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C EFFICIENCY RATIO AS A MEASURE OF VAT EFFICIENCY IN EU DEVELOPING COUNTRIES AND SERBIA

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Abstract: *The policy led by a large number of developing countries, with the aim of increasing indirect taxes, has opened the issue of Value Added Tax (VAT) efficiency. Reforms of tax systems of developing countries generally involve an increase in standard rates in order to increase VAT, which is the main source of public revenues. In such a way, developing countries determine the VAT efficiency and the amount of revenue that could be collected by indirect taxation.*

The article sums up works of different scientists, dealing with the impact of determinants on VAT efficiency. The subject of this paper is an analysis of the factors that influence the C efficiency ratio. The main objective of the paper is to analyze the impact of the change in the standard rate on the ratio. Theoretical analyses of standard rates and other factors that have reflections on the VAT collection efficiency explicitly prove that there are different ways to improve the efficiency of VAT collection, and exclude an increase in the standard rate. An increase in the standard rate provides a balance of negative effects, which can be blurred by recorded tax revenues. We focused on the countries of the European Union: Bulgaria, Czech Republic, Estonia, Greece, Croatia, Latvia,

Hungary, Poland, Romania, Slovakia, Slovenia, Lithuania during the 2000-2016 period. These countries experienced significant changes in government during economic transformation, and where VAT is the main source of public revenues. The last section analyzes an increase in VAT rate and C efficiency ratio in Serbia and contains conclusions.

The paper indicates the imperfection of inadequately defined VAT rates on economic growth and development in analyzed countries. Based on analyses we can conclude that the increase in the standard rate has negative reflections on the VAT efficiency, and that it was one of the factors of the continuous decline in C-efficiency.

Key words: *C efficiency ratio, VAT, VAT rate, developing countries, Serbia*

1. INTRODUCTION

Apodictically, every state budget contains government revenue and expenditure, and its primary aim is to finance public goods and services. On the other hand, every state budget affects the economic development of a country.

Because of these facts, it is very important to determine efficiency of the main elements of the tax system. One of these elements are taxes.

The main source of public revenues in developing countries is value added tax (VAT). The lucrative nature of VAT has led to the extension of this tax and its application today in more than 150 countries. Observed in the role of providing as much public revenue as possible, its process of introduction is characterized as the most significant and most dramatic in tax policy in the late twentieth century (Ebrill, Keen, Bodin & Summers, 2002). Retrospectively, VAT appeared when the conservative approach to taxation policy did not yield the best results. Further reliance on a large number of tax rates, which were characteristic for previously applied sales tax, represented an inefficient tax policy.

For this reason, and with the aim of improving macroeconomic stability, most developing countries, started applying VAT in their tax systems. However, in developing countries, it is politically very difficult to use the maximum capacity of this form of tax. The reason for this is the coherence of the new tax form with the existing ones, as well as the inability to effectively charge VAT. "Value added tax is most effective when the standard rate is applied to all products and services, which enables the lowest administrative costs and no additional harmonization are required" (Đurović-Todorović & Đorđević, 2013, p. 90), but that is not possible in developing countries.

Developing countries apply differentiated tax rates. Products belonging to basic foodstuffs are taxed with lower rates of taxation.

The problem of VAT performance was dealt with by numerous theorists, and today numerous empirical research on the topic can be found, primarily due to the fact that VAT is a key component of tax systems around the world (Ebrill, Keen & Perry, 2001) and that, in comparison with other forms of tax, this form of tax makes the biggest share of tax revenues in the state budget (Bikas & Anduskaite, 2013, p. 41). Developing countries tend to reduce the entry threshold in the tax system, although the low threshold, in several countries, is listed as one of the weaknesses of VAT. The empirical evidence for this conclusion is undoubtedly Ghana, a country that had a failure with introducing VAT for this reason, in 1995.

The subject of this paper is an theoretical analysis of the factors that influence the C efficiency ratio. The main objective of the paper is to analyze the negative reflections that the increase in the

standard rate can have on the efficiency of VAT collection in EU developing countries and Serbia. By analyzing the factors that influence the efficiency of this form of tax, we will point out the importance of the adequately defined tax policy for economic growth and development.

