# OCHONI 1960

### ECONOMIC THEMES (2020) 58(3): 311-326



DOI 10.2478/ethemes-2020-0018

## THE IMPACT OF CORPORATE INCOME TAX ON GROSS DOMESTIC PRODUCT - THE CASE OF THE REPUBLIC OF SERBIA

### Jadranka Đurović Todorović

University of Niš, Faculty of Economics, Republic of Serbia

⊠ jadranka.djurovic@eknfak.ni.ac.rs

### Marina Đorđević

University of Niš, Faculty of Economics, Republic of Serbia

⊠ marina.dj@ptt.rs

### Marko Krstić

UDC 336.228:330.55 (497.11)

> Review paper

**Abstract:** The importance of certain tax forms for the economy of any country is confirmed by the fact that they can be used to impact on the achievement of fiscal aims as they play a significant role when it comes to their share in a total amount of public revenue of certain countries. Another important characteristic of taxes is that they can affect the trends of gross domestic product (GDP) as one of the most important economic indicators of achieved development of a national economy. It is for this reason that we must point out that the authors will pay special attention to determining the impact that corporate income tax has on trends of gross domestic product in the Republic of Serbia and their interdependency. This will provide an answer to a question whether corporate income taxes have a positive effect on gross domestic product trends and what is its relation with this indicator. On the basis of quantitative research, through the application of regression analysis, the authors will confirm or refute the hypothesis concerning this problem. Finally, we will reach a conclusion which will offer answers to questions related to the impact of this tax type tax on the gross domestic product trends, the extent of the impact and its nature - whether it has a positive or a negative effect on gross domestic product trends in the Republic of Serbia

Received: 29.03.2020 Accepted: 24.09.2020 **Keywords:** direct taxes, corporate income tax, gross domestic product, regression analysis, economic development, Republic of Serbia.

JEL classification: H25

#### 1. Introduction

Collection of taxes, which represents one of the basic sources of budget revenue, enables the fulfilment of tasks and functions of a particular state, which in turn, enables favourable conditions and opportunities for increasing social well-being and an increase of taxpayers' income. Having this in mind, the introduction of numerous tax forms is justified with the possibilities of achieving several aims on both macroeconomic and microeconomic level. The analysis of the research subject of this paper will focus on the macroeconomic level. Moreover, it is important to point out the fact that the very fiscal policy must be designed as a concordant combination of incentives and restrictive elements in order to achieve a macroeconomic stability.

Modern tax systems are characterised by a great number of tax forms, whereby it is necessary to broach the dominant role in the provision of fiscal revenues that sales tax (value added tax), tax on personal and corporate income and property tax have. The above mentioned taxes represent some of the most important tax forms in the tax classification system. The authors will pay special attention to corporate income tax due to the fact that the amount of collected revenues from this type of direct taxes is increasing each year in the Republic of Serbia, which will, by reason, be presented in this paper.

Namely, the subject of the analysis of this paper will be corporate income tax trends in the Republic of Serbia, together with their effect on gross domestic product as one of the most important indicators of economic growth; furthermore, the paper will analyse their interdependency using the method of regression analysis performed using SPSS. First part of the paper will present an overview of relevant literature on the example of selected states which stands to show its importance in the present moment. What will follow is a tabular interpretation of gross domestic product trends in a selected time period as well as the structure of corporate income tax in the Republic of Serbia. In this part of the paper we will provide an analysis of provided data (with the interpretation of the obtained results) using a descriptive statistics method. Empirical research will present the results which refer to individual impact of corporate income tax on gross domestic product in the Republic of Serbia. This will be achieved using the regression analysis method. In the final part of the paper, we will present other results and provide a detailed interpretation which will contain an answer to the question of the level of importance of this tax when it comes to promoting economic growth through its impact on gross domestic product as one of the most important indicators of this parameter in our country.

