

# “Management priorities of tax reform in Ukraine: implementation of international experience”

## AUTHORS

Yuriy Turyanskyy  <https://orcid.org/0000-0002-4892-0653>

 <https://publons.com/researcher/AAS-6453-2020>

Irena Svydruk  <https://orcid.org/0000-0002-3099-6449>

Orystlava Sydorchuk  <https://orcid.org/0000-0002-7078-1557>

Nataliia Mitsenko  <https://orcid.org/0000-0002-0337-8346>

 <https://publons.com/researcher/F-7270-2019>

Olga Klepanchuk  <https://orcid.org/0000-0001-7764-614X>

## ARTICLE INFO

Yuriy Turyanskyy, Irena Svydruk, Orystlava Sydorchuk, Nataliia Mitsenko and Olga Klepanchuk (2020). Management priorities of tax reform in Ukraine: implementation of international experience. *Investment Management and Financial Innovations*, 17(2), 320-333. doi:[10.21511/imfi.17\(2\).2020.25](https://doi.org/10.21511/imfi.17(2).2020.25)

**DOI** [http://dx.doi.org/10.21511/imfi.17\(2\).2020.25](http://dx.doi.org/10.21511/imfi.17(2).2020.25)

**RELEASED ON** Thursday, 02 July 2020

**RECEIVED ON** Thursday, 16 April 2020

**ACCEPTED ON** Monday, 29 June 2020

## LICENSE



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

**JOURNAL** "Investment Management and Financial Innovations"

**ISSN PRINT** 1810-4967

**ISSN ONLINE** 1812-9358

**PUBLISHER** LLC "Consulting Publishing Company "Business Perspectives"

**FOUNDER** LLC "Consulting Publishing Company "Business Perspectives"



NUMBER OF REFERENCES

**33**



NUMBER OF FIGURES

**4**



NUMBER OF TABLES

**2**

© The author(s) 2025. This publication is an open access article.



## BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"  
Hryhorii Skovoroda lane, 10,  
Sumy, 40022, Ukraine  
[www.businessperspectives.org](http://www.businessperspectives.org)

**Received on:** 16<sup>th</sup> of April, 2020

**Accepted on:** 29<sup>th</sup> of June, 2020

**Published on:** 2<sup>nd</sup> of July, 2020

© Yuriy Turyanskyy, Irena Svydruk,  
Orystlava Sydorchuk, Nataliia  
Mitsenko, Olga Klepachuk, 2020

Yuriy Turyanskyy, Doctor of  
Economics, Professor of the  
Department of Economics, Lviv  
Regional Institute of Public  
Administration of the National  
Academy of Public Administration  
under the President of Ukraine, Lviv,  
Ukraine.

Irena Svydruk, Doctor of Economics,  
Associate Professor, Professor of  
Department of Management, Lviv  
University of Trade and Economics,  
Lviv, Ukraine.

Orystlava Sydorchuk, Doctor of  
Economics, Associate Professor of the  
Public Administration Department,  
Lviv Regional Institute of Public  
Administration of the National  
Academy of Public Administration  
under the President of Ukraine, Lviv,  
Ukraine.

Nataliia Mitsenko, Doctor of  
Economics, Professor, Head of the  
Department of Economics, Lviv  
University of Trade and Economics,  
Lviv, Ukraine. (Corresponding author)

Olga Klepachuk, Ph.D. in Economics,  
Associate Professor of the Department  
of State and Local Finance, Ivan Franko  
National University of Lviv, Lviv,  
Ukraine.



This is an Open Access article,  
distributed under the terms of the  
[Creative Commons Attribution 4.0  
International license](https://creativecommons.org/licenses/by/4.0/), which permits  
unrestricted re-use, distribution, and  
reproduction in any medium, provided  
the original work is properly cited.

### Conflict of interest statement:

Author(s) reported no conflict of interest

Yuriy Turyanskyy (Ukraine), Irena Svydruk (Ukraine), Orystlava Sydorchuk (Ukraine),  
Nataliia Mitsenko (Ukraine), Olga Klepachuk (Ukraine)

# MANAGEMENT PRIORITIES OF TAX REFORM IN UKRAINE: IMPLEMENTATION OF INTERNATIONAL EXPERIENCE

## Abstract

The paper proves that the Ukrainian economy's systematic structural crises stipulated the necessity of choosing the effective forms of tax mechanism for its regulation. Systemic and institutional methods have been used to study the peculiarities of Ukrainian tax regulation. The methods of coefficient and relative values have been used to assess certain parameters of the tax burden. The dynamics of statistical data have been studied by the method of trend analysis. To determine the impact of the current tax system of Ukraine on economic growth, the authors tested several hypotheses about the dependence of the tax system and: GDP (1), industrial production (2), exports (3), investment dynamics (4), and unemployment rate (5) using econometric analysis with the package-statistical module EViews. The existence of a directly proportional relationship between the growth of tax revenues to the budget of Ukraine and the change of certain macroeconomic indicators is substantiated. It was found that the total tax burden on business in Ukraine reaches 41.5% of corporate profits, which exceeds similar indicators in most European countries. A tax regulation mechanism to stabilize the Ukrainian economy is proposed, in particular: proposals to revise tax rates, implement macroeconomic risk management tools, customs post-audit while providing transparency of tax legislation and its harmonization with the EU Customs Code, digitalization of the service component of tax administration.

## Keywords

macroeconomics, legislation, finance, taxes, workload,  
regulation, stabilization

## JEL Classification

E62, F38, H21, H25, H87

## INTRODUCTION

In recent years, the trends of Ukraine's tax policy have acquired qualitatively new features: the processes of consistent tax liberalization have been suspended, the ratio between tax revenues to the budget has changed in favor of indirect taxes and social insurance taxes. Insufficient tax regulation efficiency is due to institutional distortions both in the financial and other spheres of public life. Systematic structural crises of the Ukrainian economy outline new tasks for choosing effective forms of financial and budgetary mechanism for regulating expanded reproduction. Most researchers (Bond & Gresik, 2020; Drozdovska & Ozerchuk, 2017; Nohinova, 2014; Pronoza, 2018) agree that tax reform, as a comprehensive process of changing the tax system, aims to determine the new content of the state tax policy and the basic principles of socio-economic policy in general. Given that it is impossible to predict the quantitative consequences of intervention in redistributive processes unambiguously, and qualitative predictions give only a superficial idea of the real state of the updated fiscal model, the problem of choosing methods and tools of tax policy within the economic model of Ukraine arises.

Using the systemic method, coefficient method, and relative value method, trend analysis, econometric analysis with the package-statis-

tical module EViews, five hypotheses about the tax system's dependence, and several macroeconomic indicators are tested. Section 1 briefly describes the relevant literature. Section 2 contains data and empirical methodology. Section 3, which consists of three points, presents empirical results. The last sections are devoted to discussion and conclusion.

