

The Impact of The Tax Revenue Structure on The Economic Growth of The Republic of Kosovo

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Abstract

Purpose: This scientific paper aims to analyze the impact of the structure of tax revenues on economic growth in the Republic of Kosovo. Based on the fact that taxes are unavoidable obligations for natural and legal persons, then the purpose of this paper was to see how they affect the case of the Republic of Kosovo.

Methodology: The empirical data that have been analyzed in this study are mainly secondary data which have been collected from the data of annual reports published by the Tax Administration of Kosovo, the Central Bank and the Kosovo Agency of Statistics, while the part of the literature review is referring to studies by other authors who have studied and analyzed similar tax-related issues.

Findings: Based on this scientific research and empirical findings, we can conclude that the structure of tax revenues and tax policy reform at the end of 2015 has positively affected economic growth in the Republic of Kosovo for the analyzed period (2010-2020).

Practical implications: This scientific research will serve as a good scientific reference basis for the Government of the Republic of Kosovo that the proper reform of fiscal policies for the benefit of businesses and households will have a substantial impact on savings and investments. On the other hand, the impact of the revenue structure from raising taxes has a positive impact on economic growth. As an important scientific result, regular payment of taxes by taxpayers will contribute to filling the consolidated state budget. Their proper channeling will suffice to improve infrastructure and facilitate the lives of citizens through adequate provision of public goods.

Originality: This study presents real and consistent results regarding the conclusions for the analyzed period (2010-2020).

Keywords: tax structure, tax policy, economic growth, VAT

1. Introduction

Many nations' tax experiences indicate that the imposition of taxes, particularly VAT, has a variety of effects on the economy. Taxes are given in many ways as the primary and most essential method for collecting public money. (Rimmler et al., 2017). Taxes in Kosovo are classified as direct or indirect, depending on whether they are charged at the moment of revenue generation or revenue spending. Thus, according to this tax criteria, taxes paid for income creation constitute the category of direct taxes. At the same time, those earned during revenue expenditures are classified as indirect taxes. (Jelčić, 1985). Adequate tax revenues are required to ensure democracy, public order, and the proper operation of the legal system. However, contemporary taxes should be more than merely a source of revenue for a state's operations. Taxation should also allow the public and governments to actively participate to the pursuit of economic, social, and environmental

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policy objectives. A decent road network, an effective public transportation system, contemporary health care and hospital services, a proper education system, environmental protection, active employment and vocational training programs all need considerable injections of public funds, which may also be funded by taxes (Hutsebaut, 2014).

Examining the effects of taxes on a country's economic development reveals that capital and intermediate goods taxes have a major impact on economic growth. Ones with lower tax rates grow quicker than countries with higher tax rates (Gerson, 1998). Without depending on any other justification that there is any correlation between the rate of tax and economic development, it was discovered that taxes damage economic growth in an investigation of the relationship between taxes and the rate of economic growth between the 23 OECD nations during the period 1965-1990 (Widmalm, 1999). Another research contends that progressive taxation has a significant negative impact on real GDP (Gashi et al., 2018).

The study of the author's Dye and Feiock (1995) explicitly analyses the impact of the adoption of state taxes on income and reflects that after checking for other factors, it turned out that the use of income taxes harms performance economic performance development of the state. Previous studies seem to show little or no influence on average income tax levels, but indicate that higher marginal profit tax levels have a negative effect on income (Holcombe & Lacombe, 2004).

Based on the fact that this scientific paper will address the issue of tax structure and economic growth, or more specifically, it will provide answers regarding the impact of tax structure on economic growth in the Republic of Kosovo for the period under analysis. In order to answer the question posed at the beginning of this study, two econometric models were constructed, where a dependent variable in these models is taken GDP. In contrast, as independent variables are taken: value-added tax (VAT), withholding tax (TB), individual business tax (PD), interest tax, dividend, property rights, rent, lottery winnings (WR) and corporate tax (CD). MS Excel and SPSS software were applied for the processing of this data. So, through SPSS, descriptive statistics were presented, and some statistical tests were performed such as linear regression analysis, coefficients, summary model, ANOVA and other tests which are analyzed and based on them, the empirical results and findings of this study were derived, also relying on a detailed analysis of the studies of other authors who have elaborated on a similar topic.

The scientific paper is divided into several sections, while each part of the research is divided into a separate section. The first section contains the introduction of the paper, which mainly deals with tax and GDP issues studied and analyzed by various authors. The second section of the paper contains the literature review section. The third section describes the methodology of scientific research and the specification of the econometric model. The fourth section contains the interpretation of econometric results and findings of this study, while the fifth section presents the conclusions and recommendations of this scientific research.

2. Literature Review

The effect of taxes on economic development and investment has received much attention in scholarly and political circles. Tax reduction supporters argue that lower tax

rates provide an incentive to work, save, and invest, and that reduced tax rates have an impact on a country's economic development. The tax cuts implemented by the provincial government of British Columbia (BC) in 2001 are an example of pro-growth tax policy (Ferede & Dahlby, 2012).

When measuring the influence of fiscal factors on economic growth, it is crucial to depend on the notion that taxes only affect economic growth through their impact on individual growth variables (Kotlán et al, 2011). Growth theories can be considered as the most important ones when assessing concerning taxes. Therefore, it is necessary to present, at least in a nutshell, their content and describe the channels that represent the impact of taxes on economic growth (Macek, 2015).

