# DOI: https://doi.org/10.26565/1992-2337-2024-2-23 УДК 35.072.8:336.1:355.45(477)

## Dunayev Igor Volodymyrovych,

Dr.Sc. in Public Administration, Professor, Professor of the Department of Economic Policy and Management, Education and Research Institute of Public Administration of V. N. Karazin Kharkiv National University, 4 Svobody Sq., Kharkiv, 61022, Ukraine e-mail: i.dunaev@karazin.ua https://orcid.org/0000-0002-0790-0496

#### Basiuk Oleksandr Petrovych,

Postgraduate student of the Department of Economic Policy and Management, Education and Research Institute of Public Administration of V. N. Karazin Kharkiv National University, 4 Svobody Sq., Kharkiv, 61022, Ukraine, Deputy General Director of Simcord LLC e-mail: aleksandr.basiuk777@gmail.com https://orcid.org/0000-0002-3224-5489

# ENSURING THE STABILITY OF THE REVENUE SIDE OF STATE BUDGET UNDER POST-WAR EMERGENCY CONDITIONS: UKRAINIAN EXPERIENCE FOR THE WORLD

Abstract. This article addresses the critical issue of ensuring the stability of the revenue side of Ukraine's public finances in post-war emergency conditions. It analyses the performance of Ukraine's fiscal system during 2022–2024, a period marked by unprecedented challenges, including significant GDP contraction, a sharp rise in budget deficits, infrastructure destruction, and extreme reliance on external financial assistance. Using an analysis of macroeconomic trends, structural transformations in the budget system, and crisis management mechanisms, the study substantiates the need for a systematic approach to assessing fiscal stability under the conditions of a wartime economy. The study's aim is to identify the key factors contributing to the resilience of Ukraine's public finances during wartime and to formulate recommendations for adapting these mechanisms to new global and security challenges. The research methodology combines structural-dynamic analysis, scenario forecasting, a systematic risk management approach, and policy analysis, using official data from Ukraine's Ministry of Finance and international organizations. The fiscal stability assessment matrix developed in the article covers key evaluation aspects, including: budget revenue effectiveness of crisis management measures, risk identification, structural dvnamics. transformations, long-term trend forecasting.

Як цитувати: Dunayev I. V., Basiuk O. P. Ensuring the stability of the revenue side of state budget under post-war emergency conditions: Ukrainian experience for the world. *Державне будівництво*. 2024. № 2 (36). С. 335–365. (англійською мовою). DOI: https://doi.org/10.26565/1992-2337-2024-2-23

© Дунаєв І. В., Басюк О. П., 2024

In cites: Dunayev, I.V., Basiuk, O.P. (2024). Ensuring the stability of the revenue side of state budget under post-war emergency conditions: Ukrainian experience for the world. *State Formation, no. 2 (36), 335–365.* DOI: https://doi.org/10.26565/1992-2337-2024-2-23

This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0

The findings indicate that Ukraine achieved stabilization of its budget system through a flexible combination of tax reforms, international assistance mobilization, temporary deficit monetization, and fiscal process digitalization. Tax revenues increased from 37.6% in 2022 to 48.5% in 2024, reflecting gradual economic recovery. However, the analysis identified significant structural risks, including excessive dependence on external assistance (up to 13.6% of budget revenues in 2024) and limitations of traditional revenue sources. The study emphasizes that achieving fiscal stability in the medium- and long-term requires several reforms: expanding the tax base through economic de-shadowing and innovative taxation mechanisms; optimizing intergovernmental fiscal relations by enhancing regional tax autonomy; creating an integrated system for fiscal risk management; introducing a medium-term budget framework to account for macroeconomic shocks. Comprehensive digitalization of the budget process to improve transparency and forecast accuracy. The research findings hold practical value for governments of other countries facing extreme economic challenges due to wars or other crises.

Keywords: public administration, wartime challenges, emergency conditions, fiscal stability, public finances, wartime economy, fiscal reforms, crisis management.

**Relevance of the research topic**. Ensuring the resilience of public finances is a fundamental challenge for any country, especially in the face of increasing global instability and unpredictability. However, for Ukraine, this problem has taken on existential significance with the start of the full-scale Russian invasion on February 24, 2022. The war has become an unprecedented challenge for the national financial system, jeopardizing the state's ability to fulfill its basic functions and obligations. According to estimates by the Ministry of Finance of Ukraine, GDP fell by 30% in 2022, the state budget deficit increased to 30% of GDP, and the total direct losses from the war exceeded \$700 billion. Under these extreme circumstances, Ukraine was forced to radically revise its fiscal policy, giving unconditional priority to financing defense needs (which increased from 6% to 34% of state budget expenditures), supporting critical infrastructure, and providing social protection for the affected population. At the same time, the state had to promptly mobilize all possible sources of revenue – from raising taxes to attracting international grants and concessional loans. As a result, the financial system has undergone unprecedented structural transformations, which may have long-term consequences for fiscal sustainability and sovereignty.

In view of this, a comprehensive study and understanding of the Ukrainian experience in managing public finances during wartime is of exceptional scientific relevance and practical value. First, this case is a unique example of the functioning of a state's financial system in extreme security, economic and social circumstances. An analysis of Ukraine's fiscal response to the shock of war allows us to identify both the strengths and vulnerabilities of the domestic public finance model and assess its adaptability and resilience in the face of "black swans». These findings can form the basis for developing a more sophisticated and flexible fiscal architecture capable of minimizing risks to the financial system in the future. Secondly, the Ukrainian experience can be extremely useful for other countries facing similar threats to their financial security – whether due to wars or large-scale natural or man-made disasters.

