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External audit importance toward efficiency of public funds and the economic growth-a study case of Kosovo

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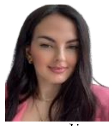

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ABSTRACT

The purpose of this study is to shed light on the importance of the external audit towards the efficiency of public funds and to estimate further the impact of related macroeconomic determinants such as government expenditures, government debt to GDP, government revenue, and fiscal expenditure in economic growth in the case of Kosovo. The study employs a quantitative research method utilizing secondary data from 2012-2021 sourced from World Bank indicators. The econometric models employed in this study are the OLS and VAR models. The study finds that a point increase in public debt will decrease the GDP growth in the case of Kosovo. The empirical findings suggest further that an increase in government spending leads to a rise in GDP growth, whereas government revenues and fiscal expenditures are statistically not significant in the study circumstances. Budgetary expenditure is negatively signed, indicating that an increase in fiscal expenditure leads to a decrease in GDP growth, and it is statistically not significant. The study concludes that external audits play a crucial role in the efficiency of public funds and sheds light on macroeconomic determinants related to external audits that have an impact on economic growth in the case of Kosovo.

Contribution/Originality: This study enhances the research gap by establishing the importance of the external audit towards public funds efficiency and goes further using econometric techniques to investigate the importance of external audit towards economic growth in the case of Kosovo. The study is of great interest to policymakers and also for further research. This is significant because external audit plays a crucial role in public expenditure efficiency and economic growth.

1. INTRODUCTION

External audits are essential to the effectiveness of public funding. Public funding can consequently have a beneficial impact on economic growth, given that audited spending can improve the effectiveness of how it is utilized. It is the duty of governments to provide public services in a stable economic environment. Public finances must be well managed to maintain long-term viability since revenue is not always sufficient to meet demand. There is a lack of extensive study on the impact of external auditing on public fund efficiency and economic growth in general, and particularly in Kosovo.

The importance of this study lies in the analysis of a fundamental topic: the value of external audit in ensuring the effectiveness of the use of public funds. The novelty of this research is that it is not limited to assessing the potential impact of public funds on economic growth but also emphasizes the key role of external audits in ensuring the effectiveness of public spending. "The aim of this study is to fill the knowledge gap on the role that external audit can play in promoting economic growth. This audit is necessary to ensure that public funds are used effectively. Audited public spending can contribute to increasing the efficiency of its use, and as a result, it can have a positive impact on economic growth. Despite the need for effective public spending, the provision of public services must take place in a stable fiscal climate. Revenues are often insufficient to meet all requirements, so careful management of public finances is necessary to ensure financial sustainability in the medium and long term. As a result, reliable public finance management systems are essential at every stage of the budget cycle, from planning to expenditure execution, and include internal audit, financial management, and control.

According to Bonić, Jakšić, and Mijić (2018), external state audits of the public sector are developing an integrative approach to their purview, in keeping with the changes that the European Union (EU) and Balkan nations have been undergoing since the turn of the twenty-first century. However, Bobeş (2012) noted that the Court of Accounts, the country's top auditing body, conducts external public audits that are essential to ensuring accountability for the handling of public funds. Therefore, those in charge of public budgets have a natural right to use funds from the public coffers in compliance with legal and performance requirements. It is the public audit that assesses the entities' financial management and makes recommendations for better use of the funds, but it is the audit that lags behind in making managerial decisions.

External audit closely links to the efficiency of the use of public funds. The external state audit system emphasizes the need for structural modifications that guarantee an appropriate allocation of investments and other resources, taking into account the organizational level and the pace of economic growth. Because of this, doing a state audit to make the economy more stable can make the government work better and connect project and program implementation systems with strategic planning systems more strongly (Karabayev, Sembiyeva, Zeinelgabdin, Beisenova, & Pankou, 2021).

The existence of an impartial and efficient Supreme Audit Institution to carry out expert examination of the executive's handling of public funds is a fundamental element of any democratic financial accountability framework (SIGMA, 2022). According to Hasan (2009), external audits have a lengthy history and were once only one of several inspection procedures carried out on local governments. Most of the time, they provided assurance about the accuracy of an authority's financial statements and the legitimacy of the underlying transactions. Officers of public budgets are, of course, responsible for using public funds in accordance with the law and performance standards, but the public audit is the one who evaluates the entities' financial management and makes recommendations that lag behind making managerial choices intended to maximize the funds.

However, a study by Bobeş (2012) finds that while public budget officers are undoubtedly in charge of allocating public funds in compliance with legal requirements and performance standards, public audits are the ones who assess the organizations' financial management and offer suggestions that trail behind making management decisions meant to optimize the funds.

