REVIEW ARTICLE
UDK: 336.22:172.1(497.11)
Date of Receipt: December 15, 2016

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HOW TO BOOST TAX COMPLIANCE AND TAX MORALE IN SERBIA?

Kako podići stepen naplate poreza i poreski moral u Srbiji?

Abstract

Shadow economy in Serbia is estimated at approx. 31% of GDP, which is by one sixth above the Central and Eastern Europe (CEE) average, suggesting that tax compliance and tax morale in Serbia are low, with severe effects on public finances sustainability, quality of goods provided by the public sector, and doing business environment. This paper examines the factors of high shadow economy, i.e. the drivers of low tax compliance in Serbia compared to other CEE countries, and identifies key elements of the effective strategy aimed at boosting tax compliance and tax morale. Tax compliance decision depends on fundamental factors (level of taxes, penalties and probability of detection), as well as on other factors shaping taxpayers' willingness to pay taxes voluntarily (tax morale). The results suggest that the level and structure of tax burden, along with the tax penalties policy in Serbia do not differ significantly from other CEE countries, while probability of detection of non-compliance is most likely lower than in other countries. In terms of tax morale drivers, Serbia performs as good as other CEE countries in terms of tax compliance costs, while frequent tax amnesties and low quality of public goods and services (compared to other CEE countries) have adverse impact on tax morale and tax compliance. Effective strategy to boost tax compliance and tax morale should entail a thorough reform of the Tax Administration, credible commitment that tax amnesties will not be repeated and a set of measures aimed at improving the quality of basic goods and services provided by the public sector.

Keywords: *shadow economy, tax evasion, tax compliance, tax policy, economic policy*

Sažetak

Siva ekonomija u Srbiji se procenjuje na oko 31% BDP-a, tj. za oko jednu šestinu iznad proseka zemalja Centralne i Istočne Evrope (CIE), ukazujući na visok nivo utaje poreza i nizak nivo poreskog morala, što ima ozbiljne posledice po održivost javnih finansija, kvalitet dobara koja pruža javni sektor i uslove poslovanja. U ovom radu se analiziraju uzroci visokog nivoa sive ekonomije i utaje poreza u Srbiji u poređenju sa drugim državama CIE i identifikuju se ključni elementi efektivne strategije za suzbijanje utaje poreza i povećanje poreskog morala. Siva ekonomija i utaja poreza zavise od fundamentalnih faktora (visina poreza, kazni i verovatnoće otkrivanja), kao i od drugih faktora koji utiču na spremnost obveznika da dobrovoljno plaćaju porez (poreski moral). Rezultati ukazuju da visina poreza i struktura poreskog opterećenja u Srbiji, kao i kaznena politika, ne odstupaju značajno od proseka CIE, dok je verovatnoća otkrivanja utaje poreza verovatno niža. U pogledu determinanti poreskog morala, Srbija ostvaruje rezultate uporedive sa prosekom zemalja CIE u domenu troškova primene poreskih propisa, dok česte poreske amnestije i nizak kvalitet dobara i usluga koje pruža javni sektor (u poređenju sa drugim državama CIE) ima negativan uticaj na poreski moral i utaju poreza. Efektivna strategija za suzbijanje utaje poreza i podizanje poreskog morala bi trebalo da bude zasnovana na temeljnoj reformi Poreske uprave, kredibilnom obavezivanju države da će se prekinuti sa praksom poreskih amnestija, kao i na skupu mera za unapređenje osnovnih dobara i usluga koje pruža javni sektor.

Ključne reči: *siva ekonomija, utaja poreza, primena poreskih propisa, poreska politika, ekonomska politika*

Introduction

Shadow economy[1] encompasses legal economic activities conducted informally (i.e. not disclosed in official records). There are different motives for economic agents to engage in informal economy, with evasion of taxes and avoidance of other regulatory costs being the most significant. Shadow economy narrows the tax base, thus plummeting the tax revenues and potentially triggering deterioration of quality of public goods and services and their availability, consequently impeding long run growth. Widespread shadow economy also has a negative impact on doing business environment, since it violates the level playing field, by making more competitive those economic agents which operate informally in comparison with the agents operating in the formal sector [23].

Although tax evasion is the main motive (and the main consequence) of shadow economy, neither shadow economy nor tax evasion may be observed or precisely measured, but they can rather be estimated, using different statistical and econometric methods, applied to the data from national accounts or micro surveys [13]. Shadow economy and tax evasion are larger in the Central and Eastern European (CEE) countries than in developed countries of Western Europe [22]. According to the recent studies, the CEE average shadow economy is close to 27% of GDP, which is by more than 7% of GDP higher than the EU-27 average, Bulgaria, Serbia, Romania and Lithuania being the top-ranking countries in terms of size of shadow economy. Further to the same study, shadow economy in Serbia is estimated at approximately 31.4% of GDP, which is by one sixth above the CEE average and by more than 70% above the EU-27 average [13].

Since tax evasion is the main motive for economic agents to conduct their business transactions in an informal sector, fundamental determinants of shadow economy are those that drive tax evasion/tax compliance decision. In economic literature, tax evasion behavior is regarded as a matter of rational choice under uncertainty, suggesting that tax evasion decision is made based on the marginal costs and marginal benefits [1]. If marginal benefits of tax evasion (underpaid taxes) exceed the marginal costs (expected fine to be paid if discovered by the Tax Administration), economic agent would be incentivized to evade, i.e. to conduct business transaction in an informal sector. This means that the level of tax burden, statutory fine for tax evasion and probability of detection are the fundamental determinants of tax evasion/shadow economy decision. However, according to economic literature, other (non-financial) factors may also affect the tax compliance decision. These factors are referred to as tax morale, which represents willingness of taxpayers to pay taxes, i.e. to comply with tax legislation. The level of tax morale in a country may be driven by numerous factors, the most important being tax compliance costs, sense of equity of enforcement of tax legislation and tax compliance costs.

As shadow economy and tax evasion in Serbia are larger than in most other European countries, with significant consequences on public finances sustainability and doing business environment, the aim of this paper is to analyze the reasons for widespread shadow economy, i.e. the factors behind low tax compliance and tax morale in Serbia, and to identify effective policy mix which should result in boosting tax compliance and tax morale in Serbia to the CEE average by the end of the current decade. The results suggest that the taxes in Serbia are close to (or slightly below) the CEE average, both in terms of the level of tax rates, structure of tax mix and tax compliance costs. It has also been concluded that the penalty policy for tax non-compliance in Serbia is comparable with the prevailing practice in Europe. This means that the higher level of shadow economy and tax non-compliance in Serbia, compared to the CEE countries, cannot be attributed to these features of the tax system. On the other hand, the results of comparative analysis show that Serbia is lagging behind considerably in terms of tax collection efficiency (probability of detection of tax non-compliance), due to a lack of resources and their inefficient use. It is also estimated that repeated tax amnesties may have had negative impact on the overall tax moral, thus contributing to non-compliance. Benchmark analysis also indicates that Serbia is performing more poorly than most other CEE countries, in terms of quality of public goods and services. Effective policy mix aimed at tackling shadow economy and boosting

1 Informal economy, grey economy, unofficial economy are synonims.

tax compliance and tax morale should entail, inter alia, a thorough reform of the Tax Administration, credible commitment of the government that tax amnesties will not be repeated and systemic approach to improvement of availability and quality of goods and services, provided by the public sector.