Understanding the algorithms of fiscal response to shocks, developing best practices for anti-crisis management of public finances, and forming a global culture of financial resilience are all tasks that Ukraine can help the global community solve based on its unique experience. Ultimately, integrating this dramatic but instructive case into the global knowledge base on public finance opens the way to rethinking the very essence and mission of fiscal policy in the new reality of permanent threats and shocks. Ukraine is taking the lead in developing approaches designed to strengthen the financial foundation of national security and resilience, and these approaches are of interest to all states seeking to be adequately prepared for the challenges of the future.

**Literature review**. The issue of ensuring the resilience and adaptability of public finances in the face of increasing global instability, military conflicts and other unpredictable crises has consistently been the focus of attention of scholars and experts from leading international organizations. An analysis of publications in recent years allows us to identify several main areas of research in this field:

Conceptual rethinking of the role and place of fiscal policy in the context of new challenges. Researchers note the need to shift the emphasis from the traditional goals of fiscal policy (ensuring macroeconomic stability and stimulating economic growth) towards strengthening the resilience and adaptability of public finances in the face of unpredictable shocks. As noted in the OECD flagship report "Fiscal Resilience to Natural Disasters» (2019) [14], in the context of more frequent devastating natural disasters, epidemics and military conflicts, the ability of the fiscal system to quickly mobilize resources, absorb losses and finance recovery becomes critically important for national security and sustainable development. Other authors share a similar view in studies, for example, in [2; 14; 20; 18], which in one way or another emphasize the need to integrate the principles of resilience and adaptability into all components of fiscal policy: from budget planning to public debt management.

Finding a balance between the flexibility of fiscal rules and ensuring the longterm sustainability of public finances. On the one hand, IMF experts [8] in their 2021 report warn that excessively rigid restrictions on deficits and debt can deprive governments of the necessary fiscal space to respond to unforeseen challenges and support the economy during crisis periods. On the other hand, researchers emphasize the risks to fiscal sustainability in the event of a prolonged deviation from established rules, especially for countries with a significant debt burden. As noted by the authors of a study by the European Fiscal Board [3], the optimal solution may be to create special provisions or "escape clauses» within the framework of fiscal rules that would allow temporary deviations from targets in clearly defined emergencies (war, large-scale disasters, etc.) subject to the existence of a medium-term plan for a return to normal.

Development of tools for assessing, monitoring and managing fiscal risks in the face of increasing uncertainty. Summing up the opinions in the current literature, it is generally noted that traditional approaches to analyzing fiscal risks, which are based on extrapolating past trends, are increasingly failing to provide an adequate picture of potential threats in the modern world, especially in the last 1-2 years when there has clearly been an intensification of direct and hybrid efforts to change the world order [21; 12; 7; 19]. Therefore, an effective fiscal risk management system should cover a wide range of scenarios (including unlikely but potentially devastating ones), use modern stress testing and modeling methods, and ensure the integration of risk assessment results into medium-term budget planning and managerial decisionmaking. The proposal of IMF experts to develop a "fiscal vulnerability matrix» for each country [11] deserves attention, which would allow a systematic assessment of its strengths and weaknesses, comparison with other countries, and identification of priorities for strengthening resilience.

The full-scale Russian invasion of Ukraine in 2022 undoubtedly caused a radical revision of established approaches to ensuring fiscal resilience, especially for the Ukrainian government, and, accordingly, opened a new page in research on this topic. The case of Ukraine now literally represents a unique example of the transformation of the public finance system under extreme conditions, when the state is forced to simultaneously finance colossal military expenditures, support the economy and social sphere, attract alternative sources to cover the deficit, and lay the foundations for post-war reconstruction. As noted by the authors of a NISS study (2024 [1]), thanks to the extraordinary efforts of the government, the National Bank, international partners, and civil society, Ukraine managed to avoid a fiscal collapse and maintain the functionality of the state. At the same time, experts emphasize that to ensure the long-term sustainability of public finances, Ukraine must implement a number of institutional reforms: transition to medium-term budget planning, improvement of the fiscal risk management system, strengthening of tax potential, increasing the efficiency and targeting of expenditures, and so on.

**Purpose and objectives**. The purpose of this article is to identify the key factors of resilience of Ukraine's public finances under the conditions of the full-scale war of 2022-2024 and to formulate, on this basis, practical recommendations for adapting fiscal policy and financial management to new security challenges in the context of the country's post-war reconstruction and European integration. In accordance with the purpose, the article solves 4 research *tasks*:

1) analyze the dynamics and structure of the revenues of the state budget of Ukraine in 2022-2024 in terms of the main sources and directions, assess the impact of the state of war on the revenue and expenditure parts of the budget;

2) assess the long-term challenges and risks to Ukraine's fiscal sustainability arising from the identified trends, and outline the directions for the development of fiscal policy in the post-war period;

3) develop a methodological matrix for analyzing the fiscal resilience of the state in a war economy based on the Ukrainian experience of 2022-2024;

4) summarize Ukraine's experience in ensuring the functioning of the public finance system under conditions of military aggression and formulate proposals for strengthening fiscal resilience, taking into account new security challenges.