Taxation is thought to be a necessary starting point for income redistribution among residents. To ensure social solidarity and cohesiveness in society, massive social transfers are required, and taxes plays a vital role. However, tax policy should not be used as a tool of government rivalry in order to attract investment. This form of approach encourages tax evasion and undermines the core purposes of tax policy. Three of the essential preconditions for achieving this tax policy are efficient management of public resources, efficient functioning of public services, and quality services to consumers of these services (Hutsebaut, 2014).

The debate over the influence of the tax structure on economic development has been centered on the relative advantages of indirect taxes, particularly their capacity to create a more favorable climate for economic growth. For example, Myles (2009) examines the data on the issue of taxes and finds that virtually all of the results support the premise that shifting from income tax to consumption tax would boost the pace of economic growth. In recent years, certain EU member states have seen a general trend of shifting the primary burden from direct to indirect taxation, notably from working capital to consumption taxes (EU Commission, 2011).

Taxation aims not only to collect revenues for government expenditure, but also to contribute to revenue redistribution, economic stability, and resource allocation, all while being an important supporter of a country's economic progress. The goal of a correctly structured tax system is to accomplish the intended large scale policy goals in the most effective manner possible, which includes reducing or removing undesired distortions, simulating the cost of tax collection, and stimulating economic growth. Tax efficiency, particularly tax structure, is critical to attaining economic growth (Stoilova, 2017).

For numerous reasons, the research on the probable relationship between tax structure and growth performance has piqued the interest of politicians, scholars, and regulators. First, both developing and established economies need a substantial amount of tax revenues in order for the state to operate efficiently and effectively on a national and international scale. Globalization has established the groundwork for the Goods and Services Tax (GST) in many emerging nations (McNabb, 2018).

Due to competition, emerging nations are having difficulty sustaining their current tax collections (Bird & Zolt 2011). Through the tax burden, tax collection and tax structure cause distortions in the economy. As a result, the tax's positive and negative influence complicates the tax-growth link. We believe that the tax system plays an important role in the development of an economy. Considering a basic production function, it is evident that the tax may affect growth by influencing physical capital, human capital, and total

factor productivity. According to the authors' research, corporate and personal income taxes are the most disruptive to economic growth, while consumer, environmental, and property taxes are the least negative (OECD, 2018).

Concerning the amount of taxes, i.e., tax revenue represented as a percentage of GDP, it is not immediately clear whether a greater level of taxation will increase or decrease production. Increased taxation reduces the motivation for people and businesses to participate in activities that lead to increased production levels. As a result, the link between tax and production levels is more likely to be driven by societal decisions about the proper amount of government expenditure (Arnold et al., 2011).

Taxation is primarily used to fund government expenses. Taxation is used to achieve goals such as equality and to solve social and economic issues. They should be implemented to save administrative expenses for the government while preventing tax evasion. Taxes also influence household choices to save, equip jobs, and invest in human capital, as well as corporate decisions to produce, create employment, and invest, as well as investors' choice of savings and asset channels. The amount of taxes and how the different tax instruments are structured and integrated to produce income are important considerations in these choices (Arnold et al., 2008).

Politics may affect growth rates via the impact of taxation on economic choices. A tax rise affects the return on investment (both physical and human capital) and research and development (R&D). Reduced returns imply less accumulation and innovation; hence the tax's negative effect is a lower growth rate. Taxation has a beneficial element as well. Some government investment, such as infrastructure, education, and health care, may boost productivity. Taxation offers the means to fund these expenditures and may indirectly enhance the economic growth (Myles, 2007).

Taxes have the potential to impede economic growth by reducing the percentage of savings and investments. The higher the next income level, the larger the proportion of revenue saved and invested. In other words, tax laws have a significant influence on the next level of per capita income through influencing how much money is saved or invested (Kesner-Škreb, 1999).

In recent decades, how tax policy affects economic growth and whether the effects it causes are short-lived or permanent has been at the forefront of discussions between various scholars and policymakers (Barro, 1990; King and Rebelo, 1990; Jones et al., 1993). The consequences might be long-term, which means that macro variables are influenced not only during the short-term adjustment process, but also the long-term pace of economic growth (Acosta-Ormaechea and Yoo, 2012). High taxes lower consumer income and economic freedom in the short term, but they may arise and reduce economic efficiency and well-being in the long run (Asllani and Statovci, 2018).

3. Tax System in Republic of Kosovo - Fiscal Package of 2015

The Republic of Kosovo from September 1, 2015 has started implementing the new fiscal package. The amendments to the new fiscal package include changes to the Law on Value Added Tax, the Law on Personal Income Tax, and the Law on Corporate Income Tax. The biggest changes have been made in the Law on Value Added Tax, which sets two VAT rates, as: the standard VAT rate of 18 percent, and the reduced VAT rate of 8

percent. The Value Added Tax rate before these changes was 16 percent for all products. Several years after the entry into force of changes in Value Added Tax, especially in changes in the tax rate from 16 to 8 percent, according to official figures, there is an increase in budget revenues, while an increase in revenues is observed in the change of other tax rates.

