







# “Good governance: Role in the coherence of tax competition and shadow economy”

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# GOOD GOVERNANCE: ROLE IN THE COHERENCE OF TAX COMPETITION AND SHADOW ECONOMY

**Abstract**

The formation of the country's tax competitiveness and countering the shadowing of the economy depend on several factors. One of them is an effective public administration. It defines state policy vectors, institutions' critical tasks, and business and society development priorities. The aim of the paper is to analyze the impact of good governance on the country's tax competitiveness and the level of the shadow economy of 11 EU countries and Ukraine in 2011–2021. The study employs statistical analysis of data series. It constructs a correlation field of points of relationship between indicators (to determine the general trends of changes in the level of the shadow economy, tax competitiveness, and the Good Governance Index). Linear mathematical model and Fishburn formula are used to construct an integral indicator of the level of efficiency of public management (Good Governance Index). Structural modeling methods formalize the influence of government management on the level of the shadow economy and tax competitiveness. It was found that the Government Efficiency Index and the Corruption Control Index exert the most significant correlation with the level of tax competitiveness and the shadow economy. Its increase of 1% leads to a rise in the level of tax competitiveness of Slovakia by 7.015%, Croatia by 6.889%, the Czech Republic by 6.606%, and Romania by 5.773%. At the same time, the smallest correlation with the level of tax competitiveness performs an Index of Political Stability and Absence of Violence/Terrorism.

**Keywords**

shadow economy, tax competitiveness, effective public management, good governance, government efficiency

**JEL Classification**

O17, H26

**INTRODUCTION**

The implementation of state policy in most countries constantly faces several problems related to ensuring the full and timely receipt of budget funds caused by the instability of the country's external and internal environment, financial imbalances, and shortage of funds (Dzwigol, 2020; Hji Panayi, 2018; Kuzmenko et al., 2020; Vasylyeva et al., 2014; Kwilinski et al., 2020; Kharazishvili et al., 2020; Dźwigol & Trzeciak, 2023). The nature and degree of influence of these factors on the indicators of the country's development are determined by the quality of the functioning of state institutions, management of state resources, and prevention of abuse and corruption. Good governance is the key to achieving the state's tactical and strategic tasks and goals, ensuring a constant flow of funds, including both state and international revenues, and countering economic crises. Good governance is a driver of increasing the country's attractiveness and trust for international partners, forming a favorable business environment in the country, and increasing the speed and effectiveness of the implementation of state initiatives.

One of the components of the country's development that directly depends on the quality of state governance is the level of tax competitiveness. The current trends in changes in this indicator in most countries indicate a number of shortcomings in the formation and implementation of tax policy: a significant number of payments, the complexity of tax administration, or the inconsistency of tax legislation with the modern realities of the functioning of the economy. This significantly reduces the attractiveness of the country's tax system for business and the public and promotes the flow of capital to countries with more attractive tax conditions.

In addition, one of the crucial factors that has a destructive effect on tax competitiveness is the shadow economy. It is the result of the government ineffectiveness, its high level of corruption and non-transparency (Baklouti & Boujelbene, 2020; Berdiev et al., 2020; Némec et al., 2021; Shahab et al., 2015; Torgler et al., 2010). The active use of shadow schemes significantly reduces the country's competitive advantages in the struggle for business registration in the territory of this jurisdiction, opportunities for job creation, and the country's economic growth rate. A high level of the shadow economy does not allow the economic system to fully perform its assigned functions.

Based on this, good governance should be based on strengthening the country's economy, including by implementing tax and anti-corruption reforms. Deification of the economy should be one of the main tasks of the state authorities at all levels on the way to the country's global integration, establishment of international cooperation, increased economic growth rates, financial stability, and security of state and local budgets.

## 1. LITERATURE REVIEW

The connections between effective public administration, the levels of the shadow economy, and the tax competitiveness of the country constantly attract the attention of theorists and practitioners (Atwood et al., 2012; Kozmenko & Belova, 2015; Canh et al., 2021; Shkolnyk et al., 2021; Dreher et al., 2009; Dzwigol, 2023; Kuzior et al., 2023). These issues are becoming more relevant in the context of a deficit of budget funds and the government's inability to perform the functions assigned to it. Thus, following the consequences of the global financial and economic crisis of 2007–2008, the EU implemented an initiative to introduce proper tax administration in 2008. Within the framework of this initiative, the EU Standard of good governance in tax matters was developed, according to which tax good governance was understood as compliance with the principles of transparency, information exchange, and fair tax competition. The parties undertook to recognize and implement the principles of good governance in the field of taxation, including global standards of transparency and information exchange, fair taxation, and minimum standards against the erosion of the tax base and profit shifting (Council of the European Union, 2018).

Dreher and Schneider (2006) considered the convergence of the shadow economy and the competitiveness of the tax system through the prism of the fight against corruption as a result of the imperfection of the institutional component of public administration. According to the authors, institutional instability, a low level of transparency, and the rule of law contribute to the transition of the population to the side of the informal economy and reduce the level of tax competitiveness of the country.

Bird and Martinez-Vazquez (2008) argued that the competitiveness of the tax system is ensured by the existence of a fair tax system and a responsive government, manifestations of which are the close relationship between tax payments and the provision of public goods.

Some scholars examine the relationship between tax competitiveness and the shadow economy through the prism of the institutional component (Owens, 2015; Wilson & Wildasin, 2004; Keen, 2008; European Commission, 2014).

