

УДК 336.228.34 DOI 10.52575/2687-0932-2021-48-3-514-527

## The determinants of tax evasion: empirical evidence from Serbia

1) Jadranka Đurović Todorović, 1) Marina Đorđević, 2) Milica Ristić Cakić

<sup>1)</sup> Faculty of Economics University of Niš
 11 Trg kralja Aleksandra Ujedinitelja, Niš, 18105, Serbia E-mail: jadranka.djurovic@eknfak.ni.ac.rs
 <sup>2)</sup> Innovation Center University of Niš
 2 Univerzitetski trg, Niš, 18105, Serbia E-mail: milica42777@gmail.com

Abstract. Fiscal authorities globally face tax evasion as a complex problem. Since there are no precise parameters to measure the factors influencing tax evasion, there is a variety of different interpretations among authors researching this domain of fiscal policy. Reviewing the thematic literature, we found that tax evasion factors have not been thoroughly examined comparing the standpoints of individuals and legal entities. This paper analyzes the attitudes and perceptions of individuals and legal entities on tax evasion in the Republic of Serbia, as well as the differences between them. Identification of the differences in the determinants of tax evasion by the economic entities enables the creation of the optimal design of anti-evasion policy. Based on the categorical data collected, we applied the statistical technique for investigating the relationships (connections) between the variables to analyze the differences in the illegal neglect of tax liability between individuals and legal entities. This approach provided a better insight into social groups which are more prone to tax evasion. Based on the results obtained using one of the most commonly used non-parametric tests in empirical research, we can conclude that there is no statistically significant difference in the responses between legal entities and individuals on attitudes in the domain of evasive behavior in the Republic of Serbia. The research results showed that economic factors have the greatest repercussions on the evasive behavior of both individuals and legal entities in the Republic of Serbia.

Keywords: tax compliance, tax evasion, determinants of tax evasion, Serbia.

**For citation:** Đurović Todorović J., Đorđević M., Ristić Cakić M. 2021. The determinants of tax evasion: empirical evidence from Serbia. Economics. Information technologies, 48 (3): 514–527. DOI 10.52575/2687-0932-2021-48-3-514-527.

# Детерминанты уклонения от уплаты налогов: эмпирическое исследование на материалах Сербии

 $^{1)}$  Джурович Тодорович Я.,  $^{1)}$  Джорджевич М.,  $^{2)}$  Ристич Цакич М.

Экономический факультет государственного Университета в городе Ниш Сербия, 18105, г. Ниш, Площадь Александра Уединителя, 11
 E-mail: jadranka.djurovic@eknfak.ni.ac.rs

 Инновационный центр государственного Университета в городе Ниш Сербия, 18105, г. Ниш, Университетская площадь, 2
 E-mail: milica42777@gmail.com

**Аннотация.** Фискальные органы во всем мире сталкиваются с уклонением от уплаты налогов как сложной проблемой. Поскольку не существует точных параметров для измерения факторов, влияющих на уклонение от уплаты налогов, авторы, исследующие эту область налогово-бюджетной политики, по-разному интерпретируют их. В ходе изучения тематической литературы было обнаружено, что факторы уклонения от уплаты налогов не были тщательно изучены при сравнении позиций физических и юридических лиц. В данной статье анализируется отношение и восприятие физических и юридических лиц в отношении уклонения от уплаты налогов в Республике Сербия, а также различия



между ними. Выявление различий в детерминантах уклонения от уплаты налогов хозяйствующими субъектами позволяет создать оптимальную схему политики противодействия уклонению от уплаты налогов. На основе собранных категориальных данных был применен статистический метод исследования взаимосвязей (связей) между переменными для анализа различий в незаконном пренебрежении налоговыми обязательствами между физическими и юридическими лицами. Такой подход позволил лучше понять социальные группы, которые более склонны к уклонению от уплаты налогов. На основании результатов, полученных с помощью одного из наиболее часто используемых непараметрических тестов в эмпирических исследованиях, был сделан вывод об отсутствии статистически значимой разницы в ответах юридических и физических лиц на отношение в сфере уклончивого поведения в Республике Сербия. Результаты исследования показали, что экономические факторы имеют наибольшее влияние на уклончивое поведение как физических, так и юридических лиц в Республике Сербия.

**Ключевые слова:** соблюдение налоговых требований, уклонение от уплаты налогов, факторы, определяющие уклонение от уплаты налогов, Сербия.

**Для цитирования:** Джурович Тодорович Я., Джорджевич М., Ристич Цакич М. 2021. Детерминанты уклонения от уплаты налогов: эмпирическое исследование на материалах Сербии. Экономика. Информатика, 48 (3): 514–527 (на англ.). DOI 10.52575/2687-0932-2021-48-3-514-527.

#### Introduction

The phenomenon of tax noncompliance has been present in the financial science literature since the time when taxes were a ruler's private right. Tax compliance means that taxpayers are willing to follow the rules of tax policy, i.e., to pay the taxes imposed by the law of a country. On the other hand, tax noncompliance represents the phenomenon of taxpayers' unwillingness to comply with the law regarding tax legislations.

Taxpayers' reactions indicate an external reflection of the noncompliance or compliance with fiscal measures imposed by the government. A taxpayer can respond to taxation by changing their behavior to reduce their tax ability. In that case, we are talking about tax avoidance as a legal action [Ristić, 2017]. In contrast, tax evasion is a deliberate mistake in paying statutory taxes. Since the introduction of taxes, taxation has influenced taxpayers and their activities. It can be said that the economic condition of the entire civilization has been affected by the negative attitude of the taxpayers towards the taxes. Therefore, we can conclude that failure to comply with tax obligations arises not only from the violation of tax regulations, but also from taking legal actions.