### 2. Literature review

Đurović-Todorović & Đorđević (2011) point out that one of the contributions of each form of tax used to raise certain funds is to enable undisturbed running of reproduction process which ultimately, has a great effect on gross domestic product trends, i.e. this substantially stimulates economic development. This is precisely why there should be a rule that countries which are at the same level of economic development should have a similar tax system structure, although it is necessary to stress that there are variances from this interpretation. (Đurović-Todorović & Đorđević, 2011)

The impact of taxation on economic growth and development is one of the least controversial areas in the theory of macroeconomics as there are several theoretical models which predict that lower taxes stimulate economic development. However, there is little evidence on exact mechanisms which stand in support to this claim. Abd Hakim et al., (2013) show that, in reality, lower tax rate does not stimulate growth and economic development in some countries. Moreover, one part of the previously mentioned research states that a higher amount of collected tax enables larger incomes which can be used to enhance education and life standard. Earlier research were focused on examining the effects of taxes on economic growth. However, recently published studies which dealt with the impact of tax structure and other economic indicators show a significant impact of taxes on only three economic indicators (those being gross domestic product, savings and investments), which is in line with the subject of this paper (Abd Hakim et al., 2013).

In 2017, Geetanjali & Venugopal conducted a research whose aim was to monitor the impact of direct taxes on gross domestic product. They performed an analysis of data for the period from 2010 to 2016 with the aim of evaluating the growth ratio between gross domestic product and direct taxes on the example of India. On the basis of conducted research, using econometric methods, they came to a conclusion that a drop in direct taxes in 2008 and 2009 had a direct impact on the growth of gross domestic product, while, in 2012-13, the share of these taxes in gross domestic product reached the amount of 5.48%. This rate has marginally increased in 2016 and 2017. The conclusion to the performed analysis stands in support to the idea that the collection of direct taxes has significant effect on gross domestic product, which indicates that more attention should be placed on prevention of tax evasion and enhancement of collection efficiency in general. (Geetanjali & Venugopal, 2017)

Besides the abovementioned research, many others can be cited, one of which refers to the research on heterogeneous effect of taxes on economic development using a cointegration approach. This research was condusted in 2018 and it was performed by Durusu-Ciftci, Gokmenoglu and Yetkinera. According to them, the results of the research for 30 OECD countries for the period of 1995-2016, show

that consumer tax alone has a statistically significant negative effect on long-term incomes. The research also shows that taxation has heterogenous effects on revenues. (Durusu-Ciftci et al., 2018)

Saqib et al. (2014), conducted a research on the effects of taxation on economic activity on the example of Pakistan. They found that there are negative effects of the tax and gross domestic product ratio, negative effects of investments income tax and negative effects of sales consumer tax within a household. Their conclusion was that the tax rates in Pakistan at that time should be revised since the surveyed tax system had negative effect on economic activity in that country (Saqib et al., 2014).

Harelimana (2018) also researched the role and the effect of taxation on the economic development on the example of Ruanda for the period from 2013 to 2016 using SPSS. The conducted analysis, using correlation coefficient (r) of 0,790 revealed that there is a significant relation between taxation and economic development of Ruanda. (Harelimana, 2018)

On the example of South Africa, the empirical results of the study conducted by Dladla and Khobaia (2018) confirmed the existence of a negative relation between taxes and economic growth in South Africa. The results of the study show that the economic growth, trade, capital and taxes cointegrate which leads to a conclusion that the fiscal policy is very important to achieve sustainable economic development in this country. (Dladla & Khobai, 2018)

Taking into account the numerous claims and conducted research which refer to quantification of tax impact on economic development on several examples what follows is an analysis of impact of corporate income tax on gross domestic product trends in the Republic of Serbia using the regression analysis method.

### 3. The analysis of impact of corporate income tax on gross domestic product trends on the example of the Republic of Serbia

#### 3.1. The econometric metodology and data

This part of the paper will present an example of application of regression analysis which will provide answers to questions related to the measure of impact of corporate income tax on gross domestic product trends on the example of the Republic of Serbia.

The regression analysis method is said to be the most commonly used method of analysis in statistical research. It is based on examining and quantitative presentation of relations between two or more variables, out of which one variable is dependent and the other variable is independent. The application of regression analysis has some benefits such as offering results which show whether an

independent variable in the model is in a significant relation with the dependent variable, i.e. what is the impact of one variable on the other. Moreover, besides its prediction capacity, method of regression analysis indicates the relative strength of impact of different independent variables on dependent variables. (Sarstedt & Mooi, 2014)

The regression model can be presented in the form of the following formula: (Sarstedt & Mooi, 2014: 195)

$$y = \alpha + \beta x + e \tag{1}$$

Where y stands for a dependent variable,  $\alpha$  is a constant (intercept), x stands for independent variable, while  $\beta$  indicates a coefficient of independent variable, e in the formula stands for statistical error. (Sarstedt & Mooi, 2014)

Following the presented model which will be used in the very research and which will be interpreted in the part of the paper dealing with the explanation of results obtained by applying the method of regression analysis, there is a tabular presentation of gross domestic product trends and the amounts of collected corporate income tax in the Republic of Serbia for the analysed time period.