**Methodology applied**. To accomplish the first research task, methods of statistical and structural-dynamic analysis were applied based on data from the Ministry of Finance of Ukraine from the OpenBudget resource on the execution of the state budget. Using elementary statistical indicators (absolute and relative values, growth rates, structural shares), the dynamics of budget revenues were analyzed in the context of the main categories (tax, non-tax revenues, official transfers, etc.). To assess the impact of the state of war on budget parameters, a comparative analysis of the pre-war and wartime structure of revenues and expenditures was used, as well as indicators of plan execution for the main types of revenues.

To accomplish the second research task, methods of coefficient and structural analysis were applied to assess the role of various sources of financing the budget deficit (monetization, domestic and foreign borrowing, use of financial reserves). Based on data from the NBU and the Ministry of Finance on the volume of public debt by main components, relative indicators of the debt burden were calculated (debt-to-GDP and debt-to-budget revenue ratios, share of external debt, average rates on debt instruments) and their dynamics were analyzed.

To accomplish the third research task, the following was done: based on the obtained empirical data and conceptual generalizations, a comprehensive methodological tool was developed – a matrix for assessing fiscal resilience in wartime conditions. The matrix is based on a combination of four analytical perspectives: structural-dynamic analysis of revenues, assessment of anti-crisis measures, identification of risks, and a systematic approach to recovery. Each element of the matrix contains a specific set of indicators and methods tested on Ukrainian data. In developing the matrix, the principles of integrity, hierarchy, and practical orientation were applied, which made it possible to obtain an ordered and almost universal (with a claim to universality with certain methodological limitations that were indicated in the text of the article) research template.

The fourth task was solved as follows: based on the identified structural-dynamic trends and taking into account the conceptual foundations of fiscal resilience, a critical assessment of the current model of financing Ukraine's state needs was carried out. Using GAP analysis, key gaps between the actual and target state of the fiscal system were identified in terms of parameters such as revenue diversification, fiscal decentralization, debt sustainability, and the connection with monetary policy.

Thus, the methodological basis of the study combines quantitative and qualitative methods of analyzing fiscal data, economic and mathematical modeling and scenario approach, comparative analysis of international experience and generalization of best practices. The use of official open data from the Ministry of Finance, as well as reports from the NBU and other state institutions, provides a reliable factual basis for the study. As a result, scientifically substantiated conclusions and practical recommendations will be obtained on ensuring Ukraine's fiscal resilience in the face of new security realities, which will be valuable both for the academic community and for those responsible for the formation and implementation of the state's fiscal policy.

Presentation of the main material. Fiscal resilience, as a fundamental property of the public finance system, takes on special importance in the face of global instability and the growth of unpredictable challenges. In recent decades, the world has witnessed a whole series of shocks: from financial and economic crises to pandemics and wars and armed conflicts, which together have significantly politically influenced various aspects of public finances in many countries, both democratic and authoritarian. These shocks have vividly demonstrated that traditional approaches to assessing and ensuring fiscal resilience, which are based on extrapolating past trends and linear forecasts, are proving to be insufficient in the new realities. As aptly noted by leading World Bank expert Vito Tanzi, fiscal sustainability is not a static state, but rather a dynamic characteristic that reflects the ability of the public finance system to withstand shocks, adapt to changing conditions, and recover from shocks [16]. From this point of view, the resilience of public finances is closely related to such fundamental properties of complex systems as emergence (the ability of the system as a whole to exhibit properties not inherent in its individual elements), adaptability (the ability of the system to adapt to external influences while maintaining its basic functions), and resilience (the ability of the system to absorb shocks and restore equilibrium).

Understanding fiscal resilience through the lens of systemic properties opens the way to a deeper understanding of the factors that determine the state's ability to effectively perform its functions and obligations in the long term. In particular, the emergent nature of fiscal resilience means that it is the result of a complex interaction between various components of the public finance system: revenues, expenditures, debt, assets, liabilities, etc. At the same time, the stability of the system as a whole cannot be reduced to a simple sum of the stability of its individual elements. For example, even if the budget is balanced in a single year, the fiscal system may be vulnerable to shocks due to an unbalanced structure of revenues and expenditures, excessive dependence on volatile sources of income, a high share of contingent liabilities, and so on.

The adaptability of the fiscal system, in turn, presupposes the presence of builtin mechanisms for flexible response to changes in the economic environment, social needs, and political priorities. This includes, in particular, fiscal rules and institutions that allow for prompt adjustment of the level of revenues and expenditures depending on the phase of the economic cycle, countercyclical fiscal policy instruments, and mechanisms for the optimal distribution of fiscal risks between the budget, stateowned enterprises, and contingent liabilities. In this context, automatic stabilizers deserve special attention – such elements of the tax and social systems that naturally smooth out fluctuations in aggregate demand without the need for discretionary government intervention (for example, a progressive scale of personal income taxation, unemployment benefits, etc.) [5].

Finally, the resilience of the fiscal sector is manifested in its ability to absorb negative shocks, minimizing losses for the economy and society, as well as quickly restore its basic functions and ensure the continuity of critically important public services. The key to such resilience is a combination of sufficient fiscal reserves (budget buffers), an effective fiscal risk management system, well-established coordination mechanisms with the monetary authorities, as well as a strategic vision for the development of public finances [15; 6].