In general, according to TAK, this package has had positive effects, as tax revenues have increased, because citizens after each purchase are provided with a fiscal coupon. Also, tax revenues for the first half of 2016 immediately after the application of the new fiscal package, had increased by 10.8 percent or 21.5 million euros more than the same period of 2015. Also, it is worth mentioning that citizens have benefited from requesting fiscal coupons because TAK has reimbursed them and government officials have estimated that it has had positive effects on Kosovo's economy and doing business and with the facilities that have been made has affected, we increase investments which have also boosted employment.

Corporate Income Tax (CD) applies to corporate taxable income. Taxpayers with a gross yearly income of € 50,000 or less pay 3 percent (for businesses like as commerce, transportation, agriculture, and similar commercial operations) or 9 percent (for service, professional, craft, entertainment and Similar). Taxpayers earning more than €50,000 per year are taxed at a rate of 10% on taxable income. The difference between gross income received or accrued / accrued / accrued during a tax period and permitted deductions / allowances in connection to such gross income is referred to as taxable income for that tax period (Ministry of Finance, 2017).

Personal Income Tax (PD) is imposed on any taxable income obtained by a person under the Personal Income Tax Act. Residents and non-resident natural persons, personal business enterprises, partnerships, and companies who receive or generate gross income from any source, including salary, business activity, rent, lottery profit, interest, capital gains, use of intangible assets, pensions, and any other income that increases the taxpayer's net worth, are considered taxpayers under the Personal Income Tax Law (Ministry of Finance, 2017). Personal Income Tax is applied according to the following rates: Taxpayers with a gross yearly income of € 50,000 or less pay 3 percent (for businesses like as commerce, transportation, agriculture, and similar commercial operations) or 9 percent (for service, professional, craft, entertainment and Similar). Taxpayers having a gross yearly income of more than € 50,000, as well as those who have voluntarily chosen to be taxed on real income, pay the following rates:

- ⇒ Zero percent (0%) for taxable income of nine hundred and sixty euros (960 €) or less;
- ⇒ For taxable income exceeding nine hundred and sixty euros (960 €) but less than three thousand euros (3,000 €), four percent (4%) of the amount above nine hundred and sixty euros (960 €);
- ⇒ For taxable income in excess of three thousand euros (€ 3,000), up to five thousand four hundred (€ 5,400), including the amount of five thousand four hundred (€ 5,400), eighty-one point six euros (€ 81.6) plus eight percent (8%) of the amount in excess of three thousand euros (3,000 €); and
- ⇒ Two hundred and seventy-three points six euros (273.6 €) plus ten percent (10%) of the amount exceeding five thousand four hundred (€ 5,400) for taxable income over five

thousand four hundred (€ 5,400).

Value Added Tax (VAT) - Since September 2015, VAT has been increased to two rates: the regular rate of eighteen percent (18%) and the reduced rate of 8% of the value of taxable imported and domestic goods, with the exception of exempt supplies and supplies classified as exports. The reduced VAT rate is calculated and paid from eight percent (8%) for the supply of goods and services, as well as their import for all essential products and services, i.e., for general social needs which are specified in VAT law. A taxable person is any person, whether an individual, a natural or legal person, or an organization in any other form recognized by Kosovo law, who independently engages in economic activities within the meaning of the Law, regardless of the location, purpose, or outcome of the activity. The outcome (profit or loss) of economic activity is unimportant for VAT purposes. Any person that fits all of the elements of the definition of a taxable person is obliged to register for VAT if their annual turnover exceeds thirty thousand euros (30,000 €) throughout the calendar year. Only the portion of the supply that exceeds the turnover will be evaluated for VAT purposes. Furthermore, any taxable person registered for VAT, whether compulsorily or voluntarily, may request from TAK to be deregistered for VAT purposes if its turnover fell below the level specified in Article 6 paragraph 1 of the Law during the previous calendar year. If TAK approves the request, deregistration takes effect two (2) months following the date of application (Ministry of Finance, 2017).

Avoidance of Double Taxation - Kosovo currently has Agreements on the Elimination of Double Taxation with the Republic of Macedonia, Turkey, Great Britain, Slovenia, Hungary, Belgium, Finland, Albania, Germany and the Netherlands. Agreements on the Elimination of Double Taxation with many other states are in the process of being negotiated (Ministry of Finance, 2017).

Customs duties - Customs duty is 0% - 10%. Most of the raw materials are released, most of the production equipment is released by Law no. 04 / L-163. Some of the agricultural raw materials (such as seeds, etc.) and equipment are exempt from Customs and VAT. Exemptions have been made with the expansion of the annex of Law no. 04 / L-163 published on 16.01.2014. Administrative Instruction 05/2015 dated 30.09.2015 is added annex 1 where the release of drugs heading 30 as well as natural gas and LPG for energy. Administrative Instruction 07/2016 dated 12.10.2016 is added to the List of goods with zero tax which is added to Annex 1, Part B and Part D of the Law where goods are released; Calcined petroleum coke, Oils as fuel, as well as Lubricating Oils.

Excise - Excises are applied to some domestic or imported goods such as: cigarettes, alcoholic beverages, water and other soft drinks, oil etc., (Ministry of Finance, 2017).