Table 1. The amount of GDP in current prices in the Republic of Serbia and real GDP growth for the period from 2008 to 2018.

Year	Gross domestic product current prices (billions of dinars)	Gross domestic product real growth (in %)	
2008	2.908,4	5,7	
2009	3.052,1	-2,7	
2010	3.250,6	0,7	
2011	3.612,3	2,0	
2012	3.810,1	-0,7	
2013	4.121,2	2,9	
2014	4.160,5	-1,6	
2015	4.312,0	1,8	
2016	4.521,3	3,3	
2017	4.754,4	2,0	
2018	5.068,6	4,4	

Source: Adapted by the authors on the basis of data of Ministry of Finance of the Republic of Serbia, Osnovni indikatori makroekonomskih kretanja, 2019., retrieved from: https://www.mfin.gov.rs/UserFiles/File/tabele/2019/septembar/Tabela%201-Osnovni%20makroekonomski%20indikatori%202019.xlsx, accessed: 5 December 2019.

Based on the data from Table 1, we can observe a growing trend of gross domestic product in current prices in the Republic of Serbia for the period from 2008 to 2018 in billions of dinars; the lowest growth rate was recorded for 2014 in relation to 2013 in the amount of 39,3 billions of dinars, which can be seen in the table.

The second column in the table 1 presents the trend of real growth of gross domestic product of the Republic of Serbia (in %) for the period from 2008 to 2018. Here we can see that this variable had a negative value in 2009 when it was -2,7 and then, in 2012 when it was -0,7 and in 2014 when it was -1,6.

Coming after the tabular interpretation and explanations related to gross domestic product trends in current prices and real growth of gross domestic product in %, is the tabular presentation of trends of collected amounts of corporate income tax for the period from 2008. to 2018. Its impact on gross domestic product will be analysed in the following part of the paper. Moreover, Table 2 shows the share of corporate income tax in gross domestic product, share of corporate income tax in total incomes and share of corporate income tax in direct taxes (in %).

Table 2. The amount of corporate income tax in gross domestic product, in total incomes and direct taxes in the Republic of Serbia, 2008-2018.

		Share of	Share of	Share of
		corporate	corporate	corporate
	Camanata in a ama taw	income tax in	income tax in	income tax in
Year	Corporate income tax	income tax in		
	(millions of dinars)	gross	total incomes	direct taxes (in
		domestic	(in %)	%)
		product (in %)		
2008	34.968,051	1,20	5,37	31,89
2009	29.494,848	0,97	4,50	29,26
2010	29.891,886	0,92	4,20	29,87
2011	34.208,459	0,95	4,59	32,74
2012	48.802,809	1,28	6,19	51,24
2013	53.213,975	1,29	6,55	55,09
2014	63.790,644	1,53	7,24	58,73
2015	56.960,679	1,32	6,01	55,96
2016	74.239,162	1,64	7,13	60,89
2017	103.319,290	2,17	9,23	65,03
2018	102.212,000	2,02	8,67	63,32

Source: Adapted by the authors on the basis of data of Ministry of Finance of the Republic of Serbia, *Primanja i izdaci budžeta Republike Srbije od 2008. do 2019. godine, prema Zakonu o budžetu, 4.11.2019.*, retrieved from:

https://www.mfin.gov.rs/UserFiles/File/tabele/2019/septembar/Tabela%202%20Budzet.xlsx, accessed: 5 December 2019.