"The audit evaluates the audited entities' legal compliance and public fund management. This audit also includes the examination of the financial management and control system, the internal control system, and the internal audit process (Dimitrova, Bojkovska, & Janceva, 2019).

Internal and external audits help the public sector's good governance, efficacy, economy, and efficiency in public administration. The provision of high-quality public services and advisory services to improve risk and resource management is becoming increasingly crucial, according to Bonić et al. (2018).

Regarding Kosovo as a developing nation, the top body for economic and financial supervision in the Republic of Kosovo is the National Audit Office, an independent organization that supports the auditor general in performing his or her tasks.

The Audit Law adopted by the Assembly of Kosovo in June 2008 significantly altered the Office of the Auditor General's (OAG) legal framework, allowing it to report directly to the Assembly, propose budgets, and continue as an international expert appointed by the International Civilian Representative. In April 2009, the OAG sent the

Kosovan Assembly its first annual performance report as required by law. The OAG assumed full responsibility for the 2008 audit of the financial statements of the Kosovo Consolidated Budget (KCB) and used its own resources exclusively. The National Audit Office and Auditor General Laws in Kosovo underwent changes. Regarding LAW No. 05/L-055 on the national audit office and the auditor general of the Republic of Kosovo, the Assembly of the Republic of Kosovo approved the law on these topics based on Article 65 (1) of the Republic of Kosovo Constitution (Official Gazette of the Republic of Kosova, 2016).

Based on the novelty of this study, the study aims to establish the impact of the external audit towards public funds efficiency and goes further with the measurement how audited public funds impact the economic growth in the case of Kosovo as a country in transition. It does this by providing theoretical explanations of how external audits operates and is implemented, and also by evaluating the impact of public spending on economic growth in the case of Kosovo.

1.1. Study Objectives

1. To highlight the value of external auditing for the effectiveness of public funds.
2. To outline the external audit's role in the Kosovo case.
3. To assess how, in the case of Kosovo, an external audit might affect its economic growth.

1.2. The Study Research Questions

1. How the effectiveness of public finances is affected by external audit?
2. Why should political leaders prioritize external audits?
3. How, in the instance of Kosovo, does the external audit affect economic growth?

1.3. Research Hypothesis

The external audit plays crucial role toward efficiency of public funds and the economic growth in the case of Kosovo.

This is how the study is carried out: The introduction is presented in part one, the literature review is presented in section two, the research methodology, research techniques, and data are presented in section three, the findings are shown in section four, and the study's conclusions are presented in section five.

2. LITERATURE REVIEW

External auditing has an extensive background and was initially merely one of several inspection tasks carried out on governmental entities, and it has been applied to guarantee the legitimacy of the underlying transactions as well as the dependability of an authority's accounting (Hasan, 2009).

Ljubisavljević and Grbic (2017) investigate the role of external audits in promoting economic growth and maintaining macroeconomic stability in the case of Serbia. It emphasizes the importance of auditing public finances at all levels and comes to the conclusions that external audits can potentially reduce public debt and budget deficits, thereby enhancing the stability of the public sector. Bogma and Ovdii (2022) emphasize the importance of external audit in the case of Ukraine for ensuring the effectiveness and efficiency of socioeconomic changes. The study suggests that a methodical evaluation of public external financial control organizations' efficacy is necessary. The study concludes that the evaluation of the government's external financial control body's activity plans is necessary to determine if the control activity complies with its objectives and goals. According to Daujotaitė and Adomavičiūtė (2017), the influence of audit, as a significant external control mechanism, on public expenditures in the case of Lithuania. The study used the National Audit Office of Lithuania's (NAOL) audit data as the basis. The study concludes that the audit permits cost savings, lower spending, higher performance quality, improved organizational, managerial, and administrative procedures, better laws, and the introduction of financial discipline.

External audits raise awareness of the need for greater responsibility in public fund management, as ministries and state administration bodies are aware of their financial reports being audited at any time. The State Audit Institution's suggestions help specific areas save money and use resources more effectively. An additional study established the connection between the effectiveness of public finances and external audit. Karabayev et al. (2021) utilized standard methods to assess financial stability in developing countries' budgets. It examined the potential of assessing state audits for all Republican budget expenses without increasing national debt. The study concluded that conducting a state audit can enhance public administration efficiency and align state project and program mechanisms with strategic planning mechanisms, ultimately improving financial stability.

Mandl, Dierx, and Ilzkovitz (2008) discuss the importance of improving public expenditures for long-term growth and equity considerations, as most resources in the public sector come from taxes. Enhancing public spending efficiency is crucial for advancing the Lisbon structural reform agenda and upholding budgetary restraint mandated by the Stability and Growth Pact. It highlights the importance of audits in increasing public spending efficiency, with member states implementing different structures, such as Bulgaria, Greece, France, and Luxembourg, to achieve effective budget management and reduce financial limitations.