The rest of the paper is structured as follows. In section 2, fundamental factors (the tax policy, penalties policy and tax enforcement efficiency) related to the extent of the shadow economy and tax evasion in Serbia are analyzed. Section 3 addresses the impact of indirect factors on tax non-compliance, i.e. tax morale determinants in Serbia, including the tax compliance costs, tax amnesties and quality of public goods. Section 4 provides concluding remarks and policy recommendations.

Section 2: Fundamental drivers of tax compliance in Serbia

Further to the Allingham-Sandmo seminal model [1], tax evasion decision is a matter of trade-off between marginal costs and marginal benefits from evasion, suggesting that the level of taxes (or more broadly – features of the tax system), penalties policy and tax enforcement efficiency (probability of detection of evaders) are the fundamental drivers of tax evasion and tax compliance.

Tax policy and tax compliance

Both the theoretical and empirical economic literature suggests that several features of the tax system may have an impact on shadow economy/tax compliance and economic growth, including the level of tax burden and the structure of tax system (tax mix). Therefore, in order to assess whether the features of the tax system may have contributed to a relatively higher shadow economy than in other CEE countries, comparative analysis of the tax systems should be conducted.

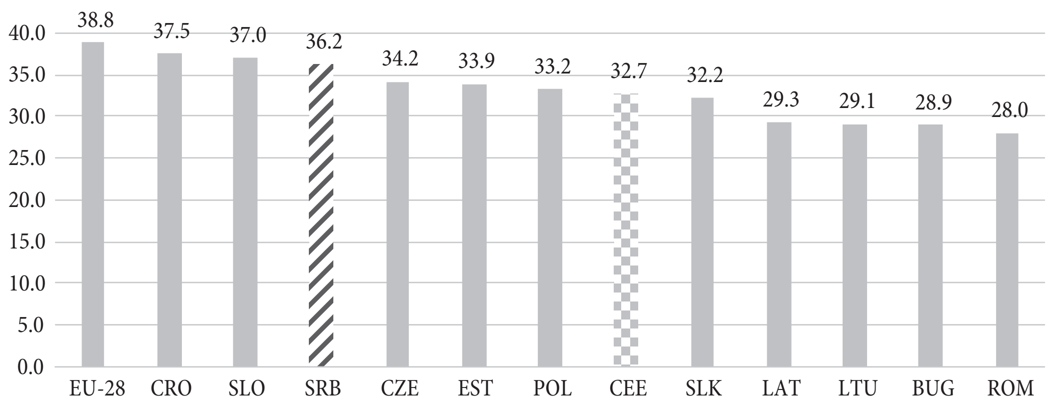
Level of tax burden

Higher taxes imply higher reward (marginal benefit) from tax evasion (non-compliance), which means that the level of tax burden is one of the main determinants of tax evasion. Level of taxes may be measured using comprehensive indicators, such as tax-revenues-to-GDP ratio. However, the level of this ratio may be influenced not only by the level of taxes, but also by the structure of the economy, which is why additional measures of the level of tax burden, such as the level of particular tax rates, may be used.

The total tax revenues in Serbia in 2015 amounted to approx. 36.2% of GDP, which is by 2.5% of GDP higher than the CEE average, but at the same time by 2.6% of GDP lower than the EU-28 average (Figure 1). The total tax burden in Serbia is comparable with the level of tax burden in Slovenia and Croatia (still somewhat lower), the Visegrad group of countries having slightly lower tax burden, while the lowest tax burden is posted in the Baltic countries, as well as in Bulgaria and Romania.

The amount of tax revenues depends on the level of particular taxes and the structure of the economy, which means that a higher level of total tax revenues in Serbia

Figure 1: Total tax revenues in the CEE in 2015 (% of GDP)

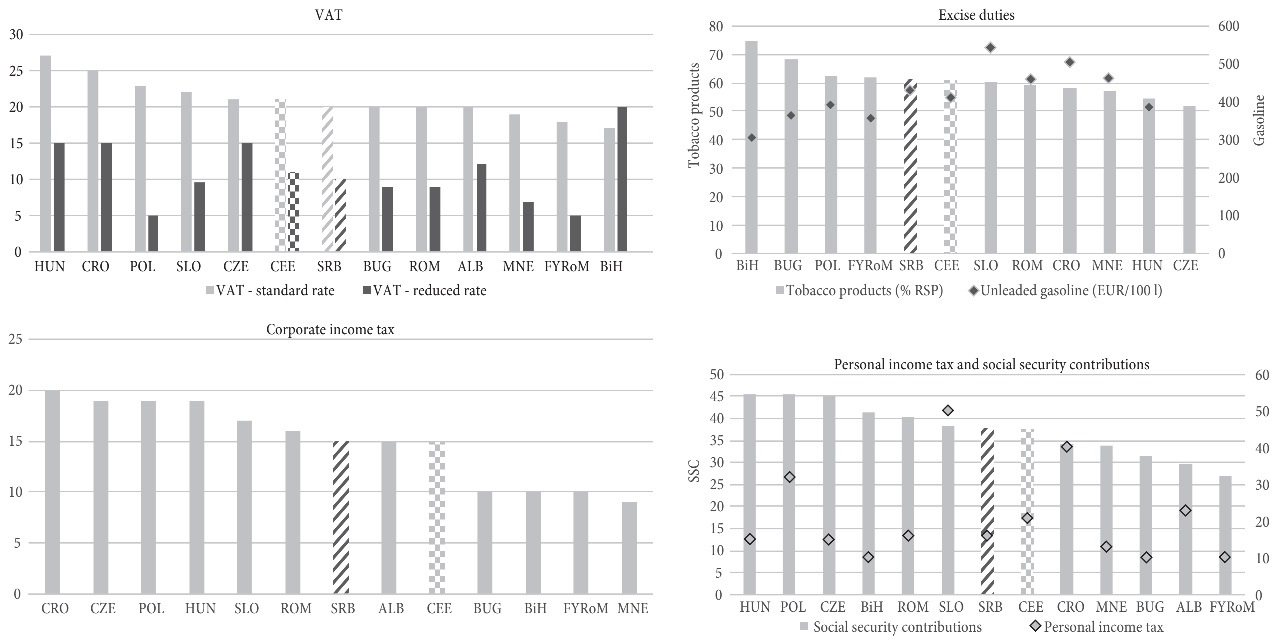


Source: [9].