It is worth emphasizing that emergence, adaptability, and resilience are closely interconnected and mutually reinforcing. Thus, a diversified and balanced structure of income and expenses (an emergent property) creates the preconditions for greater flexibility of fiscal policy (adaptability), and the latter, in turn, reduces the vulnerability of the system to shocks (resilience). In turn, the availability of sufficient buffers and a well-thought-out strategy for responding to crises (an aspect of resilience) expands the government's adaptive capabilities [4]. Naturally, the formation of these properties of the fiscal system does not occur automatically but requires purposeful efforts to develop appropriate institutions, rules, and procedures. At the same time, there are no universal recipes: the optimal configuration of mechanisms for ensuring stability depends on the specific conditions of each country, in particular, the structure of the economy, the quality of governance, social preferences, and so on. At the same time, the generalization of the world's best practices allows us to identify some common principles for building a sustainable public finance system [10]:

1) Fiscal rules and institutions. This means that the introduction of quantitative restrictions on deficits, debt and/or expenditures, combined with independent fiscal institutions, avoids excessive procyclicality of fiscal policy, ensures long-term discipline, and increases the confidence of economic entities. At the same time, the rules should be flexible enough so as not to interfere with the operation of automatic stabilizers and leave room for discretionary measures during recessions.

2) Medium-term budget planning. Expanding the budget planning horizon, taking into account demographic trends and other long-term challenges, allows for the early identification of potential risks to sustainability and the taking of necessary measures. In addition, the availability of reliable medium-term forecasts and clear budget priorities helps reduce uncertainty for investors and households.

3) Fiscal risk management. The integration of fiscal risk analysis and management into the budget process is critically important in the face of increasing volatility and uncertainty. This refers to the regular assessment of the impact of macroeconomic shocks, the realization of contingent liabilities, fluctuations in commodity prices, exchange rate differences on sovereign debt, and so on. Stress testing of the fiscal sector, taking into account extreme scenarios, allows determining the "margin of safety» of the budget system and developing plans in advance in case of an unfavorable development of events.

4) Innovative approaches to debt policy. The structure of public debt in terms of maturity, currency, type of instruments, and investor base largely determines the country's vulnerability to shocks in financial markets. Therefore, it is important to ensure an optimal balance between the cost and risks of borrowing, diversify debt instruments (in particular, through the development of the domestic bond market),

use securitization and hedging of currency risks. In addition, the introduction of risksharing instruments with the private sector (for example, GDP-linked bonds) can ease the debt burden during periods of economic shocks.

5) Ensuring fiscal transparency and stakeholder engagement. In conditions of increased volatility and uncertainty, the transparency of fiscal operations, the availability and clarity of fiscal data, and active communication regarding the goals and priorities of fiscal policy are of particular importance. Developed mechanisms for consultation and involvement of a wide range of stakeholders (expert community, civil society, international partners) in the formation and monitoring of fiscal policy contribute to better-balanced decisions and strengthening public support for reforms, even unpopular ones.

At the same time, as the practice of recent years has convincingly shown, even the most well-thought-out and effective systems for ensuring fiscal resilience may be insufficient in the face of extreme risks and threats, similar to large-scale military conflicts. In particular, Russia's full-scale armed aggression against Ukraine in 2022 became an unprecedented challenge for the international [10] and national financial systems, which faced the need to mobilize enormous resources for defense needs and support the economy in the face of significant losses of the tax base, destruction of infrastructure, and cardinal uncertainty about the future of the conflict.

According to estimates by the Ukrainian government, the total financial needs of the state for 2023 (including critical imports) are estimated at \$38 billion, which is more than 25% of the projected GDP [13]. At the same time, the budget deficit of 20% of GDP is almost twice the level provided for by the IMF program, which indicates the extraordinary nature and scale of the challenges. In 2022, the main source of deficit coverage was monetary financing from the NBU – UAH 400 billion, or about USD 11.3 billion. Obviously, such a level of emission carries significant risks for price and exchange rate stability, and therefore cannot be considered a sustainable option for the medium term.

In view of this, the key priority of the Ukrainian authorities has been to ensure large-scale international financial support, both for direct coverage of the deficit and for refinancing significant payments on external debt (the peak of which falls on 2023-2024). Efforts in this direction have been generally successful: in 2022, Ukraine received about \$32 billion in official financing, including funds from the IMF, the US, the EU, the World Bank, and other partners [17]. Despite this, fiscal imbalances remain significant, and dependence on external assistance is critically high.

At the same time, Ukraine's experience clearly demonstrates that even in the conditions of a large-scale war, it is possible (and extremely necessary) to take systemic measures to increase the resilience of public finances in the long term. This refers, in particular, to the continuation of tax reform in order to expand the tax base and increase the efficiency of administration, optimize and increase the targeting of budget expenditures, introduce long-term forecasting and planning in the budget process, develop a fiscal risk management system, and so on. These steps, along with maintaining financial stability and continuing structural reforms, are critically

important for increasing Ukraine's creditworthiness and facilitating access to international capital markets, which will be crucial for post-war recovery.

Ukraine's experience convincingly proves that even in extreme circumstances, it is possible and necessary to make every effort to maintain the efficiency and adaptability of fiscal institutions. Thanks to the well-considered and decisive actions of the authorities, which were often taken in a "manual control» mode, it was possible to avoid the collapse of the budget system in the first months of the war. In particular, the Ministry of Finance promptly developed a crisis plan for financing critical expenditures, the State Treasury Service ensured the uninterrupted passage of payments despite the physical destruction of part of the infrastructure, the State Tax Service greatly simplified administration and reporting, and the Pension Fund continued payments even in temporarily occupied territories. All this became possible thanks to the dedicated work of civil servants, often at the limit of human capabilities.

No less important was the large-scale application of digital technologies in the field of public finance. Thanks to previously created electronic registers, information exchange systems, and service portals, it was possible to quickly establish interaction between various departments, simplify the procedures for verifying beneficiaries, and ensure the accuracy and targeting of social payments. Even in conditions of physical destruction of local authorities, fiscal operations were carried out almost unhindered thanks to cloud services and remote access.