According to Secrieru (2023), the importance of considering both inherent and specific risks in public financial management. It suggests that developed democracies like Denmark, Finland, and Norway have the safest public sectors, followed by Germany and Canada. Post-socialist countries like Estonia, Slovakia, Slovenia, Lithuania, Latvia, and Poland face high risks due to corruption and government effectiveness. This suggests a lack of efficiency in internal and external public financial audit activities.

Salih and Almajdob (2019), measure the impact of supreme audit institutions (SAIs) in fostering economic growth. The study uses partial least squares structural equation modeling (PLS-SEM) to analyze the role of auditors from the Federal Supreme Audit Board of Iraq. The results show that SAIs contribute significantly to reducing corruption, audit failures, improving accountability and transparency, and thus, strengthening a sustainable financial management system, fostering economic development.

Bostan, Tudose, Clipa, Chersan, and Clipa (2021) in their study assess the impact of macroeconomic and supreme audit institutions-related factors on the sustainability of public finances, measured through the size and dynamics of the government deficit and gross public debt of EU Member States over the period 2002–2019. The study concludes that supreme audit institutions, through their organizational structure, the nature of their activities, and the level of professionalism, can contribute to reducing public deficit and gross public debt and, indirectly, improve the efficiency of public finance management and strengthen the fight against corruption.

A study by Karabayev et al. (2021) analyzes the importance of external public audit in ensuring the financial stability of budgets of developing countries. The study assesses the financial stability of budgets using traditional methodological approaches, such as analysis of absolute indicators and analysis of relative coefficients. It examines the possibility of assessing the state audit of budgets of developing countries, including all Republican budget expenditures, without increasing the level of public debt.

Another study from Umurerwa (2016) investigates the impact of external audit on efficiency of public organizations. The study employs qualitative research as a research method. The study used the questionnaire tool for data collection and also observations. The study's results show that auditors' adherence to professional ethics raises the credibility of the financial reports.

Ljubisavljević and Grbic (2017) examine the role of external audits in ensuring proper budget execution and maintaining macroeconomic stability. The study uses a qualitative approach, supported by the use of analytical description technique. They conclude that external audits of public finances can have a significant impact on reducing public debt and budget deficits. Furthermore, the report emphasizes that external audit has a proactive impact, raising awareness of the need for greater accountability in the management of public funds.

Qatawneh (2013) finds that there is no statistical evidence that external audit standards have an impact on tax laws. However, he points out that there are some challenges related to future assessments and forecasts, which the external auditor should take into account when conducting the audit. Another study by Karabayev et al. (2021) examines the impact of external public audit on ensuring the financial stability of budgets in developing countries. The study uses traditional methodological techniques, such as the analysis of relative coefficients and absolute indicators. The study's findings suggest that a state audit conducted to improve financial stability would increase the effectiveness of public administration and contribute to its alignment with the necessary standards.

Çiçek and Dikmen (2019) examine the factors that influence the external audit of the Supreme Audit Institution (SAI) and analyze the effects of this audit on fiscal transparency. The study sample includes 115 countries. In the study, the Two-Stage Least Squares (2SLS) method was used to find that the level of democracy, GDP per capita, legislative oversight of the budget, audit diversity, and the SAI's judicial model all have a significant and positive effect on external audit. Furthermore, the study shows that budget transparency is significantly and positively affected by external audit.

On the other hand, a study by Fetai and Mjaku (2020) analyzes the factors that affect the efficiency of auditors in the case of Kosovo. The econometric probit model is used to compare how well public and private sector auditors do their job. It shows that highly educated staff, experienced staff, and staff who get along well with clients and coworkers all lead to better audit performance. The results also show that specialized training and courses increase auditor effectiveness. This report gives useful details about how well audits work. It suggests that governments and leaders in economies that are transitioning should use these results to help improve institutions and make audits work better in both the public and private sectors.

The importance of external audit in economic growth is also evident in the study of the Greek recession. Zgouva, Varsos, and Assimakopoulos (2018) analyzed the Greek financial crisis and concluded that the 2008 recession constituted a deep economic crisis, which affected every national economy. The crisis was particularly damaging for Greece due to excessive public spending, tax evasion, wage growth, and unsustainable debt levels. The Court of Audit of the Republic of Greece, acting as an independent external auditor, played a key role in the economic recovery and in preventing future financial mismanagement.