2. Review of literature

In his research, the famous economist Keen states that "even after 50 years of experience with VAT and 50 years of tendency towards a better understanding of the principles on which VAT should rest, there is so much that is unknown about this tax" (Keen, 2007, p. 18).

In order to increase the volume of this form of taxation, numerous theoretical studies are supported by empirical data of the countries in which this tax is implemented. Bogetić and Hassan (1993) examined the key determinants of VAT using statistics from 34 countries. They analyzed the relationship between VAT performance and the VAT rate, tax base and determinant that represents the difference between the highest and lowest VAT rates. The analysis involved 20 countries with a single tax rate and 14 countries that applied multiple VAT rates in their tax policies.

The results of their regression analysis, based on OLS techniques, confirm the impact of the tax rate and tax base on the performance of VAT. Income from value added tax increases with the expansion of the tax base. Empirical data also prove that tax revenue is higher in countries that apply a single rate than in multi-country countries. The model they received is relevant for predicting the potential of VAT in countries that are considering the introduction of a single tax rate, like Bulgaria, for example.

Smith, Islam and Moniruzzaman (2011) pointed out the complexity of the VAT regime, which is difficult to administer in developed countries, and especially in developing countries, such as Bangladesh. In their work, the group of authors emphasizes that Bangladesh, among other things, must conduct a policy of reducing tax rates, in order to improve VAT collection efficiency. Grandcolas (2005) empirically examined the phenomenon of value added tax in the Pacific countries which successfully implemented the VAT system.

Author concludes that there is a need for a strong political commitment, a detailed tax implementation plan with potential barriers, and that it is necessary to provide basic resources for the implementation of VAT, so that this tax can be successfully charged. Ebrill, Keen, Bodin and Summers (2002) observed the traditional coefficient, the C-efficiency ratio, and found the

factors that were in a positive correlation with this coefficient. The results of their research bolded the importance of trade and GDP correlation, high literacy rate and the length of VAT application in one country. Therefore, when these factors are at a high level, C-efficiency ratio, as an indicator of VAT performance, will also be high. The results of the survey conducted by Keen (2007) showed that the standard VAT rate is a factor that can have a capital impact on the efficiency of this form of tax collection. Legeida & Sologoub (2003) observed the efficiency of fiscal policy in Ukraine.

For this purpose, the authors developed the appropriate ARIMA model for forecasting VAT revenues in the short term, using the econometric method. The authors took the factors that determine the efficiency of VAT collection as a starting point for this research. The results of their research showed that VAT performance depends on the three groups of factors: the structural aspect that involves the rate and tax base of this tax, the amount of taxable activities and the taxpayers' compliance to pay taxes.

Aizenman & Jinjark (2005) analyzed the efficiency of VAT collection, and saw the structural factors for the selected countries. Through panel analysis (44 countries) for the period 1970-1999, the authors proved that the efficiency of VAT collection depends on structural factors, the probability of control and penalties for unpaid tax revenues. Factors that can influence the efficiency of VAT collection are: the share of agriculture in GDP, the development of trade outside the country, as well as the level of urbanization in one country. The level of urbanization can have significant repercussions on tax revenues because, implicitly, low-level urbanization provides the possibility of easier tax evasion.

Regarding the member states of the European Union, Široký & Kovářová (2010) examined the characteristics of VAT on the example of the Czech Republic. The result of their empirical research is the impact of the VAT rate on the consumer basket, the level of prices and household expenses. Antić (2014) conducted an empirical research and comparative analysis of VAT efficiency in the countries of the European Union and Bosnia and Herzegovina.

In his research, he concludes that the policy of increasing the standard VAT rate in EU Member States, without expanding the base, and with the existing structure of tax rates, would jeopardize the efficiency of VAT collection.

High standard rates are deepening market disturbances and slowing the way out of the crisis.

Bikas & Andruskaite (2013) also examined other factors that have a significant effect on VAT revenue in the countries of the European Union. For this purpose, they took the data in the period from 2004 to 2011 and applied the model of multiple regression. Their results showed that there is a high level of correlation between the analyzed factors relevant for VAT calculation and VAT revenues. The macroeconomic factors that the authors included in the model were: gross domestic product, gross domestic product per capita, unemployment, consumption, household consumption, government spending, exports and imports in EU member states. This research also suggests that governments focus on fiscal policy reform.