According to Rixen (2011), imperfect tax administration, one of the manifestations of which is the orientation of the tax regime to avoid double tax-

ation, creates harmful tax competition due to the conflict of interests between the governments of large and small countries and the successful lobbying of the interests of the corporate sector.

Gao and Liu (2021), by good governance in the context of ensuring tax competitiveness and combating the shadow economy, understand the implementation of measures to counter long-term changes in the external environment. Based on data analysis from 199 countries and regions from 2005 to 2018, the authors conclude that the institutional environment unevenly influences the equilibrium tax rate in different countries within the same market size.

Silalahi et al. (2023) considered the introduction of electronic procurement of government products and services as a tool for strengthening internal control and fraud prevention. Xanthopoulou et al. (2023) and Waladali and Rabaiah (2022) emphasize the critical role of digital management in public administration. Empirical analysis has proven that improving the quality of digital services and introducing innovative technologies are the keys to increasing the transparency of public administration and public trust and the satisfaction of civil servants with their work.

According to Periansya et al. (2023), an effective tool to combat fraud and shadow operations is public awareness of violations. With the help of structural modeling, the authors proved the positive impact of informing about fraud and proper management on the level of awareness of the population about fraud. At the same time, Lyeonov et al. (2022) emphasize that preventing shadow schemes of capital withdrawal should be aimed simultaneously at institutional, tax, social and investment channels of economic shadowing, which have close direct and reverse connections.

Many scholars consider the successful implementation of tax reform as the basis for increasing the country's tax competitiveness and reducing tax evasion (Gupta & Jalles, 2022; Liu & Feng, 2015; Thießen, 2003). Khuong et al. (2019) argued that tax reform has enormous potential to reduce the prevalence of the corporate shadow economy and promote greater compliance in the formal economic sector.

According to Nadirov et al. (2021), an efficient and well-designed tax system can create a level playing field for businesses, ensuring fair competition and a conducive economic growth environment. By aligning tax policy with economic development goals, governments can incentivize businesses to operate in the formal economy, fostering a more transparent and accountable economic landscape.

In addition, good tax governance can address the root causes of the shadow economy, such as high tax rates, complex tax structures, and burdensome compliance requirements. Lowering tax rates and simplifying tax laws can reduce incentives for tax evasion and encourage businesses to declare their income and operate legally (Liakhovets, 2014).

Ulvidienė et al. (2023) consider reliable tax collection mechanisms, including digital payment systems and electronic accounts, among the components of ensuring tax good governance that contribute to increasing revenue collection efficiency and minimizing opportunities for tax evasion.

Giedraitis et al. (2023) argued that good tax governance significantly reduces the level of the corporate shadow economy. The authors proved that the increase in the effective rate of income tax stimulates the transition of society into the shadow and increases the shadow economy. In contrast, the increase in the effective rate of income tax of enterprises, on the contrary, reduces the level of the shadow economy.

Thus, the results of the conducted analysis testify to the existence of several studies on the influence of public administration on the shadow sector of the economy. At the same time, the impact of good governance on the formation and improvement of the country's tax competitiveness needs to be studied more.

The purpose of this paper is to analyze the impact of good governance on the country's tax competitiveness and the level of the shadow economy.

## 2. METHODOLOGY

In the first stage, the assessment of the level of good governance in the country is carried out as an integral indicator summarizing six dimensions of public administration: voice and accountability,

political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption. The calculation of these indicators is based on more than 30 data sources. It summarizes the views of businesses, citizens, and experts in industrialized and developing countries on the quality of public administration countries (Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovenia, Slovakia, and Ukraine) were chosen as the statistical base of the study; the study period is 2011–2021. The methodological tools of the study are methods of statistical analysis of data series and structural modeling.

The Good Governance Index is determined using the following formula:

$$GGI_A = \sum_{i=1}^n GGI_i \cdot w_i, \quad (1)$$

where  $GGI_i$  are the partial indicators of the  $i$ -th component of the Good Governance Index;  $n$  is number of indicators;  $a_i$  are weighting factors.

The level of tax competitiveness of the country is determined as an integral indicator that summarizes indicators within the process, institutional, moral-ethical, and economic components:

- procedural: VAT rate ( $ITCI_1$ ), corporate income tax rate ( $ITCI_2$ ), personal income tax rate ( $ITCI_3$ ), social contributions ( $ITCI_4$ );
- institutional: Fiscal Health Index ( $ITCI_5$ ), Index of Tax Freedom ( $ITCI_6$ ), time for preparing tax returns and paying taxes ( $ITCI_7$ ), time for border and customs control during export/import ( $ITCI_8$ ), time for processing documents during export/import ( $ITCI_9$ ), cost of processing documents during export/import ( $ITCI_{10}$ ), cost of passing control during export/import ( $ITCI_{11}$ ), number of payments required for settlement with tax authorities ( $ITCI_{12}$ );
- moral and ethical: Financial Literacy Index ( $ITCI_{13}$ ), level of tax morale of the population ( $ITCI_{14}$ );
- economic: Index of economic freedom ( $ITCI_{15}$ ), GDP ( $ITCI_{16}$ ), tax potential ( $ITCI_{17}$ ).

