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## CHAPTER 1

# Reforming the personal income tax in Ukraine for the post-war perspective in the era of digital transformation

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### Abstract

The research examines the functioning of the personal income tax system (PIT) in Ukraine over the period 2018–2024, with particular attention to the organizational conditions of its implementation, the outcomes of its operation during this timeframe, and proposals for its optimization in the post-war context, taking into account global trends in the digitalization of tax systems.

Within this framework, the authors outline the methodological foundations of the mechanism of personal income tax from the standpoint of its economic essence, the principles underlying its collection, and its core categorical characteristics – namely, political, financial, economic, and social. In view of the need to revise the philosophy of taxation in the post-war period, the study also considers the mechanism of personal income tax as a distinct behavioral and digital category.

The research further analyzes the implementation of personal income tax at various levels of the budget system. The findings suggest that this tax demonstrates relative resilience to changes in the economic environment. However, deep structural disruptions – such as the COVID-19 lockdowns and Russia's full-scale invasion of Ukraine – have the potential to adversely affect its performance.

The assessment of the effectiveness of the existing personal income tax collection mechanism indicates generally positive results. These include improvements in the gross tax gap, the tax collection rate, the level of fiscal significance of personal income tax in the state budget, the fiscal efficiency indicator, and the tax

efficiency ratio in relation to GDP. Positive dynamics are also observed in both the fiscal efficiency indicator and the elasticity coefficient.

Despite these favorable trends, the authors highlight the need to improve the mechanism of personal income tax in light of post-war recovery and evolving societal needs. It is demonstrated that the current proportional taxation system in Ukraine has several shortcomings, particularly its failure to account for social justice and income inequality. Accordingly, drawing on the theory of behavioral finance and international best practices, the authors propose transitioning to a progressive taxation model. This model would introduce differentiated tax rates based on income levels, thereby addressing behavioral aspects of taxation more effectively.

A key component of the study is the digitalization of personal income tax as a means of enhancing administrative efficiency. In this context, the principal directions of digital transformation include automatic income declaration, the use of Big Data analytics to identify tax risks, the implementation of electronic taxpayer services, and the expansion of functionalities within the Diia mobile application for individual taxpayers.

### **Keywords**

Personal income tax, behavioral function, digitalization function, consolidated budget of Ukraine, state budget of Ukraine, local budgets of Ukraine, personal income tax efficiency, fiscal efficiency of personal income tax, elasticity of personal income tax, proportional tax, progressive tax, non-taxable minimum, social justice of taxation, tax culture, tax behavior, tax mentality.

## **1.1 Introduction**

The personal income tax in Ukraine is an integral and active component of the national tax system, as well as a significant source of revenue for budgets at various levels. Although it is administered at the national level, revenues from the personal income tax constitute the primary source of local budget revenues. This, in turn, ensures the financial autonomy of regions and supports their financial and economic development.

The imposition of martial law in Ukraine led to large-scale population displacement, increased unemployment, and changes in the income structure of citizens. Consequently, the post-war reconstruction of Ukraine requires an effective tax policy that balances the budgetary needs of the state with the goal of stimulating economic activity among the population.

In this context, it is important to optimize the mechanism of personal income taxation, particularly its core elements – such as taxpayers, tax base, tax rates, tax

benefits, and exemptions – within the fiscal space, as well as in political and social dimensions. In the post-war perspective, the direction of reform should emphasize the establishment of preferential taxation for certain categories of taxpayers, the encouragement of labor migrant return, and the support of small and medium-sized enterprises through tax incentives. At the same time, reforms should consider current global trends in the development of tax systems, particularly the digitalization of tax administration processes.

The aim of this article is to identify effective ways to optimize the mechanism of personal income taxation in Ukraine in the context of post-war reconstruction and digital transformation, with a focus on adapting the core elements of taxation.

The key objectives of the study include clarifying the conditions under which the personal income tax mechanism was introduced and operated in Ukraine during the period preceding the full-scale invasion and under martial law, as well as developing proposals for its reform in the post-war context amid the active digitalization of tax processes.

The methodological framework of this article is based on the application of a range of general scientific and specialized methods. The dialectical method is used to explore and generalize the theoretical foundations and formulate the study's conclusions; the graphical-analytical method is employed to visualize intermediate and final results; horizontal and vertical analysis is applied to assess the performance of the personal income tax mechanism in terms of revenues to budgets at various levels; and modeling is used to summarize proposals for optimizing the tax mechanism.

It is worth noting that the issues discussed in this research have been extensively explored by many scholars and practitioners in the financial sector. However, under the conditions of martial law, the issue of improving the effectiveness of the personal income tax mechanism in the context of post-war recovery is gaining even greater relevance. Therefore, this research topic is positioned at the forefront of contemporary policy and academic discourse.

## **1.2 Conditions for the implementation of the personal income tax mechanism in Ukraine**

Personal income tax plays a key role in the tax system of the state, as well as in its financial, economic and social spheres. Through the mechanism of implementation of this tax, the state regulates the level of redistribution of resources, affecting the indicators of social inequality and employment, the size of the shadow economy, the demographic situation and regional development.

The mechanism of functioning of the personal income tax is interpreted as "a set of tax methods and forms, instruments and levers of influence on tax relations arising from the withdrawal and use by the state of a part of the income of individuals (households)" [1]. However, it should be noted that this approach considers only administrative components, and it is necessary to focus on the elements of the personal income tax as the basis of its mechanism.

Other researchers emphasize that the mechanism of personal income tax functioning is "...one of the most important legal and fiscal instruments by which the state provides itself with the necessary resources to finance various types of social activities" [2]. This definition focuses primarily on the fiscal dimension of the tax mechanism, although it also has a significant impact on shaping an adequate level of social protection for citizens.

