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FISCAL DOMINANTS OF MILITARY FINANCING

Long-term military aggression has required updating approaches to budget revenue formation to increase the fiscal effectiveness of taxes and ensure budget sustainability. The article is aimed to substantiate the main priorities for boosting the efficiency of the central budget revenue formation system in combating full-scale military aggression, which involves compliance with the principle of fiscal sufficiency in financing defense and security needs and fostering economic recovery. Systematic and logical approaches were used in the article. Various methods were applied, including generalization, comparison, analysis and synthesis, scientific abstraction and expert evaluations. The USA's experience in the field of budget revenues formation during wars shows that the authorities tried to design the taxpayer's trust and ensure a fair cost for conducting a war for every citizen. The classic measures were increased tax rates on income and profits, and the active sale of government bonds. Great Britain has applied identical measures. The budget revenues formation policy has demonstrated significant changes since the full-scale invasion. The percentage of GDP redistribution through the central budget revenues in 2023 equaled 41.76%. The main features of tax revenues shaping (into a central budget) in 2022–2023 have been identified. Priority measures to raise the fiscal significance of tax revenues have been substantiated. This concerns the decrease of the shadow part of the gambling business; the excise goods markets; and labor

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ФІСКАЛЬНІ ДОМІНАНТИ ФІНАНСУВАННЯ ВІЙСЬКОВИХ ПОТРЕБ

Затяжна військова агресія потребує оновлення підходів до формування бюджетних доходів задля посилення фіскальної результативності податків та забезпечення бюджетної стійкості. Метою статті є обґрунтування основних пріоритетів підвищення ефективності системи формування доходів державного бюджету в умовах протидії повномасштабній військовій агресії, що передбачає дотримання принципу фіскальної достатності фінансування потреб оборони і безпеки, а також сприяння процесам економічного відновлення. У статті використано системний та логічний підходи. Застосовано метод узагальнення, порівняння, аналізу і синтезу, наукового абстрагування та експертних оцінок. Досвід США у сфері формування бюджетних доходів протягом війн свідчить, що влада намагалась сформувати довіру платників податків та забезпечити справедливу вартість ведення війни для кожного громадянина. Класичними заходами були збільшення ставок податків на доходи і прибутки, активний продаж державних військових облигацій підприємствам і населенню. Ідентичні заходи застосовувала й Велика Британія. Політика формування бюджетних доходів з моменту повномасштабного вторгнення суттєво змінилась. Частка перерозподілу ВВП через дохідну частину державного бюджету в 2023 р. досягла 41.76%. Визначено основні особливості формування податкових надходжень до державного бюджету в 2022–2023 рр. Обґрунтовано пріоритетні заходи підвищення фіскальної значущості податкових надходжень. Зокрема це стосується детінізації операцій грального бізнесу, ринку підкацизних



incomes. In addition, the prerequisites for introducing a progressive personal income tax scheme have been determined.

Keywords: fiscal policy, state budget, taxes, non-tax revenues, grants.

товарів та легалізації витрат на оплату праці. Визначено пререквізити запровадження прогресивної шкали оподаткування податком на доходи.

Ключові слова: бюджетно-податкова політика, державний бюджет, податки, неподаткові надходження, гранти.

JEL Classification: H11, H12, H21, H30

Introduction

The budget and tax policy of Ukraine at the end of the 20th and during first two decades of the 21st century was formed under the influence of significant challenges and social upheavals. The formation of our own financial system took place in the conditions of a long and deep recession of 1991–1999, the Great Recession, the hybrid aggression of the Russian Federation, and the global COVID-19 pandemic had a significant impact on the formulation of the basic principles of fiscal policy. The full-scale military invasion on February 24, 2022 radically changed the paradigm of domestic budget policy.

Even at the beginning of the XVII century Maximilien de Bethune Sully pointed three different prerequisites for the development of the state budget, which determine the focus of tax and budget policy: peace conditions, the state of war and post-war recovery. The need to protect the independence and sovereignty of the state caused the need for a rapid increase in budget expenditures on defense and security, while the state continues to make payments for all assumed obligations: social, functioning of critical infrastructure, servicing and repayment of the state debt, etc. Financing of the defense and security sector is possible purely at the expense of domestic sources, tax and non-tax revenues, as well as military bonds of the domestic state loan. Tax revenues have the highest fiscal significance. The protracted duration of military aggression requires updating approaches to the formation of budget revenues in order to strengthen the fiscal effectiveness of taxes and preserve options for ensuring the basic determinants for further economic growth.

