated the impacts of public debt, government expenditure, gross fixed capital formation, and gross saving on economic growth in Kosovo spanning from 2008 to 2018. The results indicated that Kosovo achieved higher growth rates when the public debt-to-GDP ratio fell within the range of 10% to 30%.

### 3. Methodology

This study uses secondary data from various sources, including the World Bank, International Monetary Fund (IMF), and Kosovo's national statistics agency. The analysis covers the period from 2008 to 2022, encompassing key economic indicators such as GDP growth, public debt levels, inflation, and investment rates.

#### 3.1 Model Specification

To empirically analyze the impact of public debt on economic growth, we use a linear regression model where GDP growth is the dependent variable, and public debt, along with other control variables such as inflation and investment, are the independent variables. The model is specified as follows:

$$\text{GDP Growth}_t = \beta_0 + \beta_1 \text{Public Debt}_t + \beta_2 \text{Inflation}_t + \beta_3 \text{Investment}_t + \epsilon_t$$

where  $\beta_0$  is the intercept,  $\beta_1, \beta_2, \beta_3$  are the coefficients for the respective variables, and  $\epsilon_t$  is the error term.

In this study we follow research directions of (Bilan and Ihnatov 2015; Checherita and Rother 2010), and we will adopted quadratic form. The general model to be estimated is of the following form:

$$Y_{c,t} = \alpha + \beta_1 b_{c,t} + \beta_2 b_{c,t}^2 + \varphi k_{c,t} + \sum_{i=1} \mu_i Z_{c,t} + \gamma_c + \varepsilon_{c,t},$$

$$Y_{c,t} = \alpha + \beta_1 b_{c,t} + \beta_2 b_{c,t}^2 + \varphi k_{c,t} + \sum_{i=1} \mu_i Z_{c,t} + \gamma_c + \varepsilon_{c,t}, \quad (1)$$

where  $Y_{c,t}$  is the annual percentage of GDP growth,  $b_{c,t}$  and  $b_{c,t}^2$  are the linear and square regressors of public debt as a % of GDP,  $Z_{c,t} = \{eb_{c,t}, cab_{c,t}, ob_{c,t}, pb_{c,t}\}$  is a set of control variables,  $\gamma_c$  is a set of fixed effects of years,  $\beta_1, \beta_2, \varphi$  и  $\sum_{i=1} \mu_i$  are the regression coefficients  $\alpha$  is an intercept,  $\varepsilon_{c,t}$  is the error term.

The dependent variable in our model is represented by the growth rate of per capita GDP of the same year. Factors that we use as control determinants, include the following:

Public debt. The interaction between public debt and economic growth is rather complex because public debt influences the economic growth dynamics and the economic growth rates impact the size of public debt Časni, Badurina and Sertić (2014). According to (Cantor and Packer, 1996) higher rates of economic growth facilitate the public debt burden. Public debt sustainability depends on its ability to raise revenue which decreases when economy experiences a downturn. The private sector default has adverse effect on economic activity and increases public debt when private borrowing is backed by discretionary fiscal policy (Cecchetti et al., 2011). Public debt may have positive as well as negative impacts on economic growth. In less developed countries, governments use public debt as an imperative tool to finance its expenditures. Economic growth can be increased by effective and proficient utilization of resources to achieve macroeconomic goals. However, if the public debt is not properly utilized, it would restrict economic growth and become the biggest curse for the economy. The investment is the second determinant that we will use in our model. For these determinants we expect a positive impact on economic growth. According to (Ugochukwu and Chinyere, 2013). Capital accumulation “refers to the process of amassing or stocking of assets of value, the increase in wealth or the creation of further wealth.” Namely investment in capital stock increases the capacity for production, which also increases national income. In macroeconomics, consumption and fixed investment are the main indicators, which encourage the aggregate expenditure. Thus, the increased aggregate expenditure will fuel the growth. The