than the CEE average may be the consequence of higher tax rates, as well as of the difference in the structure of GDP. Therefore, in order to answer the question whether the taxes in Serbia are higher than in other CEE countries, it is necessary to compare and analyze main taxes and the structure of the economy. VAT, excise duties, social security contributions, personal income tax and corporate income tax account for more than 93% of tax revenues in Serbia. Standard VAT rate of 20% and the lower VAT rate of 10% in Serbia are by one percent point lower than the CEE average (21% and 11% respectively), Serbia being the median CEE country based on the level of the VAT rates. Excise duties on gasoline in Serbia (EUR 427 per thousand liters of unleaded gasoline) are only slightly above the CEE average (EUR 415 per thousand liters), four out of 11 CEE countries having higher excise duties wedge on gasoline than Serbia. Situation is similar in terms of excise duties on tobacco products, since the effective excise duties wedge on cigarettes in Serbia (61.3% of retail selling price) is very close to the CEE average (61% of retail selling price). Serbia was the first CEE country to cut the corporate income tax (CIT) rate to 10%, in 2005, in order to attract FDI. However, this has then triggered strategic reaction of the other CEE countries, which is why now many of them apply the CIT rate of 15% or less. In the course of fiscal consolidation, Serbia has increased the CIT rate to 15% in 2013. However, this is still almost equal to the average CIT rate in the CEE, six out of 11 CEE countries still having higher CIT rates than Serbia. Similar case is with regards to the personal income tax rates and social security contributions, since the total social contributions rate in Serbia (37.8%) is slightly below the CEE average (38.2%), while in case of personal income tax, the top marginal tax rate in Serbia (16%) is considerably below the CEE average (20.8%). This comparative analysis suggests that main tax rates in Serbia are close to or below the CEE average, in most cases Serbia being ranked as the median or below the median country.

Serbia's growth model in the 2000s was based on rise in consumption (and import), which are subject to consumption taxes (VAT, customs duties and excise duties), while export and investments (exempted from consumption taxes) were low. Thus, the total investments in Serbia in 2016 are estimated at 19% of GDP, which is by one fifth lower than the CEE average, while the total export in Serbia is still below 50% of GDP comparing to almost 80% of GDP in the CEE. Comparative analysis of the tax rates and the structure of GDP suggest that buoyant tax revenues in Serbia are not the consequence of high taxes, but rather the consequence of the structure of the economy, since the share of taxable components of GDP (personal and government consumption and import) in

Figure 2: Tax rates: Serbia vs CEE



Source: [9] and websites of national ministries of finance.

Serbia is higher than in other CEE countries, while the share of tax exempted categories (export and investments) is below the CEE average. Therefore, it may be concluded that the tax burden in Serbia is not effectively higher than in other CEE countries, which means that larger shadow economy in Serbia when compared to the CEE average may not be attributed to the level of taxes.

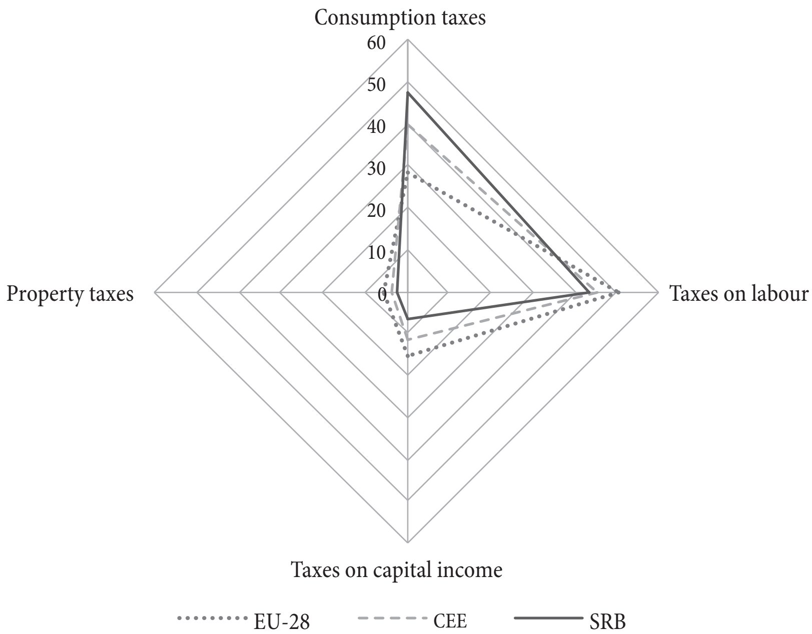
Tax mix, shadow economy and economic growth

Developing countries tend to rely more on consumption taxes rather than on taxes on production factors. One possible explanation is that consumption taxes (which are usually linear) are easier to enforce than income taxes (which are often non-linear), due to several reasons [10]. First, enforcement of non-linear taxes is more demanding in terms of data collection and administration sophistication. Second, consumption taxes are often self-enforced (which is the case with VAT and excise duties in Serbia as well as in other European countries). Third, there are fewer collection points for consumption taxes (firms) than for income taxes (individuals). According to 2015 data, CEE countries are relying more heavily on consumption taxes than other EU countries, while the old EU Member States rely more on taxation of labor, capital income and property. This is also the case in Serbia, where approx. 47% of tax revenues come from consumption taxes, comparing to 40% in the CEE countries and 28% in the EU-28, while reliance on taxation of labor and capital is proportionally lower (Figure 3). If consumption taxes are less easy to evade than income taxes, it may be concluded that the tax mix in Serbia is more discouraging for shadow economy and tax evasion than in other CEE countries, including the rest of Europe.

According to the endogenous growth models, taxation may have an impact on economic growth, by affecting both labor utilization (employment and labor supply) and labor productivity (physical and human capital accumulation and the total factor productivity). On the other hand, shadow economy/tax evasion may also influence economic growth by means of the level playing field factors and via availability and quality of public goods and services. Taxes affect a households' decision to save, work, invest in human capital, as well as a firm's decision to produce, create jobs, invest and innovate. However, impact of particular taxes on economic behavior is not uniform, but rather differentiated, which means that tax structure may have an impact on economic growth.

Consumption taxes are mostly neutral to saving, since they do not alter the (after-tax) rate of return to savings. However, they may affect employment and labor supply decision, because they may lower the purchasing power of wages or increase the labor costs, the extent of these

Figure 3: Share of taxes in the total tax revenues in 2015 (%)



Source: [9] and the Ministry of Finance of Serbia.

effects being dependent on the labor market settings. Differentiated consumption taxation (e.g. introduction of taxes on consumption of goods complementary with leisure) may promote labor supply and/or yield positive effects on environment. On the other hand, from the annual income perspective, these taxes are perceived as regressive. *Personal income taxes* (as well as the social security contributions) may affect both labor utilization and productivity. Namely, labor taxes (if borne by employee) may curb labor supply, provided that substitution effect prevails over the income effect, as usually suggested by empirical literature [14]. They can also lower labor demand, if the tax burden is borne by employer [16]. Capital income taxes may affect investment in physical and human capital, thus consequently also affecting the total factor productivity. If capital income and labor income taxation is differentiated, this could also trigger reallocation of inputs within or between industries, in an efficiency-harming manner, thus lowering the total factor productivity. *Corporate income tax* directly lowers the net-of-tax rate of return, thus having a negative impact on capital accumulation and (domestic and foreign) investments, a small open economy being more likely to experience larger negative effects. Thus, empirical literature suggests that reduction of the statutory corporate income tax rate from 35% to 30% would increase investment-to-capital ratio by 1.9%, the elasticity of investments to the user cost of capital being estimated at 0.7 [24]. In addition, corporate income tax may have a negative impact on the total factor of productivity, by altering the relative factors prices (which triggers capital reallocation), by increasing tax compliance costs, reducing incentives for investment in research and innovation, and by discouraging FDI [11]. *Property taxes* (on land and buildings) have a small negative impact on economic growth, since they do not affect labor utilization, while their impact on physical capital accumulation and the productivity is limited. On the other hand, these taxes, if designed properly, may promote usage of underdeveloped land.