Furthermore, according to [Djurović Todorović & Dordjević, 2019], there is a difference between tax avoidance and tax evasion. While tax avoidance is an attempt of a taxpayer postpone the payment, tax evasion represents a criminal behavior where a taxpayer takes illegal actions to trick the tax authorities. The difference between illegal and legal evasion should also be mentioned. Aurthors [Arsić & Ranđelović, 2017] explained that when a taxpayer avoids paying taxes, by taking legal actions, we are talking about legal and illegitimate tax avoidance. Tax evasion is a form of tax avoidance and it occurs when the taxpayer violates tax regulations. "In practice, the following are the most common ways of achieving acceptable legal evasion: abstaining from consumption, substitution of one product consumption by another, business reorientation, change of residence, change of citizenship, etc." [Dimitrijević, 2017]. Although tax evasion is an illegal neglect of liability imposed by tax law, the solution to this problem is an imperative that is set before the tax legislation of all countries [Ristić, 2017]. Since neither the actual extent of tax evasion nor the limit of the allowed tax evasion can be precisely measured, the solution of this problem solution becomes even more important. The phenomenon of tax evasion is not only characteristic of developing countries, but also of developed countries' tax systems. Therefore, it is almost impossible to talk about a tax system in which tax avoidance is not a source of serious loss to the government budget [Đurović Todorović et al., 2018].



Taxation in the modern state has been defined as the duty of taxpayers for the regular and timely fulfillment of tax obligations with the aim of normal functioning of government. In our tax law, tax violation by individuals, entrepreneurs, legal entities and responsible persons in legal entities are interpreted as tax evasion of smaller extent. Unlike the developed countries, which have the codification of tax penalty regulations, the Republic of Serbia does not have such regulations. It should be borne in mind that tax offenses, such as tax evasion, represent socially dangerous behavior of individuals or legal entities and the violation of fiscal regulations, by illegal tax evasion, threatens the financial interests of the state and creates negative reflections on its fiscal system.

Taxpayers' reactions to tax liabilities can be triggered by several factors. In this paper, by conducting research, we attempt to answer which factors most influence tax evasion. Evasive behavior of taxpayers is a multicausal phenomenon, and according to [Đurovic-Todorović & Đordjević, 2019], some causes that lead to this harmful phenomenon are:

- 1. Heavy tax burden;
- 2. Financial indiscipline;
- 3. Mal functioning of the rule of law;
- 4. The lack of the sense of belonging to the community;
- 5. Significant degree of corruption;
- 6. Inefficient tax system composed of too many tax forms;
- 7. Other causes [Đurović-Todorović & Đorđević, 2019].

The collected public revenues are a mirror of the national economy development. The emanation of evasive behavior would call into question the general social well-being, the functioning of many institutions (education, police, infrastructure, etc.) in developing countries, including Serbia, and ultimately, it would reduce Serbia's gross domestic product. The extent of the resulting negative effects reaches even beyond. The unfavorable business environment would create a terrain for the gray economy. In line with the above, the subject of this paper is to examine that influence the evasive behavior. It is necessary to analyze the importance of this social phenomenon and the factors that have the greatest effect through the analysis of tax evasion. The first part of the paper highlights the impact of the phenomenon of evasion. The second part provides a review of the theorists who have explained the origins of tax evasion from different aspects. The third and fourth parts involve empirical analysis using a survey conducted based on a sample of 107 individuals and legal entities. The fifth section provides relevant conclusions regarding effective anti-evasion policy.

#### Literature review

"Tax evasion is a major problem that pervades all tax systems" [Alm & McKee, 2006]. Although it is impossible to apply one tax evasion strategy to all the countries, it would be significant for each country to identify the factors that affect the scope of tax evasion. According to [Manasan, 1988], common practices of tax evasion include: "under-reporting of income, over-statement of expenses, use of fictitious receipts, keeping double sets of books, false or fictitious entities in books, fictitious transactions in the name of dummies, non-recording of sales, and others." While, according to this theorist, the effects are affecting the economy: "loss of government revenue, increase in taxpayer's after-tax income, and perverse effects on the equity and efficient goals of the tax system" [Manasan, 1988].

Analyzing income tax evasion, theorists have emphasized the importance of benefits to taxpayers. According to these authors, the income to be reported, by taxpayers, correlates with the maximum expected utility that the taxpayer will have from the state. The expected utility depends on the amount of income, the likelihood of control by the tax authorities, the tax rate as well as the penalty rate. So, the extent of tax evasion in one country is determined by the factors mentioned. This model is also one of the first models to explain the factors of tax evasion. Implicitly, the application of the model in different countries has initiated certain corrections, and thus this model has created the basis for exploring new factors that would solve the problem of evasion. Authors [Pmmerehne & Weck-Hannemann, 1995] considered that the standard tax evasion model needed to be expanded by



two factors. They conducted an analysis on the example of 25 Swiss cantons in certain years. According to their research, the previous model of [Allingham & Sandmo, 1972] needs to include both inflation and the degree of budgetary control by citizens. Following the example of Lithuania, authors [Anciūtė, Kropienė, 2010] decided to apply the traditional model of [Allingham & Sandmo, 1972]. However, the application of the model was limited due to differences between the countries. Lithuania's tax system is based on the assumptions that are quite different from the assumptions made in the model.

The research [Jackson & Milliron, 1986] also provided a good basis for a great deal of contemporary research. Their research identified 14 factors that determine the extent of tax evasion, including: the source of income, occupation, complexity of the tax system, honesty, likelihood of control, penalties and tax rates, tax administration. In their later research, most attention was paid to tax authorities and tax institutions. The negative correlation between tax evasion and economic performance of countries was also shown by [Crane & Naurzad, 1986], who examined tax evasion in the USA in the period 1949-1981. They found that tax evasion decreases as revenue grows. Similarly, Schneider et al. [Schneider et al., 2011] found that tax evasion and the shadow economy were declining with GDP per capita growth, conducting analysis in 162 countries between 1999-2007.

