

ESTIMATING THE IMPACT OF TAXES ON THE ECONOMIC GROWTH IN THE UNITED STATES

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Abstract: In a research paper, the authors provide an empirical approach to taxes and economic growth in the United States in the period 1996-2016. The basic goal is to explore how taxes affect economic growth. The subject of the research is measuring the effects of tax revenue growth and tax form as a personal income tax, corporate income tax and social security contributions on gross domestic product as a proxy for economic growth. Methodology framework includes several tests to clear the potential problem of heteroscedasticity, autocorrelation, multicollinearity and specification of the model. Based on diagnostic tests, a regression model is adequately created where fundamental econometric procedures are applied. Correlation matrix reflects a strong and positive relationship between tax revenue growth and corporate income tax on the one side and gross domestic product growth, on the another side. Also, personal income tax and social security contributions are weakly related to gross domestic product growth. The model shows a significant effect of tax revenue growth and social security contributions, while personal income tax and corporate income tax do not have a significant impact on gross domestic product growth. Interestingly, personal income tax as the main tax form in the tax structure of the United States has no significant impact on economic growth compared to social security contributions which percentage share is lesser.

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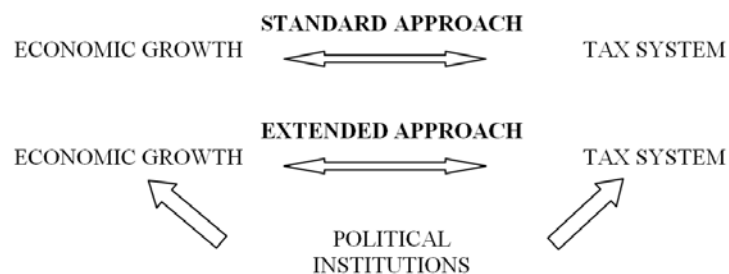
1. Introduction

Taxes should take an important place in the economic policy of each country. The level of taxes must be properly determined so that they would be in function of growth. The governments should know that any increase in taxes can potentially have a negative impact on main economic indicators. However, tax cuts can result in lower tax revenues, which means lower public revenues and resources needed to cover public expenditure and public needs. The essence of taxes is manifested in the need to raise funds in order to make conditions for financing the government expenditures. Besley and Persson (2014) argue that low-income countries collect taxes of between 10% and 20% of the gross domestic product, while the average for high-income countries is more like 40%. Taxes are the major source of revenue to every economy and they could be a powerful tool for economic growth.

Đurović-Todorović and Đorđević (2010) highlight that taxes allow the financing the public expenditures in the way that state gives contribution through the adequate allocation of economic resources from the point of optimality, equity and effectiveness. On the other hand, Bernardi and Chandler (2005) define the basic purpose of tax as the collection of funds for financing public spending. Likewise, Chigbu et al. (2012) determine taxes as an important instrument for generating revenues by the government. Economic growth represents one of the most relevant concepts in economic theory and achieving the steady gross domestic product is the primary goal of every country. Also, Ahmad and Sial (2016) state tax system has a vital role in achieving the equity and social and economic improvement in any country.

The development of endogenous growth model has included the effect of taxes on economic growth which depends on the structure of tax system (Palić et al. 2017). In public finance, dominant opinion is that taxes have a negative effect on economic growth. It is necessary to identify the main taxes and optimise their tax structure which can lead to increase of economic growth measured by gross domestic product. It means tax should not be harmful to economic development.

Figure 1. The nexus between economic growth and tax system



Source: Authors based on Besley and Persson (2013)

Besley and Persson (2013) determine the standard economic approach that analyses the influence of the tax system on the economy and argue that tax systems can minimise the efficiency losses imposed by taxes and increase the economic growth. Further, political institutions are included as an important component, because not only economic factors have main roles in the analysis of taxation and development. Using adequate tax system, the government could play a productive role in the economy. Alley and Bentley (2005) sublimate equity, fairness, certainty, simplicity, efficiency, neutrality and effectiveness as the most important principles of the optimal tax system.

Johansson et al. (2008) determine tax systems as a tool which is primarily aimed at financing public expenditures and used to promote equity, social and economic concerns. Likewise, tax systems should enable minimising taxpayer's compliance costs and government's administrative costs.

Table 1. Optimal tax system - fundamental tax principles

Equity and fairness	Tax system design should take account of horizontal and vertical equity. It is essential that the public trusts in the tax system. International equity should be considered for international components
Certainty and simplicity	Tax rules should not be arbitrary, but they have to be clear and simple to understand as the complexity of the taxation. There should be transparency and visibility in the design and tax rules implementation
Efficiency	Compliance and administration costs should be minimised and tax payment should be easy
Effectiveness	Tax system should collect the right amount of tax at the right time. Tax system should be dynamic, flexible and compatible with technological and commercial developments.
Neutrality	Tax system should not reduce the productive capacity of the economy. Business decisions should be motivated by economic rather than tax considerations. Neutrality of capital import and export should be considered.