Although all taxes affect economic growth drivers, empirical literature suggests that particular types of taxes differ significantly in terms of size of these effects. Thus, results of empirical analyses suggest that recurring property taxes are least distortive in terms of long-run growth, followed by consumption taxes, with the negative impact of personal income taxes being stronger and the corporate income tax having the strongest negative effect on economic growth (Johansson et al, 2008). Furthermore, the empirical literature suggests that shift of 1% of tax revenues from personal income to consumption and property may increase GDP per capita by 0.25-1 percent point [6].

As presented in Figure 3, the share of consumption taxes in the total tax revenues in Serbia is considerably above the average in other CEE and EU countries, while the share of taxes on labor, capital and property is lower. This means that the space for growth-enhancing restructuring of the tax mix, by cutting labor taxes and increasing consumption taxes, is limited. However, since the consumption tax rates in Serbia are still somewhat lower than in other European countries, there is still some space for shift of tax burden from labor to consumption.[2] Such reform would promote investment and export-led growth, as the cut in labor costs would improve external cost competitiveness of Serbian companies (due to decline in labor costs), while additional burden would be put on import and consumption, which means that exporting companies would not be directly affected. Taking into account that consumption taxes are easier to enforce than labor taxes, such reform could also bring positive effects on tax compliance. The tax reform would need to be designed and conducted in a revenue-neutral manner, i.e. to keep the total tax revenues at the same level (before behavioral reaction to reform occurs). It would be risky and costly (from macroeconomic stability point of view) to design the tax reform in a revenue-negative manner, expecting that a cut in labor taxes would induce formalization and activation, which would be sufficient to compensate for direct losses in tax revenues, as there are

2 Such tax reform was initially proposed (and rejected) in Serbia in 2010, when the fiscal space was much larger, since VAT rates (18% and 8%) and excise duties rates were considerably lower [7]. In 2013, the Minister of Economy at that time proposed the tax reform which implied sharp decline in labor taxes and shift of tax burden to property taxation. Property tax revenues in Serbia amount to approx. 1% of GDP, which is below the EU-28 average, but at the same time by 40% higher than the CEE average. Property taxes revenues are much lower than the labor tax revenues, which makes such reform politically and practically non-viable (e.g. a cut in labor taxes by 20% would need to be accompanied by an increase in property taxes by three times).

no strong evidences on the magnitude of formalization and activation effects. If the tax reform triggers formalization of economic activity and accelerates economic growth, thus yielding additional tax revenues, a cut in some taxes could be considered in the next round.

Serbia is expected to open the Chapter 16 on taxation in the EU accession negotiations in 2017. In terms of tax policy at the EU level, the coordination is mostly focused on parameterization of some taxes, aimed at enabling free flow of goods and services within the single market. Therefore, the EU legal framework in taxation consists of detailed harmonized rules for parameterization of consumption taxes (VAT and excise duties) and only a few provisions on direct taxes, targeted at elimination of distortions of business operations within the single market. Further to the Screening report on Chapter 16 – Taxation, Serbia's VAT system is to a large extent aligned with the EU directives, so in a due course only slight further amendments need to be made in order to achieve full harmonization (cancelling VAT exemptions for purchase of new flats, dropping housings from the list of goods taxable at the lower VAT rate, etc.). In terms of excise duties, more considerable changes will be required. The reforms should entail changing the way the excise duties on alcoholic drinks are stipulated, by making the tax rates a function of the percent of alcohol. In addition, excise duties on fuel oil, kerosene, natural gas, coal and oak should be introduced, while in terms of tobacco products, excise duties will need to be further increased from below EUR 50 per 1,000 pieces of cigarettes to at least EUR 90 per 1,000 of cigarettes (to reach the EU minimum total excise duty). In terms of direct taxes, Serbia will need to ensure alignment with the Parent Subsidiary Directive on the common system of taxation applicable in the case of parent companies and subsidiaries of different Member States. The elimination of double taxation will have to be guaranteed by the adoption of provisions offering tax credits or exemptions to resident companies receiving dividends from other EU Member States which have already been subject to taxation, while regarding dividends distributed by the Serbian resident companies, a system of direct exemption must be adopted. Upon accession to the EU, Serbia will also need to make some changes to its company legislation and corporate income tax legislation, in order to align with the Merger Directive and the Interest and Royalty Directive. Serbia will be also required to align its future tax policy measures with the Code of Conduct for Business Taxation and to abstain from harmful tax competition behavior. The aim of the harmonization of the tax system with the EU directives, which is supposed to take place in the course of the EU accession, is to enable full integration of Serbia into the single market following accession. Therefore, impact of the EU accession negotiations on design of the tax mix in Serbia would be limited, due to a lack of common rules in this area.

Tax penalties and tax compliance

According to the standard tax evasion model [1], tax evasion is negatively related to the level of penalties, the hike in penalty rate lowering the reward for tax evasion, thus discouraging non-compliance. While the empirical literature on the impact of tax rates and probability of tax audit on tax evasion is rich, the empirical evidence on the impact of penalties on tax evasion is limited, with most of empirical papers suggesting that the penalty rate is important deterrence from tax evasion [3], [4].

Until 2014, fines and penalties for breach of tax legislation in Serbia were regulated by means of numerous sectoral laws (e.g. the Law on VAT, the Law on Personal Income Tax, the Law on Corporate Income Tax, etc.), as well as by the framework Law on Tax Procedure and Tax Administration, with penalty-related provisions of the sectoral laws often not being aligned with provisions of the framework law. This was creating ambiguities and legal uncertainty, both from the tax administration and taxpayer perspective, since it was a matter of judgment as to which provisions are to apply in a particular case. In 2014, a major reform of the tax penalty system in Serbia was conducted – penalty provisions were removed from the sectoral laws, while the penalty-related provisions of the framework law were extended and restructured, the manner in which penalty rates are defined being changed (shift towards ad valorem penalties) and the penalty rates being effectively increased. Therefore, after the 2014 reform, all penalties for breach of tax legislation were anchored in the Law on Tax Procedure and Tax Administration, while penalty rates became considerably higher than prior to the reform. At the same time, the interest for late payment of taxes was redefined, so as to be equal to the policy rate of the National Bank of Serbia increased by 10 pp. The 2014 tax penalties reform has aligned the tax penalties scheme in Serbia with the Europe's best practice, creating one of the prerequisites to tackle shadow economy and tax evasion more efficiently. However, due to public pressure of various interest groups, in 2016 a part of the reforms was reverted, penalty rates for some forms of non-compliance being effectively reduced.

