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Tax Reforms in Ukraine and Georgia: Changing Priorities

G. Bedianashvili[1], Yu. B. Ivanov[2], T. V. Paientko[3]
[1] *European University's Institute for Research of Economic and Social Problems of Globalization, Tbilisi, Georgia;* 0000-0003-4521-737X
[2] *Research Center for Industrial Problems of Development of the National Academy of Science of Ukraine, Kharkiv, Ukraine;* 0000-0002-5309-400X
[3] *Kyiv National Economic University n.a. Vadym Hetman, Ukraine, Kyiv, Ukraine;* 0000-0002-2962-308X

ABSTRACT
The Georgian and Ukrainian tax systems both emerged after the collapse of the USSR, yet the tax reforms in the two countries pursued different trajectories and produced different outcomes. The article systematizes and compares the results of the tax reforms in Ukraine and Georgia. The study applies qualitative methods for historical analysis, for periodization of the reforms and for classifying their key priorities and the factors that influenced them. Quantitative methods are applied to compare the tax burden in Ukraine, Georgia and OECD countries. The success and failure of the tax reforms was measured by the index of economic freedom (including its component – the index of tax burden). The first hypothesis suggested that a reduction in the tax burden had a positive impact on the indicators of economic freedom; the second hypothesis stated that a reduction in the tax burden affected fiscal freedom but did not affect the index of economic freedom. Regression dependences of the average tax burden (including the tax burden resulting from social security contributions) and the index of economic freedom (including the index of tax burden) were built in the R environment. The regression analysis confirmed the first hypothesis for Ukraine and the second, for Georgia. This result can be explained by the fact that, unlike Ukraine, the Georgian tax reforms focused on institutional changes, which determined their success. In 1996–2018, Georgia rose in the ranking of economic freedom and joined the group of economically free countries. Moreover, this country has been steadily improving its position in the ranking. Ukraine, on the contrary, has remained in the group of economically unfree countries. Due to the unbalanced reforms and insufficient structural changes, the country's government failed to ensure the desired effect from the tax burden reduction

KEYWORDS
tax, tax reform, tax-to-GDP ratio, tax burden, index of economic freedom

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Налоговые реформы в Украине и Грузии: эволюция приоритетов

Г. Бедианашвили[1], Ю. Б. Иванов[2], Т. В. Паентко[3]
[1] *Институт исследований экономических и социальных проблем глобализации Европейского университета, г. Тбилиси, Грузия;* 0000-0003-4521-737X
[2] *Исследовательский центр индустриальных проблем развития НАН Украины, г. Харьков, Украина;* 0000-0002-5309-400X
[3] *Киевский национальный экономический университет им. Вадима Гетмана, г. Киев, Украина;* 0000-0002-2962-308X

АННОТАЦИЯ
Становление и развитие налоговых систем Грузии и Украины имели одну отправную точку – распад СССР, но пути реформирования были разными, что повлияло на результаты реформ. Целью статьи является систематизация

и сравнительный анализ результатов налоговых реформ двух стран. Качественные методы исследования применены для исторического анализа и периодизации налоговых реформ в Украине и Грузии. Выявлены факторы и приоритеты налоговых реформ в исследуемых странах. Изменения налоговых систем структурированы в соответствии с выделенными этапами. Количественные методы использованы для аналитического сравнения налоговой нагрузки в Украине, Грузии и странах ОЭСР. В качестве индикатора результатов налоговых реформ выбран индекс экономической свободы, и его составляющая – индекс налоговой нагрузки. Сформулированы две гипотезы: (1) снижение налоговой нагрузки положительно отразилось на показателях экономической свободы; (2) снижение налоговой нагрузки повлияло на фискальную свободу, но не повлияло на индекс экономической свободы. С помощью программной среды R построены регрессионные зависимости средней налоговой нагрузки (включая налоговую нагрузку по взносам на социальное страхование) и индекса экономической свободы (включая индекс налоговой нагрузки). Результаты регрессионного анализа показали, что для Украины подтвердилась первая гипотеза, для Грузии – вторая. Полученный результат объясняется тем, что проводя налоговые реформы, Грузия, в отличие от Украины, сделала акцент на институциональных изменениях в сфере налогообложения. Как результат, грузинские налоговые реформы оказались более успешными, и страна за период с 1996 по 2018 г. в рейтинге экономической свободы смогла подняться в группу экономически свободных стран и ежегодно повышать рейтинг в этой группе. Украина так и осталась в группе экономически несвободных стран, поскольку несбалансированность налоговых реформ, недостаточные институциональные и структурные изменения не дали ожидаемого эффекта от снижения налоговой нагрузки

КЛЮЧЕВЫЕ СЛОВА
налог, налоговые реформы, налоговый коэффициент, налоговая нагрузка, индекс экономической свободы

1. Introduction

The development of Ukrainian and Georgian statehood share one key characteristic: after gaining independence, both countries launched a series of tax reforms. An important part of these reforms was reduction of the tax burden, which was initially seen as a way to enhance economic growth and at later stages, to curb the shadow economy. The reforms involved changes in the number and composition of taxes, in the tax base and tax rates, tax administration and so on.

In Ukraine, scarcely a year went by without some kind of improvements in the sphere of tax legislation or other related fields. Eventually, such lack of stability triggered a public discussion about the need to freeze the tax reform since it was hard for companies to keep up with the changes. It should be noted, however, that although such measure was considered to be necessary and even urgent, it never came to be realized. In the light of the above, the question arises as to how adequate was the choice of the goals and priorities of the Ukrainian reforms, whether they were really needed; whose interests they served; how efficient they were and what determined the change of priorities in the process of reformation. The tax reforms in Georgia can be considered to be more productive in comparison with Ukraine as they followed a more clearly defined set of priorities.

In order to evaluate the outcomes of tax reforms and make conclusions about their success or failure, we should first look at the general state of the country's economy. The tax climate shapes a number of indicators, including the dynamics of business development, investment activity and rates of economic growth. It is practically impossible to analyze the impact of tax reforms on all the above-described indicators within one study. At the same time, the analysis of only one factor is not enough to gain a comprehensive and accurate picture. Therefore, for the purpose of our research we chose to use an aggregate indicator – the index of economic burden.

This article aims to systematize and analyze the results of the tax reforms in Ukraine and Georgia and evaluate their impact on the countries' positions in the ranking of economic freedom.

The article is structured the following way: the introduction is followed by the review of the research literature on tax reform practices in OECD countries, Ukraine and Georgia. In the third section, we describe our research methodology and hypotheses. The fourth section focuses on the experience of tax reformation in Ukraine and the fifth, in Georgia. The last section contains conclusions and outlines prospects for further research.

2. Literature review

Tax reforms can be considered from a variety of different approaches and angles. The choice of approaches largely depends on the differences in the development of national economies and, therefore, in the specific problems in the fiscal sphere that certain countries have to address.

Western economists mostly seek to identify the weaknesses in the current taxation systems and search for ways of solving the existing problems. It should be noted that the majority of tax reforms in developed countries are aimed at minimizing the negative impact of taxation on the key macro-indicators [see W. Gale and A. Samwick [1]). This study shows that reduced income tax burden can increase the productive capacity of businesses, which means that less government subsidies will be required. The connection between taxation and economic growth is discussed by W. McBride [2]. J. Antos and his colleagues highlight the connection between policy choices regarding state revenues and expenditures and the impact of changes in taxation on economic growth, taking into consideration the time lag [3]. S. Barrios et al. [4] research the impact of taxation on decision-making in international firms concerning the location of their foreign subsidiaries. It should be noted that the problems of profit shifting to low-tax jurisdictions and the resulting tax base erosion are widely discussed by international researchers, who describe the possible reforms of tax systems to tackle these problems more effectively [5]. Another related question concerns the influence of taxation on inequality and the tax reforms needed to reduce inequality and the associated risks. For example, D.R. Agrawal and D. Foremny analyze how tax rates influence the choices of location made by high-income taxpayers [6]. A similar question is raised in the study of K. Schmidheiny and M. Slotwinski [7]. The impact of tax reforms on the international mobility of inventors is considered in the study of U. Akcigit et al. [8]. F. Guvenen and his colleagues research the phenomenon of the tax base erosion caused by offshore profit shifting [9].