## 1. LITERATURE REVIEW

The problematic issues of fiscal regulation of economic processes are reflected in the studies of many Ukrainian experts, who emphasize the need to modernize the tax system to ensure a steady increase in the efficiency of economic development. In particular, Pronoza (2018) assessed the control measures for the effectiveness and efficiency of tax administration in Ukraine and suggested real tools for its improvement in the long run.

Ukrainian scholars have paid considerable attention to the analysis of tax systems in other countries. Thus, Melnyk and Koshchuk (2012) comprehensively investigate various aspects of the European Community's modern tax system functioning.

It is worth agreeing with Drozdovska and Ozerchuk (2017) on the need to implement the EU tax legislation in Ukraine's legal field. Analyzing tax revenues to the Ukrainian budget from the classification positions used in the EU countries, the authors assess Ukraine's tax potential as sufficiently strong, however, noting the lack of a clear tax policy objective and strategy. Unfortunately, the recommendation part of the study does not contain positions of strategic orientation.

Nohinova (2014) also argues for the need to reform Ukraine's tax policy and apply the European System of Accounts methodology to the classification of taxes in Ukraine. Emphasizing the urgency of improving tax policy principles, the author only notes the need for structural modification by type of tax.

Options for optimizing the tax burden in Ukrainian fiscal practice in the expansion of European integration processes were proposed by Savchenko and Blyshchyk (2018). A comparative analysis of the tax burden in Ukraine and the EU showed a slightly lower level in Ukraine. The conclusions of researchers on the existence of problems in the field of tax administration are valuable.

Romaniuta (2017) carried out a comparative analysis of the limits of the tax burden and categorical ratio of taxes in the tax systems of the EU countries and Ukraine. The author's recommendations should be noted in his position on the need to introduce differentiated tax rates and simplify the administration mechanisms.

Ways of the institutional reorganization of the tax system of different countries were identified by Pakhnenko and Semenoh (2016). They proved that tax evasion's problem has a solution in implementing systems for the automated exchange of information on financial accounts.

For more comprehensive coverage of scientific developments in tax reform, the works of foreign authors were considered. In particular, Ilzetzki (2018) explored the theoretical aspects of tax reform aimed at expanding the tax base. The researcher's conclusion about the advantages of explosive reforms over step-by-step reforms is interesting. Particularly valuable is the author's recommendation on the strategic relationship between reforming and achieving the balance of the economic system.

Bond and Gresik (2020) presented a study of the economic implications of reforming individual country tax policies for international business development opportunities, effective cross-border cooperation, and interstate cash flow.

Exploring the elements of US tax policy reform, Zeida (2019) constructed a parsimonious model of the general balance, proved that there is a trade-off between a reduction in corporate income tax and multipliers of the corporate income tax and the dividend tax. The author concludes that double reduction of corporate income tax and capital gains is a better alternative to reforming the tax system than reducing corporate tax while offsetting budget revenues by increasing taxation of dividends and capital gains, leading to a deeper study of tax reform opportunities in Ukraine.

Using a micro-macro simulation model for the French economy, Magnani and Piccoli (2019) positively evaluated the effects of a tax reform that introduces a universal basic income scheme coupled with a single income tax, which has replaced preferential minimum income tax and progressive income tax. Such reform increases the real GDP of the state, encourages an increase in aggregate consumption, and redistribution of income reduces inequality and poverty.

Zou, Shen, and Gong (2018) analyzed tax reform in China as an experimental platform for examining its impact on the country's overall business development characteristics and identified several short- and long-term patterns.

Peculiarities of the expected reform of the tax system in Japan, in particular, on the possible reduction of corporate income tax, were highlighted in the scientific output of Choi, Hirata, and Kim (2017). Scientists have proven that, in an open economy, such measures can lead to an overall improvement in welfare, but the positive effects are diminished by limiting international borrowing. Using mathematical modeling, researchers have proven the feasibility of differentiating rates for different sectors of the economy.

Auray, Eyquem, and Ma (2017) have indicated that sluggish economic growth, growing structural imbalances in the euro area, and rising debt levels indicate the critical need to reform the EU tax system. The researchers quantified the possible effects of competitive tax reforms under the monetary union model with endogenous input and positively identified their impact on production, consumption, employment, and trade conditions.

Bosch and de Boer (2019) found a greater dependence on the self-employed on changes in tax rates than employees.

The long-term macroeconomic implications of tax reform in a small open economy have been studied by Benczúr, Kátay, and Kiss (2018). The findings of the authors show the importance of clearly defining the purpose of tax reforms. In particular, pursuing the goal of increasing the employment is necessary to minimize the tax burden on low incomes.

The analysis of scientific researches provides informative material for the development of Ukrainian tax system improvement directions. The issues of choosing the priority of the goals of tax transformations and the substantiation of reform tools using the successful experience of other countries require in-depth research.

**Aims.** The article aims to outline the directions of reforming Ukraine's tax system as a way of stabilizing the economy and providing practical recommendations for improving tax instruments, taking into account international experience.

## 2. METHODOLOGY

Systematic and institutional methods were used to study the features of Ukrainian tax regulation, coefficient, and relative values – in the assessment of individual defined parameters of the tax burden; trend analysis – to study the dynamics of statistics. The budget tax burden indicator was calculated using the formulas:

$$BTb = \frac{Tcb}{GDP} \cdot 100\%, \quad (1)$$

where  $BTb$  – budget tax burden;  $Tcb$  – taxes on consolidated budget.

$$SCb = \frac{CB}{GDP} \cdot 100\%, \quad (2)$$

where  $SCb$  – the share of centralization of GDP in the budget;  $CB$  – consolidated budget.

$$BTw = \frac{SSC}{GDP} \cdot 100\%, \quad (3)$$

where  $BTw$  – tax burden on work;  $SSC$  – single social contribution.

$$BTt = BTb + BTw, \quad (4)$$

where  $BTt$  – total tax burden.

The impact of the current tax system of Ukraine on GDP, industrial production, and export volumes, as well as the dynamics of investment and the unemployment rate, were examined using

econometric analysis using the package-statistical module EViews.

The mechanism of tax regulation (*MTR*) is described as follows:

$$MTR = f(M, L, T, P, R, MP), \quad (5)$$

where *M* – methods; *L* – levers; *T* – tools; *P* – politics; *R* – anti-crisis reform tools; *MP* – measurement parameters of tax regulation of macrostabilization.

$$MP = f(MI, TB, CTE, FD), \quad (6)$$

where *MI* – macroindicators (GDP, GNP, sustainable development indices, shading indices, etc.); *TB* – tax burden by types of taxes; *CTE* – coefficients of tax burden efficiency (tax rates, elimination coefficients); *FD* – functional dependencies between macroindicators and tax burden.

The information base of the study is the legislative acts of Ukraine, the data of the State Treasury Service of Ukraine, State Tax Service of Ukraine, State Statistics Service of Ukraine, Ministry of Finance of Ukraine, and National Bank of Ukraine, legislation, and statistical information of international economic organizations.