Many studies have been devoted to the study of this issue. In particular, Ukrainian scientists (Chugunov et al., 2022) investigated certain features of the formation of the revenue part of the State Budget of Ukraine during the first six months of the martial law regime. The authors determined and systematized measures of tax stimulation and consolidation, analyzed the indicator of tax burden in foreign countries under conditions of intense military conflicts. Y. Ivanov and V. Laptev noted that at the initial stage of the full-scale invasion, domestic tax policy had an anti-crisis and mostly liberal character. Tax initiatives were aimed at supporting society, but did not take into account possible budget losses, which is a certain drawback in the implementation of state tax policy. In their opinion, tax policy should be more

comprehensive and systematic to achieve the goals of wartime and post-war recovery (Ivanov and Laptev, 2023). Yuriy Radionov, for his part, defined the current priorities of the budgetary policy of Ukraine within the limits of the concentrated volume of financial resources. He points to the expediency of improving the outdated methods of budget formation, fully introducing the mechanism of medium-term budget planning, adapting the directions of the budget and tax policy to the urgent provision of the state's defense capability and the stable functioning of its institutions (Radionov, 2023).

Inna Irtysheva, Iryna Kramarenko, and Ihor Sirenko examined potential economic losses and further prospects for global economic growth during the war in Ukraine. Certain provisions regarding the use of fiscal instruments to support the processes of economic development during this period have been disclosed (Irtysheva et al., 2022).

The issue of tax policy formation was considered by Alla Sokolovska, who thoroughly analyzed the changes in the domestic tax system of Ukraine in the context of the tax burden on the economy, factors of production and consumption. The author emphasized that further directions for improving tax policy should be related to such issues as supporting economic growth and detinization of the economy (Sokolovska, 2020).

George D. Hall and Nobel Laureate Thomas Sargent conducted a comprehensive analysis of the monetary and fiscal policy of the United States during the two World Wars in the 20th century, as well as the global COVID-19 pandemic. The authors noted that, despite the increase in the tax burden during wartime, the main resource for financing extraordinary military expenditures belongs to debt securities and the printing press. Thus, military budget expenditures during World War I were financed by 20.8% from tax revenues, 74.6% from bonds, and 4.6% from seigniorage; during the Second World War, the share of taxes increased to 30.2%, state loans – decreased to 46%, and 10.1% belongs to money emission. Extraordinary budget expenditures aimed at countering the consequences of COVID-19 were financed by the government from tax revenues for only 3.5%, public borrowings for 67%, and additional emissions for 18.5% (Hall & Sargent, 2022).

Oliver Blanchard and Jean Pisani-Ferry identified the main challenges for the economies of the member states of the European Union (hereinafter EU) as a result of the full-scale invasion of the Russian Federation into Ukraine. These include: balanced formation of sanctions packages, so that they simultaneously deter the aggressor and do not cause serious consequences for the EU economy; countering the decrease in real incomes of the population due to the increase in energy prices by using fiscal support and increasing budget deficits; containment of inflationary spikes under conditions of rising energy and food prices. The researchers came to a conclusion about the need to strengthen the coordination of fiscal and monetary policy

in the current economic conditions. They believe that fiscal and monetary policy should be quite flexible, and the corresponding measures should be easily adjusted in accordance with the social tasks set (Blanchard & Pisani-Ferry, 2022).

Javier Debrun and Lars Jonung reflect that it has been exceedingly difficult to harmoniously combine the three important properties of a balanced fiscal policy, namely simplicity, flexibility and binding, over the past two decades. It is important to determine the specific performance indicators of the fiscal policy, which should be achieved in a given time range. A constructive dialogue with the society regarding the implemented fiscal policy should be conducted in order to gain wider support and increase influence on the parliament and state fiscal bodies in order to achieve the set tasks and fulfill the planned fiscal indicators (Debrun & Jonung, 2019).

Despite the available thorough work of domestic and foreign researchers in the field of budget and tax policy formation and expert assessments of the impact of the military invasion on the economy of our state and the EU, it is important to determine the modern features of the implementation of the policy of forming the revenue part of the state budget and the determination of prospective fiscal measures for the next budget periods.

Under conditions of uncertainty, it is advisable to prepare variable scenarios for the implementation of tax and budget policy, to strengthen their coordination with monetary policy.

The aim of the article is to justify the main priorities of increasing the efficiency of the state budget revenue generation system in the conditions of countering full-scale military aggression, which involves compliance with the principle of fiscal sufficiency in financing defense and security needs, as well as promoting economic recovery processes.

In the course of the research, the hypothesis was put forward that with the increase in the duration of active hostilities, the main budgetary priority is to ensure fiscal stability, which requires the minimization of fiscal incentives and orientation towards the expansion of tax potential. In view of the above, the validity of tax measures should be strengthened, communication with taxpayers should be improved, and alternative compromise scenarios of increasing the fiscal significance of tax revenues should be formed, which would be as neutral as possible to the processes of economic growth.