In the EU, there is no harmonized approach to tax penalties system, which means that it is up to the Member States to define tax penalties policy in the way they find suitable. At the same time, to the best of our knowledge, there is no comprehensive comparative overview of tax penalties system in Europe, which is why the comparative analysis is usually performed using available data and information on a limited group of countries. Further to the available data, interest rates for late payment of taxes in Europe vary from 1.8% in Hungary, to 14% in Serbia, the mean late interest penalty rate being close to 7%. Interest for late payment of taxes is often attached to the central bank policy rate, in order to make it attached to inflation and keep the real late interest rate penalty positive. The purpose of the late interest penalty is not to punish taxpayer for evading taxes, but rather to make the financing strategy which relies on late payment of taxes even (in terms of borrowing costs) with the financing strategy relying on borrowing at the market. At the time the tax penalty scheme in Serbia was reformed, the average interest rate on dinar-denominated borrowings to the companies was by 10-15 pp above the central bank policy rate. Taking into account that interest rates on borrowings from the banks in Serbia are still higher than in other European countries, and that in the past the inflation rate was higher and more volatile than in the peer countries, the late interest penalty rate equal to the policy rate increased by 10 pp can be regarded as adequate.

Table 1: Tax penalties in selected European countries

	Late interest penalty	Fine (% of underpaid tax)		
		% of underpaid tax	Ceiling in EUR	Max. years of imprisonment
AUT	2.25%	2-200	5,000	3
BEL	7%	10-200	500,000	10
CRO	12%		65,616	10
FRA	4.8%	5-80		7
GER	6%	50-100	1,800,000	5
HUN	1.8%	20 -200	1,710	2
ITA	2.5%	30 -240		10
LUX	7.2%	10-4,000		3
NED	3%	2 -100	4,920	6
POL	10%		670	25
SLO	9%	45		12
SRB	14%	10 -100	16,200	10

In the most European countries, tax evasion penalty rates are attached to the amount of underpaid tax (ad valorem), while often the top and bottom floors are stipulated (in the absolute amount). Tax penalty rates in 11 selected European countries (Table 1) range from 2% to 4,000%, the mean range being from 18.4% to 134%[3], which is slightly higher than in Serbia, but still comparable. For severe breach of tax legislation (such as introduction of sophisticated tax evasion schemes, resulting in evasion of large amounts of taxes) usually imprisonment penalties are stipulated. Maximum imprisonment penalties range from 2 years (in Hungary) to 25 years in Poland, the sample average being 8.5 years, which is slightly lower than the maximum sentence stipulated by the Serbian tax law (10 years).

The comparative analysis of the tax penalty schemes in Serbia and 10 other European countries suggests that tax penalty scheme in Serbia is to a large extent harmonized with the practice in other countries, tax penalties structure and levels being close to the average. This may suggest that larger shadow economy and tax evasion in Serbia, when compared to other countries, are not caused by low statutory penalty rates. In practice, many tax audit cases end up in court, the initial assessment and fine imposed by the Tax Administration being revised downwards, which may suggest that, in some cases, this is due to inappropriate assessment by the Tax Administration, while in other cases it may also be due to general practice of Serbia's judiciary system, that courts tend to assess the sentence close to the lower bound. Therefore, in order to tackle non-compliance more effectively, no significant changes to tax

3 Upper limit in Luxembourg has been dropped from calculation of the mean range, as an outlier.

penalties legislation are required, but rather considerable improvement of enforcement of the penalties.

Tax enforcement efficiency and tax compliance

Impact of probability of detection on tax evasion behavior was subject to many empirical studies, almost all of them suggesting strong negative impact of tax audit probability on tax evasion [3], [17], [25], some of them showing that impact of probability of detection on deterrence from tax evasion is stronger than impact of the marginal tax rates and penalties [19].

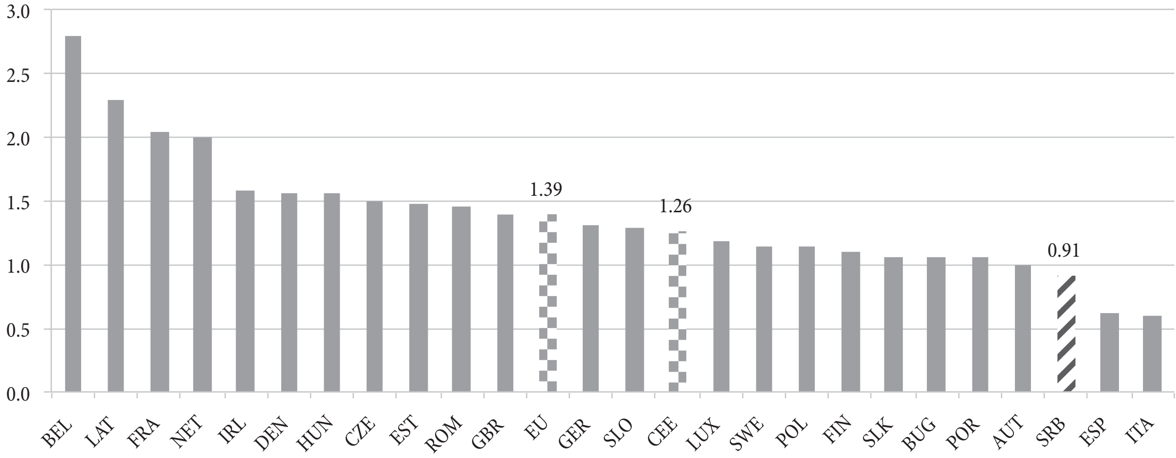
According to the survey conducted on the representative sample of 1,251 companies in Serbia, in October 2012, close to 53% of respondents perceive the probability of being caught for tax evasion as low, while only 14% of them perceive that probability as high. Probability of detection is strongly associated with the efficiency of the Tax Administration. Therefore, the reasons behind the low probability of detection for tax evasion in Serbia are related to human resources issue within the Tax Administration (understaffing and low salaries), lack of financial resources and various organizational issues.

Further to the 2015 data, the Tax Administration in Serbia had approx. 6.5 thousand employees, i.e. 0.91 employees per thousand inhabitants, which is, in relative terms, considerably below the CEE average (1.26 employees per thousand inhabitants) and the EU average (1.39 employees per thousand inhabitants).These data suggest that the Tax Administration in Serbia is considerably understaffed. In addition to that, the structure of the staff is worse than the CEE average, since the average age is close to 50, while only 55% of staff hold a university degree – comparing to the CEE average of 70%. The picture on the education structure of the Tax Administration staff would look even less favorable, if the quality of degrees was taken into account, due to widespread practice of hiring or promoting people with the low-quality university degrees, usually obtained in a few months' time. In addition to that, the salaries of the Tax Administration staff are relatively low, ranging from EUR 200 per month (net) for junior tax inspectors to EUR 1,100 per month for the director of the Tax Administration, with net monthly salary of a senior tax inspector amounting to less than EUR 500 per month. Such compensation scheme does not make the Tax Administration the employer of choice for young graduated professionals, at the same time crowding out experienced professionals with language and IT skills, since the market rates are a few times higher.