### 3. RESULTS

#### 3.1. Tax reform as an attribute of public choice policy

The global financial crisis has changed the conditions of the socio-economic development of the leading countries of the world, reorienting the trends of tax policy evolution established in international tax practice. The global economy has entered the phase of Industry 4.0 (Fourth Industrial Revolution), which is characterized by qualitative changes in the system of factors of social reproduction:

- combination of material and virtual dimensions causes the emergence of new business models, products and services and global information infrastructure forming;

- there is a rapid development of revolutionary technologies, greening of production;
- personnel management is transformed into human resources development management;
- the completion of globalization processes transforms the market economic systems of different countries into a continuous innovation and reproduction process.

The analysis of the state and mechanisms of tax policy implementation in the modern global economy is the basis for identifying universal tax methods of anti-crisis regulation, which acquire certain features given national economies' structural differences. Therefore, the US tax system, focused on direct taxes, provides more than 30% of GDP, and the tax burden is one of the lowest among the industrialized countries. Since 2018, tax reform has been introduced in the United States to enhance US companies' international competitiveness (US Government Services and Information, 2019). The logic behind the reform is based on the "trickle-down effect": an increase in money in business will lead to higher wages and job creation so that it will have a positive impact on the state's economy. The main points of tax reform in the US include:

- 1) reducing the corporate income tax rate from 35% to 21% and setting a maximum tax of 15% for pass-through enterprises avoids double taxation;
- 2) the reduction in taxes on the repatriation of income from activities abroad (from 35.0% to 15.5% for cash and 8% for non-cash funds) is aimed at returning the capital of American enterprises registered in offshore areas;
- 3) introducing excise tax at a rate of 20% on imported goods and services that are not subject to US taxation while reducing taxes for US companies;
- 4) introducing preferences for individuals:
  - reduction of the maximum tax rate on personal income from 39.6% to 35%;



- cancellation of the investment income tax (at a rate of 3.8% on revenues over USD 200 thousand);
- abolition of inheritance tax.

Batch changes in tax reform in the European Union reflect a globalized approach to corporate tax and measures to limit tax base erosion and profit shifting (BEPS). Relevant European Commission initiatives have identified a renewed approach to corporate income tax and have ensured a standardized by principles of Organization for Economic Co-operation and Development inter-governmental coordination against income tax avoidance (OECD, 2019). Therefore, tax legislation is harmonized for all EU countries and includes:

- mandatory measures to block tax minimization opportunities;
- instruments for the prevention of abuse related to the application of double tax avoidance treaties;
- exchange of tax information on transnational companies in the EU;
- mechanisms for improving tax management at the international level;
- norms regarding third countries not involved in cooperation.

Together these measures should prevent the minimization of tax liabilities through tax planning, promote transparency between states-members, and ensure fair conditions for all businesses in the common market.

China's economy is focused on the real manufacturing sector, which has allowed for a steady increase in GDP. The problem of reducing export supplies has been solved by reorienting the economy to the domestic market (Zou, Shen, & Gong, 2018). The key to the successful growth of China's economy and the weakening impact of the global crisis are government regulation, continuous growth in domestic solvent demand, and significant public and private investment in productive infrastructure.

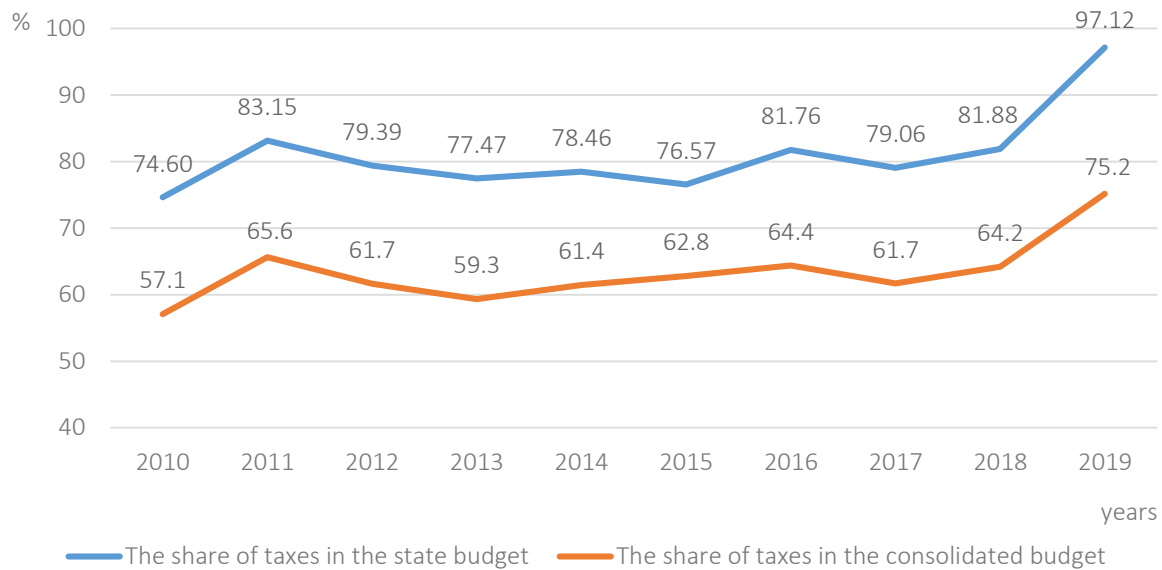
China's tax system, in which tax revenues generate more than 85.0% of budget revenues, has been in reformation since 2013. Tax regulation is expressed in the strengthening of government intervention in economic activities. The taxation of most enterprises' income is carried out at a general rate of 25% (small, low-profit enterprises – 20%, enterprises of creative and high technology, innovative technical services – 15%, passive non-resident income – 10%). Scientific non-profit organizations and part of agricultural enterprises are exempt from income tax. Significant privileges (reducing the rate to 12.5% in the first three years) are provided for developers of major infrastructure and resource conservation projects. Individuals' income related to employment is subject to a progressive rate tax of 3%-45%, and other income to a rate of 20%. The standard VAT rate for 2018 is 16%, the preferential rate is 10% or 6%. In addition to taxes, Chinese companies are required to pay several fees, the most important of which is education fees (State Taxation Administration of the People's Republic of China, 2019).

### 3.2. Peculiarities of the current taxation mechanism in Ukraine

Analysis of the Tax Code of Ukraine (Verkhovna Rada Ukrainy, 2010) confirms the effectiveness of its fiscal role. In terms of individual budget-generating taxes, there is a tendency to increase their volume. There is also a tendency to increase the share of tax revenues in the budget (Figure 1).

In Ukraine, national taxes include corporate income tax, personal income tax, value-added tax, excise tax, environmental tax, land payment (individuals), state duty, and rent. In 2014–2019, the direct tax burden indicator (income tax, personal income tax, real estate tax, land payment, single, transport, environmental taxes) was in the range of 1.8% – 5.3%. The indirect tax burden indicator, including VAT, excise taxes, import, and export duties (Figure 2), was 10.8% – 14.2%. The redistribution of the tax burden towards indirect taxes is noticeable. Among the objective reasons for the increase in the overall tax burden are the functioning of the military levy and the introduction of additional import duty at rates of 5% – 10% on all but critical import.