third determinant that we will use is trade openness. This indicator in the economic growth literature was sometimes used as a major determinant of growth performance (Sachs and Warner, 1995). According to Edwards (1998), trade affects economic growth through several channels: technology transfer, exploitation of comparative advantage, and diffusion of knowledge, increasing scale economies and exposure to competition. In addition, Romer (1993) claimed that the countries have higher possibility to implement leading technologies from other countries if they are more open to trade. Furthermore, Chang, Kaltani and Loayza (2005) emphasized that trade promotes the efficient allocation of resources through comparative advantage, allows the dissemination of knowledge and technological progress, and encourages competition in domestic and international markets. Bearing this in mind we expected a positive effect on economic growth for this determinant. The next determinant that we will use is current account balance. The current account balance as a broader measure that includes the trade deficit and is itself a part of a broader measure, the balance of payments. The balance of payments is the sum of all transactions between a nation and all its international trading partners. In addition to the trade deficit, the current account deficit includes factor income and financial transfers. The last determinant is the budget balance. It is expressed by budget balance in% of GDP. Fatima, Ahmed, Rehman (2012) claimed that the balanced fiscal budget is necessary condition in order to achieve sustainable economic growth. According to the Keynesian model, the budget deficit would have a positive impact on economic growth. Namely if increased government expenditure or tax cutting are the reasons for budget deficit, then customers would have more money and the marginal propensity to consume would increase. This leads to the increase in output and demand of money. Given the strong potential for endogeneity of the debt variable, especially reverse causation (low or negative growth rates of GDP per-capita are likely to induce higher debt burdens), Bilan and Ihnatov 2015, we have resorted to instrumental variable estimation techniques. More specifically, the estimators we have used in our paper are GMM estimators. Based on previous studies (Patillo et al., 2004; Checherita and Rother, 2010), we have instrumented the debt and debt squared variables through their time lags (up to the 5th lag). The Hansen test allowed us to test the statistical significance of the instruments selected. Consider the model above is a square and assumes a non-linear influence of the debt on the economic growth, ie the existence of a threshold of debt in which the direction of the influence of the debt on the economic growth, which depends exclusively on the values of the coefficients  $\beta_1\beta_1$  and  $\beta_2\beta_2$ . Namely we took into consideration the possibility that the relationship between public debt and economic growth is not a linear one, but rather concave curve type ("Laffer" type). This allows us to determine the maximum affordable public debt that does not have a negative impact on economic growth, according to relation

$$b^* = -\beta_1/2\beta_2 \quad b^* = -\beta_1/2\beta_2. \quad (3)$$

### 3.2. Data Source and Sample Characteristics

Our study dataset consists data of Kosovo for the period 2008 – 2022 using quarterly data. The selected determinants are mostly used in the literature (Clements et al., 2003; Kumar and Woo, 2010; Checherita and Rother, 2010). Therefore, we will use GDP per capita growth as a measure of economic growth. As control determinants we will use: investment, trade, current account balance and budget balance. The Data are obtained from World development indicators (WDI) database and, Kosovo Agency of Statistic. Table 1 presents the descriptive statistics for all the variables used in the regressions. Key figures, including mean, standard deviation, min and max value are reported. This is generated to give overall description about data used in the model and served as data screening tool to spot unreasonable figure.

**Table 1** Descriptive statistics

	<b>GDPPC</b>	<b>PD</b>	<b>INV</b>	<b>OPEN</b>	<b>CAB</b>	<b>PFB</b>
Mean	3.094	10.92	26.57	22.68	-16.89	-0.990
Median	3.179	10.30	25.88	22.50	-12.41	-1.35
Maximum	5.249	17	30.7	25.02	-6.11	3
Minimum	1.325	5.51	23.2	19.84	-32.9	-2.4
Std. Dev.	0.906	3.786	2.124	1.084	9.481	1.224
Observations	56	56	56	49	56	49

**Source:** Autor's calculation

From the Table 1 we can notice that during the analyzed approach Kosovo has constant growth, measure by GDP per capita, Public debt shows differences ranging from the minimum 5.51% of GDP, to 17% of GDP. The remaining determinants during the analyzed period do not have any significant deviations, with the exception of current account balance where it ranges from -6.11% to 32.9%. However, we should bear in mind that, this determinant has a larger standard deviation with 9.48 compared to other determinants.