Source: Authors based on Alley and Bentley (2005)

When it comes to optimal tax level, Mitra and Stern (2003) point out that appropriate tax structure can contribute to the efficiency and economic growth. Mankiw et al. (2009) define optimal taxation through the fact that adequately tax system is a precondition of maximising social welfare function. Because of that, it is necessary to determine adequate tax system and as Stiglitz (2008) says it has to

be *good*. It means a politically responsible and systematic system in a way that individuals can check what pay and evaluate how system reflects their preferences. Further, a fair system and approach to different individuals and an economically efficient system which manifests the proper allocation of resources. Finally, the tax system should be a flexible system in the function of timely reaction to changed economic circumstances.

2. Literature review

There are many studies that have examined the effect of taxes on economic growth (Helms, 1985; Myles, 2000; Folster and Henrekson, 2001; Lee and Gordon, 2005; Tosun and Abizadeh, 2005; Bania et al. 2007; Furceri and Karras, 2007; Reed, 2008; Romer and Romer, 2010; Gemmel et al. 2011; Arnold et al. 2011; Barro and Redlick, 2011; Ferde and Dahlby, 2012; Mertens and Ravn, 2013; Saqib et al. 2014; Gale et al. 2015; Ojong et al. 2016). Engen and Skinner (1996) found that 2.5% point increase in tax to GDP ratio decreases GDP growth by 0.2-0.3%. Similarly, Folster and Henrekson (2002) explored that 10% point increase in the tax burden of the gross domestic product reduces economic growth by 1%. In an analysis of OECD countries from 1980-1999, Tosun and Abizadeh (2005) find that personal income tax and property tax shares have a positive effect on economic growth compared to payroll tax and taxes on goods and services.

Using annual data for the period 1965-2007, Furceri and Karras (2009) researched the impact of the tax change on gross domestic product per capita in 26 OECD countries. The result show the increase in tax forms has a negative impact on an observed variable, where increasing the tax share of 1% in gross domestic product reduce gross domestic product per capita by 0.5%-1%. It has been confirmed that the personal income tax, corporate income tax, property tax, social security contributions and taxes on goods and services have a negative effect on gross domestic product per capita, whereby the impact of tax property is not statistically significant. Romer and Romer (2010) emphasise the negative effect of taxes on economic growth, where the tax on income and tax on profit are identified as most damaging to the economy. Also, in the empirical study of 17 OECD countries for the period 1970-2004, Gemmell et al. (2011) conclude that direct taxes are more damaging to economic growth, especially personal income tax and corporate income tax have a negative effect on economic growth in the long-run. Similarly, Macek (2014) find that corporate income tax, personal income tax and social security contributions had the greatest damage to the economic growth. Barro and Redlick (2011) explore how the decrease of marginal tax rate effect on gross domestic product per capita in the United States from 1912 to 2016 and find that cut in the average marginal tax rate of 1% raises gross domestic product per capita by around 0.5% in next year. Ferde and Dahlby (2012) examine the impact of the Canadian provincial government tax rates on economic growth in the period

1977-2006. Using panel analysis, they find that a higher corporate income tax rate is related to slower economic growth or that a 1% cut in the corporate tax rate is associated with a 0.1-0.2% increase in the yearly growth rate. Mertens and Ravn (2013) find that 1% cut in the average personal income tax rate leads to increase real gross domestic product per capita by 1.4% in the first quarter and by up to 1.8% after three-quarter. Also, the same decrease of average corporate income tax rate raises real gross domestic product per capita by 0.4% in the first quarter and by 0.6% after one year.

Ahmad et al. (2013) investigate the impact of taxes on economic growth in Pakistan. Using time series data for the period from 1976 to 2011, they found that taxes have a negative and significant impact on a gross domestic product which is used as a proxy for economic growth. Results reflect that 1% increase in taxes leads to 0.08% decline in gross domestic product. Saqib et al. (2014) examine the effect of taxes on macroeconomic determinants such as gross domestic product, investment and consumption in Pakistan from 1973 to 2010. Using the ARDL test, they show that an increase of tax's shares by 1% leads to a reduction of the real gross domestic product for 0.43%. Similarly, Li and Lin (2015) investigate the impact of sales tax on economic growth in the United States from 1960 to 2013 and estimate the long-run and short-run elastic coefficients of sales tax on growth. They find that economic growth responds negatively to sales tax in the long-run, although this tax form has positive effects in the short-run. Edame and Okoi (2014) examine the impact of taxation on economic growth and investment in Nigeria from 1980 to 2010. Findings manifest that personal income tax and corporate income tax have a negative and significant impact on the gross domestic product. Also, there is the negative and significant effect of corporate income tax on investment, while the personal income tax has a positive and significant impact on investment in Nigeria