Proceeding from the position that there are three models of personal income taxation (global, decomposition and mixed), in particular in the context of the global model, personal income tax "...is one of the taxation instruments whose main purpose is to take into account the ability to pay contributions in order to ensure equality of social approaches among ... taxpayers". In this case, equality "...is widely used in the economic and tax sphere, is synonymous with justice and includes two orientations: horizontal and vertical" [3]. This perspective highlights another important aspect of the personal income tax mechanism – its role in achieving social justice in taxation.

However, the most comprehensive approach is the one according to which the PIT mechanism is implemented (and, accordingly, has an impact) at three levels: economic, where part of the income is alienated in favor of the state; political, where financial and tax policy is developed and implemented taking into account the interests of different segments of the population; social, where the tax stimulates the economically active population to work, increasing their own income and improving their well-being [4]. This vision of the mechanism of functioning of the personal income tax fully reflects its role in the life of the state.

As noted above, the basis of the personal income tax mechanism is its elements. According to V. Galushko, they should be divided into two groups: basic and additional. The author includes such elements as the taxpayer, the object of taxation and the tax rate in the category of basic elements; additional elements include tax exemption, tax base, tax quota, tax agent and regulation of the procedure for calculation and payment of tax [5]. In general, it is possible to agree with the author's opinion, but there are some additions: when looking for ways to optimize the functioning of the personal income tax, the main attention should be paid to such elements as the taxpayer, the object of taxation, the tax base, the tax rate and the tax exemption. In other words, they should be considered as the main ones.

Considering the outlined framework, it is worth paying attention to the functions performed by the personal income tax mechanism. They include, in particular, fiscal and distributional-regulating [6]; social-regulating [7]; economic, financial, political, social [4]; fiscal, stimulating, regulatory. It is possible to believe that the personal income tax mechanism should also include such functions as behavioral, which will take into account the peculiarities of psychological and social factors influencing the taxation process, and, given the active digitalization of economic processes, digitalization, which will be based on steps to increase the level of tax transparency and taxpayers' access to information.

It is equally important to outline the principles on which the personal income tax mechanism is based: universality of taxation; mandatory; fairness and equity of tax burden distribution [4]; fairness and responsibility; economic efficiency; convenience [8]; efficiency, neutrality, horizontal and vertical justice; economic efficiency [9]. All these principles characterize the personal income tax and its role in the country's economy – ensuring fairness of taxation through the distribution of financial resources (income).

The mechanism of personal income tax in Ukraine has developed over an extended historical period, including under conditions of long-term foreign domination. As a result, the national personal income tax mechanism is marked by a low level of tax culture and public awareness, elements of compulsion, excessive tax burdens, and a complex legal framework. These factors contribute to the instability of the tax system and complicate the search for effective ways to improve it under current market conditions – and more critically, under the circumstances of post-war reconstruction in Ukraine.

At the same time, personal income tax as a distinct category – considered through the lens of its spheres of influence – has acquired certain features, illustrated in **Fig. 1.1**.

The above characteristics of the mechanism of functioning of the personal income tax are considered mainly from the standpoint of three main categories: political, within which it acts as a tool for balancing the interests of the state and taxpayers; financial and economic, which understands it as a means of redistributing part of the funds (income) of taxpayers in favor of the state; social, since it is the personal income tax that can affect both the quality of life of the country's population and its financial behavior. Taking the social aspect as a foundation, it is possible to propose the behavioral category as one of the key ones for characterizing the personal income tax, since this type of taxation can be an active tool for shaping the tax mentality of the nation and the tax culture of taxpayers. And given the growing digitalization of economic processes, it is proposed to consider the personal income tax as an element of the overall digital economic space of the state.

Since Ukraine's independence, the personal income tax mechanism has evolved from a progressive scale to a proportional one. However, in the current environment

of military aggression and stagnation of the country's economy, it is necessary to review the conditions of its application.

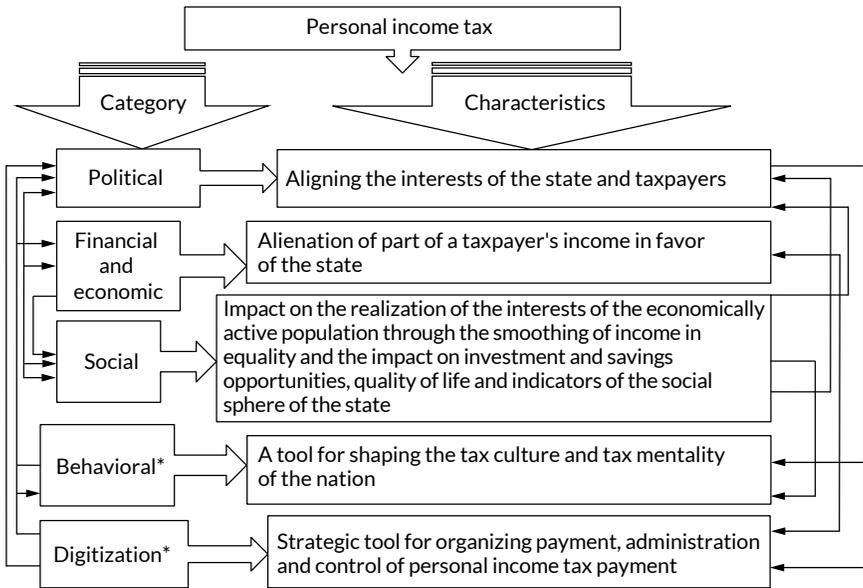


Fig. 1.1 Main characteristics of the personal income tax mechanism and their interrelation  
 Source: generalized from [2]  
 Note: \*author's proposal

At present, the system of personal income taxation is marked by a number of systemic issues. It imposes a significant tax burden on individuals, which reduces both labor and entrepreneurial activity, results in insufficient budget revenues, contributes to the widening of the income gap, and stimulates the growth of the shadow economy. Consequently, the personal income tax system fails to positively influence the investment climate, the development of a skilled labor market, or the improvement of living standards and the social well-being of the population.

