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# ALLOCATION OF GOVERNMENT EXPENDITURES IN SECTORS AND THEIR IMPACT ON ECONOMIC GROWTH - CASE STUDY: WESTERN BALKAN COUNTRIES

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ABSTRACT

*The purpose of this article is to investigate the influence of government expenditure on economic growth and the impact of tax income on government spending. The study examines Western Balkans nations from 2000 to 2020, using several econometric models and analyses to determine the link between these factors. The models utilized for econometric analysis include the Ordinary Least Squares model, the Fixed Effects model, and the Random Effect model. To produce more qualitative findings, the technique is based on these three regression econometric models. The data used are Panel data and span a period of 21 years (2000-2020). The research comprises six Western Balkan nations. According to the findings of this study, there is a positive and statistically significant association between government expenditure and economic development in the Western Balkan nations over the studied period. The findings also reveal that tax revenues have a positive and statistically significant influence on the expenditures of these nations' governments.*

**KEYWORDS:** *Economic growth, government spending, taxes, fiscal policy.*

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## 1. INTRODUCTION

Many surveys on government expenditure have been done to identify which sector of government spending has the biggest influence on economic growth. The findings from the research have been various, depending on the historical period and in which nations the study was done. This research focuses on the three major areas in which the governments of various states distribute resources for them; Education, health, and military sectors.

Various extensive empirical researches were undertaken in this field by Chandra[1] , Emori[2], Al-Fawwaz[3], Lupu,[4] etc. These studies have repeatedly indicated that we have a positive association between government expenditure and economic growth, particularly in the long term.

Building budget policies is the main economic difficulty of a state since the budget is the guide of the economic orientation of a state throughout a budget year. Developing nations have not particularly stable economies, and as such constructing an effective budget faces huge obstacles; unemployment, lack of a flexible fiscal policy, high spending on infrastructure, low expenditures on education and agriculture, and lack of economic growth initiatives. The combination of these factors is a major challenge to an efficient and successful budget for addressing the expectations of residents. Budget orientation is required to have these combinations, to prioritize the development of education, providing quality and access to the three levels of education, the development of the industrial sector as a strong economic base for the future, and the cultivation of technology in the two elements mentioned, namely in education and in industry.

Objectives of this research include; First, the study will present an examination of the practices of the Western Balkan nations in allocating budget expenditures. Second, the study includes an empirical analysis using data from relevant institutions, where the conclusions of this paper might be utilized by institutions and policymakers of the nations to be engaged in the research.

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1 Chandra(2010), A. *Does Government Expenditure on Education Promote Economic? An Econometric Analysis? MPRA Paper No. 25480*

2 Emori, EG .*Impact of public expenditure on economic growth in Nigeria". International Journal of scientific research and management (IJSRM) Volume 3 Issue (2) 2015, (* DOI : 10.18535/ijsrm) P.*3694-3700*.

3 Al-Fawwaz, T. *The impact of government expenditures on economic growth in Jordan (1980–2013)*. International Business Research*, 9 (1),2017, DOI: 10.5539 / ibr. v9n1p99*, p.99-105.

4 Lupu, DP. *The impact of public expenditures on economic growth: A case study of Central and Eastern European countries*. Emerging Markets Finance and Trade*, 54 (3), 2019, DOI: 10.1080 / 1540496X.2017.1419127*., p. 552-570.

Third, the study uses the newest data released by these organizations, therefore it is updated by other research done in this respect.

The paper is organized, such as the second part presents the literature review, which is divided into two parts, one part is the publications that find a positive impact of government spending on economic growth while the other part presents the publications which have found a negative impact. The third part of the study contains the methodology, where the establishment of econometric models and explaining data and variables. The fourth part contains the research results, while we have discussed the conclusions in the five sections.