Besides the human resource challenges, the Tax Administration in Serbia is also facing the lack of financial resources. Tax Administration expenditures in Serbia account for only 0.5% of tax revenues collected by that institution, while the CEE average is close to 1%. This is to some extent the consequence of the mentioned understaffing problem and low salaries, but it also reflects underinvestment in fixed assets, IT equipment, literature, training and education.

The most important organizational issues contributing to low probability of detection are related to the organization

Figure 4: Number of Tax Administration staff per 1,000 inhabitants



Source: [26] and Fiscal Reform and Economic Governance website (www.fiscalreform.net).

of business processes (and related allocation of staff) and the system of planning of tax audits. Out of the total number of the Tax Administration staff, only around 10% of them are engaged in audit operations (approx. 600 tax inspectors), while the rest are dealing with administrative, technical and supporting activities. Such structure is inherited from the past, when the tax returns were submitted and processed manually. In 2013, the Tax Administration has started to introduce electronic filing of tax returns, and it is expected that by the end of 2017 a full shift toward e-filing will be achieved. This will make a large number of staff, who were working on tax returns processing, available for other, more productive operations. In 2015, the Tax Administration has trained a few hundreds of administrative staff for simple tax audit operations (e.g. audit of issuance of fiscal receipts, etc.). Similar can be done with additional few hundreds of employees, who will become available upon completion of introduction of e-filing system. This will make educated and trained tax inspectors available to deal with more complicated tax audit cases. A rise in the number of field controllers and the number of tax inspectors will result in increase of perceived probability of detection. In addition to that, the risk assessment unit should be strengthened by adding highly qualified staff with strong quantitative background that would be in charge of creating and applying the complex risk assessment models and preparing the effective tax audit plans, thus focusing the limited tax audit resources to the taxpayers which are most prone to evasion.

Bearing in mind the fact that probability of detection is one of the crucial determinants of shadow economy and tax evasion, and that the probability of detection in Serbia is seen by taxpayers as relatively low, the strategy aimed at effectively tackling shadow economy should put the reform of the Tax Administration at the top of the agenda. In that respect, the reform of the system of selection, promotion and compensation is fundamental. Fully merit-based selection and promotion system should be established. At the same time, supply of graduates with relevant knowledge and skills in economics, finance, law and IT is limited, which means that the strategy should also stimulate higher education institutions to adapt their curriculums, so as to be able to offer graduates with such knowledge and skills mix. After the selection and promotion system is fully aligned with the good corporate (merit-based) practice, the salaries of the Tax Administration staff should be considerably increased, so as to make it attractive for skilled professionals. Increase in wages, without prior reform of the system of selection and promotion could even yield negative effects, since it would make the Tax Administration more attractive for non-merit based hiring and promotion (partisanship, nepotism, etc.). Relatively unfavorable age structure of employees is at the same time a window of opportunity, since the Tax Administration will be able to offer a few hundred new jobs every year. An effective system of selection, promotion and staff compensation could result in considerable rise in efficiency in tax collection in the mid run.

Section 3: Tax morale and tax compliance

Tax morale may be defined as taxpayers' willingness to pay taxes. As such, tax morale reflects other (non-fundamental) factors that shape taxpayers' attitude toward tax compliance, the most important being tax compliance costs, the sense of equity of tax policy enforcement and the quality of public goods and services.

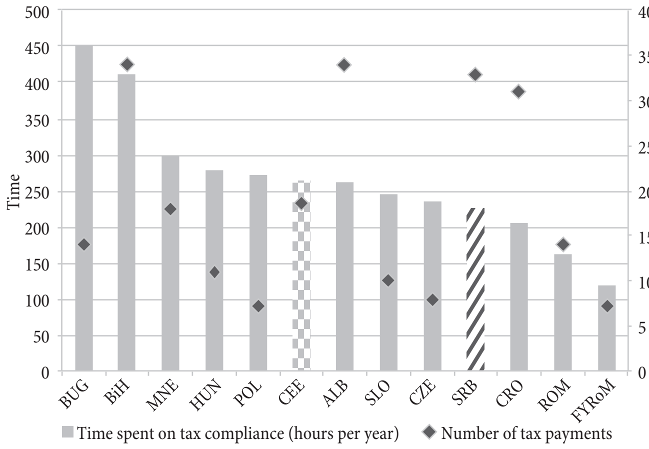
Tax compliance costs

Compliance costs encompass all related non-tax costs, associated with tax compliance operations, including preparation and submission of tax returns, payment of taxes, refund claim submission and processing, activities related to tax audit, etc. Compliance costs add to the marginal benefits of tax evasion, thus making non-compliance/tax evasion more appealing.

Paying Taxes study, published annually by the World Bank, provides comprehensive benchmark analysis of the tax compliance costs across the world. In addition to regular tax-compliance costs, which reflect all procedures undertaken until submission of the tax return, the post-filing index has been introduced, reflecting the time to comply with VAT refund and CIT audit, and the time to obtain VAT refund and to complete the CIT audit conducted by a tax administration.[4]

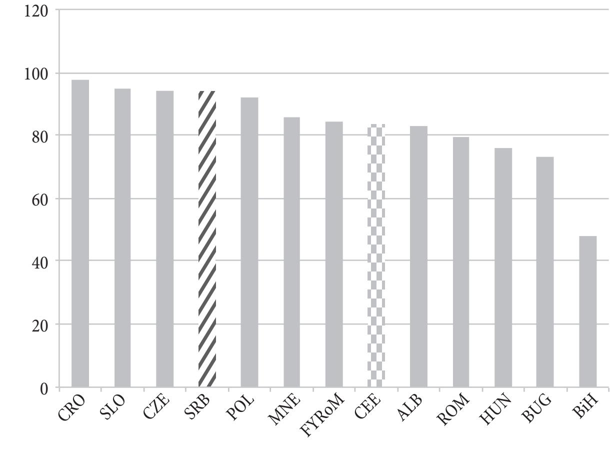
4 Post-filing index may range from 0 to 100, the higher value of index indicating higher efficiency and lower costs.

Figure 5: Tax compliance costs: Serbia vs. CEE



Source: [18].

Figure 6: Post-filing index: Serbia vs. CEE



Source: [18].

Total time to comply with tax legislation in Serbia is estimated at 226 hours per year, which is by 15% less than the CEE average, suggesting that tax compliance process in Serbia is relatively efficient. This is to a large extent the result of successful implementation of e-filing and e-payment system by the Tax Administration. However, Serbia performs much worse in terms of the number of tax payments, as on average a taxpayer in Serbia needs to make 33 tax payments per year, while the CEE average is below 19. This indicates the need for a revision of the Law on Tax Procedure and Tax Administration, as well the sectoral tax laws, triggering reduction in the number of tax payments (e.g. to cut shift to monthly payment of excise duties, biannual payment of property taxes, etc.).