### 1.3 Peculiarities of the personal income taxation mechanism in Ukraine

The economy of each country has its own peculiarities that affect the efficiency of the tax system. Among other taxes, personal income tax is one of the most efficient

in terms of the number of taxpayers. However, it should be remembered that the main purpose of its functioning is to ensure the fulfillment of the fiscal function while creating equal tax pressure on taxpayers.

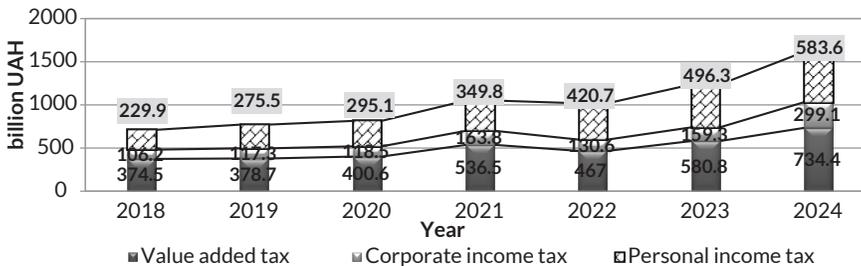
Currently, the personal income tax in Ukraine is a national tax, but its revenues are mainly generated by local budgets. In particular, in accordance with the rules established in 2022, 64% of the personal income tax paid in the territory of village, town and city territorial communities is credited to the budgets of village, town and city territorial communities; 15% – to regional budgets, 21% – to the state budget; the revenues of this tax in the territory of Kyiv are distributed as follows: 60% – to the state budget, 40% – to the budget of the city of Kyiv.

It is worth noting that personal income tax is levied at proportional (linear) rates, with the basic rate of 18% applied to income in the form of wages, other incentive and compensation payments and remuneration received in connection with employment, as well as passive income. The latter are taxed at slightly different rates: 5% is applied to taxation of inheritance transactions (0% for inheritance received from persons of the 1<sup>st</sup> and 2<sup>nd</sup> degree of kinship) and transactions on sale (exchange) of real estate (0% for the first sale of real estate during the year); 9% – for income in the form of dividends on shares, investment certificates or corporate rights accrued by foreign legal entities, joint investment institutions or business entities that are not income tax payers.

Once a year, resident taxpayers who receive income in the form of wages can take advantage of a tax rebate on personal income tax. To do so, they must submit a tax return on their property and income to the tax service. The declaration must indicate the fact of the purchase of goods or services specified by law (e.g., part of the interest on a mortgage loan, payment of tuition fees for the taxpayer or a person of the first degree of kinship, etc.), which is confirmed by copies of the relevant payment documents.

The tax social privilege is a declarative instrument to reduce the personal income tax burden for low-income taxpayers. However, the limit of its application – the subsistence minimum for an able-bodied person as of January 1 of the reporting tax year multiplied by 1.4 and rounded to the nearest 10 hryvnias – makes it virtually ineffective. And this contributes to the fiscalization of the personal income tax, although it should have a significant social content.

However, despite the existence of significant controversial and even problematic issues, the personal income tax in Ukraine is quite effective in terms of accumulating funds. At the same time, before the full-scale invasion, the personal income tax was one of the three main sources of revenue for the consolidated budget of Ukraine (Fig. 1.2).



**Fig. 1.2** Dynamics of the main taxes in the revenues of the consolidated budget of Ukraine in 2018–2024, %  
 Source: [10–15]

Personal income tax revenues in the consolidated budget revenues of Ukraine (**Fig. 1.2**) are characterized by a steady positive trend, with a total increase of 353.7 billion UAH in 2024 compared to 2018. At the same time, the increase in corporate income tax revenues amounted to 192.9 billion UAH, and value added tax – 359.9 billion UAH. In other words, the quantitative growth of personal income tax revenues in the reporting period was 6.2 billion UAH less than the growth of the value added tax accumulated in the budget.

However, these indicators provide a quantitative characterization of taxation, while the qualitative aspects are much more interesting, primarily the share of these taxes in the revenues of the consolidated budget of Ukraine and the change in their annual growth rates (**Table 1.1**).

In the pre-war period under review (2018–2021), the highest growth rates were recorded for value added tax revenues, while personal income tax demonstrated the greatest stability. Notably, the share of personal income tax in the revenues of the consolidated budget of Ukraine remained consistently stable during this period.

It is also important to highlight the adverse fiscal outcomes of 2020, which resulted from the COVID-19 pandemic and related global quarantine restrictions. In that year, the growth rates for key taxes were as follows: 5.5% for value added tax, 1.0% for corporate income tax, and 6.6% for personal income tax. However, by 2021, the fiscal situation had stabilized, with growth rates reaching 25.5% for value added tax, 27.7% for corporate income tax, and 15.6% for personal income tax, respectively.

During the period 2022–2024, which coincided with the onset of Russia's full-scale invasion of Ukraine and the imposition of martial law, personal income tax demonstrated notable fiscal resilience. Despite a decline in its share of consolidated budget revenues from 21.0% in 2021 to 19.2% in 2022, it was the only major tax to exhibit a positive annual growth rate of +16.9%. In contrast, value added

tax revenues decreased by 14.9%, and corporate income tax revenues fell by 25.4%. Although the share of personal income tax in total revenues during 2022–2024 did not return to pre-war levels, particularly those of 2021, its growth dynamics remained relatively stable throughout the entire 2018–2024 period – excluding the downturn in 2020. This resilience can largely be attributed to the relatively broad and well-defined tax base, as well as the large number of registered taxpayers.