The integral indicator of the level of tax competitiveness is determined by the formula:

$$ITCI_A = \sum_{i=1}^n a_i ITCI_i^A, \quad (2)$$

$$ITCI_M = \sum_{i=1}^n (ITCI_i^M)^{a_i},$$

where  $ITCI_A$  та  $ITCI_M$  are partial indicators (for the additive and multiplicative form) of the  $i$ -th component of tax competitiveness;  $n$  is the number of indicators;  $a_i$  are the weighting coefficients of indicators for which the condition is fulfilled:

$$\sum_{i=1}^n a_i = 1, \quad a_i \geq 0, \quad i = \overline{1, n}, \quad (3)$$

Determination of the weighting coefficients for each of the integral indicators is carried out according to the Fishburn formula.

In the next research stage, an analysis of the coherence of the growth of tax competitiveness and countering the shadow economy under the influence of good governance is carried out. The levels of the shadow economy and tax competitiveness are used as exogenous variables; the endogenous variables are indicators characterizing the level of good governance in the country:

$$\begin{cases} VA = a_1 \cdot GGI + \delta_1 \\ PSAVT = a_2 \cdot GGI + \delta_2 \\ GE = a_3 \cdot GGI + \delta_3 \\ RQ = a_4 \cdot GGI + \delta_4 \\ RL = a_5 \cdot GGI + \delta_5 \\ CC = a_6 \cdot GGI + \delta_6 \\ ITCI_1 = a_7 \cdot ITCI + \delta_7 \\ ITCI = a_8 \cdot VA + a_9 \cdot PSAVT + a_{10} \cdot GE + \\ + a_{11} \cdot RQ + a_{12} \cdot RL + a_{13} \cdot CC + z \\ CC = a_{14} \cdot RL + a_{15} \cdot RQ + a_{16} \cdot GE + z_2 \\ GE = a_{17} \cdot CC + a_{18} \cdot RL + a_{19} \cdot PSAVT + z_3 \\ PSAVT = a_{20} \cdot GE + a_{21} \cdot RQ + \\ + a_{22} \cdot RL + a_{23} \cdot CC + z_4 \end{cases}, \quad (4)$$

where  $a_i = 1 \dots 12$  are unknown coefficients,  $\delta_{1, 2, 3}, z_{1, 2}, \varepsilon_{1-6}$  are model errors, and free coefficients of the corresponding equations of the system of structural equations.



### 3. RESULTS AND DISCUSSION

Weighting factors and ranks were calculated for each component of the Good Governance Index (Table 1).

**Table 1.** Weighting coefficients of indicators for assessing the country's Good Governance Index

Indicator	Rank	Weighting factor
Voice and Accountability (VA)	6	0.048
Political Stability and Absence of Violence/Terrorism (PSAVT)	1.5	0.262
Government Effectiveness (GE)	1.5	0.262
Regulators Quality (RQ)	5	0.095
Rule of Law (RL)	3.5	0.167
Control of Corruption (CC)	3.5	0.167

This formed the basis for calculating the Good Governance Index for 11 EU countries for 2011–2021. The results shown in Table 2 demonstrate significant differences in the levels of good governance between countries. Estonia, the Czech Republic, Lithuania, and Slovakia have the highest values of the Good Governance Index. At the same time, Ukraine has the worst values of the Good Governance Index, which indicates the need to transform the existing tools of public administration.

Retrospective analysis of these indicators shows a slight improvement in its values for Croatia (0.47 in 2021 compared to 0.39 in 2011), the Czech Republic (1.01 and 0.89, respectively), Estonia (1.26 and 1.00, respectively), Latvia (0.86 and 0.56, respectively), Lithuania (0.99 and 0.67, respectively), and Romania (0.23 and 0.04, respectively). In other countries, the value of the Good Governance Index in 2021 worsened compared to 2011.

**Table 2.** Evaluation results of Good Governance Index

Country	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Croatia	0.39	0.42	0.45	0.46	0.40	0.43	0.45	0.49	0.46	0.42	0.48
The Czech Republic	0.89	0.89	0.90	0.94	0.96	0.94	0.99	0.95	0.92	0.93	1.01
Estonia	1.00	0.98	1.04	1.13	1.09	1.10	1.10	1.12	1.15	1.24	1.26
Hungary	0.69	0.62	0.66	0.54	0.53	0.47	0.55	0.51	0.50	0.53	0.55
Latvia	0.56	0.64	0.70	0.74	0.75	0.76	0.75	0.74	0.81	0.79	0.86
Lithuania	0.67	0.78	0.83	0.86	0.94	0.94	0.87	0.86	0.92	0.97	0.99
Poland	0.80	0.84	0.82	0.84	0.83	0.67	0.59	0.57	0.59	0.54	0.49
Romania	0.04	0.00	0.14	0.15	0.18	0.20	0.13	0.07	0.20	0.19	0.23
Slovenia	0.74	0.73	0.70	0.71	0.66	0.67	0.66	0.60	0.59	0.61	0.57
Slovakia	0.96	0.93	0.89	0.91	0.90	0.98	0.94	0.96	0.98	0.93	0.92
Ukraine	−0.63	−0.57	−0.79	−1.01	−1.03	−0.95	−0.90	−0.90	−0.72	−0.67	−0.66