VAT revenues depend on a large number of factors. VAT is particularly sensitive to the rate of growth and changes in domestic demand. Exports are usually the result of increased production, and can result in an increase in domestic demand. Imports will, explicitly, have different repercussions. An increase in imports in one country will result in an increase in tax revenues (Haybka, 2009).

Numerous empirical studies have found that there is a negative correlation between the standard VAT rate and the efficiency of its collection. Economists agree on the view that high tax rates cannot provide the required collection efficiency of any form of taxation. This claim is theoretically corroborated by Owens (2011), pointing out that, although the increase in the standard rate is considered the easiest way to reduce budget deficits, an increased standard rate can jeopardize VAT performance.

The growth of the standard rate is accompanied by a number of exemptions which, together with the reduced rates, can limit the growth of tax revenues. „VAT taxes in Serbia are very plentiful source of income, but they additionally burden the poor citizens. Any new increase in the VAT rate and excise must be based on a detailed analysis of the economic and social situation in the country“ (Janković-Milić & Đurović-Todorović, 2017, p. 284).

„The revenue from consumption taxes (indirect taxes) are the most abundant revenue group in tax systems“ (Đorđević, 2014, p. 1155). Đorđević (2014) pointed out the impossibility of increasing revenue from consumption taxes and examined alternative ways of providing revenue to reduce deficit in the budget of Serbia. Improving the efficiency of VAT collection can be achieved by expanding the tax base and by the limited use of reduced rates. Analogously, more efficient tax

administration can have positive reflections on VAT performance.

3. Material and Methods

There are several indicators of VAT efficiency. A retrospective presentation of the VAT efficiency formula can be found in a survey conducted by Sokolovska & Sokolovskyi (2015). The authors compile all previous studies of the relevant indicator of VAT efficiency. Đurović Todorović & Dorđević (2013), also point to some of the measures of VAT efficiency.

One of the ways in which VAT efficiency can be considered is based on the share of VAT revenue in the GDP of a country. Based on this indicator, however, we can not conclude that VAT efficiency is unsatisfactory. The traditional measure of effectiveness is a more subtle indicator.

The traditional measure of VAT effectiveness is presented in the following formula:

$$C \text{ efficiency ratio} = \frac{\text{VAT revenue}}{\frac{\text{GDP}}{\text{SR}}} \quad (1)$$

Where, VAT revenue is a tax revenue from VAT; GDP is gross domestic product; SR is standard VAT rate.

The defects of this indicator were pointed out by Ebrill et al. (2002). According to them, the traditional measure of efficiency has a tendency to increase efficiency of VAT in a country.

The main defect of the abovementioned equation is in the numerator. The numerator involves production and the efficiency of VAT can be much higher because of that. VAT is the tax which is applied on consumption. According to Keen (2013), the main equation which eliminates this problem is in the following formula:

$$C \text{ efficiency ratio} = \frac{V}{PV^T} \quad (2)$$

Where, numerator V is realized VAT revenue; PV^T can be calculated on the basis of the following formula:

$$PV^T = \tau^S(FC - V) \quad (2a)$$

PV^T represents the theoretical revenue from VAT i.e., VAT revenue that can be realized; τ^S is VAT

standard rate and FC is final consumption (Keen, 2013, p. 427).

Numerous empirical studies have shown that the coefficient never has a value of 1, although the approximation to number 1 represents an ideal value and an ideal tax policy. Here, the lack of this ratio is noticeable, because its precision is greatest in the case when a country applies only one standard rate, without any exceptions.

Before we calculate the efficiency of VAT for analyzed countries, general facts about the VAT of analyzed countries will be presented in the following table.

Table 1. The introduction of the VAT system in the developing EU countries and current standard rate (in %)

Country	Year of VAT introduction	Standard rate (in %)
Bulgaria	1994	20
Czech Republic	1993	21
Estonia	1991	20
Greece	1987	24
Croatia	1998	25
Latvia	1995	21
Hungary	1988	27
Poland	1993	23
Romania	1993	19
Slovakia	1993	20
Slovenia	1999	22
Lithuania	1994	21
Serbia	2005	20

Source: European Commission, 2017, pp. 17-24.