2.1. External Audit in the Case of Kosovo

External audit in Kosovo are regulated by Law No. 05/L-055 on the Auditor General and the National Audit Office of the Republic of Kosovo. The purpose of this law is to determine the organization, functioning, and competencies of the Auditor General, as well as the establishment, organization, and functioning of the National Audit Office of the Republic of Kosovo. According to Article 2 of the law, its scope includes the external audit of public funds, budget execution, and the use and management of publicly owned resources (Official Gazette of the Republic of Kosova, 2016).

Under this law, Article 5 presents the duties of the National Audit Office, such as Official Gazette of the Republic of Kosova (2016):

- To carry out its duty in conformity with the law, the Constitution, and the widely accepted public sector auditing standard.
- To carry out its duties in the Republic of Kosovo without interference from other bodies or authorities; to have its own budget and to be administered independently in accordance with the law.
- To offer suggestions and participate in the administration of public finances, including the budget.
- To encourage strict guidelines for accountability and transparency in the public administration's financial management. The audit reports should be submitted to both the Assembly and the audited entities.

Referring to the report of the general auditor for the annual financial report of the government for the Republic of Kosovo for the year 2021 (National Audit Office, 2021a), recommendations have been given to the government of

Kosovo to improve the efficiency of the budget, including the planning and implementation of the budget, specifically the revenues and public expenditures, the public debt, as well as recommendations on public expenditures deemed inadequate. In the report also is set that that in accordance with the constitutional mandate, articles 137 and 138, as well as the legal mandate, article 6, the National Audit Office (NAO) during the 2021/22 audit season has conducted a total of 133 audits, for which the relevant reports have been issued. These audits include the report on the government financial statements, 90 financial and compliance audits for budget organizations, 12 audits of public enterprises, 13 audits of World Bank and other donor projects, and 3 compliance audits. In addition, 14 performance audits were conducted, including two reports with classified information (with a limited classification level).

Regarding budget planning and implementation, the National Audit Office report for Kosovo estimates that the difference between receipts and payments is €112,233,000, an amount that represents unspent funds and reflects the increase in cash in the bank account of the Budget of the Republic of Kosovo. The Covid-19 pandemic situation is responsible for this increase, and 2021 saw a rise in income compared to the previous year.

The external audit gives reflection also in the field of the public debt, as is mentioned in the report cited above. In this study, the national audit office has identified inefficiencies in the use of funds received as external loans. The reasons behind result of problems with expropriation of infrastructure projects, budget allocations not harmonized with the dynamics of the project, difficulties in consolidating project-implementing units in the process of staff recruitment and retention, and introducing some projects into the budget to which loan agreements were not ratified in the Assembly, as well as the effects caused by the Covid-19 pandemic (National Audit Office, 2021b). The report also evaluates the inadequate classification of expenses - where, among others, it is considered that despite the improvements from previous years and during 2021, 13,150, 923 € of payments classified in inadequate categories of expenses were identified, of which €9,327,936 were as a result of budgeting not being adequate, since €3,822,987 were the result of court decisions and influenced by the OBs themselves.

The significance of external audits in the management of public funds and their effect on economic growth are emphasized in the Organization for Economic Co-operation and Development (OECD) study. These audits are managed by Supreme Audit Institutions (SAIs), which also find inefficiencies, guarantee appropriate oversight, and suggest ways to enhance government operations (Hegarty & Musonda, 2011).

Nonetheless, budgets and the fiscal forecasts that support them should offer a transparent declaration of the government's policy and budgetary goals in addition to thorough, accurate, and timely estimates of how the public finances will change over time. On the other hand, fiscal reports need to offer a thorough, pertinent, timely, and trustworthy summary of the government's financial status and performance (OECD, 2017). Increased openness makes it possible for interested parties to assess fiscal policy and determine whether or not public funds are being spent effectively and in line with the nation's major social and development goals (PEFA Secretariat, 2018). Based on report of the The World Bank (2013):" External audit impact on improvement of public financial management. In this way, improved public financial management lies at the core of good governance and is crucial to economic development, boosting shared prosperity, and ending extreme poverty."

3. RESEARCH METHODOLOGY

This section explains the research method used in this study. It includes a description of the study population, sample size and method, research strategy, and tools used for data collection. The impact of external audit on economic growth is analyzed in this study using vector autoregressive (VAR) and ordinary least squares (OLS) econometric models.

The OLS (Ordinary Least Squares) method estimates the influence of independent variables on the dependent variable. It is an econometric method used to analyze how one or more factors, known as independent variables, affect the dependent variable. According to Zgouva et al. (2018), ordinary least squares (OLS) models are based on a model that fits the relationship between one or more explanatory variables and a continuous (or at least interval) variable, minimizing the sum of squared errors. The error is the difference between the actual and predicted value of the outcome variable. Linear regression, the most common analytical method that uses OLS, can work with a single predictor variable or multiple variables. Furthermore, the study shows that the OLS method is used to estimate the parameters β0 and β1.