The large difference in tax collection between developed and developing countries was documented by several authors [Gordon & Li, 2009; Friedman et al. 2000]. According to them, taxpayers' decision is not only determined by economic factors while avoiding tax payments, but also by social and moral factors that differ between countries. Developing countries, in addition, have fewer opportunities to find mechanisms that could be used to combat evasion. According to [Balli, 2014], there are several ways in which effective reduction of evasion in developing countries can be taken, taking Albania as an example. In Albania, the most important factor in reducing evasive behavior may be the increase in the quality of control by tax authorities. Factors influencing tax evasion behavior in Bosnia and Herzegovina were examined by [Grgić & Terzić, 2014]. According to these authors, factors that affect the expertise of tax inspectors and tax administrations are particularly distinguished. A similar survey was conducted by Savic et al. a year later [Savic et al., 2015], examining the performance of tax administration in 13 European countries using the regression analysis method. The survey results indicated a significant impact of tax administration on the informal economy in the analyzed countries. "Countries with more efficient tax administration have a lower level of gray economy representation."

According to [Alm & McKee, 2006a], several economic variables, such as income and wellbeing, but also tax control, are highlighted in the literature that affect tax evasion behavior. Using an experimental method, while examining how information about potential tax evasion controls affect information, the authors came to the conclusion that entities that receive information that they will be controlled by tax inspectors have greater tax compliance. Taxpayers who were not told they would be controlled recorded very low (zero) tax compliance. The tax literature also highlights authors who believe that morality, significantly, can determine the extent of tax evasion [Sipos, 2015; Hillman, 2009; Randelovic, 2016]. Richardson [Richardson, 2006] conducted a survey based on a survey of 45 countries, which found that non-economic determinants have a stronger impact on tax evasion than economic determinants. Key determinants affecting tax evasion include taxpayer age, gender, education, source of income, income resulting from agricultural activities, marginal tax rate, perception of fairness, complexity of the tax system, self-assessment, tax morale. Authors [Frey & Torgler, 2007] included 30 Western and Eastern European countries in their research and reached to the conclusion that there is a significant link between tax evasion and tax morale. Also, the results of the model they obtained indicate a positive correlation that is statistically significant between political institutions (government effectiveness) and tax morale. "Tax evasion can be a reflection of a sense of injustice, as people often compare the amount of tax rates with the benefits they receive from the state. People, too, may feel that taxes take too much of their income and give too little. In other words, evasive behavior can result from the distrust in government. Using a qualitative approach in their study, Saad [Saad, 2014] indicates that taxpayers' compliance is most influenced by their level of



knowledge and the complexity of the tax system. Albulescu et al. [Albulescu et al., 2016] explored the long-term link between entrepreneurial activities, tax evasion and corruption in 15 European countries. It is a fact that countries with a higher level of corruption have a larger share of gray economy which generates tax evasion. Starting with the assumption that taxpayers pay more taxes, Torgler [Torgler, 2003] analyzes the substantive motivation to pay taxes in Canada, using the World Bank Survey (WVS). The results showed that trust in government, pride and religiosity have a systematically positive impact on tax morale.

Studies examining corporate tax evasion point to entrepreneurial tax evasion as the basic factor which influences the evasive behavior of legal entities. They identify the lack of tax morale as the main reason for this behavior. Kourdoumpalou [Kourdoumpalou, 2016] indicates that tax evasion is lower when the CEO is also the owner of the company. There is a strong relationship between tax evasion and the percentage of shares held by owners and their families.

Research conducted in the last few years have found new factors which affect tax evasion. Significant theoretical models have been formulated in recent years to address the topic of our research, i.e., the causes of taxpayers' evasive behavior. One of the theoretical models is the model [Bethencourt & Kunze, 2018]. This model explains the relationship between tax evasion and economic development. The study answers the question why tax evasion decreases as countries grow, as well as whether there is a positive correlation between tax morale and the level of GDP per capita. The model also points out the effect of high tax rates on tax evasion. With high tax rates the number of taxpayers who engage in evasive behavior is more likely to grow. Varvarigos [Varvarigos, 2017] studied the effects of tax evasion on economic growth by focusing on the cultural aspects that affect tax compliance on the one hand, and the extent of tax evasion on the other hand. The correlation between cultural norms and tax evasion suggests that compliance with cultural norms determines the persistence of tax avoidance practices. The question of evasion was also addressed by theorists [Khlif and Amara, 2019] in the example of 35 countries. They found a positive statistically significant relationship between political affiliation at the state level and tax evasion. Their results gave policy makers a good insight of the negative effects of political connections. Đurović-Todorovic et al [Đurović-Todorovic et al, 2018] investigated tax evasion in the Republic of Serbia. Using multiple regression analysis, the authors investigated several potential variables related to value added tax evasion: the number of tax inspectors in the Republic of Serbia, the frequency of controls and the rate of value added tax. The survey was conducted in the period 2005-2016. The results of the survey showed that the number of tax inspectors and the number of controls reduce the extent of tax evasion. The number of controls, as a variable of economic character, showed a negative, also statistically significant impact on tax evasion in the Republic of Serbia. Alm [Alm, 2019] questioned individuals' motive to pay (or not to pay) taxes. His latest research bases on specific questions: what motivates individuals to evasive behavior from the theoretical point of view; what empirical research shows; how the government can improve tax compliance. Empirical evidence shows that individuals are motivated by economic causes, such as audit or penalties, but also by non-financial causes (empathy, guilt, shame, morality) and social causes (social norms, public goods, neighbor behavior). Regarding the impact of tax morale on tax evasion, it is manifested in several ways: by intrinsic motivation that is associated with honest conduct and fulfillment of civic obligations, reciprocity, the effect of reputation and social norms. According to Alm, "individuals cannot be viewed as individuals, but must be viewed as a set of different segments" [Alm, 2019]. Author [Enachescu et al., 2019] used a quantitative and qualitative approach to explore emotions that affect taxpayer compliance. Using different scenarios in the survey, their experimental research included employees and self-employed in Austria. The results showed that both self-employed and employed had greater compliance after having positive experiences with tax authorities than after negative experiences. The study concluded that emotional experiences play a very important role when it comes to deciding on evasive behavior.