The foundation for VAT harmonization was made by sixth directive in 1977, which regulates practically all sides of VAT application. Table 1 shows the years of VAT introduction into the tax systems of the analyzed countries, as well as the VAT rate in 2017.

As we can see, the periods of VAT introduction are very different among the countries. Also, there is the difference in the level of tax burden. The lowest VAT rate is applied by Romania.

Interestingly, after the global financial and economic crisis, all analyzed developing countries have begun to increase the standard VAT rate. "Only two EU countries have begun to alter the tax rate in 2017: Greece (from 23% to 24%) and Romania (from 20% to 19%)" (Taxation and Customs Union, 2017, p. 23). The answer to the question: "does standard rate has negative reflections on VAT efficiency?", is in the following section. We will analyse the movement of standard VAT rate and C-efficiency ratio.

4. Results and Discussion

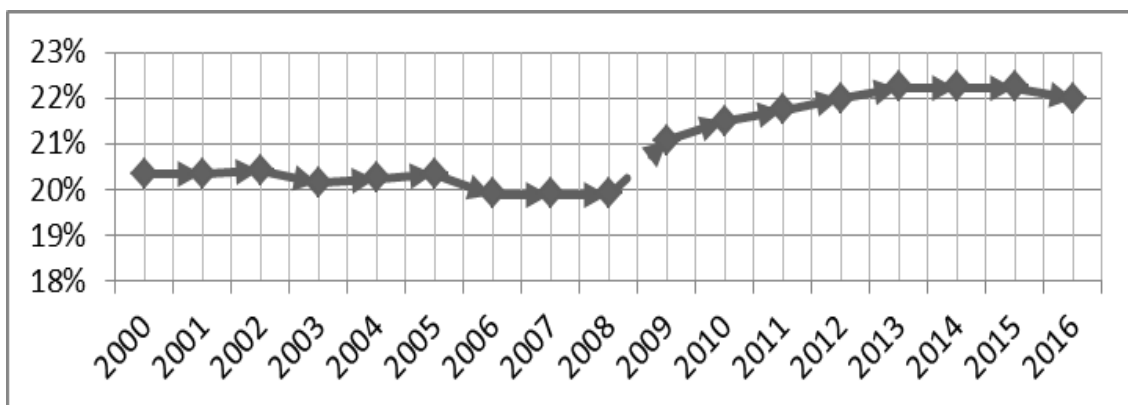
Based on Table 1, it is evident that, considering data taken from the Eurostat database, VAT rates

are very different. Should we expect a similar difference in C-efficiency ratio of the analyzed countries? This section analyzes the VAT efficiency in the EU developing countries and Serbia by using abovementioned indicator (2). Eurostat and the Revenue Administration of Serbian database have been used in the analysis of C-efficiency ratio. The data base contains yearly data collected from 2000-2016 for the EU developing countries and Serbia.

We started the analysis with the movement of standard rates.

Over the period of 2000-2008, the average EU standard rate for developing countries was almost stable, but in 2008 at the beginning of the global economic and financial crisis, the standard rate began to grow. The growth trend has been visible until this year.

Figure 1. The change of the average standard rate for EU developing countries (in %), 2000-2016.



Source: Eurostat; European Commission; Own Calculations.

Figure 1 demonstrates the change of the average standard rate for EU developing countries. It has to be noted, that in the period preceding economic and financial crisis VAT standard rate was lower than between 2008 and 2009. In many countries, standard rate was changed immediately after the crisis (Estonia, Croatia, Latvia, Lithuania, Hungary). Large changes of rates per year during the period were visible in Greece.

"The world financial recession has forced government sectors in different countries to improve the systems of taxes in order to find additional resources to cover up the budget deficit and to stabilize the economy of the country" (Bikas, Rashkauskas, 2011, p. 23). However, a country's tax politics is very important as the revival of the whole economy and further business

development depend on its reform. Additionally, economy theories claim that while a country is undergoing a recession, the state policy has to be directed towards simulation of economy, firstly in terms of decreasing the tax burden.