Another question that attracts a lot of scholarly attention is the impact of tax reforms on economic growth [10; 11] and the macro-economic equilibrium [12]. I. Ananiashvili and V. Papava [13–15] have demonstrated how taxes influence economic activity and growth by applying the Laffer-Keynesian synthesis. These studies explore the theoretical aspects of the relationship between taxes and economic growth; they also use specific models to provide a comprehensive picture of how taxes affect economic growth through the aggregate supply and aggregate demand. Ananiashvili and Papava also investigate the analytical potential of the production function and of the behavioural approaches to estimating the impact of tax burden on the amount of total output and budget revenues. Such methodology makes it possible to determine the so-called fiscal points corresponding to the maximum production effect and the budget's maximum tax revenues.

The goals pursued by reformers in developed countries are often similar, although there may be different reasons for launching these reforms such as the wish to maintain the macro-economic equilibrium when dealing with political pressures or the search for optimal taxation mechanisms to satisfy the fiscal needs of the state and the public. We should keep in mind that in developed economies, reforms are implemented in a transparent environment, with low corruption levels and high degrees of government accountability.

If we look at the latest publications focusing on the Ukrainian reforms, it becomes evident that most of them choose to focus on specific aspects of these reforms. Some studies consider the problem of taxation in the light of Ukraine's integration into the European space: for example, A. Grechko [16], N. Noginov [17] and V. Ilyashenko [18]. Another group of studies considers the anti-crisis aspect of the tax reforms, for example, V. Melnik and T. Koschuk [19], Y. Turyansky [20]. A. Borzenkov [21], T. Paientko and K. Proskura [22], and V. Oparin [23] investigate the outcomes of the reforms. Also notable are the series of fundamental studies on various aspects of taxation published by Y. Ivanov and I. Mayburov [24–26].

As for the reforms in Georgia, Bakhtadzae et al [27], Kemularia [28], Kopaleishvili et al [29] and Meskhia [30] analyze the history of these reforms, their key aspects and the gradual improvements of taxation mechanisms. Chikviladze [31], Terashvili [32], Uridia [33] and Verulidze [34] explore the possibilities for the improvement of the tax administration technology. Bedianashvili [35], Gaganidze [36] and Silagadze [37] investigate the goals of the tax reforms, the institutional transformations of the tax system and the ways of ensuring the compliance of the taxation system with the European standards. Stimulation of economic and entrepreneurial activity are the questions addressed by Bedianashvili [38], Papava [39], Shevardnadze et al [40], Silagadze et al [41; 42], Zubiashvili, et al [43; 44].

Although there is vast research literature on various aspects of tax reforms, little attention has been given to the dominant factors that determined the course of the tax reforms in Ukraine and Georgia. The tax reforms in Ukraine, for example, are impeded by the high level of corruption, low information transparency and the lack of government accountability. These factors create resistance among the taxpayers and curb the reforms' impact on the country's economic performance. The tax reforms in Georgia go hand in hand with the gradual decrease in corruption, higher levels of information transparency and the government's accountability. Thus, in comparison with Ukraine, the Georgian reforms produce more tangible results regarding the relationship between taxpayers and fiscal institutions. They also have a visible positive impact on the key areas of the country's economy.

3. Methodology

The theoretical part of our study employs the historical and systems methods. We apply the historical method to propose a periodization of the tax reforms in Ukraine and Georgia. The systems method was used to describe the structure of the changes in the respective tax systems at specific stages; together with the inference method, it also helped identify the factors and priorities of the tax reforms.

In the empirical part of the study, we compare the tax burden in the given countries and their OECD counterparts and evaluate the impact of the tax reforms on Ukraine's and Georgia's progress in the ranking of economic freedom.

The calculations were made with the help of the R environment. The databases for calculations were downloaded from the OECD[1] and World Bank's[2] official web-sites.

In our study, we considered the following hypotheses:

Hypothesis 1. The reduced tax burden in Ukraine and Georgia had a positive impact on the indices of economic freedom.

Hypothesis 2. The reduced tax burden affected the fiscal freedom but did not affect the index of economic freedom.

At the first stage of our study, we conducted a statistical analysis of the tax burden in OECD countries. OECD countries were included in the sample because their tax systems are relatively harmonized. Due to the lack of data, we didn't include in the sample Australia (no data for 2017) and Japan (no data before 1995). The sample covers the period from 1995 to 2017.

At the second stage, we built regression dependences of the mean tax burden (including social security contributions)

[1] https://stats.oecd.org/viewhtml.aspx?datasetcode=REV&lang=en#

[2] https://data.worldbank.org/indicator/GC.TAX.YPKG.RV.ZS?view=chart

and the index of economic freedom (including the index of tax burden).

We used tax burden as an independent variable since the tax reforms in Ukraine and Georgia prioritized its reduction.

We chose the index of economic freedom and the index of tax burden as dependent variables. The index of economic freedom is an integral indicator characterizing the level of economic freedom for business development in a given country. To measure the level of economic freedom in a country, we need to look not only at certain characteristics of its tax system (tax burden and fiscal freedom) but also at the institutional characteristics, such as property rights protection, freedom from corruption, investment and financial freedom, and so on. Depending on their scores, countries are assessed and divided into the following groups:

– free countries, with the index values between 80 and 100;

– mostly free, 70–79.9;

– moderately free, 60–69.9;

– mostly unfree, 50–59.9;

– and repressed, 0–49.9.

The index of tax burden characterizes the degree of the tax system's impact on the ease of doing business in a specific country. Values of this index may vary between 0 and 100. The higher is the index, the more attractive this country is for business.

4. Tax reforms in Ukraine

A brief historical overview of taxation in Ukraine is necessary in order to gain a better understanding of the problems Ukrainian reformers were trying to address. Originally, the Ukrainian tax legislation had a two-level structure: there was the General Law on the Taxation System and laws for specific taxes such as the VAT, corporate income tax, personal income tax and so on. The General Law on the Taxation System (revised in 1991, 1994 and 1997) determined the structure of the tax system and defined the general principles of taxation. Since 2011, the tax legislation has been codified. In 2015, the Tax Code was substantially amended.

Such instability of the tax legislation can be explained by the influence of objective and subjective factors. One of the main objective factors was that the country lacked the necessary experience required for the formation of the attributes of its statehood, in particular the tax system. At the current stage of economic development, the structure of tax systems in different countries is more or less the same, which is particularly true for the range of taxes and mechanisms of taxation in EU countries. Therefore, in the absence of its own experience, Ukraine could benefit from the experience of developed countries. Some adjustments had to be made, however, regarding the country's peculiar needs and specificities in order to build an efficient, reliable and stable tax system. Even though tax systems of different countries share the same principles, no two systems are identical. Therefore, it would have been far-fetched to hope for easy solutions when creating a tax system in Ukraine.

The subjective factors included the low quality of the draft laws and the overhasty adoption of these laws. For example, the draft Tax Code was presented for the first reading at the Verkhovna Rada in 2000, after that it got stuck in the approval process which lasted until 2010, when the government had to rush through the third version of the law. According to V. Oparin and T. Paientko, each new government in Ukraine, including the current one, launched its own tax reforms, which invites a supposition that the government's prime concern is not about the efficiency of the tax system and the quality of the tax legislation but about lobbying its own interests [23].

The high tax burden is generally considered to have been one of the major drawbacks of the Ukrainian tax system throughout its development. Therefore, the first question we need to answer here is whether the tax burden in Ukraine is really that high or not. The level of tax burden is measured as a percentage of GDP and by comparing tax rates for the key taxes. Since the question about whether to include social contributions into the tax burden or not still remains open, we shall compare the tax burden (as a ratio of tax revenues to GDP) in Ukraine and OECD countries (see Tables 1–2, Figure 1). For Ukraine we considered the period starting from 2004, when the necessary information was first made publicly accessible.

The graph in Figure 1 shows that the share of tax revenues in GDP was the smallest in 2004 and the highest in 2012. The mean value in the given period is 36.35%. Table 1 and 2 show the results of the statistical analysis of tax burden in OECD countries.

