THRESHOLD EFFECTS OF VALUE-ADDED TAX ON THE ECONOMIC GROWTH IN THE REPUBLIC OF KOSOVO

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Abstract
The paper examined the relationship between VAT and economic growth in the Republic of Kosovo between 2000 and 2022. A technique of threshold Vector Autoregressive (TVAR) was employed, the findings of the study using TVAR analysis unveiled a statistically significant positive relationship between VAT and economic growth. TVAR model indicates that the VAT threshold is 16 percent and any level above 16 percent impedes or negatively affects economic growth in the Republic of Kosovo and any level below 16 percent impedes positively affecting economic growth. Our results suggest that the Kosovar economy should pay attention to its fiscal policy. It is therefore recommended to foster collaboration among government agencies, tax authorities, businesses, and international organizations to develop and implement effective VAT policies.

Keywords: *consumer price index (CPI), economic growth, indirect taxation, threshold vector autoregressive, Value-Added Tax (VAT).*

JEL Classification Codes: *C50, H20.*

I. INTRODUCTION

The intricate interplay between tax policy and economic activities has long been a subject of debate. One of the central discussions in this realm revolves around the optimal Value-Added Tax (VAT) level that strikes a balance between stimulating economic growth and avoiding adverse repercussions. This paper is framed by third open research questions that address critical aspects of VAT dynamics and its implications for the Republic of Kosovo: First, what is the optimal VAT level that positively influences economic activities, and conversely, at what threshold does VAT begin to have a detrimental impact on economic performance? Second, how can the application of a TVAR (Threshold Vector Autoregression) model contribute to understanding the dynamic effects of varying VAT levels on economic activities in the context of the Republic of Kosovo? Third, what are the specific economic indicators and activities that demonstrate a beneficial influence under different VAT levels, and how do these indicators change as VAT thresholds are crossed?

Numerous empirical studies have observed and established causal links and connections between taxes and economic growth. More recently, taxes and growth have the attention of many authors (Baiardi, Profeta, Puglisi, and Scabrosetti 2017) who have concluded that taxes accelerate economic growth. On the other hand, authors (Gemmell, Kneller, and Sanz 2011; Arnold et al. 2011; Chigbu and Njoku 2015; Grdinić, Drezgić, and Blažić 2017) have concluded that taxes decelerate economic growth. Existing studies on the impacts of taxes have yet to reach a consensus, Baiardi, Profeta, Puglisi, and Scabrosetti (2017) rehearse the conclusions drawn in Arnold et al. (2011) research regarding the impact of contracts on tax-related outcomes and economic growth. But, in the existing literature, similar findings emerge for the causal effect and relationships between VAT and economic growth. Both Chen, Su and Shuai (2021) and Mattos and Politi (2013) align with those who argue that VAT has regressive characteristics. However proponents of VAT claim that VAT encourages greater effort and higher wages. We propose the following hypotheses to examine the correlation between VAT and economic growth in the context of the Republic of Kosovo: H1: VAT rates below a specific threshold level in the Republic of Kosovo have a positive impact on economic growth. H2: VAT rates beyond a specific threshold level in the Republic of Kosovo negatively impact economic growth.

We must draw attention to the VAT's significant contribution to economic growth. VAT availability to effect sustainable growth also has the benefit of shifting the prices of customers' goods and services. Meanwhile, this study is carried out to find out the contribution of VAT to the GDP growth of the Republic of Kosovo.

The major aim of this research is to determine the VAT level at which it positively influences economic activities and performance. As well as the levels beyond which it has a detrimental influence. This study employs a TVAR model to examine threshold values of VAT in the Republic of Kosovo.

First of all, not enough research has been done to determine the causal relationship between value-added tax and economic growth in the Republic of Kosovo. As a result, this research article helps to broaden the topic of this field of study. Surprisingly, there is a limited number of studies conducted to explore the causal relationship between Value Added Tax and economic growth in Western Balkan countries, specifically focusing on Kosovo. Second, by contrasting its findings with those of other comparable studies conducted in the region, this research aims to provide fresh data on the contribution of VAT to economic growth for the Republic of Kosovo. Thirdly, the study employs the TVAR model, known for its efficiency and suitability, particularly in cases where the focus is on analyzing the relationship between VAT and economic growth. This paper contributes to the literature by highlighting the relevance of VAT on growth using the TVAR method, a model that has been largely ignored in the previous related works for Western Balkan countries.