The key factor behind the afore-mentioned growth in 2009 was probably the negative reflections of the economic and financial crisis.

Because of the crisis, most countries have decided to increase the rate. Did the policy, which was preferred by all countries, have negative effects on VAT efficiency?

Table 2 shows the results for the C-efficiency ratios in the EU developing countries over the period 2000-2016.

Table 2. C-efficiency ratio of VAT in EU developing countries, 2000-2016.

Country	Mean	Std.deviation	Maximum	Minimum
Bulgaria	.610455	.71112	.71698	.44741
Czech Republic	.524161	.06907	.60085	.40057
Estonia	.707782	.04391	.81290	.65744
Greece	.427192	.05206	.52132	.35977
Croatia	.690432	.26316	.84102	.71844
Lithuania	.511095	.04310	.61077	.42260
Latvia	.500574	.05931	.60791	.38214
Hungary	.522540	.04362	.59805	.44819
Poland	.451288	.03614	.53434	.40342
Romania	.44935	.05386	.51983	.35439
Slovakia	.49721	.04187	.60290	.42857
Slovenia	.62649	.04187	.69170	.57397
Total	.54321	.12615	.84102	.35439

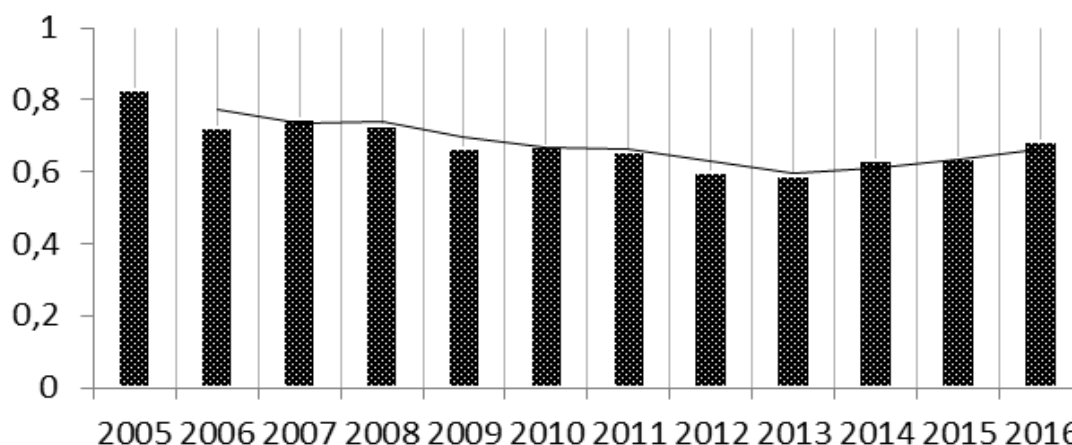
Source: Eurostat; European Commission; Own Calculations.

C-efficiency ratio for EU developing countries, which is assessed as a relevant coefficient for measuring the performance of VAT, is shown in Table 2. Over the observed period, it was noted that, among the EU developing countries, the highest C-efficiency ratio was recorded in Croatia (.84102), while the lowest ratio was recorded in Romania (.35439). All countries which have pursued a policy of increasing the standard rates

recorded a fall in the value of ratio C-efficiency. Namely, all the minimum values of the observed indicator were recorded in the years following the increased rate.

In accordance with the fact that VAT is introduced into Serbia fiscal policy in 2005, the analyzed period of efficiency is shorter. C-efficiency ratio for Serbia is shown in Figure 2.

Figure 2. C-efficiency ratio of VAT in Serbia (in %), 2005-2016.



Source: Statistical Office of the Republic of Serbia, 2011; Ministry of Finance RS, Bullitin of Public Finance, 2017. Autors' calculation.

In the observed time zone, the C-efficiency ratio of VAT in Serbia shows the continuity of the fall. The Ratio indicates that there is a gap between the actually collected revenues and the revenues that could actually be collected. The performance is unsatisfactory especially in the years that followed

the increase of the standard tax rate. To compare the mean value of C-efficiency ratio in the periods with the standard rate 18% and the periods when it was 20%, the Independent-Samples T-Test will be used.