**Table 1.1 Dynamics of the share of major taxes in the revenues of the consolidated budget of Ukraine and their growth rates in 2018–2024, %**

Year	Indicator	Value added tax	Corporate income tax	Personal income tax
2018	specific gravity	31.6	9.0	19.4
	growth rate	+16.2	+30.9	+19.2
2019	specific gravity	29.4	9.1	21.4
	growth rate	+1.1	+9.5	+16.6
2020	specific gravity	29.1	8.6	21.4
	growth rate	+5.5	+1.0	+6.6
2021	specific gravity	32.3	9.9	21.0
	growth rate	+25.5	+27.7	+15.6
2022	specific gravity	21.3	5.9	19.2
	growth rate	-14.9	-25.4	+16.9
2023	specific gravity	18.7	5.1	16.0
	growth rate	+19.6	+18.0	+15.2
2024	specific gravity	20.5	8.3	16.3
	growth rate	+20.9	+46.7	+15.0

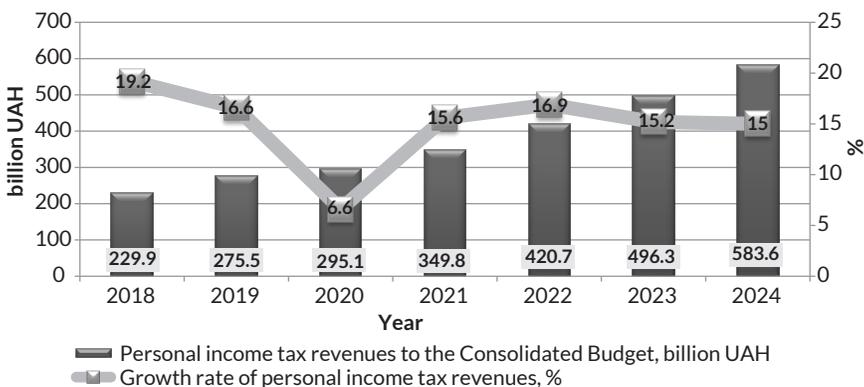
Source: [10–15]

Overall, these findings suggest that personal income tax is relatively resistant to macroeconomic shocks. More broadly, tax revenue performance is closely linked to both the adaptability of the chosen taxation methodology and the overarching objectives of the state's fiscal policy (**Fig. 1.3**).

In conclusion, based on the analysis presented in **Fig. 1.3**, it can be stated that – despite existing shortcomings – the mechanism of personal income tax functioning demonstrates a notable capacity to adapt to both external and internal changes in the economic environment. This adaptability ensures the relative stability of the tax over time.

Although personal income tax is administered at the national level, it primarily serves as a source of revenue for local budgets, in accordance with the distribution

procedures outlined in the Budget Code of Ukraine. Accordingly, it consistently plays a key role in financing budgets at various levels of the budget system (Table 1.2).



**Fig. 1.3** Dynamics of indicators of the personal income tax presence in the consolidated budget of Ukraine in 2018–2024  
 Source: [10–15]

**Table 1.2** Indicators of the functioning of the personal income tax in local budget revenues in 2018–2024

Indicator	2018	2019	2020	2021	2022	2023	2024	Deviation 2024 from 2018 (+,-)
Local budget revenues, billion UAH	562,4	560,5	471,5	580,7	555,1	652,6	679,5	+117,1
Tax revenues of local budgets, billion UAH	232,5	270,5	285,6	346,7	393,5	434,5	441,4	+208,9
Personal income tax, billion UAH	147,5	175,7	187,6	228,3	285,8	304,9	285,4	+137,9
Share of personal income tax in local budget revenues, %	26.2	31.3	39.8	39.3	51.5	46.7	42.0	+15.8
Share of personal income tax in local budget tax revenues, %	63.4	65.0	65.7	65.8	72.6	70.2	64.7	+1.3

Source: [10–16]

During the period under review (Table 1.2), personal income tax remained a key source of local budget revenues. Over this time, its share in the total volume of local

budget revenues increased by 15.8 percentage points, reaching 42.0% by the end of 2024. On average, from 2018 to 2024, personal income tax accounted for 66.8% of local tax revenues, reflecting an overall increase of 1.3 pp.

The consistently high share of this tax in local budget revenues can be attributed, in particular, to the administrative-territorial reform implemented under the 2022 legislative framework. According to the current distribution mechanism, 64% of personal income tax paid within the territories of village, town, and city territorial communities is allocated to their respective local budgets; 15% is directed to regional budgets, and 21% – to the state budget. In the case of Kyiv, the distribution differs: 60% is transferred to the state budget, while 40% remains in the city budget.

In this context, it is important to find out the parameters of the fiscal efficiency of the personal income tax mechanism, in particular, its impact on the state economy. To accomplish this task, it is possible to calculate the following indicators:

- gross tax gap;
- tax collection rate;
- the level of fiscal significance of the tax in the state budget;
- fiscal efficiency indicator, as a percentage;
- tax efficiency as a percentage of GDP.

The calculation of the gross tax gap, which is calculated as the difference between the actual accumulated and planned amount of tax payments, allows to assess the actual reliability of their planning. From this point of view, the tax collection rate is also analyzed, which is calculated as the ratio of the actual tax amount collected to the planned revenue figure (Table 1.3).

**Table 1.3 Dynamics of certain indicators of fiscal efficiency of the personal income tax in 2018–2024**

	Planned personal income tax revenues, billion UAH	Actual personal income tax revenues, billion UAH	Gross tax gap, billion UAH	Personal income tax collection rate, %
2018	227,7	229,9	+2,2	101.0
2019	244,3	275,5	+31,2	112.8
2020	276,7	295,1	+18,4	106.6
2021	343,6	349,8	+6,2	101.8
2022	408,9	420,7	+11,8	102.9
2023	588,3	496,3	-9,2	84.4
2024	575,8	583,6	+7,8	101.4

Source: [17–22]

According to our calculations (**Table 1.3**), actual personal income tax revenues consistently exceeded planned figures throughout 2018–2024. The most significant positive deviation – 31,2 billion UAH – was recorded in 2019. The only exception was 2023, when the gross tax gap reached a negative 9,2 billion UAH. These results suggest a generally high degree of accuracy and reliability in the tax planning process for personal income tax.