The remainder of the paper is structured as follows: Section 2 presents a review of the relevant literature, Section 3 outlines the research methodology, Section 4 presents the results and Section 5 offers the conclusion.

II. EMPIRICAL LITERATURE

In this section, we highlight the empirical evidence relating to the relationships between VAT and economic growth. Most of the studies claim that value-added taxes increase GDP growth (Keen and Lockwood, 2010; Simionescu and Albu, 2016; Kalaš, Mirović, and Milenković 2018; Acosta-Ormaechea, Sola and Yoo, 2019; Orisadare and Fasoye, 2022). Other researchers have reported that VAT decreases growth or stays neutral (Alavuotunki, 2019; Kolahi, Noor and Kashmari, 2016; Aydin and Esen, 2019).

Gemmell, Kneller, and Sanz (2011) found detrimental consequences after studying 17 OECD countries over the period 1970 to 2004. This study applied the Mean Group and Pooled Mean Group 'heterogeneous panel'. Authors have concluded that tax increases have virtually neutralized the positive benefits of changes in productive public spending, which has had a detrimental impact on the economy.

Furthermore, Grdinić, Drezgić, and Blažić (2017) applied the Pooled Mean Group estimator (PMG) to the sample of 20 selected countries (EU-13 and selected former Soviet Union countries and Albania) in the period from 1990 to 2010. They observe that the effects of all tax forms on economic growth are detrimental.

Likewise, authors Arnold, Brys, Heady, Johansson, Schwelnuss, and Vartia (2011) analyzed 21 OECD countries during 1971-2004, concluding negative effects. PMG estimator, which permits a variable-by-variable basis utilizing Hausman tests (Hausman, 1978) was chosen as the estimator for this investigation. The explanatory factors in the analysis were included in both levels and the first differences of the error correction model (ECM) to capture the transitional dynamic addition to the lag-dependent variable in levels. Another study conducted by Chigbu and Njoku (2015) investigated the impact of taxation on the Nigerian economy for the period 1994-2012. The authors used the cointegration test to examine long-run relationships between variables. The analysis's results show that the explanatory variables (personal income, corporation income tax, customs and excise charges, value-added tax and petroleum profit tax) possess no appreciable impact on both unemployment and Nigerian inflation. Consequently, research determines that Nigerian taxes have not had a major effect on economic growth, inflation, and unemployment. This study is in line with Arnold et al (2011).

On the other hand, Baiardi, Profeta, Puglisi, and Scabrosetti (2017) in their paper aim to challenge the conventional view, particularly the OECD's perspective, (Arnold et al. 2011) which asserts that shifting from direct to indirect taxation is linked with higher long-term economic growth. The study investigates the connections between per capita GDP, tax revenue, and tax composition, specifically focusing on the contrast between direct and indirect taxation. They studied this relationship in 21 OECD countries from 1971–2004 using the PMG estimator. Replicate the findings in Arnold et al. when utilizing the same sample of nations and time periods, but not when using more conservative standard error estimates. The findings do not hold up well when more nations are included or the time frame is extended.

Satterthwaite (2018) diverges from economic models to address a critical concern for lawyers and policymakers: fairness. Research indicates that smaller businesses face disproportionately higher compliance costs with VAT compared to larger ones. If lower-income entrepreneurs or consumers bear these costs, there's a case for raising thresholds to uphold vertical equity. Additionally, in scenarios where small businesses outnumber large ones, higher thresholds, alongside voluntary registration options for small suppliers, can mitigate competitive disparities created by arbitrary threshold distinctions. In such cases, elevating registration thresholds can concurrently enhance both VAT's fairness and efficiency. Opting for a higher threshold rather than a lower one reduces the number of similar firms disproportionately impacted by the threshold.

Aydin and Esen (2019) concluded the non-linear relationship between tax income and economic growth in 11 Central and South-Eastern European and Baltic countries, throughout the transition process between 1995 and 2014 is examined in this paper using a dynamic panel threshold model. According to the data, the ideal VAT as a share of GDP, the values of the threshold are 0.10% for full transition economies, 0.90% for developed economies and 0.50% for developing economies. Thus, an empirical investigation of the correlation between taxes and economic growth in Serbia and Croatia between 2007 and 2016 is presented by Kalaš, Mirović, and Milenković (2018). The authors chose to build up a panel regression where gross domestic product was used as the dependent variable to determine the effect of tax types on economic growth and their relationship. The results of the random effect model have shown that corporate income tax, value-added tax, and social security contributions have a positive impact on the gross domestic product.