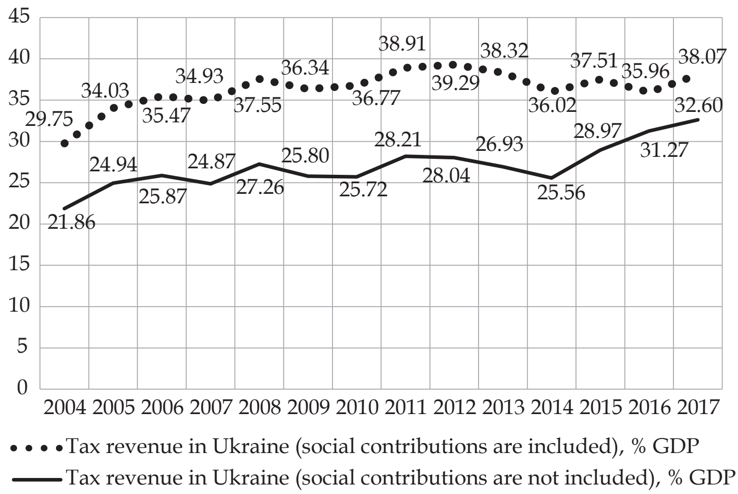

Figure 1. **Share of tax revenues in GDP of Ukraine in 2004–2017, %**

Source: constructed by the authors on the basis of the World Bank data

Table 1

Descriptive statistics on tax revenues in OECD countries in 1995–2017, % of GDP, by year

Year	mean	sd	min	q1	median	q3	max	IQD
1995	33.402	8.543	10.110	29.330	35.136	39.317	46.499	9.988
1996	33.737	8.433	9.912	29.472	34.601	39.226	47.372	9.753
1997	33772	8.351	10.500	30.037	34.690	3.511	48.321	7.474
1998	33953	8.229	10.963	30.933	34.157	37.418	48.426	6.485
1999	34.172	8.157	11.728	31.069	34.505	37.973	48.804	6.904
2000	34.104	7.955	11.462	30.850	33.492	38.109	48.984	7.260
2001	33.594	7.663	12.194	29.583	32.867	37.566	46.832	7.983
2002	33.342	7.563	12.610	29.537	33.239	37.358	45.405	7.822
2003	33.261	7.498	12.671	29.197	33.143	37.441	45.583	8.244
2004	33.187	7.696	11.559	29.227	33.596	37.328	46.393	8.101
2005	33.662	7.756	11.362	29.541	33.791	38.850	48.005	9.309
2006	33.807	7.493	11.588	30.181	34.140	39.718	46.462	9.536
2007	33.853	7.306	12.014	30.119	34.220	39.274	46.425	9.155
2008	33.269	7.208	12.599	29.428	32.597	38.751	44.765	9.323
2009	32.588	7.589	12.467	29.077	31.468	38.760	44.963	9.682
2010	32.682	7.331	12.840	28.238	32.167	37.364	44.756	9.126
2011	32.960	7.255	12.767	28.022	32.768	36.900	44.793	8.878
2012	33.391	7.558	12.649	28.402	32.267	3.384	45.512	9.982
2013	33.673	7.618	13.304	29.043	33.493	38.207	45.888	9.164
2014	33.877	7.684	13.704	29.512	33.344	38.236	48.531	8.723
2015	33.985	7.363	15.933	29.743	33.470	38.094	46.132	8.350
2016	34.779	7.861	16.634	30.601	33.984	39.117	51.595	8.516
2017	34.479	7.258	16.174	30.797	34.304	38.727	46.231	7.930

Source: calculated by the authors on the basis of the OECD data

As Table 1 illustrates, the mean tax burden tended to grow – from 33,402% in 1995 to 34,479% in 2017. The same trend was demonstrated by the minimum values of the tax burden (16.174% in 2017). The maximum value of the tax burden reached its peak in 2016 and in 2017 dropped to 46.231%. The median value of the tax burden is close to the mean value.

Table 2 shows the results of descriptive statistics for the same period and for the same countries included in the sample. We see that Ukraine has no abnormal deviations from the global trend in what concerns tax burden: in the given period its tax burden remained within the range of 21.86–32.06% (net of pension contributions) and 29.75–39.29% (including pension contributions).

The tax burden in Ukraine is below average among OECD countries and is at approximately the same level as that of the Czech Republic, Germany, Iceland, Holland, Poland, Portugal and Slovakia. Therefore, the opinion that the tax burden in Ukraine is high appears ungrounded. Ukraine can thus be described as a country with a medium level of tax burden.

Table 2

Descriptive statistics on tax revenues in OECD countries in 1995–2017, % of GDP, by country

Year	mean	sd	min	q1	median	q3	max	IQD
AUT	42.076	0.991	40.408	41.195	42.233	42.704	43.886	1.509
BEL	43.569	0.788	42.370	43.081	43.451	44.083	45.106	1.062
CAN	33.056	1.605	30.875	31.791	32.766	34.473	35.912	2.682
CHL	19.784	1.310	17.334	18.943	19.591	20.554	22.710	1.611
CZE	33.571	0.795	32.283	33.177	33.454	34.224	34.893	1.047
DNK	46.247	1.028	44.756	45.547	46.189	46.720	48.531	1.172
EST	32.347	1.596	29.969	31.192	31.667	33.519	36.033	2.327
FIN	43.170	1.472	40.788	42.073	43.333	44.138	45.820	2.064
FRA	43.523	1.297	41.528	42.409	43.334	44.304	46.231	1.895
DEU	35.654	1.059	33.860	34.948	35.574	36.316	37.544	1.368
GRC	32.741	3.014	27.890	30.803	31.982	34.901	39.386	4.098
HUN	38.070	1.115	36.250	37.313	37.950	38.828	40.776	1.514
ISL	36.097	4.220	31.187	33.998	35.592	37.142	51.595	3.144
IRL	28.470	2.652	22.837	27.358	28.458	30.796	32.268	3.437
ISR	32.931	1.823	29.834	31.221	33.331	34.308	35.421	3.087
ITA	41.305	1.532	38.583	40.165	41.668	42.228	44.050	2.063
KOR	22.873	2.278	19.118	21.620	23.391	24.617	26.900	2.998
LVA	28.861	1.065	27.466	27.950	28.646	29.470	31.222	1.520
LTU	29.298	1.662	26.966	27.965	29.203	30.152	32.758	2.187
LUX	32.067	1.018	34.850	36.502	37.325	37.632	38.654	1.130
MEX	12.511	1.765	9.912	11.511	12.467	12.803	16.634	1.293
NLD	36.243	1.110	34.804	35.515	36.047	37.027	38.752	1.512
NZL	32.613	1.705	30.055	31.572	32.313	33.816	36.058	2.245
NOR	41.047	1.420	38.228	40.024	41.850	42.059	42.831	2.035
POL	33.404	1.638	31.199	32.010	32.940	34.383	36.617	2.373
PRT	31.601	1.658	29.278	30.290	31.247	30.073	34.708	1.783
SVK	32.185	3.222	28.075	29.258	32.179	33.263	39.562	4.005
SVN	36.878	0.611	36.021	36.406	36.822	37.263	38.360	0.857
ESP	32.944	1.538	29.708	32.014	33.077	33.593	36.358	1.579
SWE	45.269	2.111	42.506	43.588	45.174	46.724	48.984	3.136
CHE	26.819	0.685	25.519	26.507	26.882	27.016	28.456	0.509
TUR	23.368	2.382	16.390	23.104	23.592	25.017	25.899	1.914
GBR	31.966	1.105	29.311	31.504	32.283	32.705	33.258	1.201
USA	25.919	1.464	23.017	24.782	25.975	27.049	28.202	2.266

Source: calculated by the authors on the basis of the OECD data

The tax-to-GDP ratios for the key taxes in Ukraine are also far from being the highest: for instance, the corporate income tax-to-GDP ratio is even lower than in many OECD countries (see Table 3).

The corporate income tax-to-GDP ratio in Ukraine is lower than in Estonia, where the corporate income tax was replaced by the tax on withdrawn capital. It should be noted that the Ukrainian government has been continuously declaring that stimulation of business and attraction of investment are its top priorities, although no significant reduction in the profit tax rates ever ensued. The corporate income tax rate was reduced very slowly and, therefore, had no visible effect either on taxpayers or the country in general.

Effective corporate income tax rates in all the given countries are lower than nominal due to the tax benefits and tax preferences applied for certain transactions. In the majority of these countries both the nominal and effective corporate income tax rates are higher than in Ukraine, which clearly disproves the common misconception about the high level of corporate taxation in Ukraine. The corporate income tax-to-GDP ratio in Ukraine is lower than the average in the OECD sample. In some countries, such as Ireland, Switzerland and Germany, the corporate income tax rates are lower than in Ukraine but the fiscal significance of this tax is higher, which can be related to the mechanisms of providing tax preferences or the level of the shadow economy. In the given countries, this level on average does not exceed 20% while in Ukraine, according to the Ministry of Economic Development and Trade, in the first quarter of 2017, this level was 37%[3]. This indicator is even higher if we look at the estimates of the World Bank, which show that in the last five years the level of the shadow economy in Ukraine hovers around 50–60%. This level has a negative impact on the fiscal efficiency of taxes due to tax evasion.

The situation with the VAT in Ukraine is a bit different (see Table 4).