Kamasa et al. [Kamasa et al., 2019] identify the impact of the business environment on the evasive behavior of legal entities, or firms, in Ghana. Using the Tobit estimation methods, they obtained the following results from a World Bank survey of business surveys. The environment in



which legal entities operate influences their tax evasive behavior. The quality of the legal system has an impact on corporate tax evasion. Also, the results indicated that the organization of legal entities, the period of existence, as well as the sex of the owners influence the decision to evade taxes. Business restrictions in the form of high tax rates and complicated access to business license induce tax evasion. Analyzes also show that tax evasion is more prevalent in smaller companies than in large enterprises [Feinstein, 1991; Andreoni, 1998].

In Serbia, the dominant type of tax evasion is value added tax evasion. The imperfection of the tax system structure, in line with the slow development of the country, contribute to tax evasion in the field of indirect taxes. According to Đurović Todorović et al. [Đurović Todorović et al., 2019] the most significant factors that influence tax avoidance are, undoubtedly, the economic factors.

### Methodology

The main objective of the research is to determine what factors influence taxpayers' evasive behavior. Along with this objective, the additional objective of the research to examine whether there is a significant difference among the factors that influence tax avoidance decisions between individuals and legal entities. In this way, we indirectly examined which category of respondents is more prone to tax evasion. The sample consists of legal entities (52 respondents) and individuals (55 respondents, of which 30 respondents are male and 25 respondents are female). The survey covers entities in the Republic of Serbia that prepare their financial statements in accordance with the International Financial Reporting Standards for Small and Medium Sized Enterprises (IFRS for SMEs). The total sample, which by its very nature is a deliberate sample, consists of 107 respondents, individuals and legal entities. In order to achieve this goal, we used a qualitative method in the research, with the questionnaire as an instrument. Guided by the fact that respondents wanted a survey containing questions they could answer without much effort and time on the one hand, as well as the limitations that our topic imposes on obtaining objective answers from the respondents, the survey included closed-ended questions. A survey technique using an instrument such as a questionnaire is considered relevant because the absence of the interviewer eliminates possible biases in the answers and it is easier for the interviewee to be honest about sensitive topics. In this paper we have analyzed the answers to the questions related to:

- 1. opinions of taxpayers on tax compliance and tax payment;
- 2. opinions of taxpayers on the authority of the state to establish, determine and collect taxes (tax jurisdiction);
  - 3. reasons for (non)compliance with tax obligations.

The answers to the questions provided the factual situations in the Republic of Serbia. Taxpayers' opinions on tax compliance and tax payments determined the degree of (non) compliance by tax authorities in the Republic of Serbia and the response of the population to the state's tax claims. In addition, the answers of the respondents were determined whether there are higher or lower tax resistances of the population, and whether tax resistances are more prevalent in legal entities or individuals. Taxpayers 'opinions on the state and its tax jurisdiction should indicate the taxpayers' attitude to the fiscus, whether or not the population perceives it as legitimate, but also point to the existence of a tax gap in the Republic of Serbia. Responses pointing to the reasons for (non) compliance with tax obligations by taxpayers pointed to the determinants of tax evasion by legal entities and individuals in the Republic of Serbia. We used numerical, statistical data processing in the SPSS (Statistical Packages for the Social Sciences) computer program. Tests in the field of descriptive and relational data analysis were applied in order to enable better interpretation of the obtained data. The chi-square test for independence testing was applied. The chi-square test is one of the most commonly used non-parametric tests in empirical research, used when the population distribution is unknown. The chi-square independence test examined the frequency or proportions of cases observed in each category and investigated the relationship between the two categorical variables. Accordingly, the answer is given to the question: is the response rate for individuals equal



to that for legal entities? We also used the chi-square test to test for significant differences in the responses.

The Taxpayer Survey is, by and large, a direct method of assessing evasion in one country, as well as a method for identifying the factors that influence evasion. As a method for measuring tax evasion, the survey has a great advantage over other methods, since the questions formulated in the questionnaire can determine the level of tax evasion, the level of tax morale, the way respondents think, perceptions of tax evasion, etc. Of course, it would be illusory that, relying solely on the advantages of this econometric method, we would draw general conclusions without considering its disadvantages. The disadvantages of the survey are reflected in the risks of receiving subjective or incorrect answers from respondents which can lead to wrong conclusions. Therefore, the results of our research were considered with caution.

#### Results

"Fighting tax evasion is an important policy goal that requires information on the size and reasons why people engage in irregular economy activities" [Roberto dell' Anno, 2019]. Taxpayers' compliance with the law engages tax compliance and technical tax compliance. "Tax compliance can be viewed through the category of administrative tax compliance, which is reflected in filing a tax return and timely payment of taxes, while technical tax compliance implies that taxpayers' taxpayer information in their business records is credible and that tax liabilities are accounted for in accordance with the law" [Kidder, 1989]. In order to design an effective anti-evasion policy in one country, it is necessary to identify which social groups are more prone to tax evasion: individuals or legal entities. To establish the level of tax compliance in the Republic of Serbia, we posed the same question to both individuals and legal entities, whether they comply with tax law (Table 1 and Table 2). Respondents could circle multiple responses (the answers offered were: yes, no and sometimes).