On the basis of data presented in Table 2, we can observe that the amount of collected tax had a growing trend with minor fluctuations in form of declines of the amount in certain year in relation to previous ones. Thus, the amount of collected taxes decreased in 2009 in relation to 2008. In 2015 in relation to 2014 and to a lesser extent in 2018 compared to 2017. When looking at the share of corporate income tax in gross domestic product, the share of corporate income tax in total

incomes and share of corporate income tax in direct taxes (in %), one can perceive a growing trend of all indicators in the observed time period. Hence, the share of corporate income tax ranged from 0,92% (in 2010), which represents the lowest amount of share in the analysed period, to 2,17% (in 2017) It is therefore clear that the amount of all indicators decreased in 2009 due to the economic crisis, while, during the following years, it increased with some drops and oscillations. The share of corporate income tax in total incomes ranged from 5,37% in 2008, to 8,67% in 2018, which is a significant growth. However, the share of corporate income tax in direct taxes ranged from 31,89% in 2008, to 63,32% in 2018.

If we compared with the amount of collected corporate income taxes in 2008, we would notice an extremely high growth of this amount. On account of this, what follows is a regression analysis performed with SPSS with the aim of analysing the impact of corporate income taxes on gross domestic product in the Republic of Serbia whose amount also grew in the observed time period.

For the sake of comparability of data and proper execution of regression analysis, the authors selected the identical period for values which are the subject of the analysis and which refer to the amount of gross domestic product and collected corporate income taxes for the time period from 2008 to 2018 in the Republic of Serbia (data given in million of dinars).

In the next section, the authors will present the graphical and tabular interpretations of the results of empirical research using the method of regression analysis and SPSS, as well as a detailed explanation of obtained values.

### 3.2. Results of the empirical research using the method of regression analysis

After explaining the model which will be used with the analysis of relation and impact of corporate income taxes on gross domestic product trends in the observed period, we will present a regression analysis which will contain a quantitative presentation of obtained results using SPSS (with their detailed interpretation); furthermore, the paper offers a graphical interpretation of obtained results in the form of scatter diagrams.

The first part of the analysis contains a representation of results which refer to descriptive statistics where we can observe mean values and standard deviations for gross domestic product and corporate income tax in millions of dinars for the observed time period from 2008 to 2018, as well as the number of observations n (value 11) for both variables (as shown in Table 3).

**Table 3. Descriptive Statistics** 

	Mean	Std. Deviation	N
Gross domestic product, current prices (mil. dinars)	3960727,5909	702958,93397	11
Corporate income tax (mil. dinars)	57372,8918	26662,98353	11

Source: Authors

**Table 4. Correlations** 

		Gross domestic product, current prices (mil. dinars)	Corporate income tax (mil. dinars)
Pearson Correlation	Gross domestic product, current prices (mil. dinars)	1,000	,927
	Corporate income tax (mil. dinars)	,927	1,000
Sig. (1-tailed)	Gross domestic product, current prices (mil. dinars)		,000
	Corporate income tax (mil. dinars)	,000	
N	Gross domestic product, current prices (mil. dinars)	11	11
	Corporate income tax (mil. dinars)	11	11

Source: Authors

The following section provides an explanation of the correlation between two examined variables, gross domestic product and corporate income tax. The value of correlation can range from -1, which represents a perfect negative correlation, up to 1 which represents a perfect positive correlation between two variables. According to obtained values in the conducted research, we can identify a correlation between gross domestic product and corporate income tax in the value of ,927, which is a statistically significant correlation between two variables and it has a positive value which means that there is a positive correlation between the examined variables. This means that an increase in one variable will affect a value increase in the other variable as well. In this particular research, this would mean that an increase in

corporate income tax would result in an increase in gross domestic product in the Republic of Serbia for the observed time period.

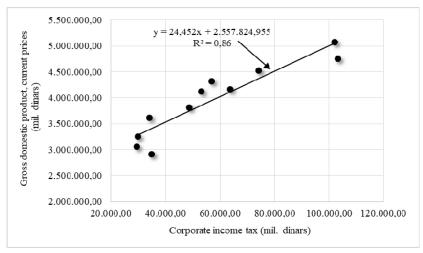
The model used in this research explains 84,5% of total variance of gross domestic product, while the very model, as a whole, has a statistically significant predictive power (Sig. 0.000) which can be seen in table 5 in Model Summary column.

Change Statistics R Std. Error of R Square df df Sig. F Adjusted 2 R Square the Estimate Model R Square Change Change Change 277053,08701 ,927a ,860 ,845 55,377 9 ,000 ,860

Table 5. Model Summary<sup>b</sup>

Source: Authors

The following section will, after the graphical representation of scatter diagram and Table 6, present a detailed interpretation of presented quantitative data obtained from regression analysis.