## 2. LITERATURE REVIEW

State spending and taxation directly influence overall economic performance since they make up such a huge and vital component of the national economy's operations. The two-state policies (Monetary and Fiscal) are essential components of state policies because they influence macroeconomic indicators such as gross domestic product, employment, income, and price level. Fiscal policy refers to the actions taken by governments to alter the composition of public revenues and expenditures in order to manage aggregate demand and maintain sustainable economic growth with relatively high employment, no inflation, no increase in public debt, and a satisfactory balance of payments.[5]

In a nutshell, fiscal policy refers to the government's direction or use of spending and taxes that impact economic activity. The concept of fiscal policy and its planning is based on the socio-economic condition of the past, with future consequences thrown in for good measure. Fiscal policy may be either expansionary or restrictive. We define expansionary fiscal policy as a decrease in direct and indirect taxes as well as an increase in government spending. These measures encourage people to spend more, which boosts economic activity. A strict fiscal strategy includes both tax hikes and reductions in government expenditure. These actions will assist in decreasing inflation by lowering aggregate demand. Economists have long been interested in the macroeconomic relationship between fiscal policy and economic growth. Unfortunately, investigations in this area have come up short. The inability to establish a fiscal policy indicator is one of the key reasons for this failure.[6]

[5] Odhiambo, SN. The Impact of public expenditure on economic growth: A review of international literature. *Folia Oeconomica Stetinensia; Volume 19 (2019) Issue 2, 2019, DOI: 10.2478 / foli* p. 2019-0015

[6] Syka, X. *The impact of sustainable fiscal policies on raising the country's social welfare. Central European Administration Review, Volume 18(issue 2), 2020, DOI:10.17573/cepar p. 135-164*

According to Zee[7], government expenditure, taxes, and the budget deficit are the three key measures of fiscal policy. On the other hand, economic research does not recommend any of these metrics as the best predictor of fiscal policy. When evaluated and tested independently, none of the components of fiscal policy, taxes, government expenditure, and the budget deficit show a substantial link with economic growth in the economic literature. The lack of correlation may be a consequence of the inability of each budget component to represent the fiscal policy position fully.

Low-income nations face challenges with public investment since they spend their limited resources on raw commodities rather than infrastructure and other economic considerations. The main goal is to identify the problem that we notice when the economy is expanding and public investment changes, affecting GDP. When other economic drivers stay constant, there is a positive link between gross output and output.[8]

### *1.1. POSITIVE IMPACT OF GOVERNMENT SPENDING ON ECONOMIC GROWTH*

The author Chandra[9], investigated the link between government spending on education and economic growth. The outcomes of this author's research indicate that government spending on economic growth will not have an immediate effect on economic growth, but the effect will be felt over time.

Various researchers point out that providing transportation services brings benefits to families and thus increases their well-being. Government spending on infrastructure through services that have lower production costs e.g., transportation, will expand market opportunities, thus positively impacting output growth and leading to economic growth.[10]

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[7] Zee, VT (1997). *Fiscal Policy and Long-Run Growth*. International Monetary Found VOl. 44 NO.

[8] Durairaj, Varatharajan. "The bottom billion: Why are the poorest countries failing and what can be done about it." *Bulletin of the World Health Organization* vol. 85,11 (2007): 898–899. doi:10.2471/BLT.07.045229

[9] Chandra, A. (2010). Does Government Expenditure on Education Promote Economic? An Econometric Analysis? *MPRA Paper No. 25480*

[10] Macdonald, Ryan. "An Examination of Public Capital's Role in Production." *Available at SSRN 1371042* (2008).Research Paper Economic Analysis (EA) Series (50).

Authors such as Panjan[11], studied the relationship between general government spending and economic growth. The author emphasizes that there is a statistically significant relationship between cointegration between these two variables.

According to Emori[12], which studied the impact of government spending on the economic growth of the state of Nigeria using the ADF unit root test and regression with the small squares method. The results of the author's work show that public spending has a significant impact.

Other authors such as Al-Fawwaz[13] examined the impact of government spending on economic growth in Jordan during the period 1980 - 2013. Using the multiple linear regression model and the OLS model, the results confirmed a positive relationship between government spending and economic growth in the countries of the study. Thus, both total government spending and current government spending turned out to positively impact economic growth.

Moreover, Rajkumar[14] in his research, reveals that for education expenses to affect economic growth positively, the government should be initially efficient. Efficient government is one of the determinants of positive public relations expenses. This also means that a government with high corruption and inefficient bureaucracy is less likely to show a positive result, no matter how well they plan to share resources and tend to spend on certain projects due to the unstable government.

Additionally, Matovu[15] describes that the government should spend less on unproductive sectors, such as general administration and the military while spending more on productive sectors such as agriculture, energy, and health as these three sectors will lead to economic growth.

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[11] Panjan KD, SC (2010). Government Expenditure and Economic Growth: Evidence from India. *The IOFAI University Journal of Public Finance, 6 (3)*, p. 60-69.