4. Methodology and Specification of the Econometric Model

In this scientific paper, an empirical analysis of the impact of the tax structure on the economic growth of the Republic of Kosovo will be realized. The data used in this research are mainly secondary data obtained from the annual reports of the Tax Administration of Kosovo and the World Bank. Also, during the research process, the empirical findings of studies by different authors regarding the structure of taxes and the impact on economic growth were analyzed. This study includes data over 11 years (2010 - 2020) which are analyzed through econometric models. The variables included in the paper

are GDP as a dependent variable, while independent variables are: value-added tax, withholding tax, individual business tax, corporate tax and interest tax, dividend, property rights, rent, lottery winnings and gambling. The primary importance of this paper lies in the fact that it will aim to present accurate and sustainable results that can be obtained in response to the impact of the tax structure on the economic growth of the Republic of Kosovo.

The hypotheses of this study are:

H_0 : The tax structure has no impact on economic growth in Kosovo.

H_1 : The tax structure has an impact on economic growth in Kosovo.

Testing of these hypotheses will be done through economic models. Data processing and analysis will be done through SPSS software, and linear regression analysis will be used to validate the hypotheses. Also, to analyze the impact of the tax structure on economic growth, it is necessary to consider other factors that explain the correlation between these variables. This paper will include two econometric models as follows.

The first econometric model of this study is as follows:

$$GDP = \beta_0 + \beta_1 VAT + \beta_2 TB + e$$

The second econometric model of this study is as follows:

$$GDP = \beta_0 + \beta_1 PD + \beta_2 WR + \beta_3 CD + e$$

Where:

GDP – Gross Domestic Product

β_0 – represents a constant

VAT – Value added tax

TB – Withholding Tax

PD – Individual Business Tax

WR – Interest Tax, Dividend, Property Rights, Rent, Lottery Winnings and Gambling

CD – Corporate Tax

e_i – error term

5. Data Analysis Through Linear Trends

Table 1 shows the data of the variables included in this research that will be studied using the linear trend for the period (2010-2020). The linear trends for each variable in this research will be generated using this data.

Table 1. Gross domestic product and main types of tax revenues

Years	GDP (Y)	VAT (X1)	TB (X2)	PD (X3)	WR (X4)	CD (X5)
2010	4,030,991,000	113,046,863	33,710,926	25,762,265	11,741,417	36,414,344
2011	4,555,903,000	121,437,993	55,668,304	23,517,097	1,375,507	54,564,163
2012	4,797,278,000	129,960,077	60,089,290	25,916,434	1,630,724	62,680,757
2013	5,071,333,000	149,184,989	61,962,028	28,309,705	1,650,280	64,110,827
2014	5,325,095,000	136,939,023	67,857,126	32,922,697	10,499,342	55,303,459
2015	5,674,422,000	153,877,977	71,848,878	31,905,667	13,206,038	61,433,216
2016	6,037,273,000	180,363,400	80,327,270	33,161,625	11,254,117	81,278,873
2017	6,356,456,000	196,635,189	86,561,097	35,148,476	18,073,875	77,936,657
2018	6,671,522,000	215,184,335	98,020,969	34,067,683	22,177,062	87,348,447

2019	7,056,172,000	241,711,051	70,595,169	32,948,635	25,911,208	95,292,538
2020	6,679,000,000	223,138,952	74,158,951	26,407,181	19,842,154	85,480,660

Source: Data processing by the authors (2021)



Figure 1. Linear trend between GDP and Value Added Tax (2010-2020)

Source: Authors Data Calculation in Microsoft Excel (2021)

Based on the data analyzed in the table above and presented in Figure 1, we can conclude that for the analyzed period (2010-2020), we see that we have a positive upward trend for the variable "GDP" and revenues from "Value Added Tax". The value of the common linear trend for both variables (GDP and VAT) is increasing, except VAT, which had a slight decline in 2014, and the same thing was repeated in the period 2020. We can see from the linear trend result that as VAT increased, so did the variable GDP, implying that there is a positive link between GDP and VAT.

We analyzed the sudden decline in Value Added Tax (VAT) in 2020. In that case, we can say that the impact of the Covid-19 pandemic has shrunk economic activity, thus affecting the overall level of tax collection, the payments and the country's economy in general.

The economic downturn in Kosovo has also challenged tax revenue collection. According to TAK data, the collection of tax revenues has decreased significantly in the first five months. From January to May 2020, only 184 million euros were collected, i.e., 25 million euros less than the same period of the previous year (AMC, 2020). It can also be noted that the overall performance of Value Added Tax for the period 2015-2018 has been positive, and there has been a steady increase (Ministry of Finance, 2015-2018).



Figure 2. Linear trend between GDP and withholding tax for Kosovo (2010-2020)

Source: Authors Data Calculation in Microsoft Excel (2021)

Based on the data collected and presented in Figure 2, we see that we have a linear upward trend for the analyzed period (2010 - 2020) for the variable "GDP" and revenues collected from "Withholding Tax", except for 2010, 2019 and 2020 where we see that we have a decrease in the categories of taxes paid at source. So, according to the above figure, we can emphasize a very positive relationship between these two categories, and we find that with the increase of withholding tax, we also have GDP growth.

According to the Ministry of Finance report, withholding tax has increased by about 50% (2015 - 2018) compared to the tax for individual businesses. Compared to the same period, this category has increased by about 16%. Compared to 2015, the withholding tax has an increase of 50%. This increase results partly from wage increases and partly from new jobs. In 2018, compared to 2015, the number of employees had increased by about 18% or about 45,000 more jobs (Ministry of Finance, 2015-2018). Another indicator worth noting in the level of the withholding tax is the impact of the Covid-19 pandemic that has had an impact on all types of taxes in Kosovo.