Source: Built according to Ministry of Finance of Ukraine (2020a),  
State Tax Service of Ukraine (2020).

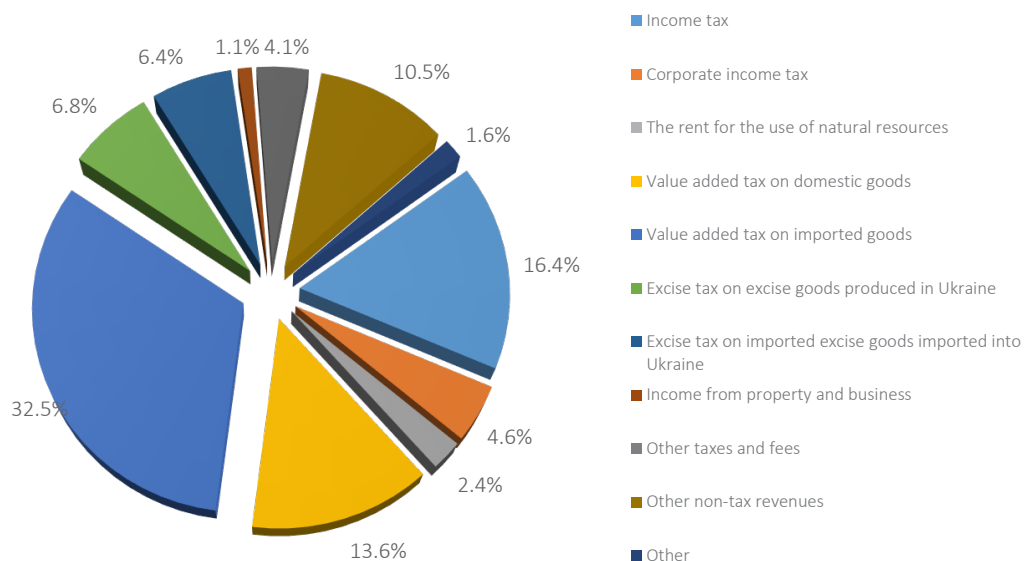


**Figure 1.** Dynamics of tax revenues in the state and consolidated budgets of Ukraine

The current income tax rate in Ukraine is %18, which is completely in line with the tax burden of Poland, Hungary (%19), and Switzerland (%17.9), but at the same time lower than the average European rate (%22.09). However, in these countries, the tax system is significantly different from the Ukrainian one. For example, in Switzerland they use a differentiated rate by region (from %11.5 to %24), in Hungary, they use a special rate for small businesses (10%). Although in most EU countries, income tax rates

are higher than Ukrainian ones (Germany – 30%, France – 33%, Belgium – 34%), there are widely used various systems of tax benefits. Thus, in France, for the first two years after registration, companies are exempt from taxation. In the subsequent years, the tax rate is 8.25%, 16.5%, and only in the sixth year – the conventional 33%. In Estonia, business profits are not taxed, as is the case in many island states (Bahamas, Virgin Islands) (State Tax Service of Ukraine, 2020; The World Bank, 2019).

Source: Built according to State Tax Service of Ukraine (2020).



**Figure 2.** Indirect tax structure in Ukraine in 2020

**Table 1.** Main indicators of economic development of Ukraine in 2014-2019

Source: Calculated according to State Statistics Service of Ukraine (2019), Ministry of Finance of Ukraine (2020a).

Indicators	2014	2015	2016	2017	2018	2019	2019 in % to 2014
The amount of tax revenue, UAH billion ( <i>FISC</i> )	280.2	409.4	503.9	627.2	759.9	969.6	3.5 times
Gross domestic product at actual prices, billion UAH ( <i>GDP</i> )	1586.9	1988.5	2383.2	2982.9	3558.7	4080.2	2.6 times
Export volume, UAH billion ( <i>EXPORT</i> )	65.4	46.6	44.9	52.3	59.2	65.3	99.8
Import volume, UAH billion ( <i>IMPORT</i> )	60.8	42.6	44.5	55.0	62.9	67.3	110.7
Investments volume, UAH billion ( <i>INVEST</i> )	249.9	219.4	273.1	359.2	448.5	578.7	2.3 times
Foreign direct investments, UAH billion ( <i>FDI</i> )	410	2961	3130	2202	2355	1711	4.2 times
Industrial production index, % ( <i>PROD</i> )	89.9	87.7	104.0	101.1	103.0	99.5	9.6
Inflation index, % ( <i>INF</i> )	124.9	143.3	112.4	113.7	109.8	104.1	-20.8
Unemployment rate, % ( <i>UNE</i> )	9.7	9.5	9.7	9.9	9.1	8.6	-1.1

Value-added tax in Ukraine is 20% (the same rate is applied in France, Slovakia, Austria); in general, in Europe, the VAT rate ranges in 17% – 23% (Hungary – 27%, Norway, Romania, Croatia – 25%, Finland – 24%). VAT rates in European practice are also differentiated by the product market areas, with food being the lowest. Oil States (Kuwait, Bahrain), Hong Kong, and some offshore countries do not use value-added tax. In the United States, sales tax (4% – 11%) is applied in place of VAT (State Tax Service of Ukraine, 2020; The World Bank, 2019).

Income tax (on individuals' income) in Ukraine is levied at a constant rate of 18% (Latvia – 25%, Estonia – 20.0%, Lithuania – 15%, Bulgaria – 10%), although pan-European practice prevails differentiation according to the welfare of payers. In particular, in Germany, the lower limit on income tax is USD 9 thousand, revenue over USD 285 thousand is taxed at the highest rate of 45.0%. In Austria, the tax-free minimum is USD 12.5 thousand, the highest rate of 50.0% applies for the income of USD 58 thousand. Income tax is not used in most oil countries. In the United States, rates vary depending on the payer's income and family (State Tax Service of Ukraine, 2020; The World Bank, 2019).

Tax payments to the payroll fund in Ukraine form in total 24.8% of corporate profits (Bulgaria – 20.1%, Serbia – 19.8%, Peru – 11%, Georgia – there is no tax burden on work). Taking into account taxes on labor, the total tax burden on business reaches 41.5% in Ukraine, which is higher than the similar indicators of most Eastern European countries (Poland – 40.7%, Hungary – 40.3%, Latvia – 36%, Georgia – 9.9%). Concerning economically high-

ly developed countries, the Ukrainian tax burden can be considered somewhat less (Germany – 49%, Austria – 51.5%, France – 60%), however, in these countries, progressive tax scales, tax privileges, and compensation procedures are widely used (The World Bank, 2019).

It is expedient to examine Ukraine's current tax system's effectiveness from the point of view of its impact on economic growth by the indicators of the socio-economic development of Ukraine (Table 1).

To determine the priority areas for improving the tax regulation tools, it is proposed to use indicators of the tax burden (Table 2), distinguishing between paid and unpaid tax burden.