Particular attention should be paid to the calculated tax collection level (**Table 1.3**). Overall, the actual receipts of personal income tax to the consolidated budget of Ukraine during the analyzed period showed only minor deviations from forecasted amounts. In 2019, revenues exceeded the planned level by 12.8%, whereas in 2023, they fell short by 15.6 pp.

This decline can be explained by the aftermath of Russia's full-scale invasion and the temporary occupation of Ukrainian territories, which led to the suspension of many enterprises and private entrepreneurs – entities that previously ensured employment and generated income subject to personal income tax. The situation was further aggravated by the fact that most individual taxpayers in Ukraine rely on a single source of income – wages.

Nevertheless, the situation has gradually begun to stabilize, largely due to an increase in the number of taxpayers with a higher tax base, particularly military personnel. This trend highlights that, while personal income tax revenues remain relatively stable amid adverse macroeconomic conditions, they are nonetheless sensitive to profound structural and infrastructural shifts. At the same time, the effectiveness of the current tax planning mechanism has been largely confirmed under these conditions.

The next indicator to assess the effectiveness of the PIT collection mechanism is its fiscal value in the budget, which is calculated as a percentage of the amount of tax received by the respective budget level to the amount of revenues of the respective budget. Let's consider this indicator at the level of consolidated, state and local budgets of Ukraine, since the personal income tax is present in their revenue side (**Table 1.4, Fig. 1.5**).

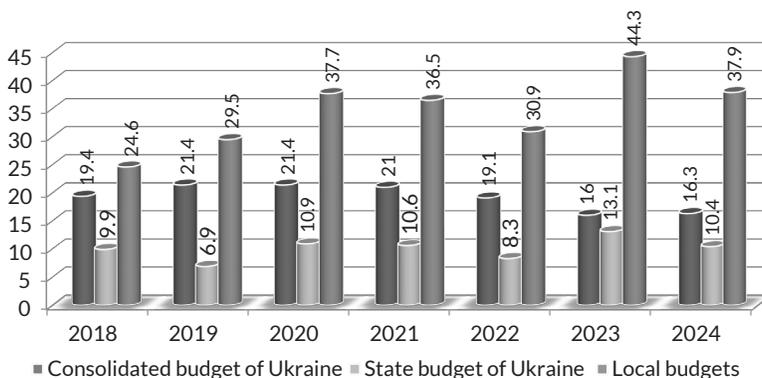
Throughout 2018–2024, there was a positive trend in both the overall revenue performance of the budget system and the specific indicators of personal income tax revenues (**Table 1.4**). At the level of local budgets, revenues from this tax increased by 119,3 billion UAH, or 186.3%, in 2024 compared to 2018. At the state budget level, the increase amounted to 234,4 billion UAH, or 355.6%.

This significant growth in state budget revenues is primarily attributed to the revision of the distribution rules for personal income tax among the different tiers of the budget system.

Based on the indicators presented in **Table 1.4**, let's calculate the indicator of the fiscal importance of the tax in the revenues of these budgets (**Fig. 1.4**).

**Table 1.4 Dynamics of personal income tax revenues and budget revenues of different levels of Ukraine in 2018–2024, billion UAH**

Indicator	2018	2019	2020	2021	2022	2023	2024	Deviation 2024 from 2018 (+,-)
Consolidated budget revenues	1184,3	1289,8	1376,7	1662,3	2196,3	3104,3	3587,8	+2403,5
State budget revenues	928,1	998,3	1076,0	1296,9	1787,4	2672,0	3122,7	+2194,6
Local budget revenues	562,4	560,5	471,5	580,7	555,1	652,6	679,5	+117,1
<b>Personal income tax revenues to</b>								
Consolidated budget of Ukraine	229,9	275,5	295,1	349,8	420,7	496,3	583,6	+353,7
State budget of Ukraine	91,7	69,3	117,3	137,6	148,4	350,8	326,1	+234,4
Local budgets of Ukraine	138,2	165,5	177,8	212,2	171,4	289,4	257,5	+119,3



**Fig. 1.4 Dynamics of indicators of fiscal significance of the personal income tax at the levels of the budget system of Ukraine in 2018–2024, %**

In 2018–2024, the following trend in the level of fiscal significance of the personal income tax was observed (**Fig. 1.4**): at the level of the consolidated budget of Ukraine, from 2018 to 2020, there was a positive upward trend in the

indicator (+2.0 pp), and starting in 2021, downward trends dominated (the deviation of 2024 from 2021 was -4.7 pp); at the level of the state budget, the indicator shows dynamic fluctuations, although at the end of the study period its level is generally 0.5 pp higher than the initial value; at the level of local budgets, it is possible to see a high level of the indicator in budget revenues, with an upward trend (the total positive deviation was 13.3 pp), although it should be noted that in 2022 there was a significant decrease to 30.9%.

Thus, the highest level of fiscal significance of the personal income tax is expected at the level of local budgets, although it has prospects for increasing its impact at all levels.

In support of the above, let's calculate one of the main criteria characterizing the redistribution of GDP through the state budget - the fiscal efficiency of the personal income tax, which is calculated as the ratio of the amount of tax revenues of the tax under study to the gross domestic product of the state (Fig. 1.5).