Figure 3. Linear trend between GDP and tax on individual businesses for Kosovo (2010-2020)

Source: Authors Data Calculation in Microsoft Excel (2021)

Also, if we refer to fig. 3, we can see that we have a positive upward trend for the analyzed period (2010–2020) for the variable “GDP” and “Tax for Individual Businesses”, where we can emphasize that the Tax for Individual Businesses has experienced some fluctuations in 2011, 2015 and 2020. However, in general, we can say that there is a direct link between taxation in individual businesses as a factor that affects economic growth.

According to the published report of the Government of Kosovo, it is reflected that the tax category for individual businesses for the period 2015-2018 has a positive performance but is not at the level of withholding tax. The performance of 2018 was 16% higher because more than 4 million euros were collected compared to the same period of 2015 (Ministry of Finance, 2015-2018).

According to the American Chamber of Commerce of Kosovo (AMC) we can emphasize that during 2020 when the Republic of Kosovo faced Covid - 19, the decline in tax revenues for individual businesses is directly related to the decline in turnover of these business categories as it is noted that from the end of March to May 2020, businesses have experienced a sharp decline in turnover due to the strict measures taken to prevent the COVID-19 pandemic compared to the same period of 2019 (AMC, 2020).

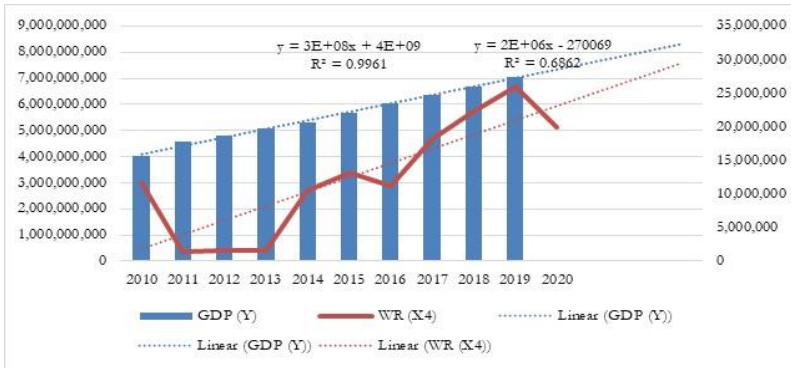


Figure 4. A linear trend between GDP and interest tax, dividends, property rights, rent, lottery winnings and gambling for Kosovo (2010-2020)
 Source: Authors Data Calculation in Microsoft Excel (2021)

Based on the statistical data presented in Figure 4, we notice a positive trend between revenues collected by "WR" and Economic Growth for the period analyzed (2010 - 2020). However, it is worth noting that the revenues collected from this type of tax represent the lowest share of the total of all taxes collected at the national level. If we consider the reports of 2015-2018, we can say that the revenues collected for this type of tax have begun to receive a positive trend, thus affecting economic growth at the national level as one of the main categories of state revenues. (Ministry of Finance, 2015-2018).

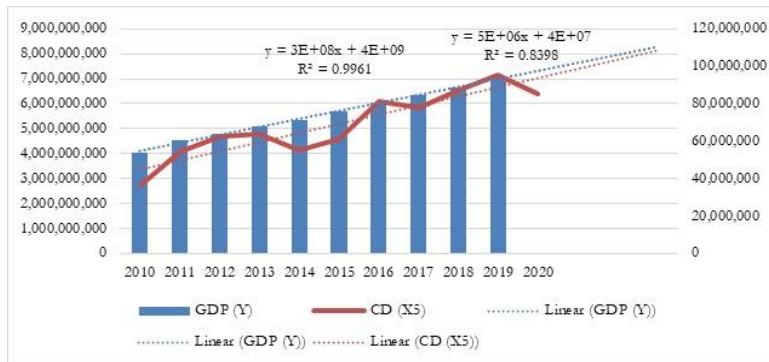


Figure 5. Linear trend between GDP and corporate tax for Kosovo (2010-2020)
 Source: Authors Data Calculation in Microsoft Excel (2021)

If we based on the data presented in Figure 5, we can see that we have a positive upward trend for both categories, the level of "GDP" and revenues collected from "Corporate tax" for the period analyzed (2010 - 2020). We can emphasize that the "corporate tax" has had a steady increase from year to year with some significant declines over this analyzed period. However, this category of state revenues remains important with an impact of positively high in the total revenues collected from taxes and as a major influencing the main factors in the economic growth.

It is worth noting that Corporate Taxation occupies an important place in the budget of

the Republic of Kosovo and supports planned public expenditures. This tax is based on net business income during the exercise of business activity in the calendar year, and from this type of tax, we see that over the years, the Republic of Kosovo, during the analyzed period, has managed to collect a considerable amount of revenues from this category. However, during 2020 tax revenue collection decrease for this category refers to the pandemic situation and the measures taken by the situation created by the Covid-19 pandemic.