The Table shows the data on the VAT-to-GDP ratio. As Table 4 shows, in Ukraine the VAT-to-GDP ratio in 2015 was higher than in other countries while in 2016 it was not much different from the mean value in the sample. This can be explained by the fact that the Ukrainian state adopted a more harmonized procedure for refunding the VAT and cut the delays in VAT refunds. The nominal VAT rate in Ukraine is quite moderate, lower than in Germany, Turkey and Switzerland. In

[3] Shadow Economy in Ukraine. Available at http://www.me.gov.ua/Documents/List?lang=uk-UA&id=e384c5a7-6533-4ab6-b56f-50e5243eb15a&tag=TendentsiiTinovoiEkonomiki

Table 3

Corporate income tax-to-GDP ratio in OECD countries in 2010–2016, %

Country	2010	2011	2012	2013	2014	2015	2016	Corporate income tax rate in 2018, %
Austria	9.67	9.67	9.72	9.79	9.97	10.36	9.42	25.00
Czech Republic	2.98	2.98	2.96	3.05	3.13	3.20	3.20	19.00
Estonia	3.37	3.21	3.44	3.75	3.94	4.20	4.17	20.00
Germany	8.03	8.29	8.73	8.78	8.73	8.95	9.32	29.89
Hungary	1.19	1.12	1.19	1.07	1.40	1.57	1.93	9.00
Ireland	8.88	8.87	9.19	9.22	9.37	8.00	8.07	12.50
Italy	10.55	10.14	10.70	10.72	10.20	9.98	9.86	24.00
Latvia	0.98	1.40	1.62	1.62	1.54	1.60	1.70	20.00
Poland	1.95	2.02	2.08	1.77	1.75	1.84	1.85	19.00
Slovakia	2.46	2.41	2.36	2.86	3.28	3.70	3.78	21.00
Switzerland	17.60	17.26	16.39	16.00	15.66	15.84	15.79	21.15
Turkey	1.80	1.94	1.85	1.60	1.58	1.43	1.65	22.00
UK	8.55	8.67	8.16	7.99	7.76	7.83	8.14	19.00
Sample mean	6.00	6.00	6.03	6.02	6.02	6.04	6.07	20.12
Ukraine	3.73	4.18	3.96	3.78	2.57	1.97	2.54	18.00
Georgia	2.88	2.78	3.42	3.25	3.01	2.84	3.22	15.00

Source: calculated by the authors on the basis of the data of the OECD and the World Bank.

Table 4

VAT-to-GDP ratio in OECD countries in 2010–2016, %

Country	2010	2011	2012	2013	2014	2015	2016	VAT rate, %
Austria	6.45	6.28	6.27	6.13	6.07	6.07	6.16	20.00
Czech Republic	6.65	6.86	7.05	7.41	7.41	7.25	7.41	21.00
Estonia	8.54	8.18	8.41	8.23	8.66	9.20	9.36	20.00
Germany	5.62	5.55	5.55	5.41	5.32	5.39	5.42	19.00
Hungary	8.54	8.41	9.13	8.91	9.24	9.64	9.29	27.00
Ireland	5.09	4.72	4.79	4.67	4.83	3.67	3.76	23.00
Italy	4.69	4.57	4.46	4.32	4.40	4.45	4.45	22.00
Latvia	6.70	6.77	7.17	7.40	7.55	7.70	8.15	21.00
Poland	7.59	7.83	7.14	7.04	7.13	6.99	7.05	23.00
Slovakia	6.19	6.67	5.95	6.33	6.60	6.87	6.67	20.00
Switzerland	4.93	4.83	4.71	4.60	4.42	4.24	4.20	8.00
Turkey	5.39	5.64	5.20	5.57	5.02	5.18	5.01	18.00
UK	4.25	4.81	4.74	4.69	4.68	4.71	4.74	20.00
Sample mean	5.33	5.28	5.25	5.12	5.10	4.93	4.97	...
Ukraine	7.97	9.88	9.85	8.82	8.87	9.02	5.88	20.00
Georgia	10.64	11.46	11.60	10.63	11.30	11.02	9.67	18.00

Source: constructed by the authors on the basis of the data of the OECD and the World Bank.

almost all of the given countries, the effective VAT rate is lower than the nominal, which can be explained by the fact that reduced VAT rates are applied to certain groups of commodities. It should be noted that the given countries do not experience any significant fluctuations in the VAT-to-GDP ratio, which signifies a relative stable level of taxation in these countries. An increase in the VAT-to-GDP ratio in the Czech Republic, Estonia and Latvia stems from the gradual increase in the basic VAT rate by 1–2 percentage points.

In order to estimate the tax burden in Ukraine by looking at specific taxes and tax payments, we need to conduct a retrospective analysis of the tax policy. The reduction of the tax burden involved cutting the number of taxes and fiscal charges as well as lowering the tax rates. There is a widely shared misconception about the excessive number of taxes in Ukraine. However, each round of tax reforms in this country included eliminating some of the taxes, which usually happened when the Tax Code was adopted or amended. As a rule, these were the taxes of secondary importance or those that produced little revenue. A really important matter was the cancellation of contributions to different special budget funds, in particular those that created a substantial tax burden such as the "Fund for the Liquidation of the Consequences of the Chernobyl Disaster", "Social Security Fund", "State Innovation Fund", and the "Fund for Road Construction and Repair". These funds were created in large numbers in the first year of Ukraine's independence (apart from the above-mentioned, there were also funds for the development of energy sector, conversion, and so on). Currently the most significant is only the contribution to the Fund of Social Security of the Disabled (the contribution to this fund equals the amount of the annual salary at the rate of the minimum wage per person). Companies have a choice of either hiring a disabled person or paying a fine for failing to fulfil the quota for employment of people with disabilities. Therefore, the contributions to this fund are in fact the fines paid by companies failing to hire disabled people.

At the initial stage in the development of the country's tax system (1991–1997), the key priority was to establish a tax system which would be able to ensure stable budget revenues. Although at this stage the fiscal function prevailed, some steps were taken to reduce the tax burden.

The rates were reduced for the key taxes: first, the VAT rate was lowered from 28% to 20% in 1995, which was a bold decision considering the level of budget deficiency at that time. It should be noted that there was an attempt to set the VAT rate at 20% in 1993 but it proved too hard to retain the rate at this level and it had to be raised after only four and a half months.

At the same time the rates of the business taxes were lowered: initially the corporate income tax rate (net profit) was set at 35%. In 1992–1994, the system of business taxation changed several times: the income tax (the sum of commercial profit and the wage fund minus gross income) had the rate of 18%; in 1994 it was raised to 22%; later this tax was replaced by the corporate income tax with the rate of 30%. Finally, the government decided to set the profit tax rate at 30%.

During the years of Ukrainian sovereignty, taxation of physical persons also underwent significant changes: at first there was a "citizen income tax" but later it was renamed into the "tax on the income of physical persons"; the tax rates and mechanisms of taxation were also adjusted multiple times. The situation was particularly volatile in the early 1990s. Until 2003, Ukraine had had a progressive tax scale, also changed three times.

The second stage (1997–2000) involved the development of tax regulation and harmonization of the main taxes with international norms. In 1997, the principles of VAT and corporate income tax collection were revised, and the principles of VAT collection were harmonized with those of Western countries. As for the corporate income tax, the reform resulted in the separation of bookkeeping from tax accounting and the object of taxation – profit – started to be calculated differently from the way profit is calculated in bookkeeping.

Introduction of a simplified taxation system for small business, which stimulated entrepreneurship and self-employment, was one of the positive aspects of the tax regulation in this period.

At the third stage of the reforms (2000–2010), policy-makers were searching for the right balance between the fiscal and regulating function of taxes, for example, they liquidated excessive VAT benefits and corporate income tax benefits. In the same period, the progressive personal income tax scheme was replaced by a proportional scheme. From 2004 to 2007, the proportional tax rate in Ukraine was 13%, and in 2007 it was raised to 15%. One of the most significant results of the reforms in this period was the adoption of the law "On the Procedure for Payment of Taxpayers" Liabilities to Budgets and State Purpose Funds' of 21.12.2000 № 2181. This law systematized approaches to tax liability settlement and to application of penalties for violating the tax legislation. Principles of penalizing taxpayers changed considerably, moreover, the grounds for imposing penalties were expanded and the size of penalties became dependent on the type of tax check and the kind of violation.

The fourth stage (since 2011 to present) involved codification of the tax legislation, simplification of the tax system and its further harmonization with the EU legislation. The search for ways to further reduce the tax burden continues.