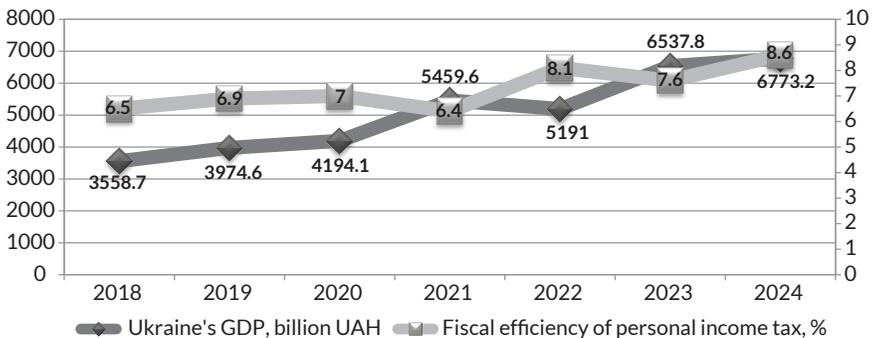


Fig. 1.5 Dynamics of the fiscal efficiency of the personal income tax and the level of GDP in Ukraine in 2018–2024

From 2018 to 2024, the fiscal efficiency of the personal income tax (Fig. 1.5) generally shows upward trends, with an overall positive deviation of 2.1 pp at the end of the study period. At the same time, it is worth noting the downward trends in 2021 to 6.4%, as a reaction to the lockdown and structural changes in the economy, and in 2023, as a result of the continuation of hostilities in the eastern and southern regions.

The fiscal value of the personal income tax in the revenues of the consolidated budget of Ukraine was the highest in 2019–2020 and amounted to 21.4%. However, in 2021–2022, there was a decline in the indicator, and at the end of the study period, its total deviation was -0.2 pp.

Another indicator of the effectiveness of the personal income tax is its efficiency ratio in GDP, which is calculated as the ratio of the fiscal efficiency of the tax to its rate (Fig. 1.6).

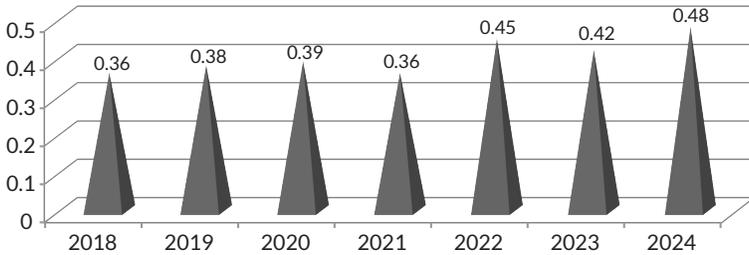


Fig. 1.6 Dynamics of the personal income tax efficiency ratio in GDP in 2018–2024

The personal income tax efficiency ratio in GDP in 2018–2020 (Fig. 1.6) was relatively stable with a slight upward trend. At the same time, the total deviation for the period amounted to 0.03 pp. A similar gap is seen in the decline of the indicator in 2021 and unstable, but generally growing dynamics in 2022–2024. The overall positive deviation of the indicator at the end of the study period compared to the beginning was 0.12 pp.

Overall, it can be concluded that the personal income tax mechanism demonstrated a generally high level of efficiency from a fiscal perspective during the analyzed period. However, it is also important to assess the flexibility of this tax in terms of its responsiveness to changes in economic conditions – namely, through an analysis of tax elasticity. To this end, the elasticity coefficient of personal income tax will be calculated. This coefficient is defined as the ratio of the percentage change in tax revenues to the percentage change in GDP (Fig. 1.7).

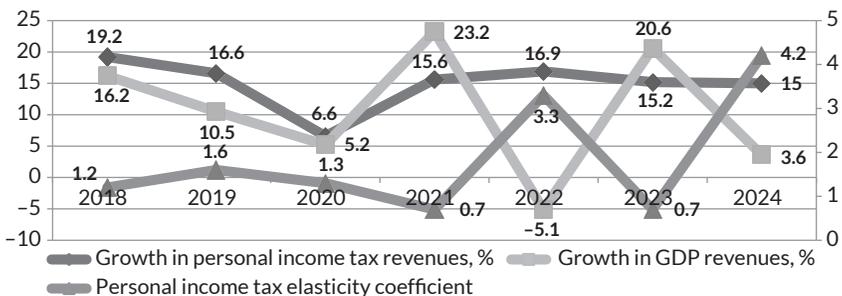


Fig. 1.7 Dynamics of the personal income tax elasticity coefficient in 2018–2024

According to the calculation of the personal income tax elasticity indicator for the period 2018–2024 (Fig. 1.7), it should be noted that it is not able to respond to changes in the economic environment and actively influence the production sector only in 2021 and 2023. This is an additional confirmation of the previously identified trends in revenues and estimated figures for this tax, as well as evidence that only deep crisis phenomena can significantly affect the mechanism of the personal income tax.

However, the deep negative structural changes in the economy, the reduction in the number of taxpayers, the decline in revenues and other indicators characterizing the protracted martial law in which Ukraine has been for more than three years indicate that the current mechanism of collecting personal income tax requires finding optimal and modern ways to improve it.

#### **1.4 Directions for improving the mechanism of personal income tax collection in the post-war period**

One of the key principles for reforming the personal income tax system in the post-war period should be the incorporation of behavioral aspects into its design and functioning. In particular, behavioral finance theories offer valuable insights into how taxpayers perceive taxation and how these perceptions influence their behavior. As Ukraine enters a phase of post-war reconstruction, the development of a robust tax culture and tax mentality will require an understanding of such behavioral patterns to shape modern and socially grounded approaches to taxation.

According to prospect theory, individuals tend to perceive taxes as losses. The cognitive bias associated with loss aversion is among the most powerful psychological distortions, often leading to tax resistance, including tax avoidance, evasion, and minimization [23]. This resistance is further intensified when the tax system or a specific tax is perceived as unfair. Such perceptions are shaped by the use of heuristics – mental shortcuts individuals apply in decision-making. As suggested by heuristics theory, fairness is a key cognitive element in evaluating taxation [24].