To clarify this impact, the authors put forward several hypotheses. The first hypothesis concerned the relationship between the size of the gross domestic product and the current tax system. The regression model obtained by econometric modeling  $GDP = 1058.0009 + 3.6429 \times FISC - 3.8135 \times INF$  ( $R^2 = 0.98$ ) indicates that tax revenue growth of 1.0% is in direct proportion to GDP growth of 3.6%, which is explained by the current policy of redistributing fiscal revenues to maintain economic development.

The second hypothesis was that there was a direct statistically confirmed relationship between industrial production volumes and the current tax system. The obtained regression model  $PROD = 150.413 - 0.00122 \times FISC - 0.4419 \times INF$  ( $R^2 = 0.94$ ) disproves the influence of fiscal pressure in Ukraine on the growth of industrial production since the increase of tax revenues by 1% probably



**Table 2.** Dynamics of tax burden formation in Ukraine in 2014–2019

Source: Counted according to State Statistics Service of Ukraine (2019), State Fiscal Service of Ukraine (2019), Ministry of Finance of Ukraine (2020b).

Indicators	2014	2015	2016	2017	2018	2019	2019 in % to 2014
Tax revenues to the consolidated budget, UAH billion	280.2	409.4	503.9	627.2	759.9	969.6	3.5 times
Gross domestic product, UAH billion	1586.9	1988.5	2383.2	2982.9	3558.7	4080.2	2.6 times
Consolidated budget revenues, UAH billion	456.1	652.0	782.7	1016.8	1184.3	1289.8	2.8 times
Single social contribution, UAH billion	166.9	185.7	131.9	181.0	216.5	273.5	163.9
Budget tax burden, %	17.66	20.59	21.14	21.03	21.35	23.76	6.10
The share of centralization of gross domestic product in the budget, %	28.74	32.79	32.84	34.09	33.28	31.61	2.87
Tax burden on labor, %	10.52	9.34	5.53	6.07	6.08	6.70	-3.82
Total tax burden rate, %	28.17	29.93	26.68	27.09	27.44	30.47	2.30

reduces the volume of industrial production by 0.001%.

The third hypothesis was that there was a statistically significant correlation between taxation and export. The resulting regression model obtained  $EXPORT = 78.9943 + 0.00292 \times FISC - 0.2127 \times INF$  ( $R^2 = 0.93$ ) indicates that a 1% increase in the tax burden has a very small effect on the activity of export-oriented sectors, causing only an increase in export volumes 0.003%.

The fourth hypothesis concerned the positive impact of the tax system of Ukraine on the dynamics of investment. The regression model  $INVEST = 246.3922 + 0.4712 \times FISC - 1.4435 \times INF$  has statistically insignificant parameters ( $R^2 = 0.17$ ), which testifies to the low reliability of confirmation of this hypothesis.

The fifth hypothesis involved the correlation between tax policy and the unemployment rate in Ukraine. The regression model obtained  $UNE = 12.0868 - 0.00204 \times FISC - 0.01237 \times INF$  ( $R^2 = 0.95$ ) did not refute this hypothesis, reducing the unemployment rate 0.002% cannot be considered a positive effect.

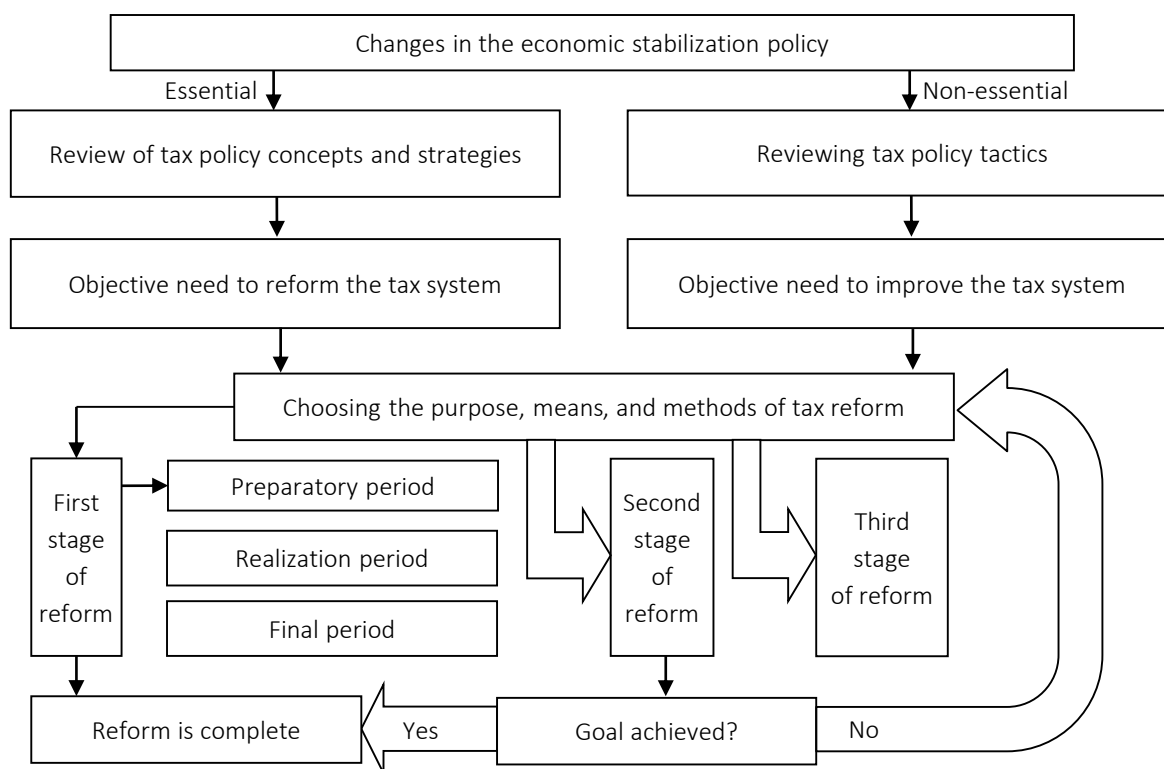
### 3.3. Substantiation of priority directions of reforming the tax system of Ukraine

The reform of the tax legislation of Ukraine and its further implementation cannot be carried out simultaneously. Tax processes are quite lengthy, as the government's prudence determines them in revising the regulatory tax base and the internal logic of reforms (Figure 3).

The scale of tax system reform can lead to a breach of the balance between economic efficiency and taxation social justice (Fedoriy, 2017). For example, a bill introduced in January 2020 on the introduction of progressive taxation of personal income provides a 54.0% tax rate for income above 20 minimum wages, although according to the current tax burden distribution, the Ukrainian tax system is regressive. Achieving a social compromise is not limited to prompt amendments to tax legislation, but should be based on long-term priorities of the state budget and tax doctrine.