The research by Acosta-Ormaechea, Sola and Yoo (2019) covers 70 countries (23 high-, 23 middle- and 24 low-income countries) over a span of 40 years. The authors utilize an Autoregressive Distributed Lag (ARDL) structure in their analysis, The Hausman test supports the use of the PMG estimator. Additionally, the research explores the long-run growth effects of Value Added Tax (VAT) raised through C-efficiency or the standard rate. An increase in VAT revenue, financed by a fall in income taxes through a rise in C-efficiency, is found to foster growth, while the same increase through a rise in the standard rate does not have the same positive effect. The findings suggest that C-efficiency is more growth-friendly than the standard rate and indicate that higher total factor productivity is associated with a rise in C-efficiency.

Chen, Su and Shuai (2021) investigate the impact of alterations in Value Added Tax (VAT) systems on income distribution among residents using an input-output table of China. The study explores the effects of VAT reforms on the distribution of income, considering perspectives on the regressive characteristics of VAT. The authors utilize a Computable General Equilibrium (CGE) Model as the foundation for their research methodology. The study addresses debates about the regressive or progressive nature of VAT and explores its potential positive impacts on work efforts and tax evasion complexities. Similarly, Mattos and Politi (2013) investigate whether a pro-poor tax policy follows yardstick competition in the value-added tax (VAT) based in 26 Brazilian states plus the Federal District (DF) over the period 2010 to 2015. The findings of Chen, Su and Shuai (2021) and Mattos and Politi (2013) resonate with the claims of people who believe VAT is regressive. Additionally, proponents of VAT assert that it increases incentives for people to work and earn more money.

Simionescu and Albu (2016) conducted an analysis exploring the impact of the standard Value Added Tax (VAT) rate on the Gross Domestic Product (GDP) growth within the context of five Central and Eastern European countries (CEE-5) over 1995–2015. The study employed various panel data models, including the random effect model, fixed effect model, and dynamic panel analysis, VAR. Additionally, the study identified a bilateral Granger causality between the growth of GDP and the VAT rate. The results of the investigation indicate a positive correlation between VAT and GDP growth.

Di Sanzo, Bella and Gaziano (2017) investigate the correlation between tax structure and economic growth through the utilization of linear and non-linear panel-cointegrated VAR models. Their study encompasses data from 20 OECD countries spanning from 1970 to 2012. The findings yield two main conclusions: firstly, taxes exhibit minimal impact or are potentially harmful to economic growth, as increased tax revenues correspond with GDP growth augmentation. Secondly, the negative effect of taxes becomes notably significant once they surpass the 30% threshold.

Orisadare & Fasoye (2022) explored the influence of VAT on Nigeria's economic growth between 1994 and 2020, employing the Threshold Vector Autoregressive (TVAR) method with the consumer price index (CPI) as a threshold. According to their findings, keeping VAT below the 7.59 percent barrier improves people's wellbeing while raising it above the 10 percent threshold puts the economy at danger. The authors also come to the conclusion that Pareto Optimality is maintained by VAT below the 7.59 percent level. The results of Orisadare & Fasoye (2022) do not align with the findings of Keen and Lockwood (2010) and Skinner (2015) who claimed that the benefits of the VAT can be numerous because it is perhaps harder to evade than other forms of taxation and can easily be made compatible with international trade.

Alavuotunki (2019) analyzed all countries except the Soviet Union countries over the period 1975-2010, fixed effects OLS model as well as a fixed effects instrumental (IV) model with the VAT being instrumented, delves into analyzing the effects of implementing VAT on both inequality and government revenues. The results put forth indicate that the introduction of VAT hasn't yielded positive revenue outcomes. Instead, it has contributed to heightened income-based inequality, while leaving consumption inequality unaffected. The study's outcomes emphasize the adverse impact of VAT on revenue generation, indicating that the VAT had a negative influence on revenue.

The results of Orisadare and Fasoye (2022) contradict the findings of Alavuotunki (2019), which showed that the revenue consequences of VAT have not been positive. Similar to this, a value-added tax (VAT) that

exceeds the 10 percent threshold threatens the economy by essentially undermining social welfare while keeping the economy's revenue profile high. This suggests that higher VAT threshold values in Nigeria have a negative impact on the welfare of the populace. The results support the empirical work of Alavuotunki (2019) which reveals that the revenue consequences of VAT have not been positive as it results in tax inequality in the economy.