At this point we should emphasize that among other taxes in Ukraine, the VAT is most harmonized with the EU legislation. If we compare the current VAT rate in Ukraine with that of other countries, we can notice that in general it corresponds to the international norms. Therefore, the debates about the VAT now mostly focus on its administration and collection. It should be noted, however, that all EU countries, except for Denmark, apply reduced VAT rates to some pharmaceutical products, food necessities, public transport fees, periodicals and so on. In Ukraine, the reduced VAT rate is applied only to pharmaceutical products and medical equipment (7%), which does not qualify as a reduction of the tax burden since before it was introduced, medical drugs and equipment had been VAT-free.

Changes in the approaches to the VAT administration in Ukraine raise a number of questions. Overall, however, the introduction of the electronic VAT administration system in 2015 helped the authorities minimize the risks of fictitious tax credits and simplify the process of declaration and payment of the VAT. On the other hand, the majority of firms offering their customers deferred payment terms faced difficulties when they were trying to register their tax invoices in the electronic system while shipping the products. In order to register a tax invoice, it is necessary to have the corresponding sum of money on the taxpayer's account in the Treasury Service. For example, if you need to register a tax invoice for the sum of 120,000 hryvnias, including the VAT of 20,000 hryvnias, the remaining amount on the taxpayer's electronic account should be 20,000 hryvnias. This remaining amount consists of the VAT amounts in the tax invoices registered by the company's suppliers, the VAT amount paid to import goods, the money transferred by the taxpayer, and the monthly average of the VAT amounts declared by the taxpayer in the last 12 fiscal months and discharged (or amortized/deferred). If the sum on the taxpayer's account is not enough, the taxpayer has to transfer funds from their current bank account (you cannot, however, withdraw funds back from your taxpayer's account) to avoid paying a fine for delayed registration and losing a customer since without the registered tax invoice, the customer loses their right to the tax credit. The purpose of the electronic system is to prevent VAT fraud and evasion due to fictitious tax credits but this system also hampers efficient operation of companies.

The introduction of the system in 2015–2016 did not help the government solve the problem of timely VAT refunds on exported goods. The situation got better only in 2017, when the register of companies claiming the VAT refund became publicly open. Before 2017, such registers had been closed, which led to high risks of corruption associated with "queue jumping". When the registers became open, the transparency of the "queuing system" also became higher as the companies were now able to keep track of the process.

Another problem taxpayers faced in 2017 was that the system blocked the registration of tax invoices if it detected a high level of risk of a fictitious transaction. Sometimes this mechanism created absurd situations: for instance, tax invoices of a manufacturing enterprise got blocked because the system did not have the information that this production had already been bought by this enterprise before.

The confusion and uproar among taxpayers led to a large number of suits filed against the State Fiscal Service. As a result, the Ministry of Finance had to revise the criteria for blocking tax invoices. The improvement of the electronic system is still a work in progress.

As for the corporate income tax, its rate was gradually lowered: in 2005–2010 the tax rate was 25%. In accordance with the Tax Code of 2010, it was planned to lower the tax rate to 23% in 2011; to 21% in 2012; to 19% in 2013; and to 16% in 2014. These plans were never fully realized and at the moment the corporate income tax rate is at the level of 18%. Thus, since Ukraine became an independent state, the tax rate has been lowered almost twofold. Compared with international experience, this rate is generally on a par with that of other post-Socialist countries but significantly lower than that of developed countries.

In addition to the above, the tax burden was also lowered due to the changes in corporate income taxation: since 2015, taxable income has been defined as the financial result calculated according to the national bookkeeping standards and international accounting standards (depending on the conceptual framework this or that company should apply). Thus, the financial result calculated in the way described above is further adjusted for tax differences defined in Tax Code of Ukraine. The main tax differences are those related to the depreciation of non-current assets; financing transactions; and provisions for incurred and probable expenses. This approach does not contradict the existing international practice but, on the contrary, is methodologically close to it. In Ukraine, however, this change caused conflicts between taxpayers and tax authorities. What in fact happened is that since 1997, tax accounting has prevailed over bookkeeping, which remained relevant only for companies subject to mandatory audits and thus required to publish their financial reports (issuers of securities, financial institutions and public joint-stock companies).

The personal income tax can be considered less harmonized. Since 2007, the rate of the personal income tax was 15% and in

2011, a second rate of 17% was introduced for higher income individuals. In 2016, the unified proportional rate was raised to 18%. At the same time, the unified social security contribution was cancelled for employees. Such instability in tax legislation may signify a lack of the clear strategic and tactical vision behind the tax reforms. There is also a perceptible lack of agreement among the policy-makers as to what direction the reform should take: for example, high-income groups now enjoy a lower level of taxation while disadvantaged groups, on the contrary, have to struggle with higher taxation levels. In comparison with other countries, Ukraine has the lowest level of personal income tax in the world. The majority of countries have fixed progressive tax schedules. In Western Europe, the tax burden on personal income is reduced considerably through tax deductions and tax rebates. First of all, in almost all countries there is a tax-exempt minimum income, which either equals or slightly exceeds the minimum wage. In Ukraine only a limited number of people can take advantage of the full scope of tax benefits.

Secondly, Western states strive to promote self-employment and, therefore, offer self-employed citizens an opportunity to deduct their home office expenses and the expenses of operating their personal vehicles for business against their self-employment income, thereby reducing their income tax. To claim self-employed tax benefits citizens don't have to be registered as entrepreneurs. In Ukraine, however, there is no such option.

The current practice of personal income taxation in Ukraine is inconsistent with the government's intention to stimulate the development of non-state pension schemes. The only incentive available in Ukraine is the right to claim a tax relief and even in this case there is a limit on the amount of pension contributions on which you get a tax relief. In many EU countries, for example, Germany, France and the UK, the governments stimulate contributions to private pension plans by incentivizing the employer and the insured. For instance, in the progressive income tax system, physical persons are entitled to a higher tax threshold or to a tax relief on their pension contributions.

The last step towards reduction of the tax burden in Ukraine was cutting the rate of the unified social contribution for enterprises. While previously it varied between 36.76% to 49.7% of the salary budget depending on the occupational hazard class, in 2016 the rate was reduced by more than a half – to 22%. Much had been said about the need for such a measure long before it was actually taken: one of the arguments was the experience of development countries, where the average rate of social security contributions is 18–20%. Nevertheless, such comparisons are flawed since the majority of the countries where this rate is applied have funded pension systems while in Ukraine there is a PAYG system. As V. Oparin and T. Paientko point out, it is more effective to combine lowering of the unified social tax rate with a more radical reform of the pension system, which, unlike the one of 2017, is more likely to lead to fundamental improvements. Furthermore, many taxpayers had to face a significant expansion of the tax base through the unified social tax, which included most of the compensation payments (for example, compensation for rent payments) [23].

Let us try to evaluate the results of the tax burden reduction in Ukraine. The reform of the mid-1990s, which involved lowering the VAT rate and elimination of contributions to special budgetary funds, brought more or less positive effects. These measures allowed the government to stabilize the decline in the GDP growth rate and ensure some sort of macro-economic stability. In the early 2000s, the country finally achieved economic growth. Undoubtedly, the tax burden reduction made a substantial contribution to this success, even though it was not the sole factor.

It is much harder, however, to evaluate the impact of the transition from progressive personal income taxation to proportional taxation. The rationale behind this transition was the need to deal with the problem of unreported income and tax evasion and thus to encourage business to move from the shadow sector to the formal economy. Proponents of this

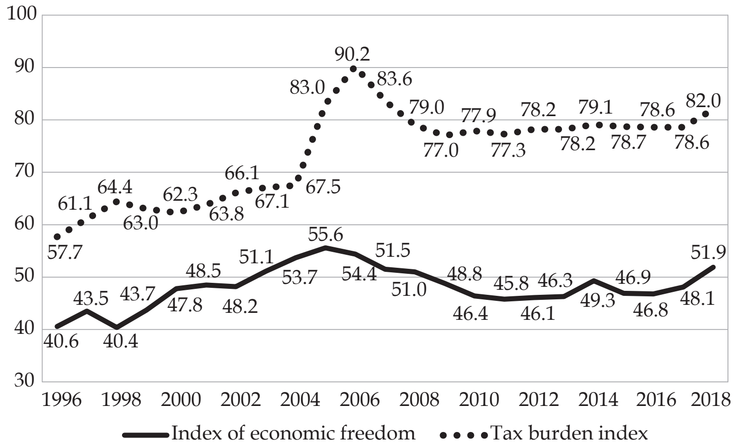

Figure 2. **Dynamics of the index of economic freedom and the index of tax burden for Ukraine in 1996–2000**