Unprecedented support from international financial organizations and partner countries was also a critical factor. Promptly provided loans and grants from the IMF, World Bank, EU, US, and other allies made it possible to close the most acute cash gaps in the budget and finance urgent humanitarian and defense needs. The coordination of technical assistance, the exchange of data and expertise in real time play an invaluable role in building Ukraine's institutional capacity in managing fiscal risks and developing anti-crisis measures. At the same time, it is important to emphasize that all these extraordinary efforts do not replace, but rather reinforce the need for a systemic reform of public finances based on the principles of transparency, accountability, and focus on sustainability. A crisis is not only a challenge but also a window of opportunity for profound transformations that face public and bureaucratic resistance in peacetime.

Increasing the targeting of expenditures and the efficiency of their use, expanding the tax base and strengthening tax compliance, introducing medium-term budget planning, taking into account contingent liabilities in fiscal forecasts – all these areas are becoming even more relevant in conditions of a total shortage of resources. Moreover, it is not only about the "quantitative» parameters of the budget but also about the qualitative characteristics of financial management. In this context, it is important to convey to society that the adoption and implementation of complex, sometimes unpopular decisions (for example, reducing inefficient subsidies, raising the retirement age, abolishing special tax regimes, etc.) is a prerequisite for the formation of the fiscal space necessary to finance defense and economic recovery. Without public consensus on the distribution of the post-war burden and a clear

vision of the country's prospects, all technocratic efforts risk being in vain. Therefore, the communication function of fiscal policy becomes no less important than the actual accumulation and distribution of budget funds. Regular informing of citizens about the state of budget execution, public discussion of draft fiscal decisions, and explaining the logic of certain measures: all this is necessary for building trust in the financial institutions of the state, even, and especially, in times of the most difficult trials.

As we can see, ensuring fiscal resilience in wartime is not only a technical and economic task but also a socio-political one that requires coordinated efforts of all branches and levels of government, constructive interaction with civil society, and synchronization with the priorities of the country's reconstruction. Only under such conditions will Ukraine be able not only to withstand but also to rediscover itself, becoming a laboratory of unique experience in countering existential threats to statehood.

And now let's move on to a more detailed analysis of the dynamics of key indicators of the general government sector in 2018-2024 (Table 1), which will help substantively comprehend the scale of challenges and the effectiveness of Ukraine's anti-crisis measures in the fiscal sphere. The analysis of data from the Ministry of Finance of Ukraine on the execution of state budget revenues in 2022-2024 (Table 2) shows that even under such extremely difficult conditions, it was possible to avoid a dramatic drop in accumulated resources. Moreover, the nominal indicators of the revenues of the general fund of the state budget demonstrate an upward trend during this period.

| Components of<br>state budget<br>revenues | 2018   | 2019   | 2020    | 2021    | 2022    | 2023    | 2024    |
|---|--------|--------|---------|---------|---------|---------|---------|
| Tax revenues                              | 753.82 | 799.78 | 851.12  | 1107.09 | 949.76  | 1203.54 | 1490.11 |
| Non-tax<br>revenues                       | 164.68 | 186.68 | 212.95  | 175.36  | 346.33  | 991.60  | 799.89  |
| Revenues from<br>capital<br>transactions  | 0.66   | 0.18   | 0.08    | 0.33    | 0.61    | 0.10    | 0.15    |
| Official<br>transfers                     | 8.77   | 9.86   | 11.69   | 13.87   | 490.56  | 476.32  | 360.38  |
| Trust funds                               | 0.19   | 1.77   | 0.19    | 0.21    | 0.14    | 0.43    | 0.46    |
| Total state<br>budget revenues            | 928.11 | 998.28 | 1076.02 | 1296.85 | 1787.40 | 2672.00 | 2651.00 |

| Table 1. – All        | consolidated    | components    | of the  | state   | budget | revenues | of |
|-----------------------|-----------------|---------------|---------|---------|--------|----------|----|
| Ukraine for 2018-2024 | , in billion UA | H (results of | Boost a | nalysis | s)     |          |    |

\*Source: Open data of the state online resource OpenBudget (OpenBudget.gov.ua, Ministry of Finance of Ukraine).

The volume of tax revenues increased from UAH 949.76 billion in 2022 to UAH 1,203.54 billion in 2023, or by 26.7%. This is due to several factors:

1) Inflationary effect. According to the NBU, the consumer price index increased by 26.6% in 2022, which led to an increase in nominal tax bases even with a reduction in real production and sales volumes.

2) Raising the rates of individual taxes and fees remains an important factor: the rates of the excise tax on fuel have almost doubled, and rent payments for the use of the radio frequency resource have increased by 5-15%. The increase in the personal income tax rate from 18% to 20% for wages above 20 minimum wages also expanded the tax base.

3) Changes in tax administration, including accelerating VAT refunds to exporters, narrowing the list of tax exemptions, as well as strengthening control over entities of the simplified taxation system, contributed to additional budget revenues. The introduction of mandatory use of cash registers for individual entrepreneurs also expanded the circle of taxpayers.

4) An increase in the share of tax revenues directed to the state budget: from 2023, 34% of personal income tax revenues and 15% of corporate income tax are transferred to the state budget (compared to 25% and 10% earlier). This provided additional resources to the central government by reducing the income of local budgets.