A systematic approach was used in the research. The methods of systematization and generalization, comparison are applied in the study of the world experience of the formation of budget revenues under the conditions of intense military conflicts; analysis and synthesis, a logical approach, when determining the peculiarities of the formation of budget revenues under the conditions of a full-scale invasion; methods of expert evaluations, comparative analysis and scientific abstraction, when substantiating priorities for the formation of state budget revenues.

The information base of this research is the scientific work of Western economic schools and domestic authors. Official data of the Cabinet of Ministers of Ukraine, the Ministry of Finance of Ukraine and the State Tax Service of Ukraine regarding the main fiscal indicators were also used. Gross domestic product indicators are taken from official reports of the State Statistics Service of Ukraine and the National Income Strategy. In the analysis of fiscal indicators of foreign countries, the databases of the International Monetary Fund and the World Bank were used. The US population was estimated using data from the U.S. Census Bureau.

The main part of the article consists of three sections. The first summarizes and systematizes the experience of the formation of the revenue part of the budget in the USA during the First and Second World Wars, the Korean and Vietnam wars; Great Britain during World War II; Croatia during the War of Independence; 11 intense conflicts in Africa during 1990–2011. The second section is devoted to the analysis of the structure of revenues of the State Budget of Ukraine in 2021–2023, identifying the peculiarities of the formation of budget revenues. In the third, the priority measures of the state fiscal policy, aimed at ensuring the stability of the budget and increasing the fiscal significance of taxes, are substantiated.

1. Empirical experience of budget revenue formation under conditions of intense military conflicts in world practice

World wars, regional and local military conflicts were accompanied by an increase in public expenditures, which were used for military needs. Depending on the duration of conflicts, a different composite set of sources of financing such expenses is used. Prolonged wars or military operations required and require the search for extraordinary sources of budget revenues, as well as additional generation of tax revenues. Adam Smith also noted that during the war there was a 3-or 4-fold increase in budget expenditures compared to peacetime budget expenditures. In order to balance the budget, it is necessary to increase the tax burden to the specified level. However, even with a significant increase in tax rates or the introduction of new taxes, the growth of the revenue part of the budget can be observed after a certain time interval (from 6 to 12 months). At the same time, the conduct of war requires immediate manning of the army, providing the troops with a sufficient amount of weapons and food, and building appropriate fortifications. Thus, the financing of military expenditure should be carried out without a time lag. Debt obligations and seignery are also an important source of financing these expenses (Smith, 2023).

Military conflicts require additional financial resources for the needs of providing the army with weapons, equipment and all other necessary means. Taxes are an important source of budget revenues directed to the

specified goals. During the First World War in the USA, the share of taxes in the total revenues of the state was 20.8%, the other components were state borrowing and seigniorage (Hall & Sargent, 2022). Although President W. Wilson in his message to Congress in 1917 noted that as much as practicable, the financial burden of the war should be provided by taxation of the present generation, not loans (Gilbert, 1970). The head of the state treasury insisted that the share of tax revenues in financing all public expenditures of the war period should be at least 50% (Shook, 1975). An active campaign was conducted in the country regarding the need to buy back government debt securities. For a certain period, these loans were called Liberty Loans. Emphasizing the need to preserve liberty as a fundamental basis of American society probably served as the best advertisement for this type of government borrowing. The traditional revenues of the US federal budget from customs duties gradually decreased, because the volume of international trade decreased. In view of this, the task arose to strengthen the fiscal potential of the tax system, to diversify it, taking into account the duration of the conflict and the dynamics of the socio-economic development of the USA and its allies – trading partners.

Government institutions tried to build the trust of taxpayers and ensure a fair cost of the introduction of war for every citizen. Progressive income taxation was one of the manifestations of social justice that US policymakers saw during the war. Thus, the maximum rate of income tax (income tax) increased from 7% to 77%. The share of federal revenues from income and profits taxation increased from 10% in 1914 to 60% in 1918 (Mehrotra, 2010). However, during the war, the tax system performed a redistributive function quite effectively. The effective tax rate for the richest 1% of households increased from 3% in 1916 to 15% in 1918. Businesses that were involved in government war orders made significant profits and paid high dividends. Therefore, it was logical to increase the tax rates of high incomes. In addition, the emphasis on taxing the wealthiest sections of the population with the highest tax rates was perceived by society as a signal that they should also pay taxes, which are much lower.