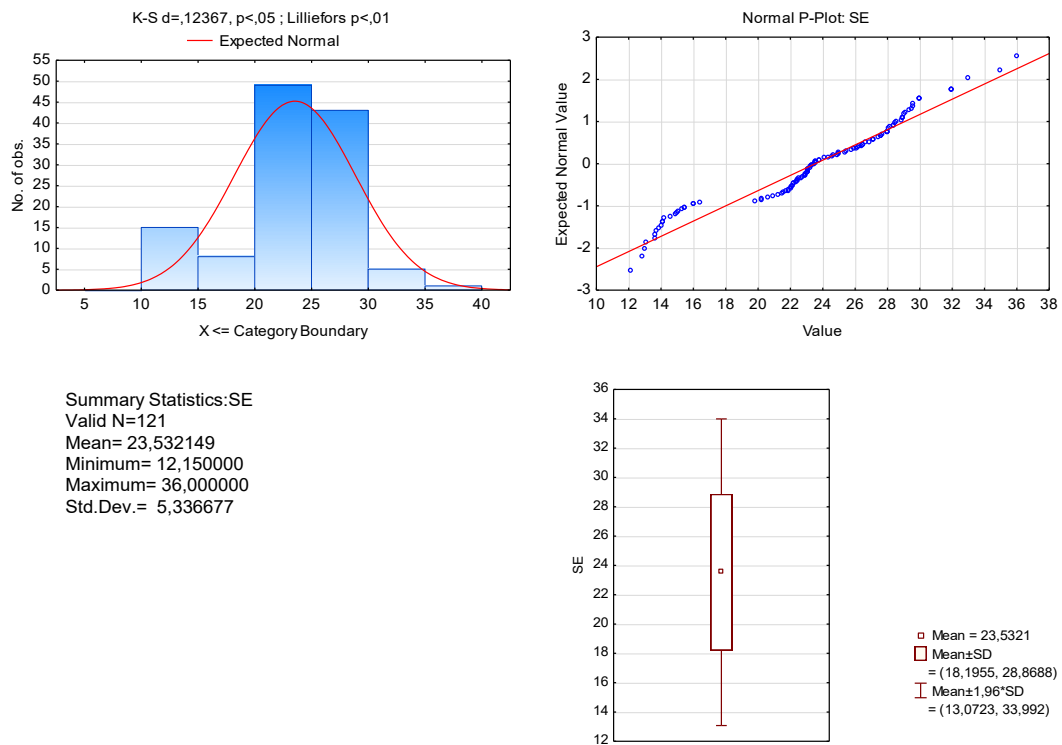
The prerequisite for assessing the impact of the Good Governance Index on the level of the shadow economy and its tax competitiveness is a statistical analysis of the data array, which allows for determining the general trends of changes in data series, the degree of their stability, and inter-relationship. For this purpose, in the next stage, the average values of the analyzed indicators and the normality of their distribution are analyzed (Figures 1-3).

Figure 1 shows that the average value of the level of shadow economy is 23.53, and its distribution cannot be considered normal. At the same time, the values of the level of tax competitiveness obey the law of normal distribution, and its average value is 0.74. The distribution of the Good Governance Index for 11 countries for 2011–2021 (Figure 3) cannot be considered normal, and the average value of this indicator is 0.57.

The indicators of the descriptive statistics of the levels of tax competitiveness, the shadow economy, and the Good Governance Index shown in Figure 3 indicate the significant variability of the levels of the shadow economy and the Good Governance Index.

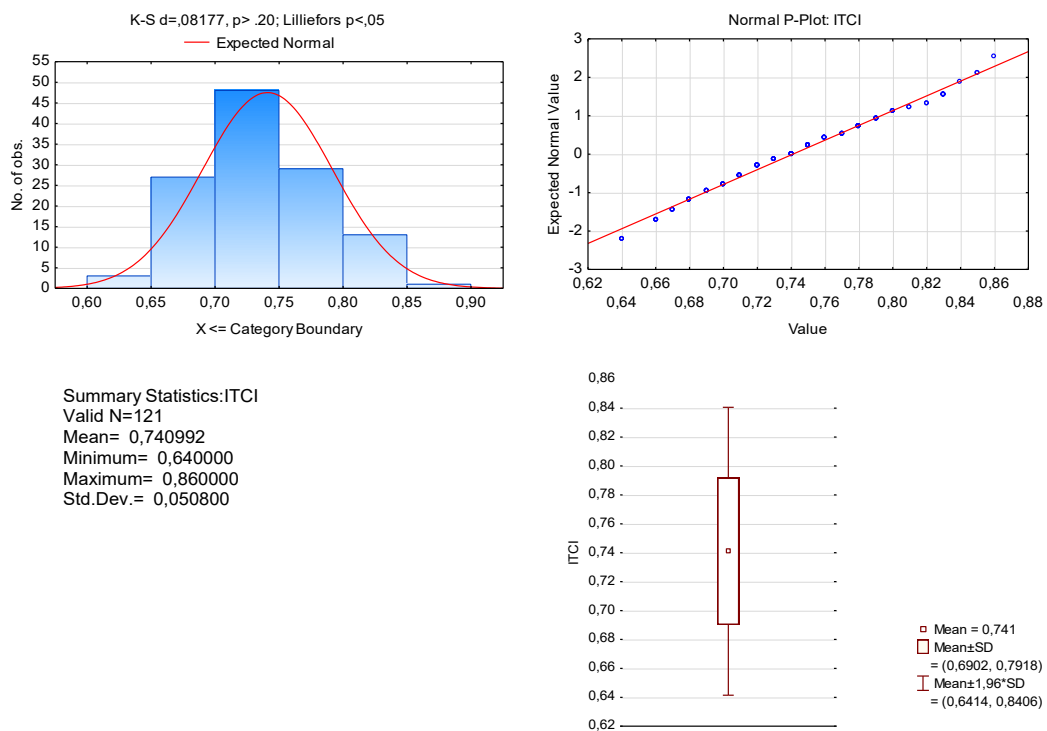
The average value of the level of the shadow economy during 2011–2021 ranges from 22.0952 (harmonic average) to 23.5321 (arithmetic average). Its minimum value for the analyzed period was 12.15, and the maximum was 36. The average squared deviation of this indicator is 0.4851, which is 22.67%, and indicates the synchronicity of the transformation processes of the policy of counteracting the shadowing of the economy of the analyzed countries.