In 2024, there is a further increase in tax revenues to UAH 1,490.11 billion, which is an increase of 23.8% compared to 2023. This growth occurs despite the expected slowdown in inflation and the gradual restoration of tax benefits in certain areas. At the same time, the share of tax revenues in the structure of total state budget revenues shows an upward trend: from 53.1% in 2022 to 56.2% in 2024, which indicates a gradual normalization of the structure of budget revenues. Such dynamics reflect the gradual adaptation of the fiscal system to wartime conditions and the growing efficiency of tax administration.

The dynamics of non-tax revenues to the budget turned out to be ambiguous. In 2022, they amounted to UAH 346.33 billion, which was already a significant increase compared to the pre-war period (UAH 175.36 billion in 2021). However, a real jump occurred in 2023, when non-tax revenues reached a record UAH 991.60 billion, which accounted for about 37% of total budget revenues. This growth occurred mainly due to the transfer of a significant NBU profit to the state budget, which was the result of the redemption of government bonds, that is, in fact, the monetization of the budget deficit. In 2024, there is a decrease in non-tax revenues to UAH 799.89 billion (30.2% of budget revenues), which reflects the gradual normalization of monetary policy and efforts to reduce dependence on emission financing.

Official transfers, which include funds received from the EU, foreign governments, and international organizations, played a decisive role in financing the state under war conditions. If in the pre-war period their volume was insignificant (UAH 13.87 billion in 2021), then in 2022, an unprecedented UAH 490.56 billion was received in the form of grants, which made it possible to finance critical imports and priority humanitarian needs. In 2023-2024, there is a gradual decrease in transfers: to UAH 476.32 billion in 2023 and UAH 360.38 billion in 2024. However, their share in budget revenues remains significant

(13.6% in 2024) compared to the pre-war period when they accounted for less than 1% of revenues. Such dynamics reflect both the large-scale international support for Ukraine and the gradual adaptation of the economy to war conditions.

Revenues from capital transactions, that is, the sale of state property, the alienation of land and intangible assets, play a minimal role in filling the budget. Under war conditions, these revenues remain consistently low: from UAH 0.33 billion in 2021, they increased to UAH 0.61 billion in 2022 but then decreased to UAH 0.10 billion in 2023 and slightly increased to UAH 0.15 billion in 2024. Such dynamics are explained by the objective limitations of wartime: the suspension of privatization of high-value objects, the difficulty of assessing property in conditions of increased risks, and a general decrease in investment activity.

Revenues to trust funds also demonstrate moderate dynamics: after a decrease to UAH 0.14 billion in 2022, there is a gradual increase to UAH 0.43 billion in 2023 and UAH 0.46 billion in 2024. Although these amounts are insignificant on the scale of the budget, they play an important role in financing specialized programs to support business, internally displaced persons, and critical infrastructure.

Thus, the above data indicate that despite the colossal economic downturn and fiscal risks caused by the war, Ukraine managed not only to maintain but also to significantly increase the revenues of the state budget – from UAH 1,296.85 billion in 2021 to UAH 2,651.00 billion in 2024. Traditional sources of revenue (taxes, fees) were effectively supplemented by large-scale international assistance and flexible use of monetary instruments. At the same time, one cannot fail to notice the growing risks of such a structure of state financing.

1) Firstly, the increase in the share of tax revenues in the budget (from 53.1% in 2022 to 56.2% in 2024) is achieved largely due to the redistribution of funds from local budgets and the strengthening of the fiscal burden on businesses and citizens. Such centralization of resources during wartime is forced but can become an obstacle to the recovery of economic activity in the post-war period.

2) Secondly, the high level of dependence on official assistance (13.6% of revenues in 2024) makes Ukraine vulnerable to changes in political priorities and the fiscal capabilities of donor countries. Obviously, over time, the volume of such support will decrease, and this will require an adjustment in the structure of budget revenues. The resumption of cooperation with international organizations on terms of lending (and not grants) will again become a significant source of resources.

3) Thirdly, significant volumes of deficit monetization, which are reflected in the high share of non-tax revenues (30.2% in 2024), pose threats to exchange rate and price stability, because excessive money supply stimulates inflation and puts pressure on the national currency. The NBU will have to approach the redemption of government bonds in the government's interests very carefully so as not to undermine confidence in the financial system in the long term.

Therefore, the analysis of the dynamics and structure of state budget revenues convincingly proves that thanks to the timely and coordinated response of the government, the central bank, and international partners, Ukraine managed to mitigate the most acute consequences of the economic shock of war. Tax and non-tax revenues, external transfers, and monetary instruments were flexibly used to ensure the financing of the state's critical needs in extreme conditions. At the same time, in the medium term, it is necessary to take systemic measures to strengthen the sustainability of the revenue side of the budget and reduce its dependence on volatile components. This refers to the restoration of the tax base through the expansion of the circle of taxpayers, the improvement of administration, and the elimination of tax evasion schemes. It is also important to rationally use international assistance, in particular, to finance productive investments with a multiplier economic effect.

Improving the efficiency of state asset management, in particular, transparent privatization according to market rules, could become an additional source of budget resources in the post-war period. Finally, the coordination of fiscal and monetary policy should be aimed at preventing the accumulation of macroeconomic imbalances and ensuring the predictable needs of the state budget, especially in conditions of war and daily force majeure.