Table 3. T-Test results, the period 2005-2016.

	Standard rate	Mean	Std.Deviation	Sig.
C-efficiency ratio	2005-2012.	.7165	.06011	.335
	2012-2016.	.6290	.03720	

Source: Authors.

Based on the results of the T-test, shown in Table 3, it can be concluded that there is significant difference in C-efficiency values between the period with the rate 18% (M=0.7165, SD=0.06011) and the period with the rate 20% (M=0.6290, SD=0.03720).

Clearly, improving administration, labor efficiency, reducing the number of rates and similar reforms represent a "costly" policy for developing countries, while increasing the tax rate is part of a policy that is in line with the level of their development. However, if the defects of such policy are greater than its positive effects, why are they preferred by so many governments?

Indirect taxes are inherently important for Serbia. Only on the basis of these taxes, Serbia collects on average 46% of tax revenues, where the share of VAT is, on average, 29% (2005-2016). A healthy economic field and conditions for economic growth and development can be created in Serbia by eliminating the effects of all the factors that negatively affect or do not affect the performance of this tax at all. The share of VAT revenues in Serbia's GDP was the least in the year of the October reform. VAT revenues amounted to 9.8% of GDP (2012), which is by 2.5% less compared to the efficiency achieved in the year of its introduction into Serbian tax system (2005). A high tax rate in Serbia cannot have positive repercussions on VAT performance.

One of the reasons for this is the legal system in Serbia. VAT efficiency is related to the scope of the tax law that makes the legal apparatus too bulky. Extensive legislation prevents tax authorities from working efficiently. On the other hand, a high standard rate, as well as a multitude of prescribed exemptions, allow VAT payment evasions. A high tax rate, therefore, can only reduce the taxpayers' compliance to pay taxes. Analogously, VAT has its reflections on goods and

services that are reflected in the balance of everyday necessities, and this ultimately reduces household spending.

Research at the OECD of the VAT efficiency in OECD countries suggests reform which may be a significant option to improve the capacity of VAT. Namely, it may be a better option for developing countries to consider a reform which will improve the performance of the VAT systems without having to increase the VAT rate.

CONCLUSIONS

How countries can improve their performances of VAT systems? In recent years, an increasing number of countries in the world have been devoting special attention to improving VAT collection efficiency. Improving collection efficiency is particularly important for developing countries, where VAT is the basic tax revenue.

Research shows that many factors may have negative reflections on VAT performance. The amount of VAT that can be collected in one country, in most cases, is not equal to the amount actually collected by the country. This difference is determined by efficiency ratio (C-efficiency ratio), which is a relevant indicator of VAT performance.

A literature review, in the paper, provides an explanation of a large number of factors, related to the ratio. Some of the most important factors, which are most often described in theoretical explanations, are: tax rate, tax base, growth rate, changes in domestic demand, consumption, unemployment, import and export. Most economists bold the significance of tax rates, as developing countries prefer the policy of standard rate increase in order to increase tax revenues.

On the other hand, the effects of the increased tax rates on VAT performance are neglected.

Undoubtedly, one of the key elements that influence income from VAT is its rate. The amount of income largely depends on the number of applied rates, their levels, and the tax based on the application of reduced rates (Bikas, Rashkauskas, 2011). "Raising the standard VAT rate, has often been considering as the easiest way to increase revenues from tax, particularly at a time when many government are seeking ways to address large fiscal deficits" (Owens, 2011). However, raising the standard VAT rate has its own limits particularly in developing countries where the rate is already relatively high.

The standard Serbian VAT rate remained unaltered during the period 2005-2012 it was 18% and since 2012 has been 20%. VAT efficiency in Serbia in the observed period (2005-2016) shows a tendency to decline. The values of C-efficiency ratio opened the following question: "was the increased standard rate determined by the movement of the ratio?". To answer this question, we applied Independent-Samples T-Test. T-test results showed significant difference in the mean value of C-efficiency ratio, in the periods before and after the change in the standard rate.

The obtained results indicated that the values of C-efficiency ratio were initiated by changing the tax rate. Since there has not been any serious empirical evidence to identify the factors which influence the performance of VAT, this research provides a good basis for further research on this field. Theoretical explanations, which indicate that C-efficiency ratio is sensitive to the standard rate, provided the basis for the investigation of another factor.