**Table 2** Correlation matrix

	<b>GDPPC</b>	<b>PD</b>	<b>INVESTMENT</b>	<b>TRADE</b>	<b>CAB</b>	<b>PFB</b>
GDPPC	1					
PD	-0.378	1				
INVESTMENT	0.311	-0.536	1			
TRADE	0.196	-0.263	0.815	1		
CAB	0.825	0.403	0.500	0.416	1	
PFB	-0.369	-0.278	-0.151	-0.378	-0.407	1

**Source:** Autor's calculation

Between GDP per capita and government debt there is a negative correlation (-0.378), while it is somewhat stronger between gross investment and government debt (-0.536). A weaker negative correlation is also found between the government debt and opens of economy (-0.263), and between the public debt and the primary budget (-0.278) deficit, which suggests that higher debtedness leads somewhat to a larger budget deficit as a consequence of interest payments for repayment of debt

#### 4. **Empirical Results**

The regression analysis reveals a complex relationship between public debt and economic growth in Kosovo. During the initial years (2008-2012), an increase in public debt correlates with higher GDP growth, suggesting that government borrowing was effectively used for growth-enhancing expenditures. However, in the subsequent years (2013-2022), the impact of public debt on GDP growth diminishes, indicating a possible threshold beyond which additional debt may hinder growth due to increased debt servicing costs and reduced fiscal space for productive investments. The control variables also show expected effects: inflation negatively impacts growth, while higher investment rates correlate with higher GDP growth. Next in Table 3 we reports the empirical estimations of Equation (2) and (3) for effect of public debth on GDP growth in Kosovo during the 2008-2016 period, using the generalized method of moments (GMM) . The results indicate the high robustness of our results, given that in all

specifications, regardless of their specs, variables generally retain their economic and statistical significance.

**Table 3** Estimation Results

	(1)	(2)	(3)	(4)
PD	4.446*** (0.494) [8.985]	4.410 (0.462) [11.86]	3.624** (0.572) [6.330]	5.481** (0.462) [11.86]
PD <sup>2</sup>	-0.051** (0.023) [-6.512]	-0.078 (0.019) [-11.75]	-0.083** (0.020) [-8.781]	-0.085** (0.019) [-11.75]
INV	1.284** (0.130) [9.821]	1.269** (0.144) [10.84]	0.910*** (0.176) [5.170]	1.563 (0.144) [10.84]
OPEN		0.256* (0.081) [2.705]		
CAB			0.054* (0.018) [2.859]	
PFB				0.219*** (0.081) [2.705]
$\alpha$	-55.10 (6.073) [-9.072]	-49.33 (6.198) [-10.97]	-39.60 (8.071) [-4.907]	-68.02 (6.198) [-10.97]
Maximum affordable public debt	36.2	31.5	27.75	34.24
Hansen test	0.586	0.745	0.361	0.527
$R^2$	49	83	63	68

**Source:** Autor's calculation

\*, \*\*and\*\*\* indicates test statistic is significant at the 10%, 5% and 1% level.

Standard errors in () and t-statistics in [ ]

First from the Table 3, it can be seen that the coefficients of the public debt variable always have positive values, while those associated to public debt<sup>2</sup> always have negative ones, implying that the functional relationship linking the growth rate of GDP to the size of public debt is one of concave type, admitting the existence of a maximum value. According to the assumption of the oversized threshold of debt, its presence is determined in all regression equations. The results of our paper confirm the findings of other recent empirical studies on the situation of developing countries, where belong in Kosovo, although the maximum public debt ratio we've identified is lower than the one of Greenidge et al. (2012), of about 55% of GDP, or Bilan and Ihnatov 2015 of about 44%. The result also suggests that the legal upper limit of debt of 40% of Gross Domestic Product is correctly set. A possible explanation for this situation lies in the much lower credibility that Kosovo enjoy from potential creditors, investors, etc., which makes the negative effects of a high public debt to occur more rapidly than in the case of developed countries. Thus, the effects on economic growth of lower willingness of foreign creditors and investors to provide capital, due to the higher risk they perceive when public authorities' debt is important, are more unfavorable. Of the statistically significant debt ratios,