The developers of the fiscal policy of the USA and European countries during the Second World War learned the lessons of the previous global conflict, ensuring better adaptability and effectiveness of the policy. The main features of the formation of the tax policy of that time were the increase in income taxes, as well as additional taxation of the profits of enterprises that were formed as a result of this war. The specific weight of tax revenues during World War II in the USA increased to 30.2% of the total amount of government revenues, the share of government borrowing was 46% (Hall & Sargent, 2022). Following the example of the last world war, an active campaign for the placement of military bonds of the state loan was launched. Bonds worth \$157 billion were sold. In the USA, about 85 million Americans invested their savings in government securities (Mehrotra, 2010). As of 1945,

139.9 million people lived in the United States (U.S. Census Bureau), that is, 60.7% of the population was involved in the purchase of military bonds. The Revenue Act of 1942 (The Revenue Act of 1942) established provisions for increasing income tax rates and eliminated the possibility of exemption from taxation or receiving tax preferences. The maximum marginal rate of income tax was increased to 94% significantly exceeding the maximum rate during the First World War (Rottschaefer, 1944), a tax on "surplus profit" was introduced in wartime, the marginal rate of this tax reached 90% (The Revenue Act of 1942). The tax regime during World War II is perhaps the most striking example of wartime fiscal sacrifice (Bank et al). In addition, it should be understood that the rates did not return to the pre-war level immediately after the end of the war, so in 1948 the marginal income tax rate decreased to 82%.

Great Britain used a similar approach to the formation of state revenue policy in the conditions of World War II. The main sources of financing military expenses were internal and external loans (primarily from the USA), increased tax burden and money printing. The marginal rate of income tax was increased to 95%, a special tax on "surplus profit" was introduced, the amount of tax expenses was reduced, the inheritance tax was significantly increased, and excise taxes were increased (Youngson, 2013). Finally, Great Britain settled with the USA for the supply of weapons during World War II only in 2006 (Ellison & Scott, 2017).

In 1950, the Korean War began, which also required substantial budget expenditures. It was the first large-scale military conflict with the participation of the United States, which was financed exclusively by taxes; special military bonds were not issued by the government. With broad bipartisan support, The Revenue Act of 1950 was passed, raising the marginal corporate tax rate (analogous to the income tax) to 45% and the income tax rate to 90% (Bank et al., 2008). During the active phase of the Vietnam War, US Congressmen emphasized the need for increased tax revenues to support the needs of the military. Therefore, an additional 6% increase in the income tax rate was initially introduced. Due to the protracted duration of the conflict and the unfavorable situation, the increase reached 10% (Mehrotra, 2010).

In Croatia, during the war for independence in the first half of the 1990s, the level of the tax burden did not increase. The additional volume of budget expenditures for the security and defense sector was financed by optimizing other structural components of the budget expenditure part and public borrowing (Schönfelder, 2005). Among 11 military conflicts in African countries (during 1990–2011), no single trend in the formation of budget revenues was found. In certain cases, there was indeed an increase in tax rates, primarily rents, in countries rich in mineral deposits (Angola, Libya). In other cases, the tax burden did not change. For the most part, military conflicts reduced the institutional capacity of state institutions to accumulate tax revenues for the budget system.

2. Peculiarities of the formation of budget revenues in Ukraine under the conditions of a full-scale invasion

Fiscal policy at the initial stage of full-scale military aggression had a stimulating character. In March 2022, a reduced rate of value-added tax (hereinafter VAT) was introduced, as well as the excise tax on fuel was abolished in order to curb the increase in prices for this product segment. As a result of the war in Ukraine, the cost of oil products began to rise rapidly, which eventually became the cause of high inflation around the world. The average value of consumer inflation in 2022 turned out to be the highest since 2008 and for the member states of the European Union – 8.8% (a significant number of EU countries had double-digit inflation), in the USA – 8%, in Great Britain – 7.9% (The World Bank, 2024). It was assumed that such fiscal easing should be in effect until the end of the martial law regime. However, the duration of military operations and the need to increase defense expenditures determined the expediency of increasing the fiscal importance of taxation. Initially, from September 30, 2022, the payment of excise duty on fuel was returned, at the same time, the rates were set at a level significantly lower than before the full-scale invasion (for motor gasoline – EUR100 per 1000 liters, for liquefied gas, butane, isobutene – EUR 52 per 1000 liters). From July 1, 2023, fuel taxation has fully returned to the level of February 2022 – the VAT rate has increased from 7% to 20%, the excise tax on motor gasoline has increased to EUR 2.013 per 1000 liters, and diesel fuel has increased to EUR 139.5 per 1000 liters. The use of the tool of preferential taxation of fuel had an effect on curbing the level of consumer inflation and supported the purchasing power of households, which is extremely important in the conditions of a social and economic shock. Excise tax revenues from fuel in 2023 exceeded the figure of 2022 by more than 3 times (National Revenue Strategy, 2023).