Graph 1. Scatter diagram

Source: Authors

a. Predictors: (Constant), Corporate income tax (mil. dinars)

b. Dependent Variable: Gross domestic product, current prices (mil. dinars)

	Unstandardized Coefficients		Standardized Coefficients			95,0% Confid for	dence Interval B
Model	В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1 (Constant)	2557824,878	206199,928		12,405	,000	2091368,233	3024281,522
Corporate income tax (mil. dinars)	24,452	3,286	,927	7,442	,000	17,019	31,886

Table 6. Coefficients<sup>a</sup>

a. Dependent Variable: Gross domestic product, current prices (mil. dinars)

Source: Authors

Based on the scatter diagram and Table 6 titled Coefficients (obtained from data analysis in SPSS), we can observe that an increase in corporate income tax will have a positive effect on the growth of gross domestic product and having in mind that the linear trend line has a rising inclination, it can be concluded that there is a positive relatio between the dependent and independent variable (in this case, between gross domestic product shown on y axis and corporate income tax shown on x axis). Dots stand for observations as a ratio between two variables whose distance from regression line represents statistical error. Based on the regression analysis we actualized a formula y = 24,452x + 2.557.824, where  $\alpha$ stands for the constant (intercept) in the value of 2.557.824 and points to the value that the dependant variable would have if all independent variables would be equal to zero. x represents an independent variable, while coefficient  $\beta$  is 24,452 and it has positive value which shows that this is a regression line with a upward rising value. This coefficient implies that the value of gross domestic product will increase for 24,452 if the value of corporate income tax increases by one, whereby the data in the provided example are presented in millions of dinars. R<sup>2</sup> or R Square represent a coefficient of determination i.e. an indicator of quality of regression whose value is 0,86 which implies that 86% of gross domestic product variability is explained by the regression line or regression of gross domestic product and corporate income tax. Moreover, it points to the fact that this model has a great significance knowing that this is a high value of coefficient of determination.

The last section of this paper contains a tabular presentation of quantitative data (entitled Anova) obtained through regression analysis performed in SPSS. The table presents amounts for sum of squares and mean square for regression and residual.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4250686911331,924	1	4250686911331,924	55,377	,000b
	Residual	690825717195,766	9	76758413021,752		
	Total	4941512628527,689	10			

Table 7. ANOVA<sup>a</sup>

- a. Dependent Variable: Gross domestic product, current prices (mil. dinars)
- b. Predictors: (Constant), Corporate income tax (mil. dinars)

Source: Authors

An overview of previous table, particularly of the column Sig., can show the significance of the model which demonstrates that the corporate income tax affects the values of gross domestic product. Namely, column Sig. represents the value of model significance (p-value) where in this particular case, the value is ,000 and is less than the value of alpha (,05) which proves that the model has great significance. From all the above stated, we can conclude that the values obtained from the analysis point to a high level of impact of corporate income tax on gross domestic product in the Republic of Serbia.

### 4. Conclusion

The tax system has a significant role in achieving equality and preservation of social and economic welfare in any country. This paper focused on the analysis of impact that certain types of taxes have on trends of gross domestic product on the example of the Republic of Serbia. Namely, a steady increase of gross domestic product is one of the most important aims of each country. On the other hand, there exists a general opinion that taxes have a negative impact on economic growth and thus economic development. It is precisely due to this that the main tax forms have to be identified and it is important to optimize their tax structure which can lead to an increase in economic development in the form of increased gross domestic product. This very thing has been achieved and proven within the framework of performed analysis in this paper. When it comes to optimal level of taxes, it is necessary to stress that adequate tax structure can contribute to economic development, where an adequate tax system is one of the basic preconditions for achieving this goal. Moreover, tax system should be a flexible one and it should enable timely reactions to dynamic economic circumstances. (Kalaš et al., 2017)

Based on the conducted research, it can be concluded that an increase in corporate income tax has a positive effect on the growth of gross domestic product since the linear trend line has a rising inclination. This means that there is a positive relation between the dependent and independent variable, in this case

between gross domestic product and corporate income tax and this is further confirmed with the positive value of  $\beta$  coefficient. This coefficient also indicates that the value of gross domestic product will increase for its value if the value of corporate income tax in increase by one.