Source: constructed by the authors on the basis of the Heritage Foundation data

reform argued that such transition would boost tax revenues even with lower tax rates. As practice showed, however, no breakthrough was made in this respect and the problem of tax evasion remained unsolved and even got worse when the need to replenish the Pension Fund arose. On the other hand, no slump in tax revenues ensued either. In the following two years, the tax revenues grew considerably: from 34800.00 billion hryvnias to 45900.00 billion in 2008. These were the years of economic boom in Ukraine and although we cannot deny the positive impact of the reduced tax burden, the crucial factor was the growth of GDP, which becomes evident if we look at the personal income tax revenues as a percentage of GDP. This figure doesn't change much: in 2003, it was 5.1%; in 2004, 3.8%; in 2005, 3.9%; in 2006, 4.2%; in 2007, 4.8%; and in 2008, 4.8%. Undoubtedly, reduced income tax rates stimulated consumption and thus enhanced economic growth. Not all income groups benefited the same from this reform, though, with the rich gaining the most. Reduced tax rates could be expected to raise investment, which would signify the success of the personal income tax reform. The reform, however, did not bring about the expected investment boom and it is unlikely to happen in the nearest future. The reduction in the corporate profit tax rate was primarily aimed at encouraging investment (at least according to the official version of the previous Ukrainian government). The officials insisted that the proposed tax incentives would result in an unprecedented inflow of investment, which, however, did not happen.

Therefore, it can be concluded that the reform failed to bring the desired result (or maybe it had been doomed to failure from the start). According to the studies of E&Y, PwC, and the World Bank, the main factor in foreign investors' decision-making is not the profit tax rate but the protection of their property rights, the rule of law and the efficiency of the government. According to the Heritage Foundation, in these indicators Ukraine's position remains steadily low. As for the integral indicator, Ukraine ranks among the economically unfree countries[4], such as Afghanistan, Sudan, Angola, Suriname and Bolivia. Therefore, it is essential that the changes in the sphere of taxation should be accompanied by the complementary institutional transformations; otherwise the benefits from the reform will be enjoyed only by a small privileged circle of those who lobby these changes in the first place while the general level of public welfare will remain basically the same. Figure 2 illustrates the dynamics of the index of economic freedom and tax burden.

[4] Index of economic freedom. Available at: https://www.heritage.org/index/

As the graph above shows, the position of Ukraine in the ranking of economic freedom leaves much to be desired. Even though its index grew from 40.6 to 51.9, it is still not enough for Ukraine to move to the next group in the ranking. As Figure 2 illustrates, after 2002, the index of tax burden grew considerably, which means that the tax reforms had a positive impact on the tax climate in the country.

As it was previously noted, the index of economic freedom is one of the integral indicators characterizing the country's economic and institutional development. To evaluate the influence of tax reforms on economic freedom, we constructed two dependences with two dependent variables – the index of economic freedom (integral indicator) and the index of tax burden (component of economic freedom). Tax burden (the share of tax revenues in GDP) was used as an independent variable. The sample covers the period from 2008 to 2018. The results of our calculations are shown in Table 5.

Table 5

Regression statistics results (Ukraine)

Linear Model		
	Dependent Variable	
	IEF index of economic freedom)	**TB (Tax burden)**
	0.218** (0.073)	0.477** (0.168)
Observations	11	11
R^2	0.499	0.474
Adjusted R^2	0.443	0.415
Residual Std. Error (df = 9)	0.388	0.894
F Statistic (df = 1; 9)	8.952**	8.107**

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

The *F*-statistic and *p*-value show the significance of these models. The coefficient of determination (adjusted to take into account the sample size) for the dependence of the index of economic freedom/tax burden is 0.443; for the dependence of the index of tax burden/tax burden, 0.415. In 2008–2018, the tax reforms targeted at reducing the tax base determined more than 40% of the dynamics of the country's economic freedom index. Therefore, for Ukraine the first hypothesis is confirmed and the second hypothesis is refuted. It should be noted that although in the given period the reduction of the tax burden was one of the priorities of the country's fiscal policy and had a positive impact on the index of economic freedom, Ukraine still remained in the group of economically unfree countries, that is, the impact of the reform was smaller than expected.

5. Tax reforms in Georgia

Although the establishment and development of the tax system in Georgia had the same point of departure as in Ukraine – the demise of the USSR, their tax reforms took different paths and brought different results, which, among other things, affected the general level of tax burden (Figure 3). As Figure 3 shows, tax revenues accounted for the smallest share in GDP in 2010 and the largest, in 2012. Figure 3 shows only one graph because in 2008, social contributions and the personal income tax were united into one tax.

The mean value in the given period is 23.51%. The tax burden in Georgia in the given period is below the average level in

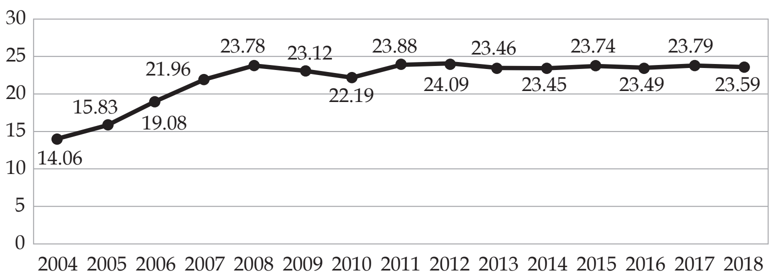

***Figure 3.* The share of tax revenues in GDP of Georgia in 2008–2018**

Source: constructed by the authors on the basis of the data of the Ministry of Finance of Georgia the OECD (Tables 1–2); the average level of tax burden in Georgia is closer to that of Korea, Turkey and the USA. It should be noted that in these countries the level of tax burden is much lower than in the EU.

The same can be said about the corporate income tax- and the VAT-to-GDP ratios (see Tables 3 and 4). While the corporate income tax rate is lower in Georgia (15%), its tax collection efficiency is higher than in Ukraine (which has become particularly evident since 2014) (Figure 4). The situation is similar for the VAT: while the tax rate is lower (18%), the efficiency of the VAT collection in Georgia is higher than in Ukraine (Figure 5).

As Figure 4 illustrates, the corporate income tax-to-GDP-ratio in Ukraine was falling between 2011 and 2015 but went up in 2016. The dynamics of the corporate income tax-to-GDP-ratio in Georgia was less turbulent: in the period between 2012 and 2015, it demonstrated a slight downward trend and in 2016, increased insignificantly.

There were no dramatic fluctuations of the VAT-to-GDP ratio for Georgia in the given period; there was a decrease in 2013 and 2016. Overall, the VAT-to-GDP ratio in Georgia was almost twice the OECD average, which can be explained by the shifting of the tax burden from income to consumption.

Building market economy, Georgia faced a number of political, economic and social problems, which made it necessary to create a robust tax system. Establishing a new tax system that would be suitable for market economy, in its turn, required a legislative foundation. During the transition period, the parameters of the tax system remained largely unclear and there was no proper regulatory framework, which cuased some mistakes in the following tax reforms. In December 1993, the Georgian Parliament passed a legislative package (eight laws) aimed to improve the tax systems by stimulating entrepreneurship and mobilizing state budget resources. The main law in this package was the Law of the Republic of Georgia "On the Principles of the Tax System", which described organization of the tax system, methodological framework for the formation of taxes, levies, duties, and local taxes. The law "On the State Tax Service of the

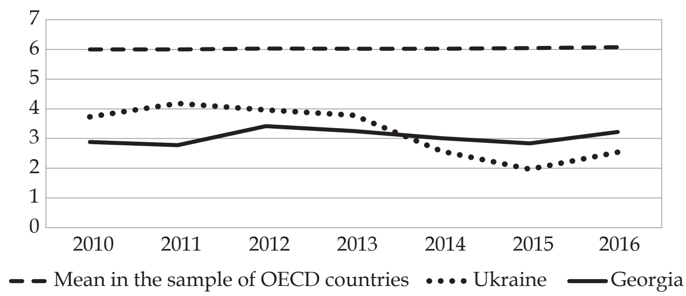

Figure 4. **Corporate income tax-to-GDP ratio in OECD countries, Ukraine and Georgia in 2010–2016**

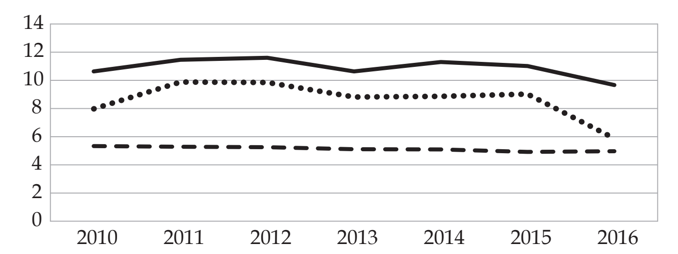

Figure 5. **VAT-to-GDP ratio in OECD countries, Ukraine and Georgia in 2010–2016**