Moreover, many taxpayers struggle to assess the actual impact of taxes on their income and quality of life, especially in the case of indirect taxes, which are embedded in the prices of goods and services. According to the tax perception hypothesis, the payment of indirect taxes is perceived as less burdensome than that of direct taxes – such as personal income tax – due to their less visible nature [25]. This suggests that, to align the personal income tax system with behavioral expectations, its function of justice, particularly social justice, must be reinforced.

Progressive taxation is widely regarded as one of the most effective instruments for reducing social inequality. Behavioral studies show that the perception of fairness associated with progressive taxation is more prevalent among lower-income groups, whereas high-income taxpayers tend to favor proportional (flat-rate) systems [26].

The selection between progressive and proportional (linear) personal income taxation remains a central issue of tax policy, especially in the context of Ukraine's post-war recovery. Progressive taxation, which involves increasing marginal tax rates as income rises, aims to address income inequality and promote a fairer distribution of the tax burden, thereby supporting efforts to alleviate poverty and reduce income disparities [27].

By contrast, the proportional taxation model applies a single tax rate to all taxpayers, regardless of income level. However, empirical data indicate that following its introduction in Ukraine, the share of personal income tax in GDP and total tax revenues declined, potentially pointing to the limited efficiency of this model under national conditions [28].

It is important to acknowledge that both progressive and proportional tax systems have their respective advantages and limitations, which are summarized in **Table 1.5**.

**Table 1.5 Advantages and disadvantages of progressive and proportional personal income tax scales**

	Progressive scale	Proportional scale
Advantages	Social justice and reducing inequality	Administrative simplicity
	Increase in budget revenues	Stimulating economic activity
	Stimulating economic development by reducing the tax burden at the start	Reducing incentives for tax evasion
Disadvantages	Risk of tax evasion	Lack of social justice
	Administrative complexity	Limited income redistribution
	Potential outflow of capital and high-income professionals	Potential fiscal constraints

Therefore, the introduction of a progressive personal income tax scale in Ukraine during the post-war reconstruction period is an important step to ensure social justice and financial stability. The development of an optimal rate scale should take into account both international experience and the specifics of the Ukrainian economy.

The highest personal income tax rates (**Fig. 1.8**) range from 56.9% in Finland to 12% in Moldova, and the lowest from 5% in Lithuania and Ukraine to 0% in Sweden, the United Kingdom, Germany, France, and Switzerland. And from the above list, Ukraine is among the countries with the lowest taxation [29].

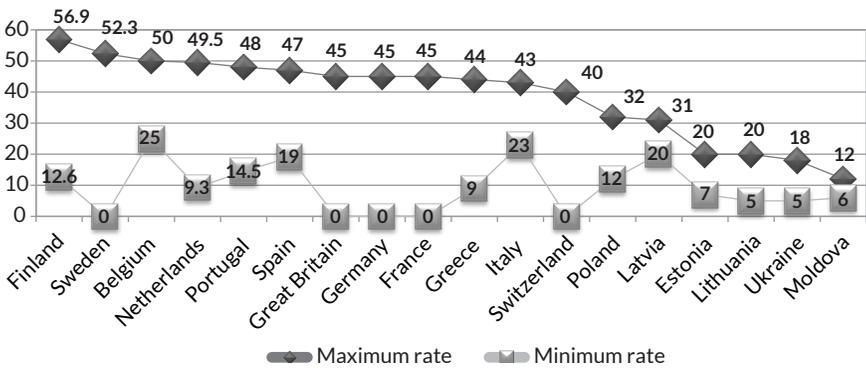


Fig. 1.8 Personal income tax rates in selected European countries as of January 26, 2024

Taking into account international experience and the peculiarities of the Ukrainian economy, it is possible to propose a progressive scale of personal income taxation according to the annual (monthly) amount of income (Fig. 1.9).

Attention should also be given to the introduction of a tax-free minimum for low-income individuals as a measure to protect the most vulnerable segments of the population. As of 2025, the official tax-free minimum income in Ukraine remains fixed at 17 UAH – a nominal value that has not changed since 1996. This amount is primarily used as a reference for calculating administrative fines and other penalties, and it no longer reflects current economic conditions. Moreover, despite its designation, it does not fulfill the function of a genuine tax exemption threshold. In contrast, many European countries actively apply tax-free minimum thresholds as integral components of personal income tax calculations. For example, the annual tax-free minimum is 30,000 PLN in Poland; 10,908 EUR in Germany; 27,840 CZK in the Czech Republic; approximately 5,550 EUR in Spain; 10,777 EUR in France; and approximately 20,000 SEK in Sweden. In Italy, the amount varies depending on marital and family status [30]. Given both international experience and the current socio-economic context in Ukraine, it is advisable to establish a tax-free minimum that provides actual support to low-income earners. It is proposed that this amount be linked to the subsistence minimum for able-bodied persons, which currently stands at 3,028 UAH per month, or 36,336 UAH per year. Setting the tax-free minimum at this level would promote greater fairness in taxation and ensure its alignment with the economic realities faced by Ukrainian citizens.

The proposed progressive approach to personal income taxation will ensure that the above behavioral foundations are taken into account and will help to form an

appropriate level of tax culture among taxpayers, which will become the basis of the nation's tax mentality. It will also be a sign of the realization of the proposed behavioral function.