On the basis of the performed research and obtained values, it can be observed that a correlation between gross domestic product and corporate income tax whose value is ,927 which is a statistically significant positive correlation between observed variables. This means that if one of the variables increases, the other will increase as well. In this particular research, this means that an increase in corporate income tax causes an increase in gross domestic product in the Republic of Serbia for the observed time period.

Based on the value of Adjusted R Square which is 84,5% it can be concluded that 84,5% of variance of gross domestic product can be explained by independent variable (in this case corporate income tax) and value of model significance (p-value) which is ,000. This suggest that the model has a great significance, which finally leads to a conclusion that policy makers in our country should focus their attention on collecting greater amount of income from this type of tax through strengthening of private sector and an increase in number of private entities as well as through an increase in the tax collection efficiency.

### References

- Abd Hakim, T., Bujang, I. & Ahmad, I. (2013). Tax structure and economic indicators in the modern era: Developing vs. high-income OECD countries. *International Conference on Economics and Business Research 2013 (ICEBR 2013)* retrieved from:https://www.researchgate.net/publication/261098442\_Tax\_structure\_and\_economic\_indicators\_in\_the\_modern\_era\_Developing\_vs\_high-income\_OECD\_countries, accessed: 01. December 2019.
- Bâzgan, R. M. (2018). The impact of direct and indirect taxes on economic growth: An empirical analysis related to Romania, *Proceedings of the International Conference on Business Excellence*, Vol 12, Iss 1, Pp 114-127 (2018) retrieved from: https://content.sciendo.com/view/journals/picbe/12/1/article-p114.xml, accessed: 20. November 2019.
- Bizņa, V., Juruš, M., Laizāns, T., & Šnikvalds, R. (2018). Assessment of impact of corporate income tax suspension on financial performance of businesses. *Economics and Business*. 2018, 32, 172–181., retrieved from: https://www.researchgate.net/publication/328537134\_Assessment\_of\_Impact\_of\_Corporate\_Income\_Tax\_Suspension\_on\_Financial\_Performance\_of\_Businesses, accessed: 27. November 2019.
- Dladla, K. & Khobai, H. (2018). The impact of Taxation on Economic Growth in South Africa. Munich: Personal RePEc Archive retrieved from: https://mpra.ub.unimuenchen.de/86219/1/MPRA paper 86219.pdf, accessed: 09. November 2019.
- Durusu-Ciftci, D., Gokmenoglu, K. & Yetkiner, H. (2018). The heterogeneous impact of taxation on economic development: New insights from a panel cointegration approach.