The aim of this paper was to point out the factors influencing the efficiency of the tax system, not only in Serbia, but also in other developing countries. We can conclude that the reduction in the rate would have a positive reflection on VAT revenues.

The highest efficiency of VAT collection is possible if fiscal policy measures are correlated with economic and structural policies and have a strong synergetic effect. Governments should introduce series of measures, including new mechanisms for self-assessment, increased information exchange, and additional requirements for business (Owens, 2011). A clearly defined policy can improve the development and competitiveness of a country.

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SUMMARY

The main source of public revenues in developing countries is value added tax (VAT). The lucrative nature of VAT has led to the extension of this tax and its application today in more than 150 countries. Observed in the role of providing as much public revenue as possible, its process of introduction is characterized as the most significant and most dramatic in tax policy in the late twentieth century (Ebrill, Keen, Bodin & Summers, 2002). Retrospectively, VAT appeared when the conservative approach to taxation policy did not yield the best results. Further reliance on a large number of tax rates, which were characteristic for previously applied sales tax, represented an inefficient tax policy. For this reason, and with the aim of improving macroeconomic stability, most developing countries, started applying VAT in their tax systems. However, in developing countries, it is politically very difficult to use the maximum capacity of this form of tax. The reason for this is the coherence of the new tax form with the existing ones, as well as the inability to effectively charge VAT.

The problem of VAT performance was dealt with by numerous theorists, and today numerous empirical research on the topic can be found, primarily due to the fact that VAT is a key component of tax systems around the world. Improving collection efficiency is particularly important for developing countries, where VAT is the basic tax revenue. The amount of VAT that can be collected in one country, in most cases, is not equal to the amount actually collected by the country. This difference is determined by efficiency ratio (C-efficiency ratio), which is a relevant indicator of VAT performance. Numerous empirical studies have found that there is a negative correlation between the standard VAT rate and the efficiency of its collection. Economists agree on the view that high tax rates cannot provide the required collection efficiency of any form of taxation. The subject of this paper is an theoretical analysis of the factors that influence the C efficiency ratio, which is the measure of VAT performance. The main objective of the paper is to analyze the negative reflections that the increase in the standard rate can have on the efficiency of VAT collection in EU developing countries and Serbia. A literature review, in the paper, involves an explanation of a large number of factors, related to the ratio. Some of the most important factors, which are most often depicted in theoretical explanations, are: tax rate, tax base, growth rate, changes in domestic demand, consumption, unemployment, import and export. Most economists bold the significance of tax rates, as

developing countries prefer the policy of standard rate increase in order to increase tax revenues. We analyzed the VAT efficiency in the EU developing countries and Serbia by using C-efficiency ratio. Eurostat and the Revenue Administration of Serbian database have been used in the analysis. The data base contains yearly data collected from 2000-2016. for the EU developing countries and Serbia. We started the analysis with the movement of standard rates. Over the period of 2000-2008., the average EU standard rate for developing countries was almost stable, but in 2008 at the beginning of the global economic and financial crisis, the standard rate began to grow. In many countries, standard rate was changed immediately after the crisis (Estonia, Croatia, Latvia, Lithuania, Hungary).

Because of the crisis, most countries have decided to increase the rate. VAT performance in Serbia in the observed period (2005-2016.) shows a tendency to decline. The values of C-efficiency ratio opened a crucial question: was the increased standard rate determined by the movement of the ratio? To answer this question we applied Independent-Samples T-Test. T-test results showed significant difference in the mean value of C-efficiency ratio, in the periods before and after the change in the standard rate.

The obtained results indicated that the values of C-efficiency ratio were initiated by changing the tax rate. A strong negative correlation between VAT performance and standard rate indicates that any change in the standard rate leads to a significant reduction in collection efficiency. Accordingly, inadequately defined tax policy can create an unfavorable business environment and affect economic growth and development.

The findings presented in this paper can be used as a good information base for the policy makers in the analysed countries in undertaking activities aimed at increasing VAT performances. A clearly defined policy can improve the development and competitiveness of a country.