6. Econometric Analysis and Study Findings

In this section are presented econometric analyzes and results obtained through statistical tests using SPSS software. The beginning of this section presents the descriptive statistics, the tables of Coefficients, ANOVA and Model summary. As stated above, at the beginning of this scientific research, the analysis will be based on two econometric models obtained and then begins with the commentary of the results obtained and the study's findings.

The first econometric model of this study is as follows:

$$GDP = \beta_0 + \beta_1 VAT + \beta_2 TB + e$$

Table 2. Descriptive statistics

Descriptive Statistics			
	Mean	Std. Deviation	N
GDP	5,557,644,500.00	975,874,556.46	11
VAT	163,834,089.71	42,962,624.73	11
TB	68,664,105.67	17,769,327.64	11

Source: Authors' calculations in the SPSS software (2021)

Based on the results obtained from the table of descriptive statistics, we can see that for the variables GDP, VAT and TB for the period (2010-2020), we have a total of 11 samples with an average GDP of 5.56 billion euros and a standard deviation of 975.87 million euros. The average VAT level is 163.83 million euros with a standard deviation of 42.96 million euros, and the average VAT is 68.66 million euros with a standard deviation of 17.77 million euros.

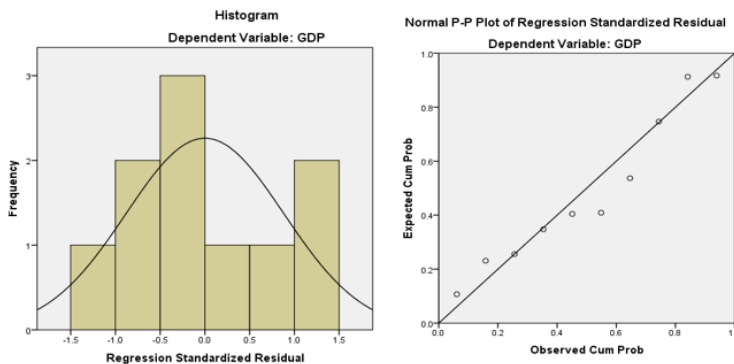


Figure 6. Graphical representation of histogram and probability graph

Source: Authors' calculations in the SPSS software (2021)

Based on the histogram's graphical representation, we see that between the dependent variable GDP and the independent variables, VAT and TB, we have a normal distribution. Based on the probability graph, we see a positive linear relationship, except for specific points indicating the standard deviation and all these points are summarized in the error term (ϵ).

The table below displays the regression equation's derived values for predicting the dependent variable from the independent variables. Non-standardized coefficients are measured in the table using their native units, and the coefficients cannot be compared to determine which is the most significant in the model since they may be quantified to varied degrees. The rest of the table shows the standard errors associated with coefficients. At the same time, standardized coefficients are the coefficients that are generated if we were to standardize all regression variables, including the dependent variable and all independent variables. By standardizing variables before the regression is executed, we place all the variables on the same scale, and the comparison can be made based on their size to see which of the variables has the most effect on this model.

Table 3. Table of coefficients for the variables included in the first econometric model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	1,676,556,053.67	249686301.98	6.715	.000
	VAT	17.351	2.079	.764	.000
	TB	15.123	5.027	.275	3.008

a. Dependent Variable: GDP

Source: Authors' calculations in the SPSS software (2021)

Table of Coefficients presents the values of the variables: GDP, VAT and TB, where all these variables included in the econometric model are essential at the level of 0.05 and in the following the interpretation will be made for each of the parameters: β_0 , β_1 and β_2 as follows:

$\Rightarrow \beta_0$ – If VAT (X1) and TB (X2) are constant, GDP will be 1.677 billion euros. This statement is correct since the significance value (P-value = 0.000 < 0.05) is in the range of statistical significance

$\Rightarrow \beta_1$ – If VAT increases by one unit, keeping TB constant, then GDP will increase by 17.35 units. This statement is correct since the significance value (P-value = 0.000 < 0.05) is in the range of statistical significance. Therefore, according to this result, we can emphasize that Value Added Tax is one of the most important taxes in the structure of income of the Republic of Kosovo, given that taxes are an essential financial instrument through which are collected the revenues. Were through these revenues, the state manages to cover the expenses and meets the needs of the country's society, which typically affects the economic growth of the country.

$\Rightarrow \beta_2$ – If TB increases by one unit while keeping VAT constant, then GDP will increase by 15.123 units. This statement is correct since the significance value (P-value = 0.020

<0.05) is in the range of statistical significance. From this generated result, we can conclude that when tax revenues increase per unit, therefore the latter has a positive impact on GDP growth at the national level because taxes together with other instruments of state policy (fiscal policy, credit-monetary policy, pricing policy, international exchange policy) have a considerable role in economic growth.

Table 4. Summary model for the variables included in the paper

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig. F Change	Durbin – Watson
1	.987 ^a	.974	.967	.1777359964	.000	1.602

Source: Authors' calculations in the SPSS software (2021)

R correlation coefficient – The regression analysis results show that this model has a correlation coefficient of 98.7%, which shows a very high correlation between the value of the dependent variable (GDP) and the independent variables (VAT and TB). From this, we can say that taxes are an essential source of state revenues because the state of the Republic of Kosovo provides a considerable amount of revenues through taxes and then the planning of public capital expenditures in improving infrastructures such as hospitals, roads, schools, job creation, market improvement, and regulation, thus automatically affecting the country's economic growth.