Republic of Georgia" defined the rights and obligations of taxpayers in relation to the corresponding tax bodies. According to this law, tax authorities exercise control over businesses in the sphere of tax compliance to ensure a permanent inflow of funds to the state budget. This law provided a foundation for the development of the state tax structure in Georgia. It stipulates that the integral system of taxation service in Georgia comprises the central tax administration office, state tax inspections in autonomous republics, 120 cities and districts. Units on all levels of this hierarchy represent legal entities with the corresponding attributes. Despite some serious drawbacks, the first Tax Code adopted by the Georgian Parliament on 13 June 1997 played a positive role in establishing the country's tax system. Inconsistencies and incoherences within the Tax Code curbed its effectiveness and its impact on the operation of the tax system. Hundreds of amendments to the Tax Code failed to produce the desired effect either. Neither taxpayers nor tax collectors were willing to take into account the interests of the state and of the national economy. According to T. Kopaleishvili and M. Chikviladze, the Tax Code was not adjusted to the national traditions and not only failed to improve the tax relations but also led to the deterioration of the newly created tax system in Georgia [29].

The first Tax Code defined the applicability of the law, the types of taxes and their corresponding rates, the conditions and deadlines for tax declaration, the rights and obligations of tax authorities and taxpayers. The Code, however, did not define the type of control and the mechanism for ensuring obligations to taxpayers. At later stages, the Tax Code was revised and amended until it was fully replaced by another one. The first Tax Code comprised 21 taxes, which had a negative impact on taxpayers. Moreover, the taxes failed to perform their fiscal function. In fact, the Georgian tax system of this period was typical of countries with transition economies: it was characterized by the diversity of taxes and excessive complexity of tax administration.

The multiple improvements to the Tax Code, however, had no influence on the tax environment. Therefore, a new tax code was created, which came into force on 1 January 2005. It significantly reduced the number of taxes (from 21 to 6 – 5 national and 1 local) and simplified the mechanisms of tax administration. Thus, the Tax Code established a robust legal framework and set mechanisms for maintaining control over taxation, including supervision over taxpayers and guidelines for resolving tax disputes. The Code also described the rights and obligations of tax authorities and taxpayers, measures of service and control, rules of tax administration, and so on.

The main goals of the tax reforms in Georgia were to simplify the tax system and tax administration, reduce the tax burden and ensure a more even distribution of the tax burden, remove the infeasible tax benefits and reduce the tax burden on economy as a whole.

We should emphasize that as the shadow economy was shrining, the tax base was expanded, which compensated for the lost budget revenues due to the lowered tax rates. The tax reform also had some indirect positive effects. For instance, the liberalization and simplification of the tax system together with the enhanced security of taxpayers had a positive influence on the investment climate in Georgia and helped move the capital into the formal sector.

The general view is that the tax reforms in Georgia went through three main stages. At the first stage, in 2004–2007, the tax reform involved profound institutional changes, lifting of bureaucratic barriers, substantial reduction of the tax burden (15 types of taxes were eliminated, and for some taxes, the rates were lowered), and reduction of the government's involvement into the activities of companies. The reform set simple and fair "rules of the game" and the state guaranteed to all economic and business entities that these rules would be observed. In this period, customs and tax bodies became subordinate to the Ministry of Finance [35].

The very concept of the tax reform in Georgia has been thoroughly revised since 2004: first of all, it was important to ensure the principle of tax neutrality, which means that taxes should not affect the choices made by entrepreneurs concerning their fields of activity and investment. This principle is known to be successfully implemented in developed countries. On the other hand, it soon became obvious that at that stage of its socio-economic development, when Georgia was going through serious structural transformations and was struggling with economic instability, the realization of the neutrality principle was problematic. Georgia was unable to fully adopt the experience of developed Western countries, which differed significantly in their levels of socio-economic development and the amounts of property people had as well as in people's attitudes towards taxation. On the other hand, there was no denying the obvious: any country's economic performance is heavily dependent on its tax system. In Georgia, the fiscal policy and the tax system were primarily oriented towards the fiscal function of taxation as the state budget needed a steady inflow of tax revenues. At first sight such fiscal policy seems to be realistic and acceptable but one has to take into account the fact that if the policy focuses only on the fiscal function of taxes to the detriment of the regulating function (paying attention to optimal tax rates and lowering them in certain sectors of economy), such situation will eventually lead to the shrinking tax base and share of taxes in budget revenues, although an increase in the absolute volumes of tax revenues is also possible [24].

The tax reform in Georgia started bringing positive results from the very first years of its realization. Its main success factor was that special attention was given to the human factor and the incentive scheme applied to the staff of the tax administration. L. Bakhtadzae et al. make a valid point saying that the Georgian government started the reform by transforming the incentive scheme rather than by reducing the tax rates [27]. At the beginning of this stage, the tax service went through some major restructuring, which involved layoffs and staff replacements. At the same time some policy measures were taken to combat corruption in the tax administration and to enhance the expertise and qualification of tax officials. As a result, the tax revenues grew from 1530.2 million lari in 2004 to 3669.0 million lari in 2007. In the same period the VAT revenue rose from 661.4 million lari to 1973.7 million. Along with the growth in the total tax revenue, the share of taxes in the country's GDP increased from 12.1% in 2005 to 21.6% in 2007 (according to the data of the Ministry of Finance of Georgia – www.mof.ge). Remarkably, none of the other post-Soviet states demonstrated such an impressive upward dynamics in the performance of their tax systems in this period. Another important positive aspect of the reform is that at the first stage, the tax burden was reduced by lowering the tax rates, for instance, the VAT rate decreased from 20% to 18%; the income tax rate, from 20% to 12%; and the social tax, from 33% to 20% (and later to 15%). In the following stages, the income and social taxes were united into one unified income tax, with the rate of 25%, later lowered to 20%.

The Georgian tax reform had a comprehensive character as the liberalization of taxes, resulting in tax cuts, continued throughout all its stages. At the second stage between 2007 and 2009, the institutional structure of the tax system was improved and new bodies of the tax administration were formed, causing a reduction in the tax burden. The institutional transformation involved the creation of the Tax Revenue Service and some significant changes in the structure of the tax administration, including modernization of the technical facilities of customs checkpoints of the Central Tax Service. As we observed above, in 2008 the profit tax rate was lowered considerably – from 20% to 15%. The social tax and personal income tax were united into one tax. Industrial zones and warehouses were made exempt from taxes.

The third stage of the reforms, which began in 2010–2011 and apparently still continues, encompasses deep and complex transformations of the tax policy. In this period the customs reform was completed. Moreover, the use of innovative digital technologies allowed the government to cut the expenses for the protection of the tax legislation. The new tax code adopted at this stage was more compliant with the internationally accepted methodology and standards. New tax regimes for small and medium-sized enterprises were introduced in order to enhance entrepreneurship in the country. Some bureaucratic barriers were lifted. Digitization of customs administration allowed the government to simplify and harmonize customs procedures.

M. Chikviladze points out that as a result of the tax reform, the number of taxes was reduced from 21 to 6 and the tax rates were lowered significantly for all the key taxes. Potential tax revenues of 40–45% of GDP dropped to 28–30% while the level of the actual tax revenues grew from 15.6% to 23.4%. At the same time the extent of compliance with tax obligations increased from 35% to 78–85% [31].

In the recent decades, Georgia has improved its investment climate considerably. The creation of an efficient tax system with low tax rates and convenient and secure payment methods contributed to this process because it encourages tax compliance and stimulates entrepreneurship. The success of the tax reform helped the government combat corruption more effectively, and now Georgia stands out favourably in this respect among other post-Soviet and developing countries. According to the "Corruption Perceptions Index" of 2019, which assessed financial transparency in 180 countries, Georgia ranked 41st in the world and occupied the top position among the 19 countries of Eastern Europe and Central Asia (EECA)[5].

Georgia used tax reforms to lower its tax rates, which was a crucial part of the country's fiscal policy. According to the estimates of international organizations, Georgia now has comparatively low tax rates and offers comfortable conditions for business: in the joint study "Paying Taxes 2018" by the World Bank (WB) and PricewaterhouseCoopers (PwC), Georgia ranks 22nd among 190 countries in terms of the ease of paying taxes. This indicator is calculated by using three parameters – the number of taxes in the country (the number of payments); the average number of hours annually spent by a company to pay the taxes (the time to comply); and the total tax and contribution rate or the cost of all taxes borne as a percentage of the company's commercial profit[6].