Gale et al. (2015) showed that the effects of tax revenues on personal income growth differed between 1977 and 1991 when it was negative and between 1992 and 2006 when it was positive. Also, they concluded that state-level economic growth was not closely related to state-level tax policy, but on the other hand, they found that only property tax revenues were correlated with growth. Ojong et al. (2016) explain significant nexus between petroleum profit tax and non-oil revenue and economic growth, while on the other hand there is no significant relationship between corporate income tax and the growth of Nigeria. Using Ordinary Least Square of a regression method and Error Correction Method, Jones et al. (2015) researched the nexus between total revenues and economic growth in Nigeria for the period 1986-2012. Their findings revealed that total revenues have long and short run relationship with economic growth in Nigeria. Ahmad and Sial (2016) investigated the relationship between total tax revenues and economic growth in Pakistan from 1974 to 2010. Using Auto Regressive Distributed Lag bounds testing approach for cointegration, they find that total tax revenues have a negative and

significant effect on economic growth in long-run. Also, results show that 1% increase in total taxes, economic growth would decrease by 1.25%. On the other hand, Ofoegbu et al. (2016) analysed the impact of tax revenues on gross domestic product for the period 2005-2014 and explored the positive and significant effect of taxes on economic growth in Nigeria.

3. Methodology framework

For the purpose of this research, the authors used secondary data of OECD Revenue Statistics. How we find the impact of taxes on economic growth in the United States, the model is created which contains gross domestic product growth as a dependent variable, while tax revenue growth, personal income tax, corporate income tax and social security contributions are independent variables. Based on OECD, we define these variables in a next way:

- Gross domestic product is a monetary measure of the market value of final goods and services produced in one country for a year.
- Personal income tax is determined as the tax levied on the net income and capital gains of individuals;
- Corporate income tax is defined as taxes levied on the net profits and capital gains of enterprises;
- Social security contributions are compulsory payment paid to general government that confers entitlement to receive a future social benefit.

Table 2. Review of explanatory variables

Variable	Abbreviation	Calculation	Source
Gross domestic product	GDPgrowth	Annual growth rate	OECD
Tax revenue	TRgrowth	Annual growth rate	OECD
Personal income tax	PIT	Percentage share of GDP	OECD
Corporate income tax	CIT	Percentage share of GDP	OECD
Social security contributions	SSC	Percentage share of GDP	OECD

Source: Authors' illustration

Model can be presented as:

$$GDPgrowth_t = \beta_0 + \beta_1 TRgrowth_t + \beta_2 PIT_t + \beta_3 CIT_t + \beta_4 SOC_t \dots + e_t \quad (1)$$

where

GDP growth - gross domestic product growth rate

TR growth - tax revenue growth

PIT - personal income tax

CIT - corporate income tax

SSC - social security contributions

β_0 = the constant term;

β = the coefficient of the independent variables;

e = the error term of the equation

3.1. Diagnostic tests

To understand multicollinearity consider the next model (Asteriou and Hall, 2007):

$$Y = \beta_1 + \beta_2 X_2 + \beta_3 X_3 + \mu \quad (2)$$

where hypothetical values for X_2 and X_3 are below:

$$X'_2 = 1 \ 2 \ 3 \ 4 \ 5$$

$$X'_3 = 2 \ 4 \ 6 \ 8 \ 10 \quad (3)$$

We can see that $X_3 = 2X_2$ which means two variables are linearly dependent if one can be expressed as a linear function of the other variable.

The Breusch-Pagan test includes multiple regression model:

$$Y_t = \beta_1 + \beta_2 X_{2t} + \beta_3 X_{3t} + \dots + \beta_k X_{kt} + \mu_t \quad (4)$$

$H_0: \alpha = 0$, there is no heteroscedasticity

$H_a: \sigma^2_t = \alpha_1 + \alpha_2 X_{2t} + \dots + \alpha_k X_{kt} = x'_t \alpha$, variance is linear function of regressor

The Breusch-Godfrey LM test includes:

$$Y_t = \beta_1 + \beta_2 X_{2t} + \beta_3 X_{3t} + \dots + \beta_k X_{kt} + \rho_1 \mu_{t-1} + \rho_2 \mu_{t-2} + \dots + \rho_p \mu_{t-p} + \varepsilon_t \quad (5)$$

and therefore the null and the alternative hypothesis are:

$H_0: \rho_1 = \rho_2 = \dots = \rho_p = 0$ no autocorrelation

H_a : at least one of the ρ s is not zero, thus, serial correlation

4. Analysis of tax structure in the United States

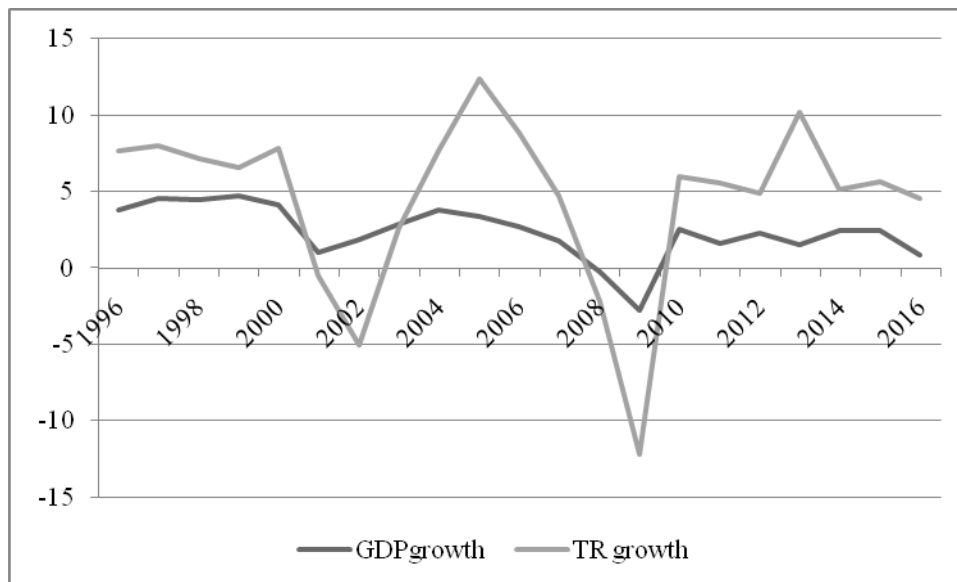
Over the last forty year, the tax system in the United States has become a less progressive. There were three main changes that reduced the progressivity of taxes. It recorded a decline in top marginal individual income tax rates from 91% to 28%, Second, a percentage share of corporate income tax in gross domestic product has

decreased by half, and third changes showed a substantial increase in payroll tax rates financing social security contributions (Piketty and Saez, 2007).

Gale and Samwick (2014) gave a short historical view of taxes in the United States where period from 1870 to 1912 was analysed and there was no income tax in the United States and tax revenues were around 3% of the gross domestic product. In the meantime, there existed the introduction of income and payroll taxes as well as corporate and estate taxes. Also, from 1947 to 2000, there was an increase of federal revenues share of GDP around 18%, which is the result of higher government spending and higher taxes.

Policy makers are interested how certain tax forms affect the economic growth, and this research is focused on this question or dilemma. The tax structure is an essential factor in the economy and in this paper the authors focus on tax revenue growth, personal income tax, corporate income tax and social security contributions and their effects on gross domestic product growth from 1996 to 2016. The broad objective of the research is to provide empirical evidence on the impact of taxes on the economic growth in the United States from 1996 to 2016. Before we show results of research, statistical analysis represents an introduction to the empirical approach of explanatory variables in observed period.

Figure 2. Gross domestic product and tax revenue growth in the United States from 1996 to 2016



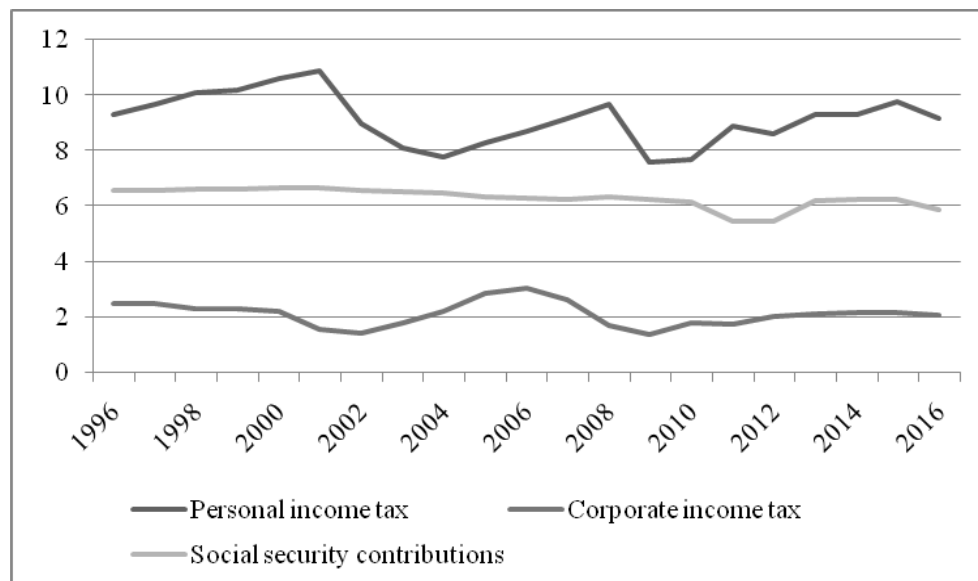
Source: Authors based on OECD

Based on Figure 2, we can see the growth of gross domestic product and tax revenue in the United States from 1996 to 2016. Looking at the whole period, the

average growth of these variables are 2.34% and 4.51%, while common characteristic is their highest decline of 2.78% and 12.1% in 2009 which is the result of global crisis escalation.