### Summary: SE



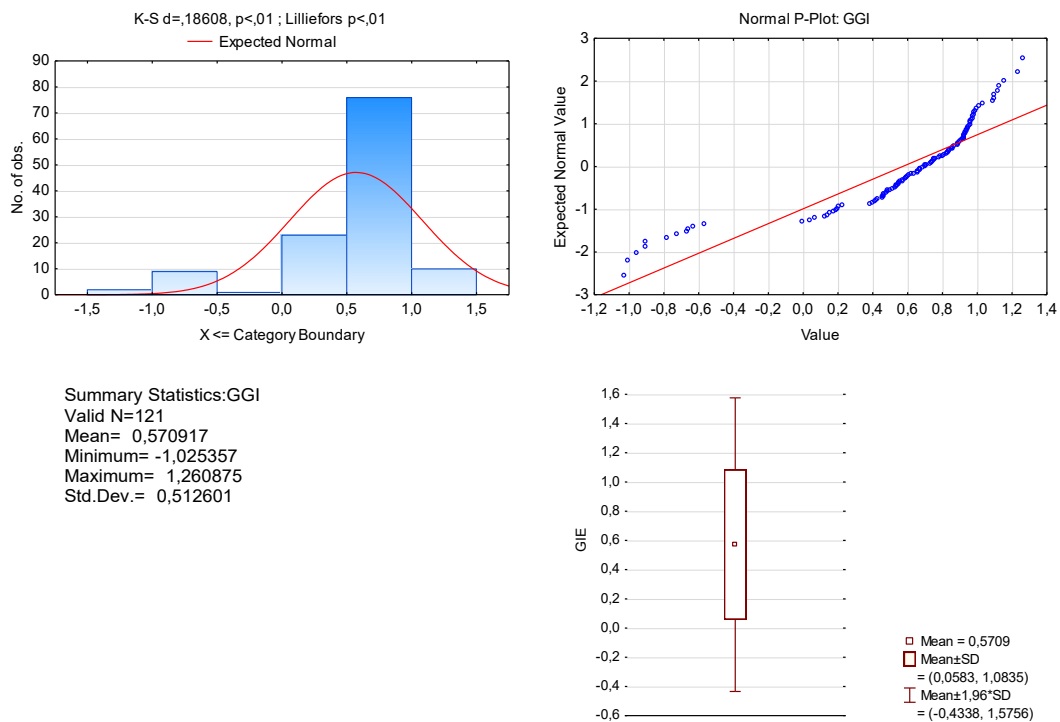
**Figure 1.** Normality of the distribution and descriptive statistics of the level of the shadow economy for 11 countries for 2011–2021