[12] Emori, EG "Impact of public expenditure on economic growth in Nigeria". *International Journal of scientific research and management (IJSRM) Volume 3 Issue (2) 2015, (* DOI : 10.18535/ijsrm) p. *3694-3700*.

[13] Al-Fawwaz, T. The impact of government expenditures on economic growth in Jordan (1980–2013). *International Business Research, 9 (1),2017, DOI: 10.5539 / ibr. v9n1p99*, p. 99-105.

[14] Al-Fawwaz, T. The impact of government expenditures on economic growth in Jordan (1980–2013). *International Business Research, 9 (1),2017, DOI: 10.5539 / ibr. v9n1p99*, p. 99-105.

[15] Matovu, E.. *Public Spending Composition and Public Sector Efficiency: Implications for Growth and Poverty Reduction in Uganda. Research Series 66, 2011, DOI:* 10.22004/ag.econ.93808 .

Furthermore, Nurudeen[16] empirically assessed the impact of government spending sharing on economic growth in the case of Nigeria from 1979 to 2007. Government spending was divided into capital expenditures, education expenditures, transportation and communication expenditures, and health expenditures. Using the methodology of co-integration and error correction, the study results found that government spending on transport, communication, and health leads to an increase in the Nigerian economy.

Besides these authors, Lupu[17] in his study on the sharing of government spending on economic growth finds a positive impact between these two variables. The study was conducted in 10 Central and Eastern European countries with data from 1995-2015. The ARDL model was used for the study, the findings based on this model specifically show that public spending on education and health has the greatest impact on economic growth.

Likewise, Alexiou[18] empirically investigated the relationship between economic growth and government spending in Southeast European countries with data from 1995-2005 using fixed and random effects models. The results of the author's research confirm that government spending has a positive impact on the economic growth of Southeast European countries.

The author Amassoma[19] analyzes the relationship between government spending and economic growth, the study was done in the still-developing country of Nigeria. Expenditures taken as components are; expenditures on agriculture, education, health, transport & education. The data used for the study include the period 1970-2010, ie. 41 observations. The author's findings show a significant and positive impact of these 4 types of spending on Nigeria's economic growth.

[16] Nurudeen, Abu, and Abdullahi Usman. "Government expenditure and economic growth in Nigeria, 1970-2008: A disaggregated analysis. "*Business and economics journal* 2010.4 (2010): p. 1-11.

[17] Lupu, DP. The impact of public expenditures on economic growth: A case study of Central and Eastern European countries. *Emerging Markets Finance and Trade, 54 (3), 2019, DOI: 10.1080 / 1540496X.2017.1419127.*, p. 552-570.

[18] Alexiou, C.. Government Spending and Economic Growth: Econometric Evidence from the South Eastern Europe (SEE). *Journal of Economic and Social Research, 11 (1),2011, DOI: 10.1130 / 0091-7613 (1974) 2 <41.*, p. 1-16.

[19] Amassoma, D. N. (2011 ). Components of government spending and economic growth in Nigeria: An error correction modelling. *Journal of Economics and Sustainable Development, 2(4),* p. 219-237.

In addition, researchers such as Loizides[20] examined the causal relationship between expenditure size government and economic growth in three countries; Greece, the UK, and Ireland running used bivariate and trivariate error correction (ECM) models within a Granger causality framework. The study results showed that the size of government spending causes an increase in economy in all countries of study in the short term, while the same result for Ireland and The UK was also realized in the long run where the results were again the same.

The author Chandran[21] used annual data covering the period 1970-2006 to examine the causality between government spending and economic growth in Malaysia. The purpose of the study was to examine Wagner's Law and the Keynesian hypothesis regarding the relationship between real government spending and real gross domestic product (GDP). Two models were used, a bivariate model and a multivariate model. In addition, the study took into account overall costs of government and economic growth, on the one hand, and government spending on education and growth economic, on the other hand. Using the distributed lateral autoregressive (ARDL) approach, the results of the bivariate and multivariate models, as a whole, showed that in Malaysia, the costs of the general government were the accelerating economic growth - thus confirming the view Keynesian.

On the contrary, author Alshahrani[22] analyzed the relationship between public spending and economic growth. His research found that government size is essential in determining the performance economy. He suggested that the government should increase spending on infrastructure, social activities, and economics. He also suggested that the government should encourage and support the private sector to help grow the economy.