The World Bank's report "Doing Business 2019" positively evaluated the outcomes of the Georgian tax reforms[7]. The corporate profit tax scheme adopted on 1 January 2017 exempts from income taxation undistributed profits, which, therefore, can become a source of reinvestment. The reform led to a reduction in the overall tax burden as a percentage of the profit – 9.9%, which is by 6.5 percentage points lower than the level of the previous year. The same can be said about the time to comply, which fell by 49 hours (from 269 to 220), resulting in Georgia's 16th place in this indicator.

As a result of its tax reforms, Georgia managed to move up the ranking of economic freedom (Figure 6).

As Figure 6 illustrates, between 1996 and 2018, Georgia was steadily improving its performance in the ranking of economic freedom and moved from the group of economically unfree countries to the group of economically free countries (since 2013). The index of tax burden in the given period dropped by 5 points, which seems a natural outcome of the tax reform, aimed not only at reducing the tax burden but also at transforming the institutional tax environment.

To evaluate the impact of the tax reforms on economic freedom, we constructed two dependences with two dependent variables – the index of economic freedom (integral indicator) and the index of tax burden (component of economic freedom). Tax burden (the share of tax

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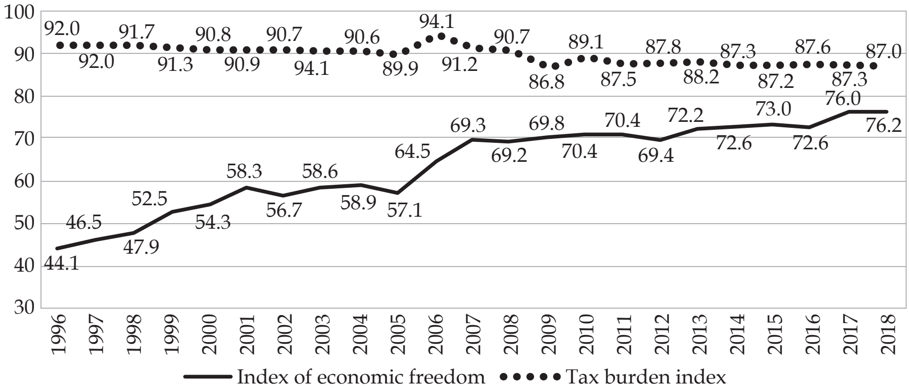

Figure 6. **Dynamics of the index of economic freedom and the index of tax burden in Georgia in 1996–2018**

Source: constructed by the authors on the basis of the Heritage Foundation data

revenues in GDP) was used as an independent variable. The sample covers the period from 2008 to 2018. The results of our calculations are shown in Table 6.

Table 6

Regression statistics results (Georgia)

Linear Model		
	Dependent Variable	
	IEF index of economic freedom)	**TB (Tax burden)**
	0.411 (0.378)	0.816 (0.602)
Observations	11	11
R^2	0.116	0.170
Adjusted R^2	0.018	0.077
Residual Std. Error ($df = 9$)	0.607	0.968
F Statistic ($df = 1; 9$)	1.187	1.839

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

As Table 6 illustrates, the model is statistically insignificant as the F-statistic is 1.187 and 1.839 respectively while the minimum required value is 2 for the given number of degrees of freedom. The coefficients of determination are low for both models, which signifies the absence of relationship between the tax burden and the index of economic freedom. This can be explained by the fact that the tax reforms in Georgia were oriented towards institutional changes, in particular improvement of tax administration. The second priority was the reduction of the tax burden. It should be noted that these priorities ensured Georgia's transition from the group of economically unfree countries to the group of countries with high levels of economic freedom (ranking positions 70–79). Thus, for Georgia the first hypothesis is refuted while the second is confirmed.

6. Conclusion

The results of our study have shown that Ukraine went through four main stages of the tax reforms. At the initial stage (1991–1997), the key priority was to establish a tax system which would be able to ensure stable budget revenues. Although at this stage the fiscal function prevailed, some steps were taken to reduce the tax burden. At the second stage (1997–2000), tax regulation was developed and the main taxes were harmonized with international norms. At the third stage (2000–2010), the government tried to balance the fiscal and regulatory functions of taxes. The fourth, ongoing stage (since 2011) involved codification of the tax legislation, simplification of the tax system and its further harmonization with the EU legislation. The search for ways to reduce the tax burden continues.

In Georgia, the tax reforms comprised three stages. The first stage (2004–2007) was the period of profound institutional changes, lifting of bureaucratic barriers, reduction of the tax burden (15 kinds of taxes were eliminated and some of the tax rates were lowered), reduced government intervention into business activities. At the second stage (2007–2009), the institutional structure of the tax system was improved and new tax administration bodies were formed, resulting in an actual reduction in the tax burden. At the third, ongoing stage, the tax reform has been completed while the tax policy is still undergoing profound transformations. Moreover, modern digital technologies have enabled the government to cut the spending on the protection of the tax legislation.

In Ukraine, the resulting tax system is characterized by a moderate tax burden (compared with OECD countries), while in Georgia, the tax burden is quite low. The tax burden on corporate profits in Ukraine and in Georgia is lower than in the OECD. Due to the successful institutional transformations in Georgia, its corporate income tax-to-GDP-ratio is higher than in Ukraine although the nominal rate is higher in Ukraine. The VAT-to-GDP ratio in Ukraine and Georgia is higher than in OECD countries while the efficiency of the VAT collection is higher in Georgia than in Ukraine. The tax reforms in Ukraine lacked a clear strategy and tactics, which led to some unpredictable results. Furthermore, in Ukraine institutional changes always tended to recede into the background while the priority was given to the reduction of the tax burden and the struggle against tax fraud and tax evasion. In Georgia, the key priority of the tax reforms was not just to reduce the tax burden but to balance the interests of the state and taxpayers through structural changes in the sphere of tax administration. Therefore, the Georgian tax reforms turned out to be more successful: between 1996 and 2018, the country rose in the economic freedom ranking to the group of economically free countries and has been steadily improving its position. Unlike Georgia, Ukraine has remained in the group of economically unfree countries due to its unbalanced reforms, insufficient institutional and structural changes. Therefore, these factors prevented the country's policy-makers from ensuring the desired effect from the tax burden reduction.

Future research should include a more in-depth comparative analysis of the tax reforms in Ukraine and Georgia, focusing on the key taxes.

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Authors

Givi Bedianashvili – Dr. Sci. (Econ.), professor, Director of the European University's Institute for Research of Economic and Social Problems of Globalization, member of the Academy of Economic Sciences of Georgia (76, Guramishvili Avenue, 0141, Tbilisi, Georgia); iD 0000-0003-4521-737X; e-mail: g.bedianashvili@eu.edu.ge

Yuriy B. Ivanov – Dr. Sci. (Econ.), professor, Deputy-Director of the Research Center for Industrial Problems of Development of the National Academy of Science of Ukraine (prov. Inzhenernyi, Kharkiv, 61166, Ukraine); iD 0000-0002-5309-400X; e-mail: yuriy.ivanov.ua@gmail.com

Tetiana V. Paientko – Dr. Sci. (Econ.), professor of the Finance Department, Kyiv National Economic University n.a. Vadym Hetman, Ukraine (54/1 Peremohy Avenue, Kyiv, 03057, Ukraine); iD 0000-0002-2962-308X; e-mail: tpayentko@kneu.edu.ua

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Информация об авторах

Бедианашвили Гиви – доктор экономических наук, профессор, директор Института исследований экономических и социальных проблем глобализации Европейского университета, академик академии экономических наук Грузии (0141, Грузия, г. Тбилиси, Проспект Гурамишвили, 76); iD 0000-0003-4521-737X; e-mail: g.bedianashvili@eu.edu.ge

Иванов Юрий Борисович – доктор экономических наук, профессор, заместитель директора по научной работе Научно-исследовательского индустриальных проблем развития Национальной академии наук Украины (61166, Украина, г. Харьков, пер. Инженерный, 1-А); iD 0000-0002-5309-400X; e-mail: yuriy.ivanov.ua@gmail.com

Паентко Татьяна Васильевна – доктор экономических наук, профессор, профессор кафедры финансов Киевского национального экономического университета имени Вадима Гетьмана (03057, Украина, г. Киев, проспект Победы 54/1); iD 0000-0002-2962-308X; e-mail: tpayentko@kneu.edu.ua

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