The study of Kolahi, Noor and Kashmari (2016) investigated the impact of Value Added Tax (VAT) on economic growth, particularly focusing on 19 developing countries from 1995 to 2010. To analyze the data, the study employs the Generalized Method of Moments (GMM) panel methodology, chosen for its suitability to the model structure. The research examines how VAT affects economic growth by analyzing its impact on saving, capital accumulation, productivity, and overall economic growth. The study's findings suggest that VAT has a negative impact on the growth of capital accumulation.

On the other hand, the purpose of Popova's (2021) study is to examine the efficiency of the Value Added Tax (VAT) system in Western Balkan countries over the past two decades. The study aims to analyze the developments in VAT policies, evaluate its revenue performance using the C-efficiency ratio, and highlight potential challenges and risks associated with the reliance on consumption taxes, particularly VAT. The study likely utilizes data analysis and comparisons to evaluate the overall performance of VAT in the region. The analysis also explores the pro-cyclical nature of VAT, highlighting the risks associated with significant fluctuations in VAT revenue. The potential impact of trade liberalization and EU membership on the enforcement capacity of tax administrations is discussed. However, the study raises concerns about the pro-cyclical nature of VAT, with significant fluctuations in revenue, posing risks to fiscal stability and sustainability. What is noteworthy is the limited number of studies conducted to explore the causal relationship between Value Added Tax and economic growth in Western Balkan countries, specifically focusing on Kosovo.

Considering these findings, it's apparent that authors in this field occasionally diverge in their perspectives. This variation serves as a catalyst for our ongoing research endeavor, aiming to distinguish whether VAT stimulates economic growth, reflects the current economic trajectory, or has a negative effect on economic growth. To our knowledge, there are currently no papers that examine the impact of the VAT on economic growth in the Republic of Kosovo using the TVAR model. This is one of the reasons our research study continues to try to determine the nature of VAT in the Republic of Kosovo.

III. METHODOLOGY

The paper is anchored on the theory of Pareto Optimality (Pareto efficiency). Pareto Optimality emphasizes that no further improvements to society's well-being can be made through a reallocation of resources that makes at least one person better off without making someone else worse off. (Orisadare & Fasoye, 2022).

Here, with the VAT and CPI serving as the variables of this study, empirical evidence in favor of these theories was provided. The statistical bulletin and Ministry of Finance of the Republic of Kosovo provided the data, which were taken from 2000 to 2022. To achieve approximation "homoscedasticity" in the model, the transformation aims to both linearize the connection and eliminate the systematic shift in the spread. A model with non-linear parameters can also be linearized using logs.

Following the empirical works of Emirmahmutoglu and Kose (2011) and Orisadare & Fasoye (2022) the paper adopts the vector Autoregressive model. In a heterogeneous VAR, the baseline model in a bivariate configuration comprising GDP and VAT can be described as:

$$\ln VAT_t = \beta_0 \sum_{i=1}^{p} \beta_1 \, lnVAT_{t-1} + \sum_{i=1}^{p} \beta_2 ln\, GDP_{t-1} + \varepsilon_{1t}$$

$$\ln GDP_t = \propto_0 \sum_{i=1}^{p} \propto_1 lnGDP_{t-1} + \sum_{i=1}^{p} \propto_2 ln\, VAT_{t-1} + \varepsilon_{2t}$$

where p is the ideal lag length chosen for the system, determined by either the Akaike information criterion (AIC), Hannan-Quinn information criterion (HQIC), or Structural Bayesian Information Criterion (SBIC).

The bivariate threshold VAR model's GDP equation is as follows:

$$lnGDP_t = \left\{ \propto_0 + \sum_{i=1}^{p} \propto_1 lnGDP_{t-1} + \sum_{i=1}^{p} \propto_2 lnVAT_{t-1} + \varepsilon_{2t} \right\} I(\Delta CPI_t > \delta_i) + \left\{ \beta_0 + \sum_{i=1}^{p} \beta_1 lnVAT_{t-1} + \sum_{i=1}^{p} \beta_2 lnGDP_{t-1} + \varepsilon_{1t} \right\} I(\Delta CPI_t \leq \delta_i)$$

Another way to express the VAT equation is as follows: The threshold value for changes in the CPI, denoted by δi, is zero (i.e., δi = 0). This environment makes it easier to investigate the growth, conservation, or neutrality hypotheses in the context of a steadily rising CPI or in other situations.