This type of multivariate time series model connects current observations of a variable to its historical data as well as to historical observations of other variables in the system. It is called a vector autoregressive (VAR) model (Eric, 2021). Vector autoregressive (VAR) models are used for multivariate time series, and each variable in a VAR model is a linear function of its own past lags and the past lags of other variables (PennState, 2023). Many studies are currently being conducted to build these models, based on the pioneering work of Sims (1972), as presented in the paper by Christiano (2012), who created a framework for modeling endogenous variables in a multivariate situation. After developing this framework, researchers developed several statistical tests to identify the dynamic interactions and interdependencies between variables.

The special feature of this study is that it presents the importance that external audit has in improving the use of public funds, and in addition to this, it further evaluates the impact of the government debt, government spending, government revenue and fiscal expenditure on economic growth. The study differs from other studies because it goes beyond the literature, because it not only presents the importance of external audit but also evaluates how government spending, which are the object of the external audit, the government revenue, and government debt, impact the economic growth.

3.1. Research Design

The study relied on secondary data from Trading Economics and the World Bank for the years 2012 to 2021. Trading Economics (2022) provided the statistical data on GDP growth, government debt to GDP, expenditures, revenue, and fiscal expenditure in the case of Kosovo.

The dependent variable in this study is GDP growth, while the independent variables are government debt to GDP, government expenditures, government revenue, and fiscal expenditure. This study employed specific VAR model parameters.

The stationarity and normality of the data were examined. Using the Augmented Dickey-Fuller Unit Root test, stationarity was examined. The Shapiro-Wilk W test for normal data was used to check for normality.

Ordinary Least Squares (OLS) is one of the econometric approaches employed in this study. The econometric model adopted in this study takes the following form:

$$GDPG = \beta_0 + \beta_1 DG + \beta_2 GS + \beta_3 GR + \beta_4 FE + \varepsilon_t \qquad (1)$$

Where;

$GDPG$ is GDP growth.

DG is Government Debt to GDP.

GS is Government Spending.

GR is Government Revenue.

FE is Fiscal Expenditure.

β_0 is Constant.

$\beta_1 - \beta_4$ are regression coefficients.

ε_t is the error term.

The vector autoregressive (VAR) model is used to analyze and examine multiple economic time series simultaneously (Zivot & Wang, 2006). The VAR method is a powerful way to look at how random events change a set of variables over time and how economic time series are connected (Sujit & Rajesh Kumar, 2011). The econometric model of VAR can be measured and analyzed with the following equation:

$$y_t = A_1 y_{t-1} + \cdots + A_p y_{t-p} + Bx_t + u_t \qquad (2)$$

The y_t is a k vector of endogenous variables

The x_t is a d-vector of exogenous variables,

$A_1, \ldots, A_p$ and B are matrices of coefficients,

u_t is a vector

The VAR model applied in this study takes the following form:

$$GDP_t = \alpha_0 + \phi_{11}GDP_{t-1} + \phi_{12}DG_t + \phi_{13}GS_t + \phi_{14}GR_t + \phi_{15}FE_t + \varepsilon_{3t} \quad (3)$$

Where;

DPG is GDP growth.

DG is Government Debt to GDP.

GS is Government Spending.

GR is Government Revenue.

FE is Fiscal Expenditure.

4. RESULTS

This section presents the study's results and findings. The data used for this study are the GDP growth rate, government debt to GDP, government spending, government revenue and fiscal expenditure from 2012 to 2021.

4.1. Descriptive Statistics

Table below displays the descriptive statistics used in the study for GDP growth, debt to GDP, government spending, government revenue, and fiscal expenditure. The fundamental characteristics of the data are described by descriptive statistics, which serve as the foundation for almost all quantitative data analyses in research projects.

This is crucial since it describes the characteristics of the variables involved and offers potential flexible models for the research.

The distribution of the various variables appears to be normal (i.e., bell-shaped) based on the observation that all mean and median values are positive and comparable.

Table 1. Descriptive statistics of variables.