From March 2022 till July 2023, payers of the single tax of the I and II groups are optionally given the right not to pay this tax to the corresponding budget of the territorial community. A tax rate of 2% of income has been established for payers of the uniform tax of Group III (individuals and legal entities). At the initial stage, an income limit of UAH 10 billion was set, but it was later canceled. There are certain prohibitions regarding types of economic activity for the use of the specified fiscal incentive such as: production, export/import, sale of excise goods; foreign currency exchange; extraction of minerals; financial activities (pawn shops, banks, insurance companies, etc.); gambling activities. At the same time, the last rule came into effect only from February 2023. After all, changes to the Tax Code of Ukraine for the period of martial law from April 14, 2022 allowed business entities that are engaged in the organization, conduct of gambling, lotteries and betting to be on a simplified taxation system. In general, the activity of these taxpayers raises many questions about honesty and integrity. The use

of a simplified taxation system and numerous tax evasion schemes (miscoding, non-taxation of winnings, participation in schemes of shadow export of grain and payment of wages in envelopes) caused significant losses to the state budget. The systematic work of the authorities made it possible to significantly improve the situation with the payment of taxes. According to the results of 2023, the gaming business paid UAH 10.4 billion in taxes, which is 14 times more than in 2022, and 51 times more than in 2021 (Official website of the VRU Committee on Finance, Tax and Customs Policy, 2024).

From April 1 to June 30, 2022, a preferential tax regime was in effect for the import of vehicles (payment of VAT, customs duty, and excise duty was canceled). The prerequisite for the introduction of this innovation was the mass destruction of household cars as a result of military operations and the need to purchase vehicles for the military. In the explanatory note to the Law of Ukraine dated June 21, 2022 No. 2325-IX, which canceled these benefits, it is stated that citizens imported 119.000 vehicles during the period of benefits, as a result of which UAH 13 billion did not go to the budget. In general, as a result of 2022, the budget received excise tax on vehicles – UAH 5 billion, which is almost three times less than in 2021 and half as much as in 2023 (National Revenue Strategy, 2023).

As a result of the destructive missile attacks on critical infrastructure, starting from November 11, 2022, the state has provided exemption from payment of VAT and import duties for operations involving the importation of electric generators, batteries, transformers, and other similar devices into the territory of Ukraine. This fiscal measure is aimed at supporting households and businesses to ensure uninterrupted energy sources. The multiple increases in demand from the population and enterprises for the mentioned products under the conditions of long-term power outages affected the increase in prices for them. It is important that the state used the principle of tax policy adaptability, responding to the urgent challenges of a full-scale war. Despite significant tax losses, at the initial stage, the reduction in the level of taxation for consumer goods had a significant effect on maintaining the purchasing power of the population. In order to increase the effectiveness of the tax policy, it is necessary to ensure the targeting of tax benefits and limit the duration of their effect, with a further assessment and comparison of the benefits and budgetary losses from their application.

From the second half of 2023, the policy of budget revenue generation and its tax component has a compensatory nature. The state focuses on increasing the fiscal significance of tax revenues, which are extremely necessary to ensure and strengthen its defense capability. In addition to the return of the level of VAT and excise taxation to the pre-war level and the abolition of preferential taxation for the III group, a number of steps have been taken to supplement the state treasury. The prototype of the taxation of excess profits due to the war (which was introduced by the USA and Great Britain during the world wars) was the temporary introduction in Ukraine of

an increased income tax rate for banks – the income for 2023 is taxed at a rate of 50%, in the future the basic tax rate for banks is set at equal to 25%. We remind you that the rate of this tax for other business entities is 18%. The net profit of banks for 2023 was UAH 86.5 billion (Official website of the National Bank of Ukraine). Compared to 2022, profits increased 4 times, a significant part of banks' profits was formed due to increased volumes of investments in NBU certificates of deposit (mainly in state banks) and domestic state loan bonds. The share of these two instruments in banks' interest income was 54%.

An important source of filling the revenue part of the state budget from the fourth quarter of 2023 is a change in the approach to the inclusion of part of the income from the personal income tax from income taxation in the form of monetary support for military personnel. From October 1, 2023 to December 31 of the year in which martial law will be abolished, this tax is temporarily transferred to a special fund of the state budget. Funds from such revenues in 2023 were directed: 50% – for the purchase of special equipment and equipment (primarily drones), 50% – for the purchase of artillery systems. In 2024: 45% – for the purchase of special machinery and equipment; 45% – for the development of new technologies, the expansion of production capacities for the production of defense products; 10% – to military units in proportion to the tax paid by military personnel of this unit. According to our calculations, based on the data of the Ministry of Finance of Ukraine, in 2023, about 26 billion UAH were added to the special fund of the state budget, and in 2024, 95 billion UAH should come.