Further, according to the official data of OpenBudget.gov.ua (as of January 2025), the year 2024 is indicative. Based on the analysis of the available online data on the execution of the state budget of Ukraine for 2024, the following assessments can be given: (1) the actual execution of the revenue part of the budget at the level of 113.54% of the planned indicators indicates the relative stability of Ukraine's fiscal system even under conditions of ongoing war. Particularly important is the overfulfilment of the plan for tax revenues from domestic sources (104.87% for income and profit taxes), which indicates the gradual adaptation of the economy to war conditions and the effectiveness of tax administration measures; (2) at the same time, a structural analysis of revenues reveals a critical dependence on external financing: the share of official transfers from international partners is about 16% of total revenues, which creates long-term risks for fiscal sustainability. (3) An additional challenge is the significant underperformance of the plan for non-tax revenues (98.13%), which is partially explained by the decrease in revenues from the NBU and state-owned enterprises due to objective economic difficulties.

From the point of view of meeting state needs, the current structure of revenues demonstrates a certain asymmetry and imbalance. A positive aspect is the outpacing growth of tax revenues from VAT (99.05% fulfillment of the annual plan), which indicates a gradual recovery in domestic consumption and business activity. However, there is an excessive centralization of fiscal resources at the level of the state budget due to the redistribution of local budget revenues, which may negatively affect the ability of regions to finance their own needs. The key recommendation is the need to diversify revenue sources and gradually reduce dependence on external assistance through the expansion of the domestic tax base, the improvement of tax administration, and the resumption of the privatization program. It is also critically important to balance fiscal consolidation with the needs of economic recovery, in particular through the optimization of the tax burden on business and the preservation of the investment potential of the economy.

A comparative analysis of the execution of the state budget for 2023 and 2024 (in both cases, according to the official data of OpenBudget.gov.ua as of January 2025)

reveals an interesting dynamic of the fiscal capacity of the state under war conditions. In 2023, there was a more significant over-fulfilment of the overall revenue plan (117.86% versus 113.54% in 2024), which indicates a gradual depletion of extraordinary sources of budget replenishment and a transition to a more established model of revenue generation. Particularly indicative is the dynamics of tax revenues: if in 2023 their execution was 99% of the plan, then in 2024 this figure increased to 104.87%, which indicates an improvement in tax administration and the gradual adaptation of business to work in war conditions. At the same time, a significant difference in the execution of the plan for income and profit taxes attracts attention – 112.76% in 2023 versus 104.87% in 2024, which may indicate a certain depletion of the tax base and the need for its expansion through stimulating economic activity. It is also significant that the share of international assistance in the structure of revenues remains consistently high during both years, which confirms the conclusion about the need for a gradual diversification of sources of budget replenishment and a decrease in dependence on external financing in the medium term (Table 2).

Table 2. – Structural and dynamic matrix of fiscal dependencies in the formation of the revenue part of the state budget of Ukraine in the conditions of a war economy (based on the sample of 2023 and 2024)

| Indicator and nature of dependence                              |        | 2024 year<br>(%) | Significance for policy in 2025  |
|---|--------|------------------|--|
| Total budget revenue execution                                  | 149.5  | 99.2             | The trend towards normalization of budget<br>execution indicates the need to search for new stable<br>sources of revenue |
| Execution of tax revenues                                       | 126.7  | 123.8            | Consistently high dynamics of tax revenues indicate<br>the effectiveness of fiscal policy                                |
| Income and profit taxes   | 112.76 | 104.87           | The decrease in growth rates indicates reaching the limit of the fiscal burden on business                               |
| Personal income tax   | 103.28 | 99.05            | The exhaustion of the PIT potential indicates the need to stimulate wage growth  |
| Rental payments   | 62.09  | 90.59            | A significant improvement in rent collection<br>demonstrates the potential of natural resources as a<br>source of income |
| Domestic taxes on goods   | 97.55  | 94.51            | A decrease in the effectiveness of indirect taxation<br>requires a review of administration                              |
| Non-tax revenues  | 286.3  | 80.7             | A significant decrease in non-tax revenues requires<br>the search for alternative sources of income                      |
| Ratio of tax to non-tax revenues                                | 1.21   | 1.86             | The growing role of taxes indicates the normalization of the revenue structure   |
| Execution of the plan for transfers                             | 97.2   | 75.7             | Reducing dependence on external assistance<br>requires the development of domestic sources of<br>financing               |
| Share of direct taxes in total revenues                         | 45.0   | 56.2             | The growing role of tax financing requires improved administration   |
| Dependence on deficit<br>monetization through the<br>NBU        | 27.3   | 12.8             | The need for further reduction of emission financing   |
| Centralization of tax<br>revenues (PIT/corporate<br>income tax) | 25/10  | 34/15            | The need to balance inter-budgetary relations.   |

\*Source: developed by Basyuk O. P.

This table demonstrates key fiscal dependencies (confirmed statistically over the last 2 years) and trends that should be taken into account when forming budget policy for 2025. The particular value of the analysis lies in identifying not only direct statistical relationships but also deep structural transformations of Ukraine's fiscal system under war conditions.

Firstly, there is the phenomenon of "fiscal scissors": a simultaneous increase in the efficiency of collecting traditional taxes (tax revenues increased by 23.8% in 2024) and a decrease in dependence on extraordinary sources of financing (the share of non-tax revenues decreased from 37.1% to 30.2%). This phenomenon, although it indicates a gradual normalization of the budget system, creates challenges for stable financing of state needs. A similar situation was observed in post-war South Korea, where the adaptation of the tax system was also accompanied by a temporary decrease in the effectiveness of traditional fiscal instruments. For Ukraine, this means that classical mechanisms like VAT or corporate income tax will gradually lose their fiscal power due to the objective narrowing of the tax base, which requires the early preparation of compensatory mechanisms.