### Summary: ITCI

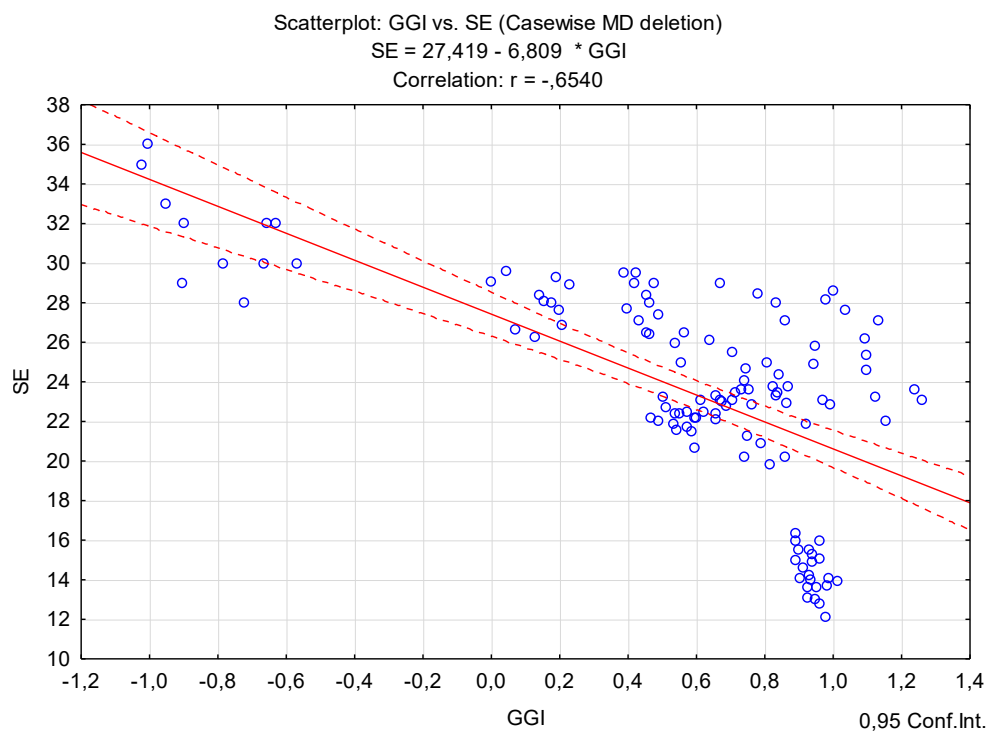


**Figure 2.** Normality of the distribution and descriptive statistics of the level of tax competitiveness for 11 countries for 2011–2021

## Summary: GGI

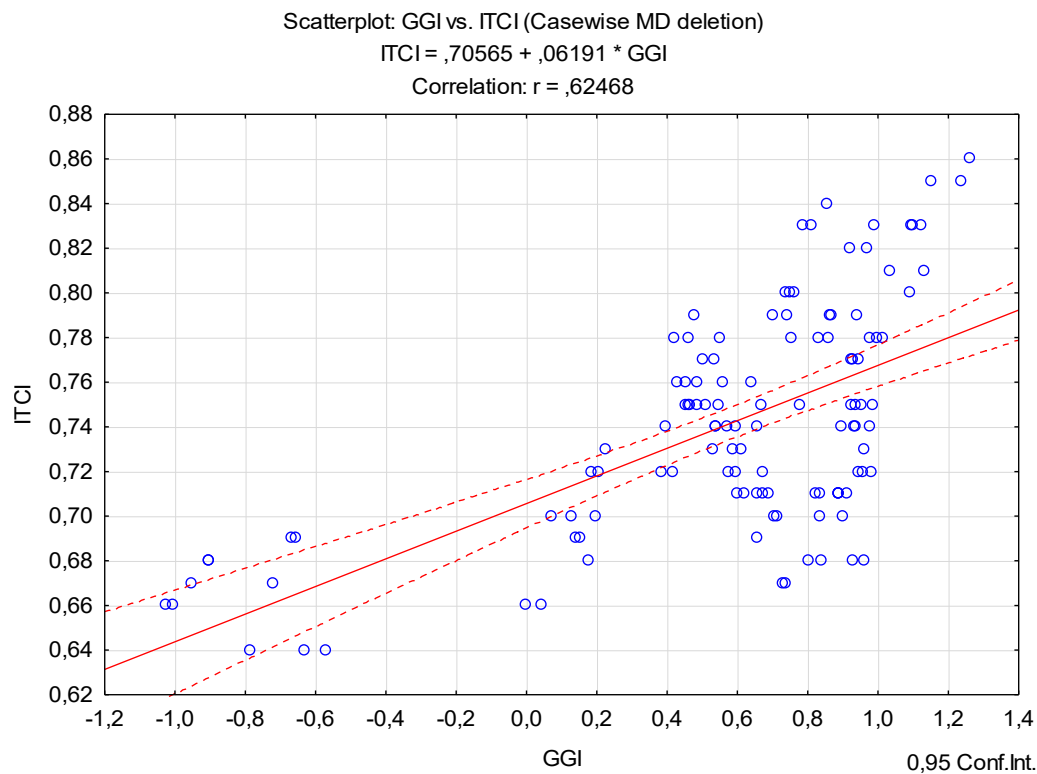


**Figure 3.** Normality of the distribution and descriptive statistics of the Good Governance Index for 11 countries for 2011–2021



**Figure 4.** Correlation field of points of relationship between the shadow economy and the Good Governance Index in a section of 11 countries for 2011–2021





**Figure 5.** Correlation field of points of relationship between the level of tax competitiveness and the Good Governance Index for 11 countries for 2011–2021

In the next stage, a correlational analysis of the relationship between the shadow economy, tax competitiveness, and the Good Governance Index across 11 countries for 2011–2021 is conducted (Figures 4-5).

The correlation field of points of relationship between the analyzed indicators proves an inverse relationship between the level of shadowing of the economy and the Good Governance Index (correlation coefficient – 0.654) and a direct rela-

tionship between the level of tax competitiveness and the Good Governance Index (correlation coefficient – 0.6247). Thus, an increase in the Good Governance Index by 1 point will lead to a decrease in the level of shadowing of the economy by 6.81% and an increase in the level of tax competitiveness by 0.062%.

The frequency with which individual values of the studied indicators occur in the analyzed data sample is analyzed. The frequency distribution of