The policy of budget revenue generation has undergone significant adjustments in the two years since the full-scale invasion. The indicator of the ratio of GDP redistribution through the revenue part of the state budget in 2023 increased compared to 2021 by 75% and reached the level of 41.76%. (*Table*). It should be emphasized that the share of tax revenues in the structure of the revenue part of the State Budget of Ukraine in 2021 exceeded 85%, but due to military aggression, this value decreased in 2022 to 53%, and in 2023 to 45%. At the same time, the value of the indicator of the share of budget revenues in GDP decreased slightly – from 20.28% in 2021 to 18.81% in 2023, and in 2023, compared to 2022, the fiscal significance of tax revenues increased by 0.51% of GDP. The share of all the most fiscally significant taxes in GDP, with the exception of personal income tax, decreased under martial law conditions, which was caused both by the fiscal incentives of the initial stage of military aggression against Ukraine, and by a significant decrease in the level of economic activity and consumption. According to UN data, as of February 1, 2024, 5.94 million Ukrainian refugees were registered in EU member states, and another 403.6 thousand refugees in other countries of the world (Operational Data Portal UNO, 2024). The gradual increase in the fiscal significance of the personal income tax in the state budget is directly related to the increase in support for military personnel, the increase in their number and the redistribution

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of part of the "military" personal income tax to the state budget from the IV quarter of 2024.

The fact of a significant increase in 2023 compared to 2021 of the share of non-tax revenues both in GDP and in the structure of budget revenues – by 12.29% and 23.59%, respectively – attracts attention. The largest increase in this budget article was ensured thanks to the increase in the volume of own revenues of budget institutions. The share of these revenues in the total volume of non-tax revenues amounted to 81.93% in 2023. These revenues increased due to a multiple increase in external financial assistance for socio-economic purposes. Grants from the EU, governments of other countries, and financial organizations have also become a significant source of income. In 2023, according to the mentioned article, UAH 433.4 billion was received in the budget, which was 16.22% of the total revenue of the state budget. At the same time, 99.6% of grants are directed to budget support.

Table

State Budget Revenue Structure of Ukraine in 2021–2023, %

Source of income	2021		2022		2023*		Deviation 2023/ 2021	
	share in GDP	share in income	share in GDP	share in income	share in GDP	share in income	share in GDP	share in income
Tax revenues, including:	20.28	85.37	18.30	53.14	18.81	45.04	-1.47	-40.33
<i>personal income tax</i>	2.52	10.61	2.86	8.30	3.23	7.74	0.71	-2.87
<i>profit tax</i>	2.71	11.39	2.25	6.55	2.25	5.38	-0.46	-6.01
<i>rent payment</i>	1.48	6.23	1.64	4.78	0.94	2.26	-0.54	-3.97
<i>value added tax</i>	9.82	41.37	8.99	26.13	9.07	21.73	-0.75	-19.64
<i>excise tax</i>	2.98	12.53	1.97	5.73	2.62	6.26	-0.36	-6.27
<i>import duty</i>	0.68	2.84	0.50	1.43	0.62	1.50	-0.06	-1.34
Non-tax revenues	3.21	13.52	6.67	19.38	15.50	37.11	12.29	23.59
Income from capital transactions	0.01	0.03	0.01	0.03	0.00	0.00	-0.01	-0.03
Funds from foreign countries and international organizations	0.02	0.10	9.27	26.92	6.77	16.22	6.75	16.12
Trust funds	0.00	0.02	0.00	0.01	0.01	0.02	0.01	0.00
Official transfers	0.23	0.97	0.18	0.53	0.67	1.61	0.44	0.64
Total	23.75	100.00	34.43	100.00	41.76	100.00	18.01	0.00

* GDP data for 2023 are expected and taken from the National Revenue Strategy 2030.

Source: Authors' calculations based on data from the Ministry of Finance of Ukraine, n.d.

An extraordinary source of budget financing in 2022 was the direct purchase of state loan bonds by the National Bank of Ukraine in the amount of UAH 400 billion. In June 2022, the peak amount of the issue was recorded at the level of UAH 105 billion, which significantly exceeded the amount of taxes paid to the budget. In order to maintain macroeconomic stability, the use of this type of coverage of budget expenditure items should be strictly limited.

3. Priorities for the formation of state budget revenues in the conditions of combating military aggression

The memorandum with the IMF contains provisions on the need to identify all possible measures aimed at increasing the fiscal significance of taxes (IMF, 2023). The timeliness and completeness of providing our defenders with the necessary means, equipment and weapons will depend on the effectiveness of the fiscal policy. The approved National Revenue Strategy clearly indicates that the priority of state policy is to increase budget revenues on a sustainable basis, close existing opportunities for tax evasion, increase the level of compliance with legislation and combat the shadow economy (National Revenue Strategy, 2023). Under modern conditions, the fight against the shadow economy and non-payment of taxes is an extremely important direction of the state's economic policy.