According to the Paying Taxes 2016 study, Serbia also performs slightly better than the most other CEE countries in terms of efficiency of post-filing procedure. However, various business surveys suggest that companies in Serbia identify lack of consistency and predictability of tax enforcement system as one of the key risks for investing and doing business. In particular, they point out the issue of inconsistent interpretation of tax legislation by the Ministry of Finance (by means of legally binding rulings) and by tax inspectors in the course of tax audit.[5] In that respect, the Tax Administration and the Ministry of Finance should put more resources on development of their training and education capacities in order to tackle the problem of (mis)interpretation of tax legislation.

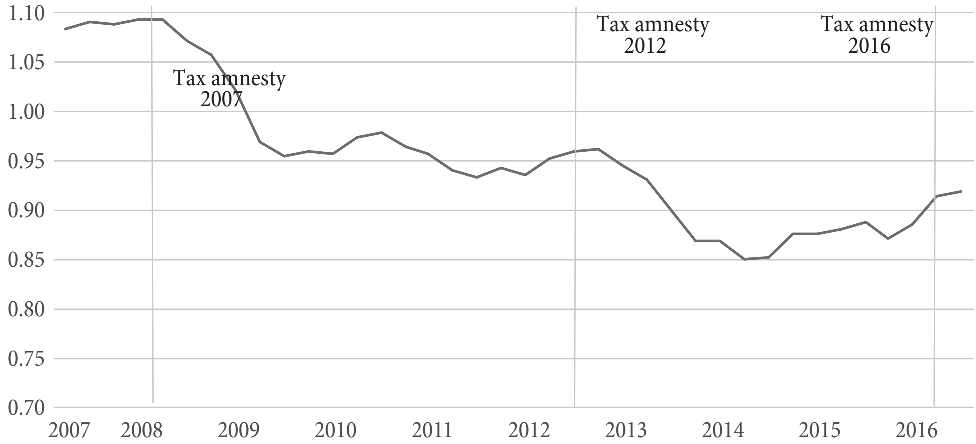
5 Almost 60% of respondents claim that the operations of the Tax Administration have negative impact on their businesses [26].

Tax amnesties and sense of equity

Many countries, including the USA in the eighties, were implementing the tax amnesties schemes in order to promote tax collection, by removing or reducing the burden of penalties for those taxpayers who self-report their past tax liabilities [5]. Namely, tax amnesty program normally means that a taxpayer is given a window of opportunity (usually lasting a few weeks or months) to report their past tax liabilities and to settle them (including the late payment interest) without payment of fines for non-compliance in the past. Theoretical models [5] suggest that tax amnesty has no positive impact on tax compliance, because it allows evader to become compliant, although she/he has initially preferred non-compliance. The models therefore suggest that, for amnesty to matter, some of the relevant circumstances (marginal benefits and/or marginal costs of non-compliance) should change, such as unexpected, considerable increase in fines. On the other hand, tax amnesties may have an adverse impact on tax morale, since it is perceived inequitable, as it makes compliant taxpayers relatively worse-off in comparison with their non-compliant counterparts. The results of empirical studies, mostly on the U.S. data, find no significant, positive effects of tax amnesty on tax compliance [2], [15], while the empirical study on India finds that repeated implementation of tax amnesties had negative effects on tax compliance [8].

In the last ten years, there were three waves of tax amnesties in Serbia (end of 2007, end of 2012 and beginning of 2016), which were aimed at promoting tax compliance

Figure 7: Annualized C-efficiency ratio in Serbia



Source: Author's calculation.

and generating additional tax revenues, by reducing the burden of accumulated tax debt and related late payment interest. Tax amnesty programs in Serbia have often entailed writing-off (at least a part) of the late payment interest and rollover of accumulated tax debts for a few years. The programs were usually introduced before the elections, under pressure of the interest groups, arguing that the tax debts were non-performing anyway, and that the allowances would enable some of taxpayers to clear their accounts and start paying taxes in accordance with the law. On the other hand, by writing-off part of the late payment interest, government makes the late payment of taxes a cheaper financing instrument for a taxpayer than borrowing at the market, thus incentivizing taxpayers to go after such financing strategy. In addition to that, by writing-off a part of the tax debts and late payment interest, the government implicitly penalizes compliant taxpayers by bringing them into the less competitive position compared to non-compliant taxpayers. Therefore, the question is whether these programs have had positive or negative effects on tax compliance and tax revenues.

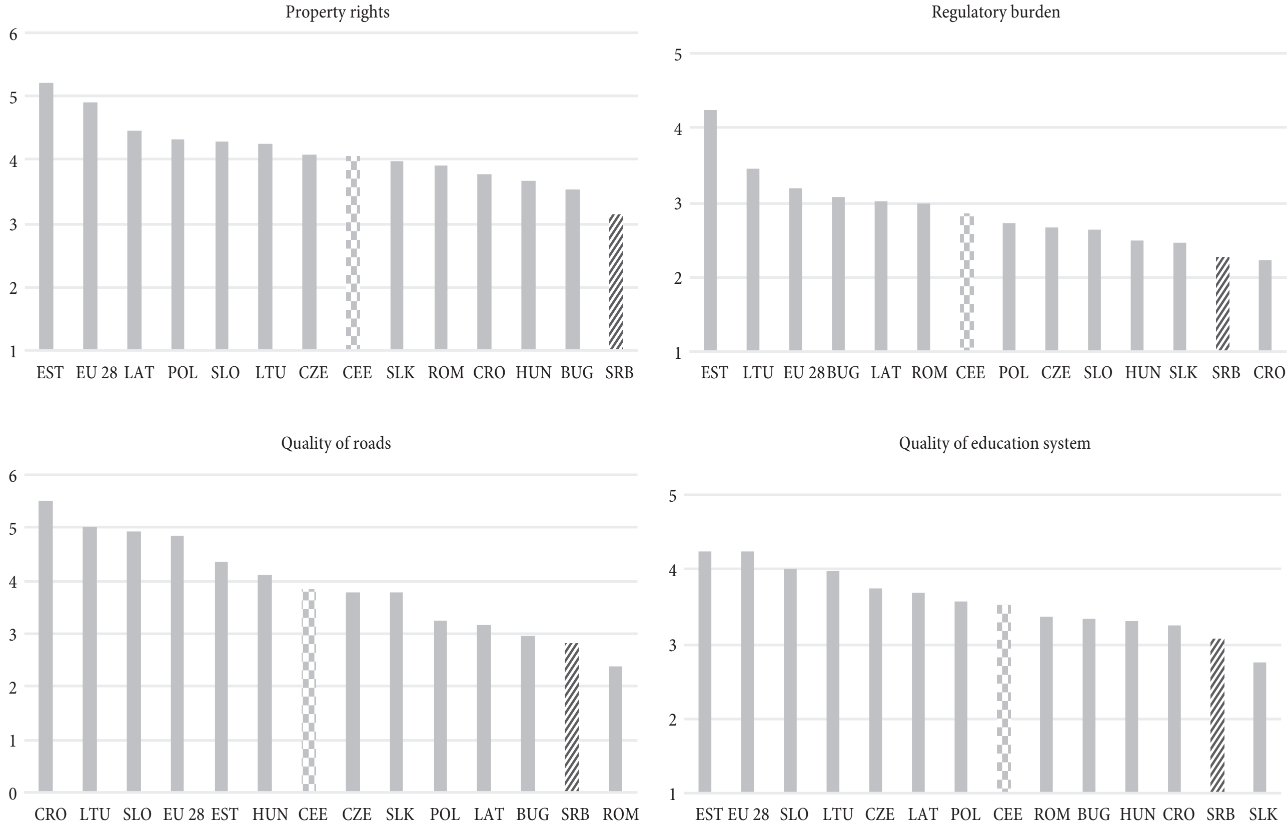
To answer this question, the data on efficiency of tax collection are required. Since tax collection efficiency in Serbia is not continuously monitored, the C-efficiency ratio is to be used as a proxy.[6] The data presented in Figure 7 show that, after the 2007 and 2012 tax amnesties, the VAT collection efficiency declined, while to evaluate the effects of 2016 tax amnesty program, the VAT revenues trends for a few more quarters need to be observed.[7]