Variable	Mean	Standard deviation	Minimum	Maximum
GDP growth	3.866	3.779	-5.340	9.127
Debt to GDP	15.252	5.144	8.44	23.34
Spending	776.251	129.040	604.579	1028.125
Revenues	1120.148	492.717	458.9	1779.3
Fiscal expenditure	1202.04	441.239	587.3	1764.7

Table 1 revealed that mean GDP growth is about 3.9 percent. The minimum GDP growth between 2012 and 2021 is -5.3 percent, as observed in 2020. This can be attributed to the incidence of the once-in-a-life pandemic (COVID-19), while the highest GDP growth is 9.1 percent, witnessed in 2021. Also in the table, mean debt to GDP is 15.2. The lowest debt to GDP is 8.4, witnessed in 2012, and the highest is 23.34, witnessed in 2021. The table also indicated that the mean government spending is 776.3 million euros. The lowest government spending was witnessed in 2012, and the highest government spending was witnessed in 2021. The mean government revenue is 1120.1 million euros. 2018 saw the lowest government revenue, while 2017 saw the highest. The mean fiscal expenditure is 1202.04 million euros.

Table 2. Augmented Dickey-Fuller unit root test.

Series	ADFR test statistic	1% critical values	5% critical values	10% critical values	Order	Remarks
GDP growth	-4.311	-3.750	-3.000	-2.000	I(1)	Stationary
Debt to GDP	0.183	-3.750	-3.000	-2.630	I(0)	Stationary
Spending	0.762	-3.750	-3.000	-2.630	I(0)	Stationary
Revenues	-1.288	-3.750	-3.000	-2.630	I(0)	Stationary
Fiscal expenditure	-1.248	-3.750	-3.000	-2.630	I(0)	Stationary

The preceding unit root test empirical tests show that the following are integrated by order zero: GDP growth rate, government debt to GDP, government spending, government revenue, and fiscal expenditure. They have the same order of integration, 1 (0). The Augmented Dickey-Fuller test (ADF) with trend and intercept showed that the time series are integrated of the same order, as can be shown in Table 2.

Cointegration is the linear combination of series integrated of the same order. The degree of the integration indicates the number of time series that require differentiation to achieve stationarity. It is noted that test statistics are higher (in absolute terms) than the critical values when looking at the Augmented Dickey-Fuller test (ADF) test statistics at the 1%, 5%, and 10% critical values. At that level, the series is therefore considered stationary.

To ascertain if the population the sample is taken from is non-normal, a one-sample hypothesis test is performed. Population normalcy is a prerequisite for many statistical operations; hence a normality test is a crucial step in this research to decide whether to reject this assumption. According to the normality test's null hypothesis, the population is Gaussian. The population is non-normal, according to the alternative theory. The following tests have been run in order to ascertain the data's genuine demographic characteristics.

Table 3. Shapiro-Wilk W test for normal data.

Variable	W	V	z	Prob>z
GDP growth	0.841	2.445	1.687	0.046
Debt to GDP	0.945	0.851	-0.273	0.607
Spending	0.942	0.895	-0.188	0.575
Revenues	0.870	2.011	1.289	0.099
Fiscal expenditures	0.865	2.078	1.355	0.088

Table 3 presents the results of the Shapiro-Wilk W test for normality of various data series. This test is used to assess whether the data follow a normal distribution. The variables tested for normality include GDP growth, debt to GDP, spending, revenues, and fiscal expenditures. According to the Shapiro-Wilk W test, there is evidence that the data do not follow a normal distribution at a significance level of less than 0.05. Because the biggest point is slightly above the line and the smallest points are below it, there is a tiny tendency for these data to have lighter tails than a normal distribution. At the extremes, a distribution with thick tails displayed the reverse trend. According to the Shapiro-Wilk test results, except for GDP growth, all other variables (debt to GDP, spending, revenues, and fiscal expenditures) follow a normal distribution, as their p-values are greater than 0.05. This has important implications for the choice of statistical methods in further analysis.

Table 4. Shapiro-Wilk W test for normal data.

Variable	Coefficient	Std. error	t-ratio	p-value	Significance
Const	−39.043	15.190	−2.570	0.050	*
Debt to GDP	−1.598	0.607	−2.634	0.047	**
Spending	0.080	0.027	2.987	0.030	**
Revenues	0.016	0.014	1.094	0.324	Not significant
Fiscal expenditure	−0.010	0.016	−0.651	0.544	Not significant

Note: a p-value of 0.050, which is marginally significant indicated with "*".
A p-value less than 0.050, which is significant at the 5% level is denoted with "**".

Table 4 Shapiro-Wilk W Test for Normal Data presents the results of the statistical analysis for various variables, including their coefficients, standard errors, t-ratios, p-values, and significance levels:

- Constant: The constant term has a p-value of 0.050, which is marginally significant (indicated with "*"), suggesting some evidence of a relationship with the dependent variable.
- Debt to GDP: This variable has a p-value of 0.047, which is significant at the 5% level (denoted with "**"), indicating a statistically significant effect on the dependent variable.
- Spending: The p-value for spending is 0.030 it is also significant at the 5% level (denoted with "**"), showing a significant relationship with the dependent variable.
- Revenues: The p-value for revenues is 0.324, indicating that it is not significant, meaning it does not have a meaningful effect on the dependent variable.
- Fiscal Expenditure: With a p-value of 0.544, fiscal expenditure is also not significant, suggesting no significant relationship with the dependent variable.