Authors Lani and Balaj[23] in their research on the impact of government spending on Kosovo's economic growth during the period 2000-2016, found that Kosovo public spending has a positive impact on economic growth during the study period, but the effect is not as direct but could have a stimulating effect

[20] Loizides, John, and George Vamvoukas. "Government expenditure and economic growth: Evidence from trivariate causality testing." *Journal of Applied Economics* 8.1 ,2005: doi.org/10.1080/15140326.2005.12040621. p. 125-152.

[21] Chandran, G. R. Economic growth and government spending in Malaysia: A reexamination of Wagner and Keynesian views. *Economic Change Restructuring, 44,2012,* https://doi.org/10.1007/s10644-010-9099-z, p. 203-219.

[22] Albatel, Abdullah H. *"The relationship between government expenditure and economic growth in Saudi Arabia*." 2000: p. 173-191.

[23] *Driton Balaj, Lirim Lani*. The impact of Public Expenditure on Economic Growth of Kosovo. Acta Universitatis Danubius. Œconomica, Vol 13, No 5, 2017

on economic growth. The rationale of the authors for not directly influencing was that public spending was characterized by unproductivity.

### *1.2. NEGATIVE IMPACT OF GOVERNMENT SPENDING ON ECONOMIC GROWTH*

The second premise advocated by the neoclassicists, in contrast to the Keynesian view, is that an expansionary fiscal policy does not have a positive influence on economic activity. Economic recovery measures based on public expenditure, according to these writers, would have a dampening effect on the economy since public spending has a significant influence on private investment and consumption. These negative repercussions arise from economic actors' ability to forecast the future, including the impacts of fiscal policy, and to adjust their consumption and saving behavior appropriately.[24]

The author Schaltegger[25], investigated the link between government size and economic development, conducting an empirical analysis between two macroeconomic variables using data from the Swiss state from 1981 to 2001. The operational and capital budgets were used to categorize government spending. The research results demonstrated that expenditure had a considerable negative influence on economic growth in this state, based on the data and study models for the Series-Time data.

Altunc[26] used data from 1995 to 2011 to examine the link between government expenditure and economic development in three countries (Turkey, Romania, and Bulgaria). The study's goal was to see whether the connection between these two factors was linear or nonlinear. The ARDL model was utilized in the research, and the empirical findings revealed that government expenditure surpassed the ideal level in the studied nations, resulting in a lower-than-desired economic growth rate.

[24] Barro, R.. "Government spending in a simple model of endogenous growth. *Journal of Political Economy, 98: S103 – S125* ,1990.

[25] Schaltegger, CT . Growth effects of public expenditure on the state and local level: evidence from a sample of rich governments. *Applied Economics, 38 (10), 2006, DOI: 10.1080 / 00036840500392334*. p. 1181– 1192

[26] Altunc, OA . The relationship between optimal size of government and eco nomic growth: Empirical Evidence from Turkey, Romania and Bulgaria. *PROC - Social and Behavioral Sciences, 92,. 2013,DOI: 10.1016 / j.sbspro.2013.08.639*. p. 66-75

On the other hand, Sáez[27] analyzed the relationship between government spending and economic growth in European Union countries using data from 1994-2012. Using panel data techniques, the results of the study found that the ratio between government spending and economic growth can be positive or negative, depending on the countries included in the study. Taking into account the evaluation period and the variables used to represent the size of the public sector, government spending has a negative impact on economic growth in European Union countries.

Taxes, government borrowing, and debt may all be used to fund expenditures. If higher direct taxes cover these expenses, the total impact on growth may be negative, despite a favorable effect on private capital's marginal productivity. If the expenditures are covered by borrowing, the economic actors understand that today's summing is a future tax deferral. As a consequence of today's overcrowding, they preserve spare money. The drop in private demand balance the lower demand and rise in public expenditure, diminishing the impact of fiscal policy. This argument demonstrates author Barro's defense of the Ricardian equivalent theory. As a result, taxes and borrowing are seen as critical variables that diminish buying power and aggregate demand directly.[28]

The researcher Yanikkaya[29] investigated the effects of government expenditure on economic development, focusing on how government effectiveness affects government spending efficiency. The research focused on industrialized nations, and the findings revealed that general government expenditure had a detrimental influence on economic development in several of them.