The coefficient of determination R² – is 97.4%; this shows that the independent variables VAT (X1) and TB (X2) explain the dependent variable (GDP) for about 97.4%. Based on this value, we notice that we have a high correlation between these variables. This powerful connection exists because we are seeing that taxes are the ones that are positively affecting the economic growth of the state of the Republic of Kosovo because through taxes, the state can achieve efficiency to increase revenues by providing goods public, affecting the country's trade balance as well as poverty alleviation.

Standard errors of the parameters β_0 , β_1 , and β_2 and the standard error of the model: From the data obtained through the econometric model, we can see that the parameters have the following standard errors:

$$\beta_0 = 249,686,301.98$$

$$\beta_1 = 2.079$$

$$\beta_2 = 5.027$$

$$\text{Standard model error} = 0.1777$$

The value of Durbin Watson - the value in the model is 1.602, so it is within the range of numbers from 1.5 - 2.5, which means that we have a positive autocorrelation.

Table 5. Anova analysis for the variables included in the paper

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8349849758654628900.000	2	4174924879327314400.000	132.159	.000 ^b
	Residual	221130590847870752.000	7	31590084406838680.000		
	Total	8570980349502499800.000	9			
a. Dependent Variable: GDP						
b. Predictors: (Constant), TB, VAT						

Source: Authors' calculations in the SPSS software (2021)

From the table presented through ANOVA, we can conclude that the level of significance for the model in general and from the results obtained are accurate since the model is at the appropriate level of statistical significance ($0.000 < 0.05$), and from here we can say that we accept hypothesis H1 and reject hypothesis H0. From all this, we can say that tax revenues positively impact the economic growth of the Republic of Kosovo, which was confirmed by the analysis conducted so far and which is in line with economic theory. The next part of the paper will now be the interpretation of other variables we have included in model 2.

Econometric model 2 of this study is as follows:

$$GDP = \beta_0 + \beta_1 PD + \beta_2 WR + \beta_3 CD + e$$

Table 6. Descriptive statistics

Descriptive Statistics			
	Mean	Std. Deviation	N
GDP	5,557,644,500.00	975,874,556.46	11
PD	30,366,028.39	4,110,909.13	11
WR	11,751,956.96	8,597,280.86	11
CD	67,636,328.09	17,697,797.34	11

Source: Authors' calculations in the SPSS software (2021)

Based on the results obtained from the table of descriptive statistics, we can see that for GDP variables, PD, WR, and CD for the period (2010-2020), in total, we have 11 samples where the average GDP is 5.56 billion euros with a standard deviation of 975.87 million euros. The average level of the PD is 30.37 million euros, and the standard deviation of 4.11 million euros. The average level of WR is 11.75 million euros and the standard deviation of 8.59 million euros, and finally, the average level of CD is 67.64 million euros and the standard deviation of 17.69 million euros.

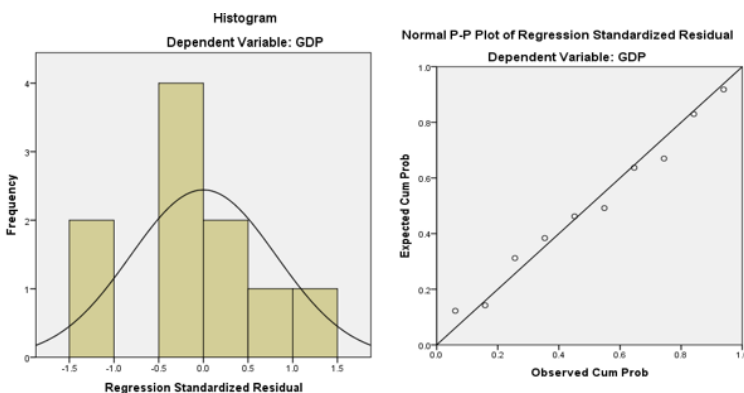


Figure 7. Graphical presentation of histogram and probability graph

Source: Authors' calculations in the SPSS software (2021)

Based on the graphical representation of the histogram, we can conclude that the dependent variable GDP and the independent variables PD, WR, and CD included in the

model have a normal symmetric distribution. Based on the graphical depiction of probability, we can state that there is a positive linear connection between the dependent variable and the independent variables, with the exception of certain points exhibiting standard deviation, which are all aggregated in the stochastic variable (ϵ).

Table 7. Table of coefficients for the variables included in the econometric model 1

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	959,519,772.18	458,266,605.92		2.094	.081
	PD	66.346	18.949	.279	3.501	.013
	WR	22.379	8.559	.197	2.615	.040
	CD	34.308	3.782	.622	9.072	.000
a. Dependent Variable: GDP						

Source: Authors' calculations in the SPSS software (2021)

Table of Coefficients presents the values of the variables: GDP, PD, WR and CD, where all these variables included in the econometric model are essential at the level of 0.05 and in the following the interpretation will be made for each of the parameters: β_0 , β_1 , β_2 and β_3 as follows:

⇒ β_0 – If PD (X1), WR (X2) and CD (X3) are constant, then GDP will be 959.52 million. This statement is incorrect as the significance value (P-value = 0.081 < 0.05) is not in the range of statistical significance. In contrast, at the level of importance of 90%, this statement is correct.