As the current tax system in Ukraine is a high risk regarding speculation on tax rates, in May 2020, amendments to the Tax Code of Ukraine (Verkhovna Rada Ukrainy, 2020) were adopted, which prewise the accession to the international program of expanded cooperation BEPS, which involves 116 countries. The accession prewises the step-by-step introduction of transfer pricing control, taxation of controlled foreign companies, limitation of financial transaction costs with related parties, prevention of abuse in the application of double taxation agreements, application of the mutual agreement procedure. Ukraine's participation in BEPS could be an impetus for the liberalization of monetary regulation policy in Ukraine's commitments under the Association Agreement with the EU. Simultaneously, the announced changes are mostly about counteracting international companies' withdrawal of taxes, which, being taxpayers in different countries, promulgate consolidated financial statements. The second category of taxpayers affected by BEPS rules is controlled foreign companies, for which the innovation concerns both reporting and taxation.

Source: Authors' own development.



**Figure 3.** Algorithm of tax reform in Ukraine

An important factor in influencing the effectiveness of tax reform is to stimulate investment activity. Domestic investors' activity under excessive fiscal pressure may be reoriented towards countries with more attractive investment regimes. Foreign investors are less responsive to fiscal changes, as their risks are more related to the difficulty of starting a business in Ukraine and the low legal protection of intellectual property rights. According to Doing Business-2020 (World Bank Group, 2020), which presents institutional conditions for facilitating business activity in 190 countries, Ukraine ranks only 64th (in 2019 – 71st). At the same time, despite the improvement of such partial indicators as obtaining permits (by 10 points) or protection of minority investors (by 27 points), most of the characteristics studied showed only a slight improvement in positions. Under taxation conditions, there was a deterioration of 11 points (Figure 4).

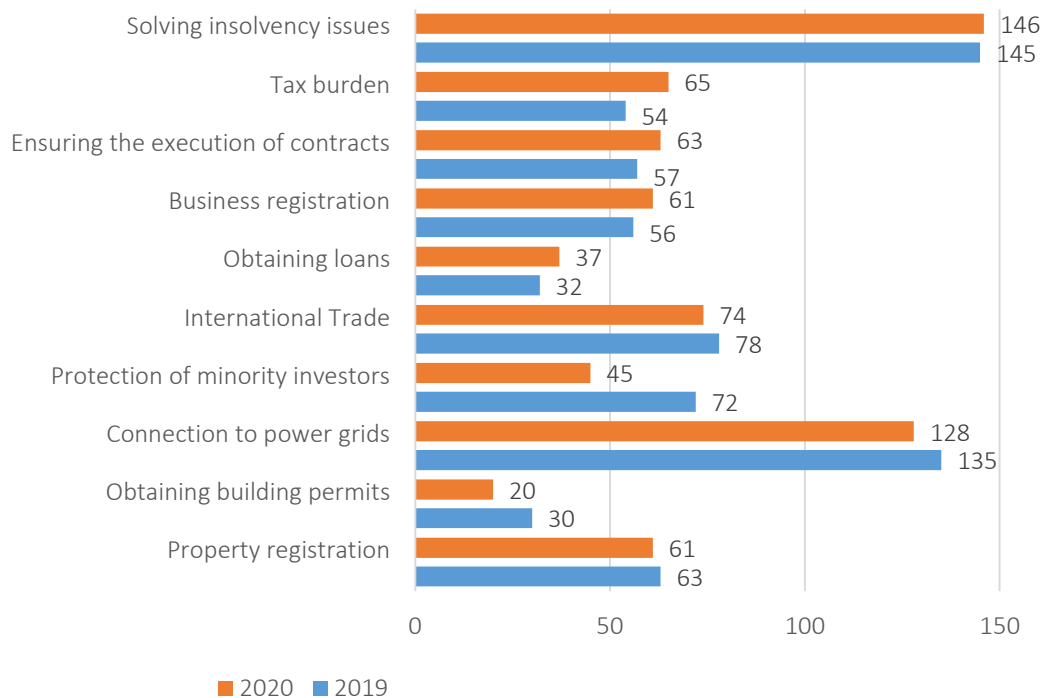
The lack of instruments for fiscal regulation of investment activity in Ukraine should be compensated by implementing other countries' developments. The German tax system prevails in the use

of incentives for innovation activity. Japan encourages the introduction of high-tech projects, taxation at reduced rates for small and medium-sized corporations are provided in the United States. In Austria, forming a reserve investment fund (10.0% of profits) by enterprises must be spent on innovative projects over four years (Slatvinska, 2016). The introduction of such preferential taxation instruments for Ukrainian businesses will contribute to the innovative restructuring of the economic system.

A positive innovation is an increase in 2020 of annual income limits for various groups of individuals – entrepreneurs working under the simplified taxation system: for the first group – from UAH 0.3 to 1.0 million, for the second group – from UAH 1.5 to 5.0 million, for the third group – from UAH 5.0 to 7.0 million (Verkhovna Rada of Ukraine, 2020).

The urgent direction of reforming the tax system of Ukraine is the changes in tax accounting. In part, this direction intersects with the recommendations given above in accounting for internation-

Source: Built according to the World Bank Group (2020).



**Figure 4.** Ranking positions of Ukraine on institutional regulation of business activity in 2019–2020

al companies' financial transactions and reporting to Ukraine's issuers – their co-owners, provided by BEPS (OECD, 2019). These changes are due to the need to combat the application of tax avoidance or reduction schemes.

Facilitation of reporting for income taxpayers provides its submission once a year (rather than quarterly) for businesses with an annual income of up to UAH 40.0 million (in 2019 – up to UAH 20.0 million) (Verkhovna Rada of Ukraine, 2020). At the same time, the Government of Ukraine's proposal to increase the value of fixed assets changes the tax accounting (assets worth less than UAH 20.0 thousand will no longer be recognized as fixed assets) will increase the tax base. This inconsistency needs immediate resolution.

Reforming the tax administration system should ensure its transparency. Taxpayers have the right to receive information about the relationship between the payment of taxes and the amount and ability to receive public goods in return. This will be facilitated by Ukraine's accession in 2019 to the European Customs Information System NCTS (The European Commission, 2019), which unites

35 countries in the European region. In addition to the digitalization of the service component of institutional regulation, the involvement of international experts in reforming the Ukrainian tax system will contribute to the development of SMART customs, the introduction of tools to combat tax evasion and harmonize Ukrainian legislation with the EU Customs Code (The European Commission, 2016).

Tax regulation of macroeconomic stabilization is an extremely important area of tax reform. In 2019, the Ministry of Finance of Ukraine, State Fiscal Service of Ukraine, State Tax Service of Ukraine, together with the Lithuanian Central Project Management Agency and the Delegation of the European Union in Ukraine initiated the implementation of the public financial management program in Ukraine EU4PFM (Ministry of Finance of Ukraine, 2019). The total budget of the program is EUR 55.0 million, the EU allocates EUR 29.5 million, and its implementation is expected to be completed in 2022. The program aims to support tax administration and tax and customs reform, in particular in the areas of audit, services, analysis of individual business process-

es (Component III “Revenue Mobilization”), and support for organizational issues (Component IV “Horizontal Functions and Governance”).