Although it cannot be concluded (without prior econometric analysis) that decline in C-efficiency ratio in 2008 and 2013 was primarily caused by tax amnesties, the trends presented may indicate that the effects of tax amnesties were not as positive as expected by the policymakers. Repeated tax amnesties, usually before the elections, make such practice relatively predictable, thus additionally deteriorating incentives for tax compliance. Tax amnesties are part of the general "second chance" paradigm of public governance in Serbia (together with several waves of ex-post legalization of buildings constructed without the permit and similar practices), which has negative impact on taxpayers' confidence in the government institutions and the rule of law, thus undermining the tax morale and tax compliance. Therefore, in order to tackle shadow economy and tax evasion systemically, the government should give credible commitment that "second chance" will be abandoned and reaffirm the credibility of such statement by acting accordingly in the future.

6 C-efficiency ratio is an indicator of the VAT collection efficiency, calculated at the ratio of expected VAT revenues (computed by multiplying the total personal consumption and the average VAT rate) and the actual VAT revenues [12]. As such, C-efficiency ratio reflects the level (and dynamics) of shadow economy/tax evasion, as well as the financial discipline (efficiency of collection of reported taxes).

7 Theoretically, C-efficiency ratio ranges from 0 to 1. However, the actual VAT revenues also encompass revenues from taxation of part of government consumption and investments, which is not taken into account in estimation of expected VAT revenues, which is why this ratio can also be larger than 1. Therefore, C-efficiency ratio should not be interpreted as the indicator of the scale of tax non-compliance, but rather as the indicator of trends in non-compliance.

Figure 8: Quality of public goods and services: Serbia vs. CEE (2012-2015 average)



Source: Global Competitiveness Index database.

Quality of public goods

Although tax-related factors may explain to a large extent the size of tax evasion and shadow economy, empirical studies suggest that unexplained part is not negligible, which means that also other factors, in addition to tax rates, fines and efficiency of tax administration, determine the size of shadow economy. Both theoretical and empirical literature suggests that people are willing to pay taxes also because they value public goods that their taxes finance [4]. More particularly, empirical studies show that increase in the quality of public governance and public goods, such as efficiency of administration, rule of law, protection of property rights and other public goods, encourage tax compliance [20], [21].

In most of international studies dealing with doing business conditions and competitiveness, Serbia was ranked rather low compared to the other countries from the CEE and the Western Balkans. Although in 2015 and 2016 Serbia improved its ranking at many relevant international lists, it still performs below the CEE average. Thus, from 2012 to 2015, in terms of property rights protection, Serbia was the worst performing out of 11 CEE countries, while in terms of regulatory burden, Serbia was ranked second from the bottom, with only Croatia having a weaker rank. Similar performance is posted in terms of quality of roads (only Romania had a lower rank than Serbia) and the quality of education system (only Slovakia was behind Serbia).

Taking into account the results of empirical studies showing that quality of public goods and services does play a role in shaping tax compliance behavior, and the results of international studies indicating that Serbia has weaker performance than most other CEE countries in terms of the main types of public goods and services, it can be concluded that effective strategy to tackle shadow economy and tax evasion should also entail measures for improvement of the quality of public goods and services. At the same time, it is necessary to improve the outreach activities aimed at educating people on the importance and quality of goods and services provided by the government, since these are often neglected, taken for granted or undervalued.

Section 4: Concluding remarks and policy recommendations

According to the empirical studies, shadow economy in Serbia in 2012 stood at approx. 31% of GDP, which is by one sixth above the CEE average, indicating low tax compliance and tax morale. High shadow economy has negative effects on the public finances sustainability, availability and quality of public goods and services, as well as on the doing business environment, as it violates the level playing field principle. The size of the shadow economy in Serbia surged in 2013 and at the beginning of 2014, contributing to widening general government balance to -6.6% of GDP in 2014. In 2014 and 2015 a set of reforms aimed at tackling shadow economy and boosting tax compliance has been implemented, resulting in the rise in tax collection by more than 1% of GDP in 2015 and 2016. Some of these reforms were systemic (reform of tax penalties policy, labor market reforms, introduction of the new Law on Inspection Oversight, introduction of e-filing of the tax returns and tax payments, etc.), while the other were ad hoc (increase in the number of tax officers who conduct control of issuance of the fiscal cash receipts, strengthened control of VAT refund claims, etc.).

Given that Serbia registered a strong rise in the shadow economy and tax non-compliance in 2013 and 2014, while in 2015 and 2016 this issue has been tackled to some extent, it is estimated that at the end of 2016 the shadow economy and tax compliance were close to the 2012 level, which is also suggested by dynamics of the C-efficiency ratio (Figure 7). This means that there is still considerable space for improvement of tax enforcement and tax compliance, in order to reach the CEE average level. Reaching the CEE average level of shadow economy and tax compliance would yield additional tax revenues of approx. 1% of GDP, which is a realistic goal in the mid run (3-5 years), while in the long run (10 years' time) Serbia should strive to the EU average level of shadow economy and tax compliance, which would bring additional tax revenues of approx. 1% of GDP [13]. In order to meet these targets many systemic reforms aimed at curbing the benefits and increasing the costs of tax non-compliance should be implemented, the most important being: i) thorough reform of the Tax Administration (including its organization, risk assessment, system of selection, promotion and compensation, increase in financial resources, training and education of tax administration staff for consistent and equitable application of tax legislation, etc.), ii) finalization of shift to e-filing of all tax returns, iii) strong commitment of the government to cease with the tax amnesty practice, iv) introduction of financial incentives to local self-governments for registration of immovable property in their tax books, v) promotion of non-cash payments (e.g. through reduction of the banking fees for credit card payments), vi) enforcement of the cross-check of incomes and wealth legislation, vii) publication and systemic dissemination of the civil budget to the citizens, in order to inform them on use of tax revenues, *viii)* systemic work on increase in availability and improvement of quality of basic goods and services provided by the public sector, including administration, judiciary, education, healthcare and infrastructure.

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