Taxpayers' compliance with legal requirements (Sig. = 0.347, Chisq=2.118, authors' calculation)

Table 1

		Tax compliance			Total
		No	Sometimes	Yes	
	N	3	2	50	55
	Individuals				
Toypovor	% within the group	5.5%	3.8%	90.9%	100%
Taxpayer	N	2	0	50	52
	Legal entity				
	% within the group	3.6%	0%	96.2%	100%
N		5	2	100	107
Total					
% in group	p	4.7%	1.9%	93.5%	100%

Table 2 Frequency of taxpayers' compliance with legal requirements (authors' calculation)

		Frequency	Percent	Chi quare p
	No	5	4.7	
Tour committees	Sometimes	2	1.9	0.000
Tax compliance	Yes	100	93.5	0,000
	Total	107	100.0	

At all levels of tax compliance, the chi-square test shows the absence of a statistically significant difference in the answers of the respondents of the two groups, legal entities and



individuals. According to the Pearson Chi-Square coefficient whose value is 2.118 with a significance of 0.347, which is higher than the 0.05 threshold of significance, it can be concluded that tax compliance does not depend on the type of the taxpayer. That is, there is no difference between individuals and legal entities in their opinion on compliance with tax regulations and payment of taxes. The results of the research show that both individuals and legal entities on average agree that they should comply with legal regulations. The fact that tax legislation of the Republic of Serbia regulating tax evasion as legal offense also contributes to tax compliance of the majority of taxpayers. Also, a tolerant public attitude towards numerous tax discipline modalities is another reason for tax compliance.

In addition to taxpayer tax compliance, it is very important to determine whether tax compliance is voluntary or involuntary. That is, whether taxpayers voluntarily fulfill their tax obligations and agree that it is justified for the population in the Republic of Serbia to pay tax (voluntary tax compliance), or whether tax compliance in the Republic of Serbia is ensured through enforced tax compliance. To determine the foregoing, a primary analysis that must precede the analysis of determinants influencing taxpayers' decision to evade tax, is to determine whether taxpayers voluntarily comply with tax laws (Table 3 and Table 4).

Table 3 Voluntary behavior of taxpayers in accordance with the law (Sig. = 0.112, Chisq=2.394, authors' calculation)

		Voluntary compliance with tax law				
		No	Yes, to some extent	Yes, completely	- Total	
	N	0	9	46	55	
	Individuals					
Т	% in	0%	16.4%	83.6%	100%	
Taxpayer	N	0	15	37	52	
	Legal entities					
	% in group	0%	28.8%	71.2%	100%	
N		0	24	83	107	
Total						
% in group		0%	22.4%	77.6%	100%	

Table 4
Frequency of responses to taxpayers' voluntary compliance with legal requirements
(authors' calculation)

		Frequency	Percent	Chi quare p
	No	0	0	
Walnutam, assemble as with toy law.	Yes, to some extent	24	22.4	0.000
Voluntary compliance with tax law	Yes, completely	83	77.6	0,000
	Total	107	100.0	

The results of the analysis show that the value of Pearson Chi-Square is 2.394, with a significance of 0.112, which is higher than the significance threshold of 0.05. Chi square independence test showed no significant relationship between taxpayer status and voluntary consent. However, there is a statistically significant difference in response rates, with the answer "Yes, completely" dominating. The majority of respondents (77.6%) voluntarily pay taxes in the Republic of Serbia, which reflects that the general state of mind regarding the understanding and acceptance of tax obligations in the Republic of Serbia is at a satisfactory level. So, based on the results, we can conclude that the propensity for tax evasion by individuals and legal entities is at approximately the same level. If we take as an indicator the respondents who answered "yes, to a certain extent", we can see that some respondents do not have a fair idea or awareness of all the important tax issues: tax



benefits, expenditures for which budget funds are spent, effects of budgetary measures, etc. Therefore, there is a degree of internal resistance to paying taxes.

The Pearson Chi-Square coefficient value is 6.834 with a significance of 0.145, which explains that the attitude of individuals and legal entities towards the determinants of tax compliance is the same (Table 5 and Table 6).

Table 5
Determinants of tax compliance in the Republic of Serbia
(Sig. = 0.145, Chisq=6.834, authors' calculation)

	Determinants of tax compliance						
I		High	Probability of	Guilt and	Everyone	Paying taxes	
		penalties	control	shame	pays taxes	is a liability	
	N	7	2	1	3	42	55
	Individuals						
yer	% in group	12.7%	3.6%	1.8%	5.5%	76.4	100%
Tax payer	N	2	5	4	1	40	52
Tax	Legal entities						
	% in group						
		3.8%	9.6%	7.7%	1.9%	76.9%	100%
N		9	7	5	4	82	107
Tota	al						
% in group		8.4%	6.5%	1.7%	3.7%	76.6%	100%

Table 6 Frequencies of responses to tax compliance determinants (authors' calculation)

		Frequency	Percent	Chi quare p	
	High penalities	9	8.4		
	Probability of control	7	6.5	0,000	
D	Guilt and shame	5	4.7		
Determinants of tax compliance	Everyone pays taxes	4	3.7		
	Paying taxes is a liability	82	76.6		
	Total	107	100.0		

There is a statistically significant difference in the response rate, and the respondents' opinion is that tax is a liability. Tax morale (76.6%) stood out as the main determinant or determinant of tax compliance in the Republic of Serbia. Bearing in mind the essence of the concept of tax morality, tax compliance is explained by its reciprocity through which it is realized. Specifically, taxpayers, individuals and legal entities, view taxes as part of the social contract, which provides that they pay for services they receive from the state. Tax compliance therefore depends on the fairness in taxation, the availability and quality of public goods and the quality of tax legislation. Models based on social effects indicate that the social and cultural environment is very important, and that greater availability and better quality of goods and services provided by the state positively affect compliance with tax regulations.

Based on Pearson Chi-Square's determined value of 3.948 with a significance of 0.413, the coefficient results indicate that there is no difference between the observed categories of taxpayers, individuals and legal entities, regarding the factors of tax evasion. There is a statistically significant difference in the responses regarding the question whether high tax rates encourage evasive behavior. Also, the least commonly held opinion is that reduced profits can cause non-compliance with tax obligations. Taking into consideration that different factors influence the level and modalities of evasion, we classified the factors in the following categories: economic factors, socio-political factors, psychological factors and fiscal-technical factors (Table 7 and Table 8). Based on the results,



the largest variations in the degree of compliance with tax regulations can be explained by economic factors, i.e., high tax rates 2 (29.0%).