## 4. DISCUSSION

The research results show that Ukraine’s tax policy provides management of the economic system by central public authorities. The authors have found that tax policy is implemented through tax regulation mechanisms, taking into account objective economic laws to coordinate economic processes following development goals. This is in line with the results of Pronoza (2018) research on the effectiveness of the tax mechanism, which is determined primarily by the results of tax control. At the same time, our research proves that the tax control function is the final stage of planning and organizational tax work. The effectiveness of Ukraine’s tax burden at the macro-level is usually determined by measuring the cumulative impact of tax payments on their sources of payment (Romaniuta, 2017), while abroad the ratio of tax revenues to gross national product (PwC, 2018) is more often used, including the value of goods and services produced by residents of the country abroad. The econometric analysis showed a small impact of the increase in fiscal load on the positive dynamics of GDP, production volumes, exports, and a decrease in Ukraine’s unemployment rate.

The results of our research confirm the conclusion of Fedoriv (2017) that the expansion of tax policy reform directions is accompanied by a violation of the balance of interests between economic effi-

ciency and social justice of taxation. In particular, the introduction of progressive taxation of personal income contradicts the criteria of the regressive principle of taxation in Ukraine.

Current scientific guidelines in line with the tax shift concept and global inequality trends emphasize the principles of inclusive economic growth, giving preference to social rather than individual or even group well-being (Shvabii, 2019). Therefore, the authors emphasize that restoring the balance between the economic and social components of social development is a necessary prerequisite for ensuring the effectiveness of tax policy.

The analysis of tax reform in different countries presented in the study shows that there are no universal approaches in this area that could be extrapolated to the Ukrainian realities. Savchenko and Blyshchyk (2018) come to similar conclusions. At the same time, the study revealed two main groups of tax regulation tasks for overcoming crisis phenomena in national economies: easing the burden on taxpayers and stimulating economic systems’ access to new productive capacity building cycles.

New approaches to fiscal and economic policy in Ukraine should be assessed in an empirical context, given that the processes of reforming the tax systems of different countries differ. This study’s results are consistent with the position of Drozdovska and Ozerchuk (2017) on the continuity of improvement processes. At the same time, the study proves that reforming the tax system should be a discrete process and involve significant changes.

---

## CONCLUSION

In this work, it is indicated that the provisions of the Tax Code of Ukraine confirm the effectiveness of its fiscal role, and there is a redistribution of the tax burden towards indirect taxes.

The analysis of qualitative and quantitative indicators shows that tax practice in Ukraine is significantly different from the practice of taxation in other European countries.

The authors tested five hypotheses about the relationship between tax revenues and changes in certain macroeconomic indicators and determined the existence of a directly proportional relationship, in particular: the growth of tax revenues by 1% causes GDP growth of 3.6%, a slight increase in exports by 0.003%, insignificant reduction of production volumes by 0.001% and unemployment rate by 0.002%. The relationship between the fiscal burden and investment dynamics is not mathematically confirmed. In the process of re-

forming the tax system, the priority area for regulating the Ukrainian economy's stabilization is the revision of tax rates and the introduction of macroeconomic risk management tools and customs post-audit.

The lack of tools for fiscal regulation of investment activity of Ukraine's current tax system should be compensated by the urgent development of appropriate incentive mechanisms using the best practices of other countries in this area. Priority should be given to ensuring the transparency of tax legislation and its harmonization with the EU Customs Code.

The conceptual priority in determining tax preferences' instruments should be the recognition of the compensatory rather than the discriminatory nature of tax benefits concerning other business entities.

The tax administration reforms should focus on the tools to ensure openness and digitization of the tax administration's service component. Increasing the tax administration efficiency should be ensured by introducing taxpayers' financial responsibility and the extension of tax authorities' powers. Priority areas identified are tax accounting changes, the development and implementation of fraud prevention tools related to transfer pricing and the application of double taxation avoidance treaties within Ukraine's accession to Base Erosion and Profit Shifting.

These results can be interesting both for scientists (further observations of the dynamics of tax revenues to the budget in connection with changes in certain macroeconomic indicators) and for practitioners (real reforms of the tax system in the field of administration).

## AUTHOR CONTRIBUTIONS

Conceptualization: Orystlava Sydorchuk, Olga Klepanchuk.

Data curation: Nataliia Mitsenko, Yuriy Turyanskyy, Irena Svydruk, Orystlava Sydorchuk.

Formal analysis: Nataliia Mitsenko, Yuriy Turyanskyy, Irena Svydruk, Olga Klepanchuk.

Investigation: Yuriy Turyanskyy, Irena Svydruk.

Methodology: Orystlava Sydorchuk, Olga Klepanchuk.

Project administration: Nataliia Mitsenko, Orystlava Sydorchuk, Olga Klepanchuk.

Software: Yuriy Turyanskyy, Irena Svydruk.

Supervision: Yuriy Turyanskyy, Irena Svydruk, Olga Klepanchuk.

Validation: Orystlava Sydorchuk, Olga Klepanchuk.

Visualization: Nataliia Mitsenko, Yuriy Turyanskyy, Irena Svydruk.

Writing – original draft: Nataliia Mitsenko, Irena Svydruk, Orystlava Sydorchuk, Olga Klepanchuk.

Writing – review & editing: Orystlava Sydorchuk, Olga Klepanchuk.

## REFERENCES

1. Auray, S., Eyquem, A., & Ma, X. (2017). Competitive tax reforms in a monetary union with endogenous entry and tradability. *European Economic Review*, 98, 126-143. <https://doi.org/10.1016/j.eurocorev.2017.06.002>
2. Benczúr, P., Kátay, G., & Kiss, Á. (2018). Assessing the economic and social impact of tax and benefit reforms: A general-equilibrium microsimulation approach applied to Hungary. *Economic Modelling*, Elsevier, 75, 441-457. <https://doi.org/10.1016/j.econmod.2018.06.016>
3. Bond, E. W., & Gresik, T. A. (2020). Unilateral tax reform: Border adjusted taxes, cash flow taxes, and transfer pricing. *Journal of Public Economics*, 184, 104160. <https://doi.org/10.1016/j.jpubeco.2020.104160>
4. Bosch, N., & de Boer, H.-W. (2019). Income and occupational choice responses of the self-employed to tax rate changes: Heterogeneity across reforms and income. *Labour Economics*, 58, 1-20. <https://doi.org/10.1016/j.labeco.2019.02.005>
5. Choi, Y., Hirata, H., & Kim, S. H. (2017). Tax reform in Japan: Is it welfare-enhancing? *Japan and the World Economy*, 42, 12-22. <https://doi.org/10.1016/j.japwor.2017.07.002>
6. Drozdovska, O. S., & Ozerchuk, O. V. (2017). Spivvidnoshennia priamykh ta nepriamykh podatkov