The link between government expenditure, aggregate demand, and real GDP growth was investigated by the author Hung[30]. Apart from government investment, he finds that all government spending negatively impacts productivity and GDP growth. The author discovers that a 1% rise in the proportion of

[27] Sáez, M. Á.-G. Governmen expenditure and economic growth in the European Union countries: New evidence. *Bulletin of Geography. Socioeconomic Series, 36,. 2018, DOI: 10.1515 / bog-2017-0020.* p. 127–133

[28] Luce, NN (2021). Effects of Public Expenditure on Economic Growth in the CEMAC Subregion: A Comparative Analysis between the Fragile and Non-fragile States. *AERC Working Paper FW-006.*

[29] Yanikkaya, J. L. Institutions and the Impact if Government spending Growth. *Journal of Applied Economics. Vol XIV, No. 2.2011,* doi.org/10.1016/S1514-0326(11)60017-2. p. 319-341

[30] Hung, P. M. . Government Expenditures and Economic Growth: The Supply and Demand Sides. *Fiscal Studies. Vol. 28, No. 4. 2017 ,* doi.org/10.1080/1540496X.2017.1419127. p. 497-522

government consumption in GDP decreases the equilibrium GDP growth rate by 0.216 percentage points using the work's econometric models.

## 2. METHODOLOGY

To measure the impact of government spending on economic growth, government spending is divided into 3 sectors; Government Expenditure on Education, Health, and Defense. In the realized empirical model, a variable such as General Expenditures is also included.

The data used belong to the Panel type, covering a period of 21 years (2000-2020), these data are collected by the World Bank and the Statistics Agencies of the countries of study. The study includes 6 countries in the Western Balkans.

The working methodology is descriptive and research, descriptive from the reports of the institutions of these countries, the International Monetary Fund, the World Bank, scientific publications, etc., while research in data collection, data analysis, and reporting based on its processing data. Since tax revenues are a key factor in the state budget and have an impact on government spending, a model of the impact of tax revenues on government spending has been tested.

*Econometric models*;

*Model 1;*

$$Economic\_Growth = a + B\ (Government\ Shp.) + B\ (Education\ Shp) + B\ (Health\ Shp) + B\ (Defense\ Shp) + \mu i$$

*Model 2;*

$$Government\_Expenditures = a + B\ (Tax\ Revenues) + B\ (Economic\ Growth) + \mu i$$

**Table 1. Description of Variables**

| Nr. | Variables | Average | Standard Deviation | The measure |
|---|---|---|---|---|
| **1** | ***Economic Growth*** | 3.27 | 3.98 | % |
| **2** | ***General Government Expenditures*** | 30.40 | 5.75 | % of Gross Domestic Product |
| **3** | ***Government Expenditure on Education*** | 9.4 | 4.39 | % of Gross Domestic Product |
| **4** | ***Government Health Expenditures*** | 9.7 | 7.74 | % of Gross Domestic Product |
| **5** | ***Government Expenditure on Defense*** | 6.1 | 1.2 | % of Gross Domestic Product |
| **6** | ***Revenues from Taxes*** | 29.41 | 12.80 | % of the total state budget |

The average economic growth in the Western Balkans during the period 2000-2020 is 3.27% with a standard deviation from the average of 3.98%. The largest economic growth was in Kosovo with 27% in 2001, while the largest economic decline was in 2020 in Montenegro with 15.2%.

In terms of government expenditures, on average BP countries have government expenditures of 30.40% of the gross domestic product value, the least expenditures during the budget year were 17.80% while the most expenditures were 42.69% of the value of GDP. registered in the state of Serbia.

Taxes are a very important source for the state budget, in BP countries over the last two decades taxes account for about 30% on average of the total budget.

As far as spending on education, health, and protection, the allocation of health spending is much higher with 7.74% of the gross domestic product on average, than we spending on education to 4,39% of GDP on average and at least have the allocation for defense spending only 1:52% of the total value of the crude product.

## 3. RESULTS

Between the variable of government spending and economic growth, we have a positive correlation coefficient (r = 0.095) and it is significant at the level of 1%, so the increase in government spending in the Western Balkans has a positive impact on economic growth.

The variable of government expenditures with tax revenues has a positive correlation coefficient with a coefficient of r = 0.043 and the coefficient is significant at the level of 5%, so the increase in tax collection in PB countries has had a positive impact on the increase of government expenditures.