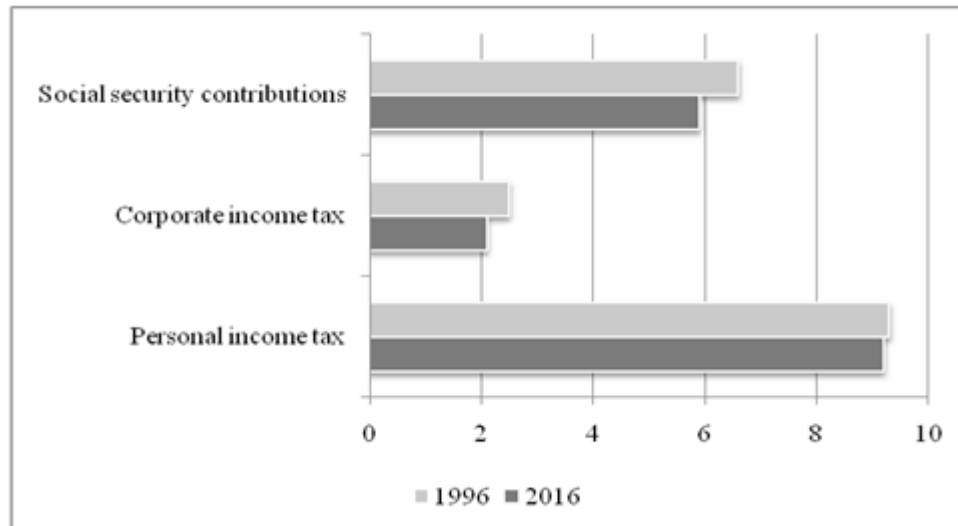
At the end of 2016, gross domestic product increased by 0.79% which is the smallest growth until 2010. On the other hand, in same year tax revenue growth was smaller for 1.1% compared to 2015.

Figure 3. Tax trends in the United States from 1996 to 2016



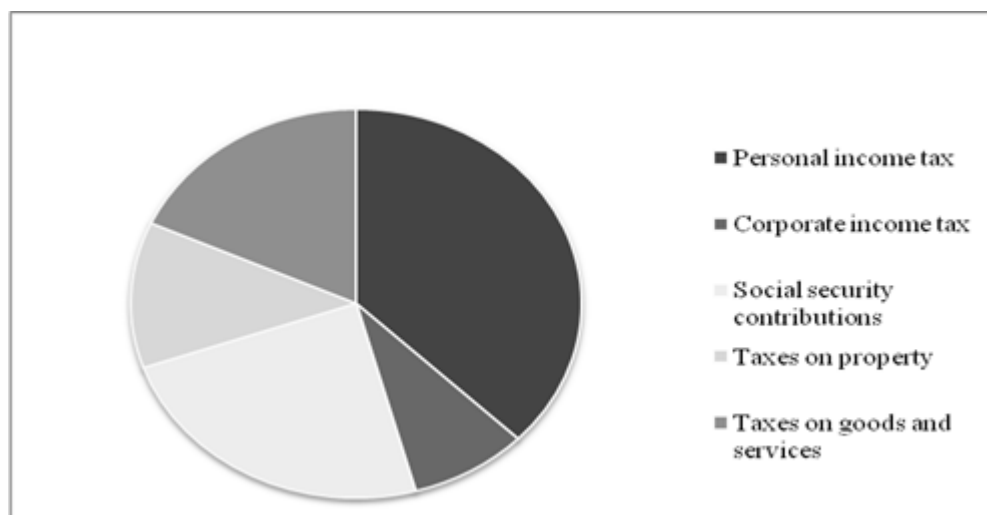
Source: Authors based on OECD

Figure 3 manifests that personal income tax has the highest percentage share of GDP compared to corporate income tax and social security contributions. The average percentage share of personal income tax is 9.14% of gross domestic product where the highest value of 10.9% was recorded in 2001. After that, in next four-year personal income tax decreased by 2.6% which is bigger decline compared to 2009. Further, the average growth of this tax was 8.93% from 2010 to 2015, while the decline is recorded in 2016 for 0.6%. Social security contribution is the second tax form in tax structure in the United States which average percentage share was 6.31%. A stable tendency of this tax and minor changes up to 2011 when percentage share dropped from 6.1% to 5.5% are presented. However, in three last year social security contributions had an average percentage share 6% of the gross domestic product. At least, the average percentage share of corporate income tax is 2.13% which is less for 0.97% than 2006 when it recorded the highest percentage share.