**Table 3.** Frequency distribution of Good Governance Index values

From To	Frequency table: GGI (Spreadsheet1) (Casewise deletion of missing data)						
	Count	Cumulative Count	Percent	Cumulative Percent	100% – Percent	Logits	Probits
-1.152 <x≤ -0.898	5	5	2.3255	2.3256	100.0000	-3.7376	-1.9907
-0.898 <x≤ -0.644	4	9	1.8604	4.1860	97.6744	-3.1306	-1.7294
-0.644 <x≤ -0.390	2	11	0.9302	5.1163	95.8140	-2.9202	-1.6336
-0.390 <x≤ -0.136	0	11	0.0000	5.1163	94.8837	-2.9202	-1.6336
-0.136 <x≤ 0.118	3	14	1.3953	6.5116	94.8837	-2.6642	-1.5131
0.118 <x≤ 0.372	8	22	3.7209	10.2326	93.4884	-2.1716	-1.2684
0.372 <x≤ 0.626	30	52	13.9534	24.1860	89.7674	-1.1425	-0.7003
0.626 <x≤ 0.879	31	83	14.4186	38.6047	75.8140	-0.4639	-0.2896
0.879 <x≤ 1.134	35	118	16.2790	54.8837	61.3953	0.1959	0.1227
1.134 <x≤ 1.388	3	121	1.39535	56.2791	45.1163	0.2525	0.1580
Missing	94	215	43.7209	100.0000	43.7209		

the values of the levels of shadowing of the economy and tax competitiveness of the economy in the section of 11 countries (a fragment is shown in Table 3) shows a significantly low density of the analyzed indicators. Thus, only 16% of the Good Governance Index values were in the range of 0.88-1.13; 14.4% were in the interval 0.63-0.88; and 13.9% were in the range of 0.37-0.63.

The frequency distribution of the values of the level of tax competitiveness showed that only 17.67% of the values were in the interval 21.425-24.075. Only 1.86% of observations had the lowest values of the level of tax competitiveness (10.825-13.475).

The analysis of the frequency distribution of the values of the shadow economy is also about the low density of values. Only 23.56% of observations had values in the range of 0.72-0.75. The remaining values had a low repetition rate.

Based on structural modeling, a system of structural equations was formed that formalized the influence of proper management on the formation of tax competitiveness of Ukraine and the level of shadowing of its economy as follows:

$$\begin{cases}
 VA = 0.420 \cdot GGI + 0.01 \\
 PSAVT = 0.214 \cdot GGI + 0.105 \\
 GE = 0.164 \cdot GGI + 0.20 \\
 RQ = GGI + 0.501 \\
 RL = 0.210 \cdot GGI + 0.01 \\
 CC = 0.462 \cdot GGI + 1.854 \\
 ITCI_1 = ITCI + 0.765 \\
 ITCI = 3.102 \cdot VA + 2.241 \cdot PSAVT + \\
 + 5.174 \cdot GE + 4.651 \cdot RQ + 2.170 \cdot RL + \\
 + 7.229 \cdot CC \\
 CC = 2.203 \cdot RL + 3.147 \cdot RQ + 1.362 \cdot GE \\
 GE = 4.144 \cdot CC + 6.824 \cdot RL + \\
 + 3.196 \cdot PSAVT \\
 PSAVT = 0.895 \cdot GE + 0.624 \cdot RQ + \\
 + 0.478 \cdot RL + 0.692 \cdot CC
 \end{cases} \quad (5)$$

Systems of structural equations constructed using structural modeling for all analyzed countries (parameters of the constructed models are given

in Appendix A) show that when the quality of the institutional component of public administration increases according to the index of voice and accountability (VA), political stability and absence of violence/terrorism (PCVAT), government efficiency (GE), quality of regulations (RQ), rule of law (RL), corruption control (CC) in Ukraine by 1%, the level of tax competitiveness of the country will be increased by 3.102%, 2.241%, 5.174%, 1.651%, 2.170%, 7.229% respectively. At the same time, the government efficiency index and the corruption control index exert the most significant influence on Ukraine's Good Governance Index.

The analysis of the parameters of the models of the influence of good governance on the level of tax competitiveness of other countries shows that with a 1% increase in the voice and accountability index, the level of tax competitiveness of Croatia will increase by 1.525%, the Czech Republic by 1.102%, Hungary by 2.657%, and Poland by 1.072%. Increasing the index of political stability and absence of violence/terrorism (PCVAT) by 1 point leads to an increase in the level of tax competitiveness from 0.717% (Slovakia) to 2.711% (Croatia). In general, this indicator has the least impact on tax competitiveness in all analyzed countries.

One of the most influential indicators of the Good Governance Index is the Government Efficiency Index (GE), whose increase of 1 point will increase the resulting indicator by an average of 3.5%. The most significant impact of this indicator on the level of tax competitiveness of Ukraine (increase by 5.174%), the Czech Republic (increase by 4.651%), Lithuania (increase by 4.213%), Latvia (increase by 4.431%), and Poland (increase by 4.128%), the smallest – Romania (by 1.365%).

The obtained results correlate with the results of previous studies on the critical role of tax reform in increasing the tax competitiveness of the country and countering the shadowing of the economy (Gnangnon, 2023; Giedraitis et al., 2023; Vasilyeva et al., 2019; Rixen, 2011) and the influence of individual elements of state management on the level of shadowing of the economy and tax competitiveness of the coun-

try (Dzwigol, 2023; Dreher & Schneider, 2006; Lyeonov et al., 2021; Bird & Martinez-Vazquez, 2008). At the same time, this study does not confirm the conclusions of Torgler and Schneider (2009) and Picur and Riahi-Belkaoui (2006), who consider the relationship between good governance, shadow economy, and tax competitiveness separately. According to the results of structural modeling, there are close coherent connections and interdependencies between these components.

This study has some limitations that can be considered in further research. First, the tax reform affects the shadow economy through a long-time lag, which, under the constant influence of a number of other factors, significantly complicates the process of modeling the relationship between them. Secondly, future studies should take into account a much larger number of components of good governance, not only in terms of international indices but also taking into account the specifics of the tax policy of an individual country.