the positive influence ranges from 3.624 in the equation (3) where the control variable took the current account balance to 5.481 in the equation (4), indicating that the rise in the level of government debt below the threshold of 1 pp. on average causes an increase in GDP per capita by about 3-5%. The height of the positive influence is largely followed by the degree of concurrence of the growth function with respect to the debt, so the function expressed in equation (1) is characterized by the greatest concurrency, with the estimated regression coefficient being -0.083, while the function in the equation (3) has the smallest concave with a rated coefficient of -0.051. Gross investment as a measure of investment in the economy has a statistically significant impact on economic growth in equations (1) - (4), but the intensity of such impact in each of these equations is different, largely due to the estimated effect of other variables included in the equations. Positive statistical significance at a level of 1% was assessed for all control variables. Thus, the increase of 1 pp. would cause GDP per capita growth of about 0.20 per cent in the primary budget balance, about 0.26 per cent in trade, and about 0.05 per cent in the current account balance. The ratio of the estimated debt coefficients was determined to indicate a higher concurrency in the conditions of its more pronounced positive impact, but it is not proportional, and hence there are differences in the height of the break-even debt threshold, which ranges from 27.75% in the equation (3) in which the current account balance is taken as the control variable of up to 36.2% in the equation (1) which is without control variables. This finding suggests that the greater scope with the inclusion of control variables leads to a division of the positive impact on the growth of multiple players and thus a reduction in the breakthrough threshold. In other words, the knowledge of the positive influence of other growth factors significantly reduces the efficiency of borrowing, and this is why it has a weaker effect and the breaking threshold is achieved at a lower level.

## **5. Conclusion**

This study highlights the dual role of public debt in Kosovo's economic growth over the period from 2008 to 2022. While moderate levels of debt have supported economic expansion, excessive debt levels pose risks to sustainable growth. Policymakers should therefore aim for a balanced approach, ensuring that borrowed funds are channeled into productive uses while maintaining fiscal discipline to avoid the pitfalls of excessive indebtedness. Future research could explore the qualitative aspects of public debt management and its long-term implications for Kosovo's economic stability. The assessment of the function of the economic growth in relation to the government debt for the period 2008 - 2022 points to its concordance, which leads to the conclusion that there is a too wide threshold of the debt to which it has a positive and over which has a negative impact on the economic growth. The results confirmed the existence of a „U inverted” relationship between public debt and economic growth, with a maximum debt threshold of about 36.2% to 27.75% of GDP. After this threshold, public debt is expected to negatively affect the economic growth rate, due to higher interest rates, fear of public debt unsustainability and severe budgetary consolidation measures. In the basic model without control variables, the height of the break-even debt threshold is set at 36.2%, while when the controlling current account balance is used, it is 27.75%. In the equations with the investments and primary balance as the control variables for public finances, the break-even debt threshold is set at 36.2%. These results means that the Law on Public Debt of Kosovo allows room to the country to borrow up to 40 percent of GDP However, this threshold was found to be more than twice lower compared to the developed EU countries. This results is due the fact that Kosovo enjoy lower credibility, higher vulnerability to shocks and depend more on external capital transfers. Furthermore, the empirical results suggest negative relationship between public debt and economic growth controlling for other determinants of growth (trade openness, total investment, current account balance and primary balance). This inverse debt-growth relationship is in line with previous empirical research and confirms the research hypothesis. As a direction for future researchers that would deal with this problem, it would be to examine the impact of other determinants that were not included in our model, such as population growth, inflation, , exchange rate. In addition, future researchers could include a longer or different time period and to include other countries in order to compare what is the impact of public debt on economic growth.

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