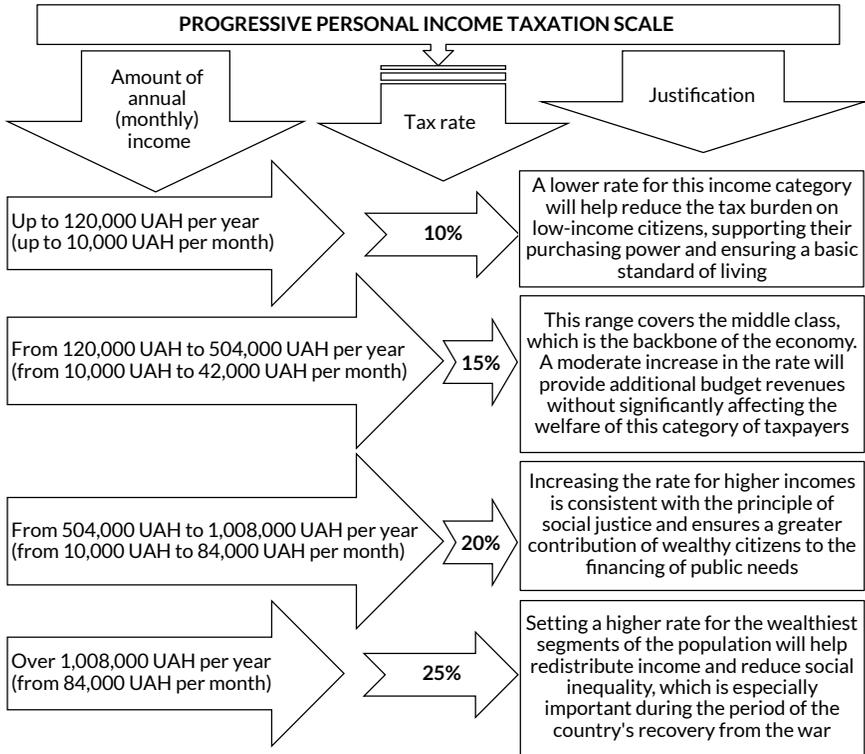


Fig. 1.9 Proposed progressive personal income taxation scale in Ukraine for the post-war period

Reforming the tax system for the post-war perspective should also be based on strengthening digitalization processes, the implementation of which will involve transforming the understanding of the functioning of taxes in particular and the tax system in general [31]. And one of the promising methods of digitalization is called blockchain technology, which will help to transfer data sets without centralized control on the basis of transparency, security and automation. It is being actively promoted in all areas of activity, including even the agricultural sector [32], but in this

study let's focus on the digitalization of personal income tax in the context of meeting the behavioral needs of taxpayers.

Currently, electronic services in Ukraine are available for legal entities and entrepreneurs, but to achieve maximum results, it is necessary to involve individuals, as it is their vision of fairness, efficiency and effectiveness of taxation that shapes the overall trend of tax behavior. Thus, the key areas of digitalization of the personal income tax both now and in the future are as follows (Fig. 1.10).

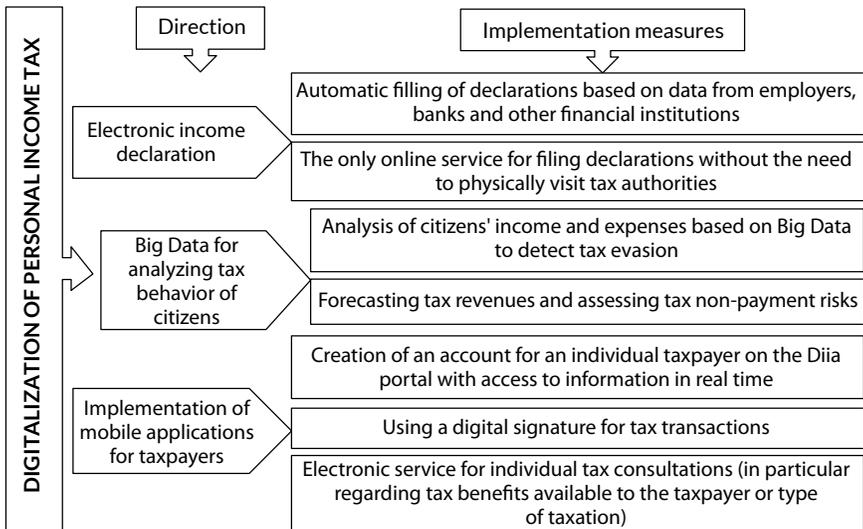


Fig. 1.10 Areas of digitalization of personal income tax in Ukraine for the post-war perspective

The proposed measures for the digitalization of personal income taxation will increase the efficiency of tax administration, help reduce corruption risks, and improve the interaction of taxpayers with the state.

## 1.5 Conclusions

Personal income taxation in Ukraine currently operates under a proportional model and, overall, demonstrates favorable outcomes in both quantitative and qualitative terms. However, the significant structural disruptions observed in 2020 – due to lockdowns caused by the COVID-19 pandemic – and in 2023 – under martial law

following Russia's full-scale invasion – revealed the need for substantial reform of the existing tax mechanism.

In this context, two priority directions for optimizing the functioning of personal income tax in the post-war period are proposed: the incorporation of behavioral and digitalization aspects. These vectors are conceptualized not only as reform directions but also as potential new functional dimensions of the tax.

The behavioral vector envisions the introduction of a progressive tax scale ranging from 10% to 25%, depending on annual or monthly income levels. It also includes the implementation of an active tax-free minimum, setting at the subsistence level for able-bodied individuals on a monthly and annual basis. These measures aim to restore social justice in taxation and foster positive tax behavior among citizens.

Simultaneously, the digitalization vector addresses the urgent need to modernize tax administration processes. Recommended measures include the implementation of electronic income declarations, the application of Big Data analytics to monitor and assess tax behavior, and the development of mobile applications – particularly on the Diia platform. These tools would enable taxpayers to access information on tax assessments and payments, receive personalized consultations, and exercise control over their tax obligations through electronic digital signatures.

Taken as a whole, these proposed reforms support the formation of a new philosophy of personal income taxation in post-war Ukraine – one that is responsive to the behavioral patterns and expectations of taxpayers, while simultaneously advancing the principles of social justice and enhancing administrative efficiency.

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