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## CONCLUSION

The purpose of this paper is to analyze the impact of good governance on the country's tax competitiveness and the level of the shadow economy. With the help of structural modeling, the significant influence of the institutional component on the level of tax competitiveness of the country has been proven. Thus, an increase in the Good Governance Index by 1% within the Voice and Accountability Index is accompanied by increased tax competitiveness in Croatia by 1.525%, the Czech Republic by 1.102%, Hungary by 2.657%, and Poland by 1.072%.

According to the modeling results, the primary measures to influence the level of tax competitiveness and shadowing of the economy should be improving the quality of the legislative component of state regulation. Businesses direct their investments only to those countries that can provide them with the highest rate of profit. The level of tax burden is the criterion that is taken into account by investors when choosing a country to invest funds. Businesses will prioritize countries with lower tax rates, allowing them to maximize the rate of profit after tax. In addition, high marginal tax rates can lead to tax evasion.

Moreover, shady activities in legislative and executive bodies negatively affect the level of the country's international tax competitiveness. Quite often, for international investors and companies, the level of shadowing of the economy plays an even more critical role than the level of the tax burden. They see the transparency of business conditions as a guarantee of its success and profitability.

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## APPENDIX A

**Table A1.** Parameters of the structural equations of the formalization of the influence of the Good Governance Index on the level of tax competitiveness

Model parameters	Ukraine	Croatia	Czech Republic	Estonia	Hungary	Latvia	Lithuania	Poland	Romania	Slovenia	Slovakia
$VA \leftarrow GGI$	0.420	0.883	2.829	3.392	1.446	0.360	0.342	0.822	0.573	0.299	0.697
$PSAVT \leftarrow GGI$	0.214	0.450	0.027	0.028	0.033	0.183	0.174	0.419	0.292	0.152	0.355
$GE \leftarrow GGI$	0.164	0.345	-0.007	-0.036	-0.047	0.140	0.134	0.321	0.224	0.117	0.272
$RQ \leftarrow GGI$	1.00	2.102	1.000	1.000	1.000	0.856	0.814	1.957	1.365	0.713	1.659
$RL \leftarrow GGI$	0.210	0.441	0.210	0.210	0.210	0.180	0.171	0.411	0.287	0.150	0.348
$CC \leftarrow GGI$	0.462	0.971	0.894	4.310	0.158	0.396	0.376	0.904	0.631	0.329	0.766
$ITCI_1 \leftarrow ITCI$	1.00	2.102	0.189	11.119	2.343	0.856	0.814	1.957	1.365	0.713	1.659
$ITCI \leftarrow VA$	3.102	1.520	1.102	2.102	2.657	2.105	2.526	1.072	2.235	2.210	1.145
$ITCI \leftarrow PSAVT$	2.241	2.711	2.208	2.255	2.440	1.919	1.825	1.387	3.059	1.597	0.717
$ITCI \leftarrow GE$	5.174	3.876	4.651	2.884	2.042	4.431	4.213	4.128	2.064	3.686	2.582
$ITCI \leftarrow RQ$	4.651	3.470	1.117	1.847	1.651	1.414	1.344	3.232	2.254	1.176	2.739
$ITCI \leftarrow RL$	2.170	4.561	1.237	1.286	1.438	1.858	1.767	2.248	2.962	1.546	3.599
$ITCI \leftarrow CC$	7.229	6.889	6.606	4.590	5.564	3.622	3.443	5.278	5.773	3.013	7.015
$CC \leftarrow RL$	2.203	4.631	1.027	20.109	17.725	1.887	1.794	4.312	3.008	1.570	3.654
$CC \leftarrow RQ$	3.147	6.615	1.226	4.114	54.460	2.695	2.562	6.160	4.296	2.242	5.220
$CC \leftarrow GE$	1.362	2.863	5.111	7.334	6.170	1.166	1.109	2.666	1.859	0.970	2.259
$GE \leftarrow CC$	4.144	8.711	5.969	5.938	124.131	3.549	3.374	8.111	5.657	2.953	6.874
$GE \leftarrow RL$	6.824	14.344	181.575	258.608	599.527	5.844	5.556	13.357	9.316	4.862	11.319
$GE \leftarrow PSAVT$	3.196	6.718	8.775	2.620	29.665	2.737	2.602	6.256	4.363	2.277	5.301
$PSAVT \leftarrow GE$	0.895	1.881	12.300	12.559	14.876	0.766	0.729	1.752	1.222	0.638	1.485
$PSAVT \leftarrow RQ$	0.624	1.312	2.125	11.924	17.488	0.534	0.508	1.221	0.852	0.445	1.035
$PSAVT \leftarrow RL$	0.478	1.005	0.146	3.998	8.811	0.409	0.389	0.936	0.653	0.341	0.793
$PSAVT \leftarrow CC$	0.692	1.455	0.815	0.163	0.368	0.593	0.563	1.355	0.945	0.493	1.148

Note: VA = Voice and Accountability, GGI = Good Governance Index, PSAVT = Political Stability and Absence of Violence/Terrorism, GE = Government Effectiveness, RQ = Regulators Quality, RL = Rule of Law, Rule of Law = Control of Corruption, ITCI = the level of tax competitiveness of the country.