Figure 4. Tax changes in the United States from 1996 to 2016

Source: Authors based on OECD

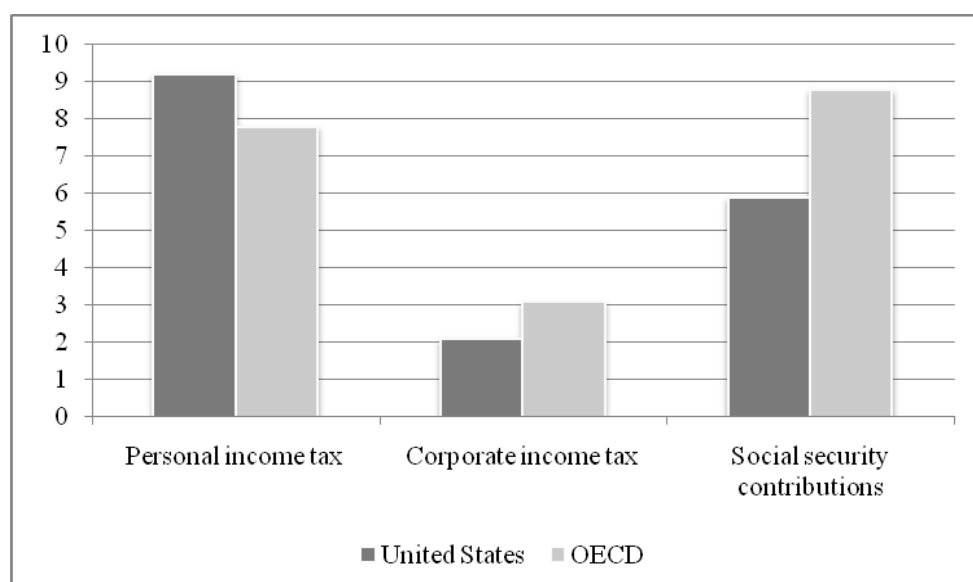
Next, we want to see if there are any substantial changes in the tax structure in the United States. Comparing the first year to 2016 of the observed period, there is a decline in the percentage share of all taxes in gross domestic product. The decreased trend is reflected by 0.7% at social security contributions, 0.4% at corporate income tax and 0.1% at personal income tax.

Figure 5. Tax structure in the United States in 2016

Source: OECD

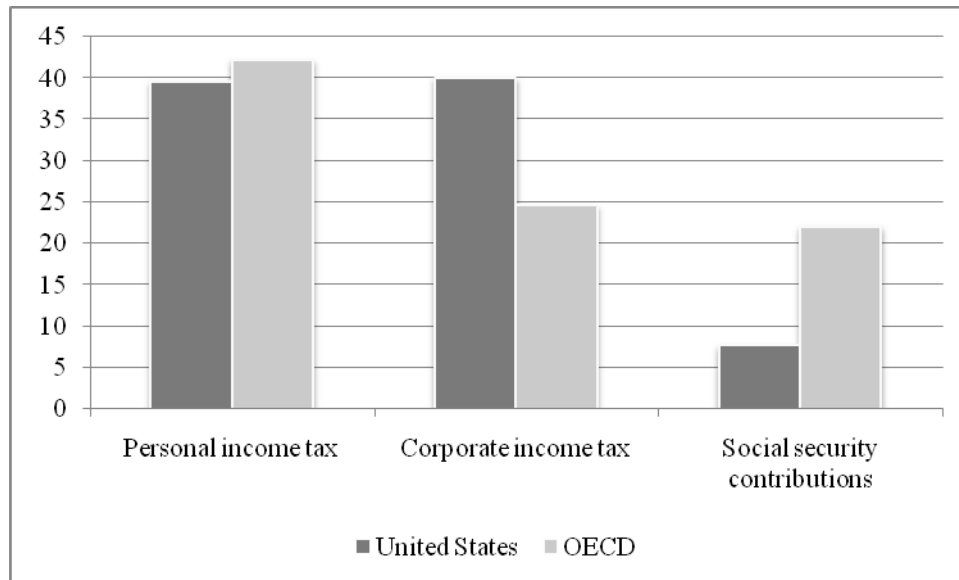
After we presented tax trends in the United States, it includes the tax structure in the US for 2016. As it can be seen, the share of personal income tax is 37.25% which means that more than a third of tax revenues come from this tax form. Social security contributions are the second tax form and they were on the level of 23.86%. Based on this analysis, it can be noted that these two tax forms make more than 50% of tax revenues in the United States. On the other hand, taxes on goods and services are 18.22%, with a need to bear in mind that all indirect taxes are included in the United States. Finally, corporate income tax and property tax are the least generous tax forms in the observed tax structure of the United States.