Table 7
Determinants of tax evasion in the Republic of Serbia
(Sig. = 0.413, Chisq=3.948, authors' calculation)

		Determinants of tax evasion					
		High	Reduced	Lack of	Opinions	Distrust	
		tax	profit	awareness/incompleteness of	that	in the	
				legal regulations	everyone	state	
					pays taxes		
	N	16	8	13	9	9	55
	Individuals						
Tax payer	% in group	29.1%	14.5%	23.6%	16.4%	16.4%	100%
Lpa	N	15	3	14	6	25	52
Lax	Legal						
	entities	28.8%	5.8%	26.9%	11.5%	29.9%	100%
	% in group						
N		31	11	27	15	23	107
Tot	Total						
% i	n group	29.0%	10.3%	25.2%	14.0%	21.5%	100%

Table 8 Frequency of responses to the determinants of tax evasion (authors' calculation)

		Frequency	Percent	Chi quare p
	High tax	31	29.0	
	Reduced profit	1	10.3	
	Lack of	27	25.2	
Determinants of	awareness/incompleteness			
tax evasion	of legal regulations			0,012
tax evasion	Opinions that everyone	15	14.0	
	pays taxes			
	Distrust in the state	23	21.5	
1	Total	107	100.0	

Tax "deterrence" is thought to be most influenced by the complexity of the tax system, the level of income information, liability and penalties for taxpayers, the likelihood of a taxpayer's business being examined, the level of applicable tax rates and penalties for tax evasion [Devos, 2014; Jackson & Milliron, 1986; Richardson, 2006; Alm et al., 1992; Đurovic Todorović et al, 2019]. There is empirical evidence that with the increase of the tax rate, the rate of evasion behavior of the taxpayer becomes higher. Explicitly, tax evasion due to high tax rates, is more likely to rise in taxpayers with unfavorable economic position, while the taxpayers with a better economic position are more likely to pay higher tax rates.

Insufficient information or incompleteness of legal regulations is a factor that we categorized into factors of fiscal and technical nature. Modern governments pay special attention to the factors such as: abundance of tax regulations, taxation process and the functioning of tax administration. In the Republic of Serbia, the abundance of fiscal regulations, as well as the ambiguity and vagueness,

<sup>&</sup>lt;sup>2</sup> Increasing the value added tax rate (standard and reduced) did not prove to be the best solution for Serbia's economic growth and development, and it contributed to the growth of tax evasion. This confirms the share of VAT revenue in Serbia's gross domestic product, as a relevant indicator of the efficiency of collection of this form of tax. Available data show that the lowest share of VAT revenue was in 2013, in the year following the increase of the standard rate from 18% to 20%.



on the other hand, are the main reasons for the evasive behavior of taxpayers. By analogy, this factor has negative repercussions on the functioning of the tax administration itself, although errors in control may be frequent due to lack of knowledge of tax regulations or their vagueness. Research conducted in Malaysia [Loo et al., 2010] determines the knowledge of taxation-related matters as the most influential factor of tax compliance. Thus, clear and effective legislation, together with the formation of various databases, is one way that will contribute to solving the problem. Tax awareness is a crucial element in voluntary tax payment [Kasippilai, 2000]. Most taxpayers are insufficiently informed or uninformed about government revenue. It is important for the state to report to taxpayers on the allocation of their tax assets on a continuous basis, because in this way, there will be explicit satisfaction with the tax system.

One of the psychological causes of evasive behavior, which is a qualitative determinant of evasive behavior, is the distrust in the country, which is always present in a part of its population. The atmosphere of dissatisfaction is initiated by the negative connotation associated with the origin of the tax. Taxpayers very often distrust the state and feel that the state is taking too much and giving too little. Therefore, it is not surprising that 21.5% of respondents stated that this was the root cause of their evasive behavior. Taxpayers do not know how the public revenue is distributed. Therefore, when they must fulfill their tax obligations, they generally assess the potential benefits that they can gain from evasion and compare them with the negative effects to which they could be exposed to otherwise. If the benefits of the evasion are greater than the negative effects, the taxpayers choose evasion.

If we consider the causes of evasion in the Republic of Serbia from the aspect of their nature as subjective and objective, objective factors have a dominant influence. Namely, the excess tax burden in the Republic of Serbia has the largest repercussions for evasion.

#### Conclusion

Tax compliance is the heart of the healthy functioning of society. "Therefore, understanding the tax evasion behavior of taxpayers is very important" [De Neve et al., 2019]. Tax policies implemented by policymakers to help taxpayers cope with the economic recession, including tax amnesty, have short-term effects on reducing tax evasion. Namely, these measures may be ineffective with regard to anti-evasion policy, and "counterproductive in the long run, as they reduce the level of tax morale in a country, which significantly increases tax evasion and shadow economy" [Dell"Anno et al., 2019].

Reengineering the legal environment would contribute to reducing tax evasion in the Republic of Serbia. The tax policy design of developing countries must also include the administrative dimension of tax [Bird, 2004]. When it comes to tax legislation, it is necessary to strive for a comprehensive, comprehensible and sufficiently transparent tax regulation framework. Reducing the scope of the law would allow a country with a sluggish and overwhelming legal apparatus to enforce the law more efficiently. The complexity of the tax system is an important determinant of tax compliance. Therefore, the design and structure of the tax system have to be optimally designed. Although some taxes are easier and some more difficult to evade, forming optimal tax rates is one way to tackle evasion. This means that the state should at least rely on a policy of increasing tax rates. The highest efficiency of tax collection is achieved when fiscal policy measures are correlated with economic, legal and structural policies and have a strong synergistic effect, and a clearly defined policy can improve the development and competitiveness of a country. Reducing tax rates and broadening tax base are the most important steps of anti-tax evasion policy in the Republic of Serbia. Serbia, as a country that is not much different from countries with an average tax rate, bases its functioning on indirect taxes. With regard to tax design, it is concluded that it is better to apply lower tax rates or, in the case of consumption taxes, uniform tax rates, as the expanding of tax base can reduce the impact of reducing the overall loss due to taxation. Decisions regarding the amount and structure of tax rates should also be made with regard to the administrative capacity of the Republic of Serbia, i.e., how effectively tax administration can affect the ratio of real to reported income.