Coordination of state institutions' efforts, such as parliamentary committees, supervisory and law enforcement agencies, made it possible to secure additional budget revenues from taxation of gambling business, excise goods markets, etc. in 2023. Further systematic steps regarding the detinization of the economy and increasing the level of their effectiveness are important. For example, we estimate the additional reserve for the increase of tax revenues from the gambling business for 2024 to be UAH 5–6 billion. It is important to continue the joint measures of the Bureau of Economic Security of Ukraine (hereinafter BEB) and the National Bank of Ukraine to combat key schemes, miscoding and matching. Taxation of excise goods has a significant reserve in filling the state budget revenues. The focus of controlling and law enforcement agencies should be aimed at significantly reducing the volume of illegal trade in excise goods.

The Accounting Chamber established that the state loses about 9 billion a year from non-payment of taxes from the shadow alcohol market (Report of the Accounting Chamber, 2021). As of 2023, the share of the shadow market of alcoholic beverages is estimated to be close to 30%. The main sales channel for wholesale and retail consignments of counterfeit goods is the Internet, followed by retail and catering establishments. It is important to strengthen the effectiveness of the system of state control over the production and circulation of alcoholic beverages, the development of a risk-oriented system of excise tax control. According to the KANTAR study,

the share of illegal cigarette trade in Ukraine in 2023 was 21.8% of the total market volume, which led to the loss of budget revenues in the amount of over UAH 23 billion (Kantar, 2023). In view of the above, the priority measures to combat the shadow market of tobacco products are: increasing the functional efficiency of control bodies (BES, State Tax and Customs Service, National Police, State Border Service); strengthening of cooperation with European institutions and customs of EU member states bordering Ukraine in the field of combating the illegal circulation of tobacco products; increasing the effectiveness of the fight against smuggling; avoidance of tax shocks when excise tax rates are increased; introduction of a system of monitoring and control of the tobacco supply chain, because in the conditions of martial law, when the borders are closed, it is fundamentally important to identify the "oases" of counterfeit production of billions of cigarettes.

The illegal fuel market in Ukraine has led to irreversible losses of budget revenues in the amount of about UAH 8–9 billion in 2023. Certain gas stations or their networks sell illegal fuel from illegal production using pseudo-fiscal checks. In addition, the use of "pseudo" wholesale fuel trade schemes was recorded, while in fact fuel is sold at gas stations without payment transaction recorders – for cash. Official wages in some fuel trade networks are several times lower than the industry average, which may indicate the potential payment of wages in "envelopes" (Kuyun S., 2024). Coordinated efforts of state institutions to combat illegal production and circulation of excise goods can add tens of billions of hryvnias to the 2024 budget.

One of the provisions of the National Revenue Strategy is the restoration of the progressive scale of personal income tax rates. This tool is quite widespread for EU member states. However, a proportional scale operates in Bulgaria, Estonia, Romania, Hungary, the Czech Republic, and the tax rate in Bulgaria and Romania is 10%. Tinization of labor costs is one of the barriers to the restoration of progressive taxation. The range of losses from non-payment of personal income tax, military duty and social contribution is in the range of UAH 120-160 billion. The level of taxation is classically considered to be the fundamental reason for hiding incomes and shadowing the economy. The phenomenon of the shadow economy is a peculiar criterion for evaluating the rule of law and trust in the authorities in the context of the effectiveness of the use of paid taxes.

The research shows that in countries with a high level of institutional environment, the indicator of the shadow economy is significantly lower compared to countries where institutions are being transformed. The share of the shadow economy in Germany was 16.7%, Denmark – 18.4%, Sweden – 18.8%. At the same time, the value of this indicator for Romania was recorded at 34.8%, Lithuania – 35.3%, Bulgaria – 37.8% (Kelmanson et al., 2019). Although the level of taxation is one of the reasons for the existence of the shadow economy, it is not the dominant one. The other side of the problem is also important, how effectively taxpayers' funds are used. Therefore, the

unjustified introduction of progression can only deepen the issue of shadowing the economy. Even the National Strategy states that the implementation of progression is currently not possible due to the low level of public trust in the controlling bodies. In view of the above, it is important to ensure a number of prerequisites for the implementation of progression, ensuring the trust of taxpayers, comprehensive transformation of the simplified taxation system, integration of various state databases, and justification of the progression scale. Eliminating opportunities for abuse of the simplified taxation system and legalizing labor costs are basic prerequisites for the introduction of tax progression and priorities of the state fiscal policy. With the parallel existence of opportunities to pay only 5% of the amount of income received for the reporting tax period and to pay the minimum amount of a single contribution (for the minimum wage), any intentions to introduce a progressive scale will have a rather low effectiveness and will not have the confidence of economic agents in the taxation system in as a whole