In summary, debt to GDP and spending are statistically significant, while revenues and fiscal expenditure are not.

Table 5. OLS results.

Variable	Value	Description	Value
Mean dependent var	3.867	S.D. dependent var	3.780
Sum of squared residuals	42.937	S.E. of regression	2.930
R-squared	0.666	Adjusted R-squared	0.399
F (4, 5)	2.493	P-value(F)	0.172
Log-likelihood	−21.475	Akaike criterion	52.950
Schwarz criterion	54.463	Hannan-Quinn	51.290
rho	0.007	Durbin-Watson	1.935

The Table 5 present the results obtained from the OLS model. The variable Public Debt is statistically significant; thus, one percent increase in public debt will decrease the GDP growth. The variable government spending is also statistically significant; thus, increasing the government spending will cause the GDP growth to increase.

In our analysis, the variable of government revenues is statistically not significant. In this case it means not important in our model specification. Otherwise, it is positively signed; thus, an increase in government revenues should increase the GDP growth.

The variable fiscal expenditure is negative and means an increase in fiscal expenditures will decrease the GDP growth, but in our model, the variable is not significant statistically.

The value of R^2 (0.666) shows that 66.6% of the variations in the GDP growth is explained by government debt to GDP, government spending, government revenue and fiscal expenditure.

Table 6. Vector autoregressive (VAR) model.

OLS estimation, observations for period 2013-2021 (T = 9)
Log-likelihood = -19.124
Determinant of covariance matrix = 4.104
AIC = 5.583
BIC = 5.715
HQC = 5.300
Portmanteau test: LB (2) = 2.41473, df = 1 [0.1202]

Table 6 presents the results of the Vector Autoregressive (VAR) model estimated with the OLS method for the period 2013-2021 (T = 9). The log-likelihood is −19.124, which indicates the likelihood of the observed data within this model. Also, the determinant of the covariance matrix is 4.104, which indicates how much variance is spread in the model residuals. The Akaike Information Criterion (AIC) is 5.583, a measure of the model's fit, with lower values indicating better fit. The Bayesian Information Criterion (BIC) is 5.715, and the Hannan-Quinn Criterion (HQC), 5.300, providing alternatives for comparing different models. According to the Portmanteau test (LB(2)), with a value of 2.41473 and a p-value of 0.1202, there is no indication of autocorrelation of the residuals, suggesting that the model has a good fit. These results provide an important assessment of the quality of the VAR model under study.

Table 7. Equation 1: GDP growth.

Variables	Coefficient	Std. error	t-ratio	p-value
Const	−10.926	44.580	−0.245	0.822
GDPgrowth_1	−0.557	0.850	−0.655	0.560
Debt to GDP	−1.018	1.154	−0.882	0.443
spending	0.040	0.067	0.591	0.596
Revenues	0.019	0.018	1.047	0.372
Fiscal expenditure	−0.016	0.021	−0.769	0.498
Mean dependent var	4.106	S.D. dependent var	3.928	
Sum squared residual	36.935	S.E. of regression	3.509	
R-squared	0.701	Adjusted R-squared	0.202	
F(5, 3)	1.405	P-value(F)	0.415	
rho	0.037	Durbin-Watson	1.703	

Note: F-tests of zero restrictions:
All lags of GDPgrowth F (1, 3) = 0.42947 [0.5590].
All vars, lag 1 F (1, 3) = 0.42947 [0.5590].

Table 7 presents the findings from a vector autoregressive (VAR) model that aims to examine and explain GDP growth by incorporating several key factors: the initial lag of GDP, debt-to-GDP ratio, government expenditures, government revenue, and fiscal expenditure. In order to describe and decide GDP growth, the vector autoregressive model takes into account the GDP's initial lag, debt to GDP, government expenditures, government revenue, and fiscal expenditure. Debt to GDP is negatively signed, meaning that there is a statistically insignificant correlation between rising public debt and declining GDP growth. Additionally, government expenditure has a positive sign, which means that rising government spending increases GDP growth even when the relationship is statistically insignificant. Additionally, the government revenue is positively signed, meaning that there is a statistically insignificant correlation between an increase in government revenue and GDP growth. Additionally, fiscal expenditure has a negative sign, which means that a rise in fiscal spending is statistically not significant but does result in a decline in GDP growth.