EMPIRICAL ANALYSIS

As a result, the purpose of this study to investigate the impact of the VAT threshold level on the economic growth in the Republic of Kosovo. The Republic of Kosovo's data, which were taken from the statistical bulletin, cover the years 2000–2022. Data sources are secondary data that have been collected by WB, IMF, and the Central Bank of the Republic of Kosovo.

Vector Autoregressive model (VAR)

The table presents the results of a Vector Autoregressive (VAR) analysis, specifically focusing on the impact of Value-Added Tax (VAT) and the Consumer Price Index (CPI) on Economic Growth, with GDP as the dependent variable. The negative coefficient (-0.160), suggests a potentially significant inverse relationship between VAT and GDP (Economic Growth). The significance at the 1% level indicates strong statistical evidence supporting this relationship. On the other side, the positive coefficient for CPI implies a potential positive relationship with GDP. However, the coefficient (0.919) and the significance at the 10% level suggest caution in interpreting this relationship due to the higher standard error, probability (0.062).

Table 1: Vector Autoregressive (VAR) value estimates of VAT and CPI on Economic growth

Dep. Variable: GDP Variables	Lags	Coefficient	Std. Error	Prob.
VAT	L2	-.160	.062	0.010***
CPI	L2	.919	.492	0.062*

Notes: ***, **, and * indicate significance at the 1, 5 and 10 % levels
Source: Author's computation from the data extracted from the World Bank and Ministry of Finance of the Republic of Kosovo.

The Republic of Kosovo recognizes the potential significance of VAT fluctuations on economic growth and based on the strong inverse relationship between VAT and GDP, is considering revising VAT policies if necessary to stimulate economic growth. This could involve recalibrating VAT rates or refining tax collection mechanisms to minimize adverse effects on GDP by designing policies that ensure stability in VAT rates, reducing uncertainty for businesses and investors, and ultimately promoting sustainable economic growth.

These results imply a potentially significant inverse relationship between VAT and GDP, while the relationship between CPI and GDP, although positive, should be interpreted cautiously due to the higher standard error. The statistical significance at the 1% level highlights the robustness of the relationship between VAT and GDP in this analysis.

The coefficient for the VAT at a two-period lag is -0.160. This suggests that a one-unit increase in the lagged VAT is associated with, on average, a decrease of 0.160 units in the current GDP. However, the result is marginally significant at a 10% significance level (p=0.062), meaning there is some uncertainty about the statistical significance. The coefficient for the CPI at a two-period lag is 0.919. This implies that a one-unit increase in the lagged CPI is associated with, on average, an increase of 0.919 units in the current GDP. Importantly, this result is statistically significant at a 1% significance level (p=0.010), indicating a more robust relationship.

Based on these results, VAT is associated with a negative impact on GDP, suggesting that an increase in the lagged VAT is related to a decrease in the current GDP. However, this result is marginally significant at a 10% level (p=0.062), so caution is needed in drawing strong conclusions. CPI has a positive and statistically significant impact on GDP at a 1% significance level (p=0.010), suggesting a meaningful relationship. It's crucial to consider the significance level chosen for interpreting results, and results should be interpreted in the context of the specific economic or research question being addressed.

Threshold regression

The output presents the findings of two threshold regression analyses, each examining the relationship between the dependent variable GDP and a different threshold variable. The objective is to identify potential

threshold levels at which the relationship between GDP and the threshold variable changes. The sample is divided into two regions for each analysis. The threshold regression reveals an identified threshold at the value of 18 and the findings indicate that an economy is at risk when the VAT exceeds below 16 percent threshold.

The analysis is conducted under a threshold regime, implying that the relationship between the variables may change at certain threshold levels. This implies that the analysis is assessing the effects of VAT on economic growth, with a focus on two different regions, taking into account a specified threshold level. The coefficient represents the estimated effect of VAT on GDP, while the standard error provides information about the precision of the estimate. A lower standard error generally indicates greater precision. The p-values are 0.000 and 0.007 respectively and indicate high statistical significance at a 1% level of significance and a positive relationship between GDP and VAT.

Threshold Regime

Table 2: Threshold value estimates of VAT on Economic growth

Dep. Variable: GDP	Trim	Threshold	Coefficient	Std. Error	Prob.
VAT	18	16	3.23	.289	0.000***
VAT	18	16	1.970	.729	0.007***

Notes: ***, **, and * indicate significance at the 1, 5 and 10 % levels

Source: Author's computation from the data extracted from the World Bank and Ministry of Finance of the Republic of Kosovo.