**Table 2. Correlation coefficient**

| | | Economic Growth | Government Expenditures | Education | Health | DEFENSE | Tax revenues |
|---|---|---|---|---|---|---|---|
| **Economic Growth** | Pearson Correlation | 1 | .095 | -.016 | -.120 | -.066 | .356 ** |
| | Sig. (2-tailed) | | .002 ** | .873 | .216 | .478 | .000 |
| | N | 125 | 121 | 107 | 108 | 118 | 118 |
| **Government Expenditures** | Pearson Correlation | .095 | 1 | -.002 | .410 ** | .180 | .043 * |
| | Sig. (2-tailed) | .300 | | .984 | .000 | .056 | .047 |
| | N | 121 | 121 | 107 | 108 | 114 | 118 |
| **Education** | Pearson Correlation | -.016 | -.002 | 1 | -.132 | .160 | -.566 ** |
| | Sig. (2-tailed) | .873 | .984 | | .185 | .105 | .000 |
| | N | 107 | 107 | 107 | 103 | 104 | 107 |
| **Health** | Pearson Correlation | -.120 | .410 ** | -.132 | 1 | .049 | -.212 * |
| | Sig. (2-tailed) | .216 | .000 | .185 | | .623 | .028 |
| | N | 108 | 108 | 103 | 108 | 103 | 108 |
| **DEFENSE** | Pearson Correlation | -.066 | .180 | .160 | .049 | 1 | .246 ** |
| | Sig. (2-tailed) | .478 | .056 | .105 | .623 | | .009 |
| | N | 118 | 114 | 104 | 103 | 119 | 111 |
| **Tax revenues** | Pearson Correlation | .356 ** | .183 * | -.566 ** | -.212 * | .246 ** | 1 |
| | Sig. (2-tailed) | .000 | .047 | .000 | .028 | .009 | |
| | N | 118 | 118 | 107 | 108 | 111 | 118 |

Having tested models through appropriate tests (F-test and test Breusch Pagan and Hausman Test) as well as taking into account the level of significance model more suitable for our data analysis is the model with fixed effects. In this coefficient model determination, it is 48.6%, ie government spending along with their allocation in different sectors fails to explain the variation of economic growth in the amount of 48.6%, as economic growth is determined by several factors then this shpjegueshmëri is quite high.

Based on the data of this model presented in the table above, government expenditures have a positive coefficient of 0.088 (than 0.02) and are statistically significant at the level of 5%, provided that other factors remain unchanged for each 1 % of gross domestic product increase in government spending, we will have economic growth of 0.088% on average.

Also, the coefficients for government expenditures on education and defense are positive, while the coefficient of government expenditures on health is negative. For d be 1% of gross domestic growth product in government spending on education, we will have economic growth to 0.025% on average, while for d be 1% of gross domestic growth product in government defense spending, we will have economic growth to 1:23 % on average, this coefficient is significant at the level of 10%. In the following, we will present the model where we will test the impact of tax revenues on government spending.

**Table 3. Econometric models of the impact of government spending on economic growth**

| | **(OLS) Economic Growth b / se** | **(Fixed Effect) Economic Growth b / se** | **(Random Effect) Economic Growth b / se** |
|---|---|---|---|
| Government Expenditures | 0.027 | 0.088 ** | 0.041 * |
| | (0.05) | (0.02) | (0.02) |
| Education | -0.089 | 0.025 | -0.074 |
| | (0.15) | (0.39) | (0.17) |
| Health | -0.288 | -0.154 | -0.278 |
| | (0.21) | (0.39) | (0.24) |
| DEFENSE | 0.438 | 1.232 * | 0.568 |
| | (0.34) | (0.53) | (0.37) |
| _cons | 4,717 * | 0.073 | 4,251 |
| | (1.90) | (3.88) | (2.20) |
| | | | |
| r2 | 0.238 | 0.486 | |
| N | 100,000 | 100,000 | 100,000 |
| | | | |

Note; * Significant at level 10%, ** Significant at level 5%, *** Significant at level 1%

To test the impact of tax revenues on the government expenditure model which is more appropriate for data analysis turns out to be the fixed effects model. This model has an explanatory capacity of 118 observations of 62.3%.

The coefficient of tax revenues is positive 0.163 (s.e. 0.04), so for every 1% increase in tax revenues, government expenditures increase by 0.16% on average, this coefficient is significant at the level of 1%.