- u podatkovii systemi Ukrainy [The ratio of direct and indirect taxes in the tax system of Ukraine]. *Investytsii: praktyka ta dosvid – Investment: practice and experience*, 10, 44-50. (In Ukrainian)
7. Fedoriv, S. (2017). Pryntsyp sotsialnoi spravlyvosti podatkovoi systemy Ukrainy yak otsinne poniattia [The principle of social justice of the tax system of Ukraine as an evaluation concept]. *Finansove pravo – Finance law*, 10, 160-165. (In Ukrainian)
  8. Ilzetzki, E. (2018). Tax reform and the political economy of the tax base. *Journal of Public Economics*, 164, 197-210. <https://doi.org/10.1016/j.jpubeco.2018.06.005>
  9. Magnani, R., & Piccoli, L. (2019). Universal Basic Income with Flat Tax reform in France. *Journal of Policy Modeling*, 42(2), 235-249. <https://doi.org/10.1016/j.jpolmod.2019.07.005>
  10. Melnyk, V., & Koshchuk, T. (2012). Suchasna podatkova polityka u krainakh YeS-15 [Current tax policy in the EU-15]. *Ekonomika Ukrainy – Economy of Ukraine*, 5, 73-85. (In Ukrainian)
  11. Ministry of Finance of Ukraine. (2019). *Public Finance Management Support Programme for Ukraine (EU4PFM)*. Retrieved from <https://mof.gov.ua/en/eu4pfm>
  12. Ministry of Finance of Ukraine. (2020a). *Makrofinansovi pokaznyky [Macrofinancial indicators]*. (In Ukrainian). Retrieved from <https://minfin.com.ua/ua/>
  13. Ministry of Finance of Ukraine. (2020b). *Valovy vnutrishnii produkt (VVP) v Ukraini 2019 [Gross Domestic Product (GDP) in Ukraine 2019]*. (In Ukrainian). Retrieved from <http://index.minfin.com.ua/index/gdp/>
  14. Nohinova, N. M. (2014). Neobkhdnist reformuvannia podatkovoi polityky Ukrainy v umovakh yevrointehratsii [The need for reform of Ukraine's tax policy in the context of European integration]. *Naukovi zapysky Natsionalnoho universytetu "Ostrozka akademiia" (Seriia: Ekonomika) – Scientific notes of the National University "Ostroh Academy" (Series: Economics)*, 25, 141-145. (In Ukrainian)
  15. OECD. (2019). *BEPS: Inclusive Framework on Base Erosion and Profit Shifting*. Retrieved from <https://www.oecd.org/tax/beps/beps-actions/>
  16. Pakhnenko, O. M., & Semenoh, A. Yu. (2016). Osnovni zasady podatkovoi polityky v krainakh YeS na suchasnomu etapi [The main principles of tax policy in the EU countries at the present stage]. *Efektivna ekonomika – Effective Economy*, 12. (In Ukrainian). Retrieved from <http://www.economy.nayka.com.ua/?op=1&z=5317>
  17. Pronoza, P. V. (2018). Dynamika podatkovoho borhu i napriamy vdoskonalennia podatkovoho administruvannia v Ukraini [Dynamics of tax debt and directions of tax administration improvement in Ukraine]. *Ekonomika ta derzhava – Economy and State*, 5, 4-9. (In Ukrainian)
  18. Romaniuta, E. (2017). Monitorynh rivnia podatkovoho navantazhennia v Ukraini ta krainakh YeS [Monitoring the level of tax burden in Ukraine and EU countries]. *Svit finansiv – The world of finance*, 2(51), 128-138. (In Ukrainian)
  19. Savchenko, A. M., & Blyshchuk, L. V. (2018). Analiz rivnia podatkovoho navantazhennia v konteksti implementatsii yevropeiskikh standartiv u natsionalnu ekonomiku Ukrainy [Analysis of the level of tax burden in the context of the implementation of European standards in the national economy of Ukraine]. *Ekonomichna nauka – Economic Science*, 5, 93-96. (In Ukrainian)
  20. Slatvinska, M. O. (2016). Podatkove stymulivannia investytsiinoi diialnosti [Tax stimulation of investment activity]. *Ekonomika. Finansy. Pravo – Economy. Finances. Right*, 3(1), 4-7. (In Ukrainian)
  21. State Fiscal Service of Ukraine. (2019). *Dynamika podatkovoho borhu [Dynamics of tax debt]*. (In Ukrainian). Retrieved from <http://sfs.gov.ua/diyalnist/-pointers-ro-bots/dynamics-data-borg/290504.html>
  22. State Statistics Service of Ukraine. (2019). *Makroekonomichni pokaznyky [Macroeconomic indicators]*. (In Ukrainian). Retrieved from <http://www.ukrstat.gov.ua/>
  23. State Tax Service of Ukraine. (2020). *Zahalnoderzhavni podatky [National taxes]*. (In Ukrainian). Retrieved from <https://www.tax.gov.ua/podatki-ta-zbori/zagalnoderzhavni-podatki/>
  24. State Taxation Administration of the People's Republic of China. (2019). *Tax system*. Retrieved from <http://www.chinatax.gov.cn/eng/c101270/c101271/c5094511/content.html>
  25. The European Commission. (2019). *Establishing the work programme relating to the development and deployment of the electronic systems provided for in the Union Customs Code: implementation decision 2019/2151*. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019D2151&from=EN>
  26. The European Commission. (2016). *Union Customs Code*. Retrieved from [https://ec.europa.eu/taxation\\_customs/business/union-customs-code\\_en](https://ec.europa.eu/taxation_customs/business/union-customs-code_en)
  27. The World Bank. (2019). *Total tax and contribution rate (% of profit): All Countries and Economies*. Retrieved from <https://data.worldbank.org/indicator/IC.TAX.TOTL.CP.ZS>
  28. U.S. Government Services and Information. (2019). *Tax Law Changes*. Retrieved from <https://www.usa.gov/tax-reform>
  29. Verkhovna Rada Ukrainy. (2010). *Podatkovyi kodeks Ukrainy [Tax Code of Ukraine]*. (In Ukrainian). Retrieved from <http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi?Nreg=2755-17>
  30. Verkhovna Rada Ukrainy. (2020). *Proekt Zakonu pro vnesennia*

*zmin do Podatkovoho kodeksu Ukrainy shchodo vdoskonalennia administruvannia podatkiv, usunennia tekhnichnykh ta lohichnykh neuzgodzhenostei u podatkovomu zakonodavstvi [Draft Law on Amendments to the Tax Code of Ukraine on improvement of tax administration, elimination of technical and logical inconsistencies in the tax legislation]. (In Ukrainian).*

Retrieved from [http://w1.c1.rada.gov.ua/pls/zweb2/webproc4\\_2?id=&pf3516=1210&skl=10](http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_2?id=&pf3516=1210&skl=10)

31. World Bank Group. (2020). *Doing Business-2020. Ukraine: Reforming to Create Jobs*, 2020. Retrieved from <https://www.doingbusiness.org/content/dam/doingBusiness/country/u/ukraine/UKR.pdf>
32. Zeida, T. H. (2019). On the Corporate Tax Reform:

Coordination and Trade-offs. *Journal of Macroeconomics*, 62, 103156. <https://doi.org/10.1016/j.jmacro.2019.103156>

33. Zou, J., Shen, G., & Gong, Y. (2018). The effect of value-added tax on leverage: Evidence from China's value-added tax reform. *China Economic Review*, 54, 135-146. <https://doi.org/10.1016/j.chieco.2018.10.013>