Coefficients for VAT are statistically significant at a high level. These findings imply that there is a meaningful relationship between the specified variables and economic growth, especially at the identified threshold value of 16 percent. Furthermore, the study uncovered a statistically significant positive association between VAT and economic growth. The identified VAT threshold is 16 percent, any level above this impedes or negatively affects economic growth in the Republic of Kosovo, while any level below 16 percent has a positive effect on economic growth.

Liu and Lockwood (2016) explicitly discuss the theoretical challenges of estimating the normative impact of thresholds and make it clear that they do not take a position on the welfare effects of bunching.

IV. CONCLUSION

By highlighting the relevance of tax design in a Western Balkan country, especially in the Republic of Kosovo, this paper contributes to the literature on taxation. Thus, analyzing the impact of VAT changes on various sectors to ensure policies are growth-oriented without negatively affecting essential industries. Analyses suggest that the relationship between GDP and the respective threshold variable changes at the identified threshold values. The threshold regression reveals an identified threshold and the findings indicate that an economy is at risk when the VAT exceeds below 16 percent threshold. The coefficients in each region provide insights into the strength and direction of the relationship within those regions. The findings indicate that an economy is at risk when the VAT exceeds below 16 percent threshold, but above the threshold of 16 percent, the relationship between variables GDP and VAT remains positive and improves people's well-being.

External factors such as global economic trends, political changes, or unforeseen events can influence the effectiveness of VAT policies. Continuous evaluation, adaptation, and collaboration are crucial to effectively harness the potential of VAT in fostering sustainable economic development.

This research paper has several limitations that warrant consideration. Potential data limitations exist, including issues of data completeness, quality, and representativeness, as well as constraints in the temporal, geographical, or demographic scope of the data. Methodological limitations are acknowledged, encompassing the chosen research design, assumptions made during analysis, and the potential omission of confounding variables.

V. APPENDIX A:

Unit Root Test

The Kwiatkowski-Phillips-Schmidt-Shin (1992) unit root test was utilized to assess whether the variables included in this analysis were stationary or not. The indication that the variable is stationary is the null hypothesis. Table 1 shows the outcomes of the unit root test.

Table 1: KPSS Unit Root Test results

Variable	LM-Stat	Asymptotic critical values
LGDP	0.876	0.739***
LVAT	0.853	0.739***
LCPI	0.840	0.739***

Notes: ***, **, and * indicate significance at the 1, 5 and 10 % levels.
Source: Author's computation from the data extracted from the World Bank and Ministry of Finance of the Republic of Kosovo.

The variables' levels are stationary, and the null hypothesis is accepted in equal measure. According to the results, the null hypothesis is accepted and the variable is stationary at levels if the LM statistic of LGDP (0.876) is greater than the asymptotic critical value (0.739) at a 1% level of significance. At a 1% level of significance, if the LM statistic of LVAT (0.853) is larger than the asymptotic critical value (0.739), the null hypothesis is accepted and the variable is stationary at levels. The findings demonstrate that the variable is stationary at levels and that the null hypothesis is accepted when the LM statistic of the LCPI (0.840) is greater than the asymptotic critical value (0.739) at a 1% level of significance. Therefore, all variables are stationary at levels.

VAR Lag Order Selection Criteria

Table 2: Lag Selection Criteria Results

Lag	LL	LR	FPE	AIC	HQIC	SBIC
0	47.0317		3.0e-06	-4.1935	-4.16111	-4.04428
1	90.4879	86.912	1.2e-07	-7.47504	-7.3455	-6.87817
2	105.285	29.595*	7.1e-08*	-8.02716*	-7.80048*	-6.98264*

Source: Author's computation from the data extracted from the World Bank and Ministry of Finance of the Republic of Kosovo.

Akaike information criterion (AIC), Hannan-Quinn information criterion (HQIC), and Structural Bayesian Information Criterion (SBIC) consistently point towards lag 2 as the optimal choice for the VAR model. This consensus across multiple selection criteria strengthens the reliability of selecting lag 2 as the appropriate order for the model. Therefore, based on these lag selection criteria, lag 2 emerges as the most suitable choice for the VAR model order due to its consensus across multiple criteria, implying that it best captures the underlying relationships within the data.

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