Figure 6. Comparative review of tax structure in the United States and OECD countries in 2016



Source: Authors based on OECD

Looking the tax structure and percentage share of gross domestic product in the United States, personal income tax, corporate income tax and social security contributions are one of the most important tax forms. If we analyse taxes in 2016, the tax structure was different compared to an average of OECD countries. Firstly, personal income tax's share was 9.2% in the US compared to an average share of 7.8% in the OECD. On the other hand, the share of corporate income tax and social security contributions is less than average share of OECD countries for 0.96% and 2.9%.

Figure 7. Comparative review of tax rates in the United States and OECD countries in 2016

Source: Authors based on OECD

If we compare tax rates in the United States and OECD countries, it can be noticed that personal income tax rate and social security contributions are less than average value in OECD countries. For example, in 2016 the average tax rate of personal income tax rate in OECD countries was 42.23% which is higher for 2.63% than in the United States. Also, social security contributions were less in the United States for 14.42%. On the other hand, the United States has the highest corporate tax income rate among the 35 industrialised nations of OECD, where in 2016 average tax rate was smaller for 15.6% compared to the United States.

5. Findings

One of the distribution channel's characteristics is taking or handing different activities among the partners within the channel. In that sense, retailers increasingly take over the role of wholesalers or even producers, in terms of packaging or performing final phase of the production process. The analysed retail chains are registered under the business activity code that indicates their primary activity, but this does not mean that they do not achieve income on other grounds (Radosavljević, Borisavljević, 2014). Retail chains could be able to realise some activities instead producers or wholesalers and achieve income on that basis. This could be great limitation in research of authors.

Bearing in mind that study includes analysis of tax impact on economic growth in the United States, the authors applied diagnostics tests and made adequate regression model with four independent variables such as tax revenue growth, personal income tax, corporate income tax and social security contributions. Firstly, descriptive statistics of explanatory variables in order to mean, standard deviation and minimum and maximum level of them are presented.

Table 3. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
GDPgrowth	21	2.33619	1.767101	-2.78	4.68
TRgrowth	21	4.5	5.536335	-12.2	12.3
PIT	21	9.142857	.9222643	7.6	10.9
CIT	21	2.133333	.4520325	1.4	3.1
SSC	21	6.309524	.338976	5.5	6.7

Source: Authors' calculation

Table 3 shows the relative value of gross domestic product growth, tax revenue growth, personal income tax, corporate income tax and social security contributions and their mean, standard deviation, minimum and maximum level. TRgrowth has the highest standard deviation of 5.536335 which means there are the highest variations at this variable compared to other.

Table 4. Test of multicollinearity

Variable	VIF	1/VIF
TRgrowth	2.69	0.371308
CIT	2.65	0.377139
SSC	1.24	0.805102
PIT	1.20	0.834580
Mean VIF	1.95	

Source: Authors' calculation

The authors used Variance Inflation Factor test for detect potential multicollinearity problem between independent variables in the model. As we can see mean VIF test value is 1.95 which is less than reference value 10 and there is no presence of multicollinearity.

Table 5. Correlation matrix

Variable	GDPgrowth	TRgrowth	PIT	CIT	SOC
GDPgrowth	1				
TRgrowth	0.7703*	1			
PIT	0.2750	0.1478	1		
CIT	0.5759*	0.7680*	0.0780	1	
SSC	0.3382	-0.0416	0.3441	0.1218	1

Source: Authors' calculation

Table 5 shows the correlation between GDP growth and tax components TR growth, PIT, CIT and SSC in the United States from 1996 to 2016. Results reflect the positive correlation between these variables, but there is an only significant correlation between TRgrowth, CIT and GDP growth. Particularly, the highest correlation is recorded between TR growth and GDP growth (0.7703) and CIT and GDP growth (0.5759). On the other hand, it is a very weak correlation between PIT and GDP growth (0.2750), where the value is below of reference value of 0.3. Based on results of the correlation matrix, we can notice that corporate income tax is essential for economic growth in the United States. Also, this tax is important for investment and the level of tax rates can be one of the reasons for economic decisions of investors. Likewise, more profitable companies and a higher level of investment can increase revenues of this tax form which influence to gross domestic product. In next table, we show that tax revenue growth significantly enhances gross domestic product growth in the United States in the observed period.