⇒ β_1 – If PD increases by one unit, keeping WR and CD constant, GDP will increase by 66.35 units. This statement is correct since the significance value (P-value = 0.013 < 0.05) is in the range of statistical significance.

⇒ β_2 – If WR increases by one unit, keeping PD and CD constant, GDP will increase by 22.38 units. This statement is correct since the significance value (P-value = 0.040 < 0.05) is in the range of statistical significance.

⇒ β_3 – If CD increases by one unit, keeping WR and PD constant, GDP will increase by 34.31 units. This statement is correct since the significance value (P-value = 0.000 < 0.05) is in the range of statistical significance.

Table 8. Summary model for the variables included

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig. F Change	Durbin – Watson
2	.993	.986	.976	0.139931429.7	.000	2.646

Source: Authors' calculations in the SPSS software (2021)

R correlation coefficient – from the regression analysis results, we see that this model has a correlation coefficient of 99.3%, which shows a very high correlation between the value of the dependent variable (GDP) and the independent variables (PD, WR and CD). This result is very accurate because these are the types of taxes contributing positively to economic growth in the Republic of Kosovo. It is known that the payment of taxes does

not have a direct benefit for the citizen, but the benefit is indirect from which each of us benefits and thus comes to economic growth.

The coefficient of determination R^2 - is 98.6%; this shows that the independent variables PD, WR and CD explain the dependent variable (GDP) for 98.6%. Based on this value, we notice that we have a high explanatory relationship between these variables. The fact is that the contribution of tax revenues has an inevitable impact on economic growth, and therefore we have such a high correlation between them.

Standard errors of the parameters $\beta_0, \beta_1, \beta_2$ and β_3 and the standard error of the model: From the data obtained through the econometric model, we can see that the parameters have the following standard errors:

$$\beta_0 = 458,266,605.92$$

$$\beta_1 = 18.949$$

$$\beta_2 = 8.559$$

$$\beta_3 = 3.782$$

Standard model error = 0.1399

The value of Durbin Watson – the value in the model is 2.646, so within the expected values will not be found in the range of numbers from 1.5 - 2.5 and in this case, we can say that we have a negative autocorrelation.

Table 9. Anova analysis for the variables included in the paper

ANOVA ^a						
Model	Sum of Squares	df	Mean Square	F	Sig.	
2	Regression	8453495519448412200.000	3	2817831839816137200.000	143.908	.000 ^b
	Residual	117484830054087488.000	6	19580805009014580.000		
	Total	8570980349502499800.000	9			
a. Dependent Variable: GDP						
b. Predictors: (Constant), CD, WR, PD						

Source: Authors' calculations in the SPSS software (2021)

From the table presented through ANOVA, we can emphasize the level of significance for the model in general and from the results obtained, we can conclude that the model is correct as it is at the right level of statistical significance ($0.000 < 0.05$) and from here we can to say that we accept hypothesis H1 and reject hypothesis H0. From all this, we can say that tax revenues positively impact the economic growth of the Republic of Kosovo, which was confirmed by the analysis conducted so far and which is in line with economic theory.

7. Results and Discussion

According to the results of the coefficients generated through statistical tests in the first econometric model, we can say that VAT as the most important tax in the structure of state income has positively affected the economic growth (GDP) of the Republic of Kosovo, while on the other hand, can we say that the Withholding Tax (TB) has also been significant, as it has positively affected economic growth. Also, the generated results of the second econometric model has resulted that the impact is significant and we

can conclude that Individual Business Tax, Interest Tax, Dividend, Property Rights, Rent, Lottery Winnings and Gambling and Corporate Tax have had a positive impact on the economic growth of the Republic of Kosovo for the analyzed period.

The results of the study are in line with the results of authors such as Myles (2007), Stoilova (2017), Ferede & Dahlby (2012) and Kotlan et al, (2011) emphasizing that tax cuts and their adjustment to economic conditions have a positive impact in economic growth. Whereas, they differ with the emphases and conclusions of authors such as Asllani & Statovci (2018), OECD (2018) and Widmalm (1999).

8. Conclusions

Undoubtedly, taxes are a very important element and indicator for the functioning of a state because, from taxes, the state provides a part of revenues. This scientific research has analyzed the impact of tax structure on economic growth in the Republic of Kosovo, taking into account the structure and types of taxes such as value-added tax, withholding tax, tax on individual businesses, corporate tax and interest tax, dividends, property rights, rent, lottery winnings and gambling to see their significant impact on economic growth, knowing that taxpayers pay the taxes, which are then collected by the tax and customs authorities contributing to the completion of the consolidated budget of the state and which will significantly affect the improvement of infrastructure and facilitate the lives of citizens through the provision of public goods thus affecting economic growth.

In this scientific research based on the econometric analysis, we determined the impact of specific factors of the tax revenue structure on economic growth and that the empirical findings of the study reflected a strong relationship of the tax structure to the economic growth of the Republic of Kosovo and further argued that all independent variables included in the two econometric models had a positive impact on the dependent variable. Therefore, the study found that the structure of tax revenues has a significant positive and substantial impact on the economic growth of the Republic of Kosovo, which is reflected and verified through hypothesis testing. This research highlights the impact of the tax revenue structure at the national level and offers a special contribution in taxation by contradicting the findings of some other authors who argued that the collection of certain types of taxes creates distortions in the economy through the burden of tax surplus.

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