The degree of satisfaction of taxpayers will determine their willingness to participate in the financing of public sector functions. One way of forming a widespread belief among the citizens and legal entities that they are paying taxes that are equivalent to the services they receive, is good information. Tax knowledge is an important step towards voluntary tax payment. Most taxpayers are under-informed or not at all informed about government revenue. It is important for the state to report to its taxpayers on the allocation of its tax assets on a continuous basis, as this will, explicitly, satisfy the tax system. In this way, the level of trust in the Republic of Serbia would be increased.

In this paper we have raised issues related to tax evasion behavior of taxpayers and made recommendations for effective anti-tax evasion policy in the Republic of Serbia. Our research is an attempt to examine various financial aspects of tax evasion behavior in taxpayers. Based on the determination of tax evasion factors, we have proposed solutions to reduce the level of tax evasion in the Republic of Serbia, which could be beneficial to the tax authorities in implementing the current Tax Administration transformation program. It is our belief that the anti-facilitation of tax evasion policy in the Republic of Serbia should be based on a fundamental reform of Tax Administration, which includes the abolition of tax amnesties and the promotion of goods and services provided by the state to individuals and legal entities.

#### References

- 1. Affairs C.B. 2007. Closing the Floodgates: Collecting tax to pay for development. Tax Justice Network, 151 p.
- 2. Albulescu C., Tămăşilă M., Taucean I. 2016. Entrepreneurship, Tax Evasion and Corruption in Europe. Social and Behavioral Sciences, 221: 246–253.
- 3. Allingham Michael G. and Sandmo Agnar 1972. IncomeTax Evasion: A Theoretical Analysis. Journal of Public Economics, 1 (3–4): 323–338.
- 4. Alm J. 2019. What Motivates Tax Compliance. Working Paper 1903: Tulane Economics Working Paper Series, 1–65.
- 5. Alm J., Mckee M. 2006. Audit Certainty, Audit Productivity, and Taxpayer Compliance. National Tax Journal, 59(4): 801–816.
- 6. Anciūtė Aurelija, Kropienė Rūta 2010. The model of tax evasion, its corrections and coherence to the practical tax administrations. Ekonomika, 89 (4): 49–65.
- 7. Ančić J., Jelić M., & Đorđević J. 2016. Local Tax Policy in the Function of Development of Municipalities in Serbia. Procedia-Social and Behavioral Sciences, 263–269.
- 8. Andreoni J. 1992. IRS as Loan shark tax compliance with borrowing constraints. Journal of Public Economics, 49(1): 35–46.
  - 9. Anđelković M., Dimitrijević M. 2009. Poresko pravo Srbije. Niš: Pravni fakultet Niš.
- 10. Arsić M., Ranđelović S. 2017. Ekonomija oporezivanja: teorija i praksa. Beograd: Ekonomski fakultet.
- 11. Balliu Jonida 2014. Fiscal Evasion and Shadow Economy: Albanian Case. European Journal of Social Sciences Education and Research, 1 (1): 234:242.
- 12. Bethencourt C., Kunze L. 2018. Tax evasion, social norms, and economic growth. Journal of Public Economic Theory, 2018: 1–15.
  - 13. Bird R. 2004. Administrative Dimensions of Tax Reform. Asia Pacific Tax Bulletin, March 2004.
- 14. Bjukenan D. 1975. The limits of liberty: Between Anarchy and Leviathan. Chicago: University of Chicago.
  - 15. Brummerhoff D. 1996. Javne Financije. Zagreb, Mate, d.o.o.
- 16. Courdoumpalou S. 2018. Do Corporate Governance Best Practices Restrain Tax Evasion? Evidence from Greece. Journal of Accounting and Taxation, 8(1): 1–10.
- 17. Crane S., Nourzad 1986. Inflation and Tax Evasion: An Empirical Analysis. Review of Economics and Statistics, 68(2): 217–223.
- 18. De Neve J., Imbert C, Spinnewijn J., Tsankova T., Luts M. 2019. How to improve Tax Compliance? Evidence from Population-wide Experiments in Belgium, CERP Discussion Papers 13733, C.E.P.R. Discussion Papers.