In 6 months of 2023, 19.9% of Ukrainians who received a salary (7.4 million people) received it in the amount of the minimum level or below it; 53.4% – in the range from 6.7 to 20 UAH thousand; 25.5% – from 20.1 to UAH 100.5 thousand; 1% – from 100.5 to 200 thousand, 0.2% – more than UAH 200 thousand (National Income Strategy, 2023). The State Tax Service of Ukraine does not have data on the incomes of 30% of persons registered in the state register of natural persons. According to the fiscal authority, 7.4 million people (excluding pensioners, children and persons registered in the occupied territories) have not received income since the beginning of the full-scale invasion. This indicates a significant level of shadowing of incomes. The justification of the progression scale is the most debatable issue, it is important to determine the optimal gradations of the income level that is subject to increased taxation. It is possible to set a threshold of 5, 7 or 10 minimum wages. The increased personal income tax rate for a 10-fold excess of the minimum wage was already functioning, but this practice did not have a significant fiscal effect for the state and local budgets.

Conclusions

Based on the research of the retrospective experience of budget financing in the context of intense military conflicts, it is determined that the role of taxes in this process has been constantly increasing. If in the eighteenth century this was treated rather skeptically, focusing primarily on loans and seigniorage, then the two world wars of the twentieth century and military conflicts of the second half of the twentieth century – early 2010s demonstrated a rapid increase in the share of taxes in financing military expenditures. During the two world wars, developed countries have resorted to raise personal income tax and corporate income tax rates. At the same time, a significant role in financing the budget during military

conflicts belongs to state borrowing, their active distribution, the US authorities meaningfully and reasonably appealed to society that state borrowing in wartime is the price for freedom.

At the initial stage of the full-scale armed aggression in Ukraine, a number of tax incentives were applied to support households and enterprises. This concerned the reduction of fuel taxes, the exemption from taxation of the import of vehicles, the formation of a favorable tax regime for enterprises, preferential taxation of electric generators, batteries, transformers, etc.

The duration of the war and the need to finance defense expenditures led to a reversal of fiscal policy from a stimulating to a compensatory type. Excise tax and VAT rates were returned to the pre-war level, the preferential tax regime for enterprises was abolished. Instead, an increased income tax rate was introduced for banks, given the multiple growth of their profits from deposit certificates and personal income tax; control over gambling business activities has been strengthened; part of income from personal income tax from income taxation in the form of monetary support for military personnel is credited to the state budget. These measures contributed to an increase in the fiscal significance of tax revenues to the state budget in 2023 compared to 2022 by 0.5% of GDP.

State measures to counter tax evasion and combat the shadow economy have significant fiscal potential. Further actions to cover up miscoding and matching schemes in the gaming business may bring UAH 5–6 billion to the budget in 2024. Strengthening the effectiveness of the system of state control over the production and circulation of alcoholic beverages; development of a risk-oriented system of excise tax control; increasing the functional efficiency of control bodies; strengthening of cooperation with European institutions and customs of EU member states bordering Ukraine in the field of combating the illegal circulation of tobacco products; increasing the effectiveness of the fight against smuggling will help increase tax revenues by UAH 20–25 billion.

The prospects for the introduction of progressive income taxation have been assessed. The prerequisites for introducing the progressive scale of personal income tax have been determined, ensuring the trust of taxpayers; improving the simplified taxation system; unification of state databases; scientific justification of the taxation scale. It is necessary to minimize the possibilities of abuse by business entities using the simplified system and to intensify activities related to the de-identification of labor costs. In addition, taxes on labor have the most destructive effect on the processes of economic growth. Therefore, the state should find a balance between filling the budget to finance the army and ensuring conditions for sustainable economic recovery.

In further studies, it is planned to reveal the issue of assessing the impact of a potential increase in the tax burden on economic growth in the medium term, as well as to investigate the leading foreign experience (primarily the EU) regarding detinization of wages.

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The research was carried out thanks to a personalized scholarship of the Verkhovna Rada of Ukraine for young scientists and Doctors of Sciences for 2023.

Pasichnyi M. Fiscal dominants of military financing. *Scientia fructuosa*. 2024. № 2. S. 20-37. [https://doi.org/10.31617/1.2024\(154\)02](https://doi.org/10.31617/1.2024(154)02).

Received by the editorial office 12.01.2024.

Sent after revision 26.01.2024.

Accepted for printing 20.02.2024.

Published online 11.04.2024.