Table 6. Model estimation

Source	SS	Df	MS	Number of obs	21
Model	46.5001096	4	11.6250274	F(4, 16)	11.66
Residual	15.9527828	16	.997048924	Prob > F	0.0001
Total	62.4528924	20	3.12264462	R-squared	0.7446
				Adj R-squared	0.6807
				Root MSE	.99852
GDPgrowth	Coef.	Std. Err.	T	P> t	[95% Conf. Interval]
TRgrowth	.2954113	.0661841	4.46	0.000	.1551073 .4357153
PIT	.0331022	.2650049	0.12	0.902	-.5286832 .5948876

CIT	-.7200615	.8043091	-0.90	0.384	-2.425121	.9849976
SSC	2.049615	.7340893	2.79	0.013	.493414	3.605814
C	-10.69177	4.287697	-2.49	0.024	-19.78128	-1.602258
Durbin Watson test						2.099444
Breusch-Pagan/Cook-Weisbertest for heteroskedasticity						0.6365
Breusch-Godfrey LM test for autocorrelation						0.152
Ramsey Reset test						0.3365

Source: Authors' calculation

Based on the p-value of Diagnostic tests, the results show that the regression model is significant and correctly specified. We can conclude there is no problem of heteroscedasticity, autocorrelation and misspecification because the p-value of these tests is more than 0.05. Likewise, R-squared value highlights TR growth, PIT, CIT and SSC explain 74.46% of the variable GDP growth variations. An interesting fact is only corporate income tax that has a negative effect on gross domestic product compared to other taxes. TR growth and social security contribution significantly affect on GDP growth, while personal income tax and corporate income tax do not have a significant impact on economy measured by GDP growth.

5. Conclusion

In order to determine nexus between taxes and economic growth, the authors examined the impact of personal income tax, corporate income tax and social security contributions on economic growth in the United States from 1996 to 2016. Personal income tax and social security contributions are the most generous tax forms which make more than 50% of tax revenues in the United States. The average shares of personal income tax, corporate income tax and social security contributions are 9.14%, 2.13% and 6.3% in the observed period. The results highlight tax revenue growth and social security contributions have a significant impact on the economic growth. Precisely, the results show that 1% increase in tax revenue growth and social security contributions enhance the gross domestic product for 0.3% and 2.05%. Also, only corporate income tax has a negative effect on the gross domestic product, but it is not statistically significant. Other taxes do not have a negative effect on gross domestic product and it is the difference in relation to previous studies which examined the negative impact of personal income tax and social security contributions. Simultaneously, correlation reflects that tax revenue growth and corporate income tax are mostly associated to gross domestic product. These results can be valid by the fact the model is adequately set up and because all econometric procedures are accepted. Diagnostic test shows

proper model specification. The contribution of this paper enables better understanding the relationship between taxes and economic growth as well as an information support to policymakers about tax importance and their effects on economic growth in the United States. Likewise, the model gives an empirical contribution to previous studies and possibility to apply in various countries. Future research will include more tax forms and be expanded to OECD countries in order to compare and determine the potentially different impact of taxes on economic growth.

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OCENIVANJE UTICAJA PORESKIH OBLIKA NA EKONOMSKI RAST U SAD

Apstrakt: U istraživanju, autori obezbeđuju empirijski pristup poreza i ekonomskog rasta u SAD u periodu 1996-2016 godina. Osnovni cilj je istražiti kako porezi utiču na ekonomski rast. Predmet istraživanja jeste merenje uticaja rasta poreskih prihoda i poreskih oblika kao što su porez na dohodak građana, porez na dobit kompanija i doprinosi za socijalno osiguranje na bruto domaći proizvod kao meru ekonomskog rasta. Metodološki okvir uključuje nekoliko testova radi otkrivanja potencijalnog problema heteroskedastičnosti, autokorelacije, multikolinearnosti i specifikacije modela. Na osnovu dijagnostičkih testova, regresioni model je adekvatno kreiran, pri čemu su osnovne ekonometrijske procedure primenjene. Korelaciona matrica reflektuje snažnu i pozitivnu vezu između rasta poreskih prihoda i poreza na dobit kompanija s jedne strane i rasta bruto domaćeg proizvoda s druge strane. Takođe, porez na dohodak građana i doprinosi za socijalno osiguranje su slabo povezani sa rastom bruto domaćeg proizvoda. Model pokazuje značajan uticaj rasta poreskih prihoda i doprinosa za socijalno osiguranje, dok porez na dohodak građana i porez na dobit kompanija nemaju značajan uticaj na bruto domaći proizvod. Interesantno, porez na dohodak građana kao glavni poreski oblik u SAD nema značajan uticaj na ekonomski rast u odnosu na doprinose za socijalno osiguranje, čije procentualno učešće je daleko niže.

Ključne reči: porez, rast, dohodak, uticaj, SAD.

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