- Economic Systems, Volume 42, Issue 3, September 2018, Pages 503-513., retrieved from: https://ezproxy.nb.rs:2055/science/article/pii/S0939362518303182, accessed: 05. November 2019.
- Đurović-Todorović, J., Jovanović, M. & Krstić, B. (2007). *Monetarni i fiskalni menadžment*. Niš: Ekonomski fakultet.
- Đurović-Todorović, J. & Đorđević, M. (2010). Javne finansije. Niš: Ekonomski fakultet.
- Đurović-Todorović, J. & Đorđević, M. (2011). Direktni porezi. Niš: Ekonomski fakultet.
- Đurović-Todorović, J. & Đorđević, M. (2013). Porezi na potrošnju. Niš: Ekonomski fakultet.
- Đurović-Todorović, J., Đorđević, M. & Ristić, M. (2019). Struktura savremenih poreskih sistema. Niš: Ekonomski fakultet.
- Edame, G. E. & Okoi, W. W. (2014). The Impact of Taxation on Investment and Economic Development in Nigeria. *Academic Journal of Interdisciplinary Studies MCSER Publishing, Rome-Italy,* Vol 3 No 4 July 2014., retrieved from: http://www.mcser.org/journal/index.php/ajis/article/view/3091/3047, accessed: 27. September 2019.
- Geetanjali, J. & Venugopal, P. (2017). Impact of Direct Taxes on GDP: A Study, *Journal of Business and Management* (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668 PP 21-27., retrieved from: http://www.iosrjournals.org/iosr-jbm/papers/Conf.17037-2017/Volume-6/5.%2021-27.pdf, accessed: 08. November 2019.
- Harelimana, J. B. (2018). The role of taxation on resilient economy and development of Rwanda. J Fin Mark. 2018;2(1) 28-39., retrieved from: https://www.alliedacademies.org/articles/the-role-of-taxation-on-resilient-economyand-development-of-rwanda.pdf, accessed: 26. September 2019.
- Johansson, Å., Heady, C., Arnold, J., Brys, B. & Vartia, L. (2018). Tax and economic growth.
  OECD Economics Department and the OECD Centre for Tax Policy and Administration (CTPA)., retrieved from: https://www.oecd.org/mena/competitiveness/41997578.pdf, accessed: 20. September 2019
- Kalaš, B., Mirović, V. & Andrašić, J. (2017). Estimating the impact of taxes on the economic growth in the United States. *ECONOMIC THEMES* (2017) *55*(4) 481-499., retrieved from:
  - https://www.researchgate.net/publication/322719218\_Estimating\_the\_Impact\_of\_Tax es on the Economic Growth in the United States, accessed: 23. November 2019.
- Mary, O., Martins, O., Mercy, O., Stephen, A. & Adetoyinbo, A. (2017). Impact of Direct and Indirect Tax on the Nigerian Economic Growth. *Binus Business Review*, 8(3), November 2017, 215-220., DOI: 10.21512/bbr.v8i3.3621., retrieved from: https://www.researchgate.net/publication/323485389\_Impact\_of\_Direct\_and\_Indirect Tax on the Nigerian Economic Growth, accessed: 30. September 2019.
- Ministry of Finance of the Republic of Serbia. (2019a). *Osnovni indikatori makroekonomskih kretanja*. retrieved from: https://www.mfin.gov.rs/UserFiles/File/tabele/2019/septembar/Tabela%201-Osnovni%20makroekonomski%20indikatori%202019.xlsx, accessed: 05. December 2019.
- Ministry of Finance of the Republic of Serbia. (2019b). *Primanja i izdaci budžeta Republike Srbije od 2008. do 2019. godine, prema Zakonu o budžetu, 4.11.2019.*, retrieved from: https://www.mfin.gov.rs/UserFiles/File/tabele/2019/septembar/Tabela%202%20Budze t.xlsx, accessed: 05. December 2019.

- Mosteanu, R. N. (2015). Implication of fiscal policy for the Romanian economy during 2000–2015. *Ecoforum ECOFORUM* Volume 4 Special Issue 1, 2015., retrieved from: http://www.ecoforumjournal.ro/index.php/eco/article/download/186/143, accessed: 24. September 2019.
- Oyewo, M. (2013). Taxation and Tax policy as government strategy tools for Economic development in Nigeria. *Journal of Business and Management* (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume, Issue 5 (Sep. Oct. 2013), PP 34-40., retrieved from: https://www.researchgate.net/publication/273937470\_Taxation\_and\_Tax\_policy\_as\_g overnment\_strategy\_tools\_for\_Economic\_development\_in\_Nigeria, accessed: 26. September 2019.
- Pramod, K. P. (2017). The Impact of Indian Taxation system on its Economic Growth, Scientific Society of Advanced Research and Social Change SSARSC International Journal of Management Volume, Issue 1, January-June 2017, ISSN 2349-6975, Retrieved from: http://www.ssarsc.org/documents/2management\_final\_article24\_4\_17.pdf, accessed: 11. November 2019.
- Rawlings, J., Pantula, S. & Dickey, D. (1998). *Applied Regression Analysis*, New York: Springer-Verlag New York, Inc. retrieved from: http://web.nchu.edu.tw/~numerical/course1012/ra/Applied\_Regression\_Analysis\_A\_R esearch Tool.pdf, accessed: 28. November 2019.
- Saqib, S., Ali T., Faraz, R. M., Anwar, S. & Aslam, A. (2014). Taxation Effects on Economic Activity in Pakistan. *Journal of Finance and Economics*, 2014, Vol., No. 6, 215-219., retrieved from: https://www.researchgate.net/publication/286174499\_Taxation\_Effects\_on\_Economic Activity in Pakistan, accessed: 04. November 2019.
- Sarstedt, M. & Mooi, E. (2014). A Concise Guide to Market Research The Process, Data, and Methods Using IBM SPSS Statistics, Berlin: Springer-Verlag Berlin Heidelberg, retrieved from: https://www.researchgate.net/publication/300403700\_Regression\_Analysis, accessed: 27. November 2019.
- Stoilova, D. & Patonov, N. (2013).An empirical evidence the impact of taxation on economy growth in the European Union. Tourism Management Studies; 2013 Special Issue, Vol. 3, p1031-1039 retrieved from: https://www.researchgate.net/publication/276920184 An Empirical Evidence for th e Impact of Taxation on Economy Growth in the European Union, accessed: 25. September 2019.
- Stoilova, D. (2017). Tax structure and economic growth: Evidence from the European Union. *Contaduria y Administración*, Volume, Issue 3, July–September 2017, Pages 1041-1057., retrieved from: https://www.sciencedirect.com/science/article/pii/S0186104217300438, accessed: 10. November 2019.