The value of R^2 (0.700) shows that 70% of the variations in the GDP growth is explained by government debt to GDP, government spending, government revenue and fiscal expenditure.

Comparing this study to that of Ljubisavljević and Grbic (2017) which examines the role external audits play in budget execution and the process of achieving macroeconomic stability through a qualitative approach, is crucial because it draws conclusions about the potential effects of external audits of public finance on the reduction of public debt and the budget deficit as well as their preventive role in raising public awareness of the need for greater responsibility in the management of public funds.

It's also crucial to note that, according to a recent literature review, there is insufficient data to compare the results of this study with those of other studies because it uses econometric estimation to estimate the relationship between external audit and economic growth.

5. CONCLUSIONS

The findings of this study, which looked at data from 2012 to 2021 in the case of Kosovo, demonstrate the significance of external audit on the function of economic growth in emerging nations. The data used are obtained from Trading Economics and the World Bank in order to generate empirical findings using Stata.

The OLS revealed that the debt-to-GDP ratio is negatively signed, which is statistically significant and suggests that rising public debt will decrease the GDP growth. The positive sign of government spending indicates a statistically meaningful relationship between rising government spending and GDP growth. The variable of government revenue points to a statistically insignificant relationship between increasing public debt and GDP growth. Fiscal spending is a negatively signed variable, meaning that a rise in fiscal expenditure is associated with a statistically insignificant decline in GDP growth. The value of R^2 (0.666) shows that 66.6% of the variations in the GDP growth is explained by Government Debt to GDP, Government Spending, Government Revenue and Fiscal Expenditure.

According to the VAR model data, the relationship between debt and GDP is negative, which indicates that there is no statistically significant relationship between the increase in public debt and the decline in GDP growth. Also, government spending has a positive relationship with GDP growth, but this relationship is not statistically significant. Additionally, the government revenue is positively signed, meaning that there is a statistically insignificant correlation between an increase in government revenue and GDP growth. Fiscal expenditure has a negative sign, which means that a rise in fiscal spending is statistically not significant but does result in a decline in GDP growth. The value of R^2 (0.700) shows that 70% of the variations in the GDP growth is explained by government debt to GDP, government spending, government revenue, and fiscal expenditure.

The study's econometric analysis reveals that an increase in public debt leads to a decrease in GDP, while an increase in government spending positively impacts GDP. The study concludes that in the econometric model circumstances, the variable government revenues fiscal expenditure is not statistically significant.

Regardless of the progress made in recent years, which mostly relates to SAI's constitution and assigning it the responsibility of overseeing and reporting on the work of the public sector as a whole, an analysis of the current development stage of external audit and also presented the findings above, in the case of Kosovo, indicates that much work still needs to be done in the field of external audit. In this regard, significant work is required to establish external audit as the primary tool that upholds the accountability of those who utilize public funds and rebuilds trust in the public sector. Auditees must devote more time and effort to putting SAI measures into practice.

5.1. Policy Implications and Future Research Suggestions

Kosovo serves as a prime example of the value of external audits in promoting economic growth and public fund efficiency. Strong audit procedures may improve financial management, accountability, transparency, institutional frameworks, investor confidence, policy reform guidance, public sector institution capacity building, and public trust. Frequent audits have the potential to enhance the institutional framework, find inefficiencies, and allocate resources more effectively—all of which can contribute to economic progress. Incorporating these ramifications into Kosovo policy could resolve issues with public money management and sustained economic growth. Impact assessment, case comparisons, audit procedures, technological integration, policy assessment, long-term impact studies, public opinion, and capacity building and training ought to be the main areas of future study. The efficiency of current institutional structures and regulations and the long-term impacts of enhanced external auditing on Kosovo's social and economic results should also be examined.

5.2. Limitations

There may be some limitations to this study. The research only covers a short period of time (2012–2021); thus, the model's conclusions would be more accurate if it covered these years with monthly data. Therefore, the number of observations influences the accuracy of the results. Furthermore, testing the data in the econometric model was unable to take into account all the variables connected to external audit and economic growth.

The study comes with further research suggestions; thus, for further research, there may be an investigation of the importance of external audits using a qualitative approach, interviewing the people engaged in external audits in order to measure if the external audit recommendations are taken into consideration by state entities when establishing public expenditures and public revenues. Further, there is additional opportunity in further research to extend the list of macroeconomic indicators that are subject to external audit and to use time series data when using the VAR model. Additionally, to further extend the research gap in this topic, the panel econometric approach may be applied to Western Balkans countries using fixed effects, random effects, and Hausman test.

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