- 19. Dell'Anno, Roberto & Davidescu, Adriana AnaMaria 2019. Estimating shadow economy and tax evasion in Romania. A comparison by different estimation approaches. Economic Analysis and Policy, Elsevier, 63(C): 130–149.
- 20. Devos K. 2014. Factors Influencing Individual Taxpayer Compliance Behaviour. Dordrecht: Springer Netherlands.
  - 21. Dimitrijević M. 2017. Ispunjavanje poreskih obaveza. Niš: Pravni fakultet.
- 22. Đurović Todorović J. & Đorđević M. 2019. Javne finansije: teorija i praksa. Niš: Ekonomski fakultet.
- 23. Đurović Todorović J., Đorđević M., Ristić, M. 2018. Estimating the dereminants of tax evasion using empirical data. Proceedings of the Faculty of Economics in East Sarajevo, 1(16): 11–19.
- 24. Đurović Todorović J., Đorđević M., Ristić M. 2019. Struktura savremenih poreskih sistema. Niš: Ekonomski fakultet.
- 25. Enachescu J., Olsen J., Kogler C., Zeelenberg M., Breugelmans, S. & Kirchler, E. 2019. The role of emotions in tax compliance behavior: A mixed-method approach. Journal of Economic Psychology, 74 p.
- 26. Erard B., & Feinstein J.S. 1994. The role of moral sentiments and audit perceptions in tax compliance. Public Finance, 49: 70–89.
- 27. Feinstein J.S. 1991. An econometric analysis of income tax evasion and its detection. The RAND Journal of Economics: 14–35.
- 28. Frey Bruno, Torgler Benno 2007. Tax Morale and Conditional Cooperation. Journal of Comparative Economics, 35 (1): 136–159.
- 29. Gaudement P.M. 2009. Finances Publiques-Emprunt et impot, Editions Montchestien, Publiched. 489 p.
  - 30. Goerke L. 2003. Tax Evasion and Tax Progressivity. Public Finance Review, 47 p.
- 31. Gordon Roger, Nielsen Soren. 1996. Tax Avoidance and Value Added Vs. Income Taxation in an Open Economy. National Bureau of Economic Research, NBER Working Paper No. 5527. URL: https://www.nber.org/system/files/working\_papers/w5527/w5527.pdf (accessed 10.03.21)
- 32. Grgić Radenka, Terzić Saudin 2014. Tax evasion in Bosnia and Hercegovina and business environment. Procidia-Social and Behavioral Sciences, 119: 957–966.
- 33. Hillman A. L. 2009. Public Finance and Public Policy: Responsabilities and Limitations of Government. Second Edition. Cambridge: University Press. doi:10.1017/CBO9780511813788
- 34. Jackson Betty, Milliron Valerie 1986. Tax Compliance Research: Findings, Problems, and Prospects. Journal of Accounting Literature, 5: 125–165.
- 35. Jenkins G.P. 2000. A VAT Revenue Simulation Model for Tax Reform in Developing Countries, Harvard Institute for International Development, Cambridge, MA, USA, 764 p.
- 36. Kamasa K. Adu G., Oteng-Abayie E. 2019. Business enfironment and firms decisions to evade taxes: Evidence from Ghana. African Journal of Business and Economic Research, 14(1): 135–155.
- 37. Kasippilai J. 2000. Taxpayer knowledge index as a clue for non-compliance. Journal on Pakistan's Taxation Laws, 81.
- 38. Khlif H., Amara I. 2019. Political connections, corruption and tax evasion: the cross-country investigation. Jorunal of Financial Crime, 26(2): 401–411.
- 39. Kidder R. 1989. Taxpaying Behaviour in Social Context: A Tentative Typology of Tax Compliance and Noncompliance, Ln: Jeffrey A.Roth & John T.Scholz (Ed.), University of Pennsylvania Press, Philadelphia, Taxpayer Compliance, 2: 46–75.
- 40. Loo E., Evans C., McKerchar. 2010. Challenges in understanding compliance behaviour of taxpayers in Malesia. Asian Journal of Business and Accounting, 3(2): 145–161.
- 41. Manasan Rosario. 1988. Tax evasion in the Philippines. Journal of Philippine Development, 15 (2): 167–190.
- 42. Orviska M., & Hudson J. 2002. Tax evasion, civic duty and the law abiding citizen. European Journal of Political Economy, 83.
- 43. Pommerehne Werner, Weck-Hannemann Hannelore. 1995. Tax rates, tax administration and income tax evasion in Switzerland. Kluwer Academic Publichers, 88: 161–170.
- 44. Ranđelović S. 2017. How to Boost Tax Compliance and Tax Morale in Serbia? SAE Journal of Business Economics and Management, 65 (1–2): 113–127.
- 45. Report C. 2013. Tax Governance: The Future Role of Tax Administrations in a Networking Society. INTERTAX 41, 265 p.



- 46. Richardson Grant. 2006. Determinants of tax evasion: A cross-country investigation. Journal of International Accounting, Auditing and Taxation, 15: 150–169.
- 47. Ristić M. 2017. Possibilities for reducing evasion of indirect taxes in Serbia. In International Scientific Conference: Contemporary Approaches in the Analysis of Economic Performances. Thematic Collection, Faculty of Economics Niš, October: 209–221.
  - 48. Rosen H.S., 2002. Public finance, Sixth Edition, McGraw-Hill Irwin, New York, 596 p.
- 49. Saad Natrah. 2014. Tax Knowledge, Tax Complexity and Tax Compliance: Taxpayers Viewю Procedia Social and Behavioral Sciences, 109: 1069–1075.
- 50. Savić G., Dragojlović A., Vujoševi M., Arsić M., Martić M. 2015. Impact of the efficiency of the tax administration on tax evasion. Economic research, 28(1): 1138–1148.
- 51. Scheider Friedrich, Raczkowski Konrad, Mróz Bogdan 2015. Shadow economy and tax evasion in the EU. Journal of Money Laundering Control, 18 (1): 34–51.
- 52. Sipos Agnes 2015. Determining factors of tax-morale with special emphasis on the tax revenues of local self-govenments. Procedia-Economics and Finance, 30: 758–767.
- 53. Torgler B. 2003. To evade taxes or not to evade: that is the question. The Journal of Socio-Economics, 32(3): 283–302.
- 54. Varvarigos D. 2017. Cultural norms, the persistence of tax evasion, and economic growth. Economic Theory, 63(4): 961–995.

**Конфликт интересов:** о потенциальном конфликте интересов не сообщалось. **Conflict of interest:** no potential conflict of interest related to this article was reported.

#### ИНФОРМАЦИЯ ОБ АВТОРАХ

#### INFORMATION ABOUT THE AUTHORS

Ядранка Джурович Тодорович, доктор профессор экономических наук, кафедры национальной экономики И финансов, факультет Экономический государственного Университета в городе Ниш, г. Ниш, Сербия

**Jadranka Đurović Todorović,** Ph.D. in Economics, full professor of Department for National Economy and Finance, Faculty of Economics University of Niš, Niš, Serbia

**Марина Джорджевич**, доктор экономических наук, профессор кафедры национальной экономики и финансов, Экономический факультет государственного Университета в городе Ниш, г. Ниш, Сербия

**Marina Đorđević,** Ph.D. in Economics, full professor of Department for National Economy and Finance, Faculty of Economics University of Niš, Niš, Serbia

Милица Ристич Цакич, кандидат экономических наук, магистр экономики, научный сотрудник, Инновационный центр государственного Университета в городе Ниш, г. Ниш, Сербия

**Milica Ristić Cakić,** Ph.D. in Economics Candidate, MSc in Economics, researcher in Innovation Center University of Niš, Niš, Serbia