### ANALIZA UTICAJA POREZA NA DOBIT PRAVNIH LICA NA BRUTO DOMAĆI PROIZVOD NA PRIMERU REPUBLIKE SRBIJE

Apstrakt: O tome koliki značaj za privredu jedne zemlje imaju određeni poreski oblici svedoči činjenica da se njima može uticati na ostvarivanje fiskalnih ciljeva jer zauzimaju najznačajnije mesto kada je u pitanju njihovo učešće u ukupnom iznosu javnih prihoda određenih zemalja. Jedna od takođe bitnih karakteristika poreza jeste ta što se njime može uticati na kretanje visine bruto domaćeg proizvoda (BDP), kao jednog od najznačajnijih ekonomskih pokazatelja dostignutog razvoja jedne nacionalne ekonomije. Iz tog razloga neophodno je istaći da će posebna pažnja u samom radu biti usmerena ka određivanju uticaja koji porez na dobit pravnih lica ima na kretanje bruto domaćeg proizvoda u Republici Srbiji, ali i njihove međuzavisnosti. Time će se dati odgovor na pitanje da li porezi na dobit pravnih lica pozitivno utiču na kretanje bruto domaćeg proizvoda, i u kakvoj su međuzavisnosti sa ovim pokazateljem. Na osnovu kvantitativnih istraživanja, i to primenom regresione analize, biće potvrđene ili opovrgnute hipoteze koje se tiču ove problematike. Kao krajnji rezultat doći će se do zaključaka koji će pružiti odgovore na pitanja koja se odnose na to da li ova vrsta poreza ima uticaj na kretanje bruto domaćeg proizvoda, koliki je taj uticaj, i da li pozitivno ili negativno deluju na kretanje bruto domaćeg proizvoda u Republici Srbiji.

Ključne reči: Direktni porezi, porez na dobit pravnih lica, bruto domaći proizvod, regresiona analiza, privredni razvoj, Republika Srbija.

### Authors biographies

Jadranka Đurović Todorović has been Full Professor at the Faculty of Economics, University of Niš since 2012. Her fields of interest are monetary economics and public finance. She teaches at all three levels of study. She is a winner of the Silver Sign of University of Niš, as the best graduate student in 1992 and and the October Award of the City of Leskovac for Finance in 2015. She is a reviewer in numerous journals and an author of 4 books and 3 monographs. She has been a participant of many domestic and international projects in field of economics and she is the author of more than 140 scientific articles published in domestic and international journals and thematic collections of papers from international and domestic scientific conferences.

Marina Đorđević is Full Professor at the Faculty of Economics, University of Niš. She teaches Monetary and Public Finance. She earned her Master's degree and doctorate degree from the Faculty of Economics in Niš in 2002 and 2009, respectively. She has published a number of papers in scientific journals and has participated in national and international conferences in the country and abroad. She has participated in projects of the Faculty of Economics in Nis and the Ministry of Science, Republic of Serbia.

Marko Krstić has been working as a teaching assistant at Higher Business School of Professional Studies in Leskovac since 2014. He received a BSc and MSc degree in economics from the Faculty of Economics, University of Niš, Serbia in 2011 and 2013, respectively. Marko is currently a PhD student at Faculty of Economics, University of Niš. He is the (co)author on over 15 scientific papers published in proceedings and thematic collections of papers from international and domestic scientific conferences. Also, he is the (co)author of a textbook published within the framework of an international Tempus project. His areas of interest include public finance, theory of economic development, banking, insurance, risk management.