**Table 4. Econometric models of the impact of tax revenues on government spending**

| | (OLS) Government Spending b / se | (Fixed Effect) Government Spending b / se | (Random Effect) Government Spending b / se |
|---|---|---|---|
| Tax revenues | 0.085 | 0.163 *** | 0.160 *** |
| | (0.04) | (0.04) | (0.04) |
| Economic Growth | -0.036 | -0.136 | -0.133 |
| | (0.22) | (0.12) | (0.12) |
| _cons | 28,065 *** | 26,145 *** | 26,226 *** |
| | (1.36) | (1.14) | (2.96) |
| | | | |
| r2 | 0.334 | 0.623 | |
| N | 118,000 | 118,000 | 118,000 |

Note; * Significant at level 10%, ** Significant at level 5%, *** Significant at level 1%

**Table 5. Hypothesis testing**

| H | Hypothesis | Testing | Rationale |
|---|---|---|---|
| **H0** | Government spending has no impact on economic growth | Rejected | Since the coefficient of the government expenditure variable is positive, this hypothesis is rejected. |
| **Ha** | Government spending has a positive impact on economic growth | Accepted | Since the coefficient of the government expenditure variable is positive, this hypothesis is accepted |
| **H0** | The increase in tax revenues has no impact on government spending | Rejected | Since the coefficient of the tax revenue variable is positive, this hypothesis is rejected. |
| **Ha** | The increase in tax revenues has a positive impact on government spending | Accepted | Since the coefficient of the tax revenue variable is positive, this hypothesis is accepted |

## 5. CONCLUSIONS

Fiscal policy is the utilization of government spending and taxes which affect economic activity. The definition of fiscal policy in a particular year truly takes into consideration both the past (present socio-economic state) and the consequences for the future (fiscal sustainability) (fiscal sustainability). States aim to allocate funding to areas that encourage economic development, assure budgetary sustainability, or reduce social concerns such as unemployment. The involvement of the state in the economic flows via the fiscal policy is justified by the adjustments made to avoid the occurrences that constitute an impediment to the maintenance of the general welfare of the community. These phenomena are connected to the imperfect market behavior in the protection of the impoverished strata of society, job creation, avoidance of monopolies and enhanced real competition, fairer division of income, etc.

This article had as its major objective the analysis of the influence of government expenditure on the economic development of the Western Balkan nations. At the same time, the secondary goal was the examination of the impact of tax income on government spending in these countries. Apart from the theoretical side, the article studied these issues practically. Conceptually we analyzed several techniques that governments follow in the collection of revenues and the total budget, then various taxation systems of residents.

The role of fiscal policy has been very important in the process of drafting policies for economic growth in the countries of the Western Balkans as these economies are still developing, the role of fiscal policy has been extremely important in some countries such as the Republic of Kosovo and which has limited or partial use of monetary policy due to the use of borrowed currency (euro).

The different economic crises over the years have made it even more vital to promote fiscal policy to sustain macroeconomic stability and economic recovery. In 2020, owing to the worldwide crisis, the cause of the Covid-19 pandemic, all nations of the world were compelled to boost their expenditures to fund different packages for economic recovery, it has also become the Republic of Kosovo. Funding of these packages is accomplished through increasing the public debt via loans to nations in international organizations.

Careful development and appropriate fiscal policies may enable Southeast European nations to ensure the later capacity and sustainability of public debt. Policy tools that foster fiscal sustainability, such as fiscal regulations, have drawn the attention of other governments in need of fiscal consolidation. One of the primary aims of fiscal rules is to strengthen the credibility of fiscal policy as a foundation for economic development. Fiscal policy utilizes tax income

and government spending as instruments to alter a country's macroeconomic indices. Government expenditures impact the overall level of expenditures in the economy, ie the level of GDP and subsequently the level of employment, inflation, etc. Fiscal policy directly or indirectly influences the country's economy (Morina, 2017).

It occurs quite frequently that the direction of fiscal policy is erroneous in various nations, this may happen due to faulty information or even wrong projections, then the failure might emerge as a consequence of non-coordination of FS with monetary policy.

From research and empirical study done in this article, we observed that government expenditure over the last two decades in the Western Balkans has good tendencies, larger costs have the state of Serbia, while lesser expenses are in state Mountain Zi. Regarding the allocation, bigger state expenditures have been in the health sector, education and at least the end of public spending had in the military sector. This applies to five Western Balkan nations following the North Macedonian state greater expenses were in the education sector.

The ratio between government spending and economic growth was positive and empirical analysis shows that the increase in government spending affects economic growth and is significant at 5 percent. The impact of tax revenues is positive on government spending and is significant at the 1 percent level.

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