Secondly, there is a significant transformation in the structure of budget revenues. The share of tax revenues increased from 53.1% in 2022 to 56.2% in 2024, which is accompanied by the diversification of tax sources: the role of rental payments is growing (collection efficiency increased from 62.09% to 90.59%) and other fiscal instruments. This trend is especially important in the context of 2025, given potential changes in the global political situation. The experience of post-war Japan demonstrates the effectiveness of this approach through the development of new sectors of the economy and innovative forms of taxation. For Ukraine, this means the need for the active introduction of digital taxes, the development of environmental taxation, and the monetization of state assets through concessions and public-private partnership mechanisms.

Thirdly, there is a trend towards "fiscal centralization": an increase in the norms of deductions from national taxes to the central budget (PIT from 25% to 34%, corporate income tax from 10% to 15%) creates the need for a particularly careful balancing of the fiscal burden between different groups of taxpayers. The experience of Great Britain in the post-war period emphasizes the importance of a fair distribution of the tax burden to maintain social stability. In the Ukrainian realities of 2025, this will mean the need for a differentiated approach to taxing different sectors of the economy, taking into account their strategic importance and financial capability.

Fourthly, the development of new instruments for replenishing the budget becomes critical, especially in the context of the identified relationship between fiscal consolidation and the potential for economic recovery. The decrease in the efficiency of collecting domestic taxes on goods (from 97.55% to 94.51%) and PIT (from 103.28% to 99.05%) signals the approach to the limit of the traditional tax burden. Israel's experience in developing innovative mechanisms for financing defense spending can be especially useful, including the introduction of special military fees from high-income industries and the development of a system of military bonds.

A critical analysis of the dynamics and structure of the state budget of Ukraine for 2022-2024 reveals a complex picture of the adaptation of the fiscal system to unprecedented war challenges. Particularly indicative is the year 2024, which demonstrates a gradual transition from emergency financing measures to more established mechanisms of replenishing the budget. The key trend was the growth of the share of tax revenues from 53.1% in 2022 to 56.2% in 2024, which indicates the restoration of the normal functioning of fiscal mechanisms. At the same time, an important structural transformation is observed: if in 2023 non-tax revenues and international assistance played a dominant role (together about 55% of revenues), then in 2024 there is a new balancing towards traditional tax instruments.

At the same time, this growth is achieved mainly through administrative levers – raising rates, expanding the tax base, and centralizing revenues at the level of the state budget. Such a policy, although justified in wartime conditions, creates long-term risks for economic recovery. The ratio between tax and non-tax revenues, which increased from 1.21 in 2023 to 1.86 in 2024, is indicative, pointing to the gradual depletion of extraordinary sources of financing. Particular attention is drawn to the dynamics of official transfers, the share of which is 13.6% of budget revenues in 2024, which significantly exceeds the pre-war level of 5-6%. This creates a critical dependence on external assistance, which may become a vulnerable point of the fiscal system in 2025.

Our forecast for 2025, based on the analysis of statistical trends and structural relationships, indicates the need for a significant transformation of the model of financing state needs. The revealed phenomenon of "fiscal scissors" – a simultaneous increase in the efficiency of traditional taxes with a decrease in the role of emergency sources of financing – creates new challenges for fiscal policy. The experience of 2024 is indicative, when the execution of the plan for domestic taxes on goods decreased to 94.51%, and for PIT – to 99.05%, which indicates an approach to the limit of the fiscal burden on the economy. At the same time, a significant improvement in the indicators of rent collection (from 62.09% in 2023 to 90.59% in 2024) indicates the potential of natural resources as a stable source of income.

In 2025, the relationship between fiscal and monetary policy becomes critical, especially in the context of the need to reduce the monetization of the deficit (from 27.3% in 2023 to 12.8% in 2024). The experience of other countries that have experienced military conflicts suggests the need to develop innovative forms of financing, including the expansion of public-private partnership instruments and the development of the domestic borrowing market. The key challenge of 2025 will be to find the optimal balance between ensuring fiscal sustainability, supporting the financial capacity of local budgets, and creating conditions for post-war economic recovery.

Thus, based on the identified trends and structural relationships, a set of recommendations can be formulated for the development of the fiscal system in the long term. At the heart of these recommendations is an understanding of the need for a gradual transition from emergency wartime measures to a more sustainable model of financing state needs, which would take into account both current security challenges and the tasks of post-war recovery. The priority should be the diversification of revenue sources through the expansion of the tax base and the introduction of new fiscal instruments. The analysis shows that traditional sources of revenue are approaching the limit of their effectiveness: the decrease in VAT and PIT collection indicators in 2024 signals the exhaustion of the potential for a simple increase in rates or strengthening of administration. Instead, the successful experience of increasing rental payments (growth in efficiency from 62.09% to 90.59%) demonstrates the prospects for developing alternative mechanisms for replenishing the budget.

Particular attention should be paid to balancing fiscal centralization and the financial autonomy of regions. The current trend towards increasing the norms of deductions in favor of the state budget (PIT from 25% to 34%, corporate income tax from 10% to 15%) may create risks for the ability of local communities to finance their own needs in the post-war period. It is necessary to develop new mechanisms of inter-budgetary relations that would ensure both sufficient financing of defense needs and opportunities for local development. Reducing dependence on external assistance (the share of which is 13.6% of revenues in 2024) and emission financing (a decrease from 27.3% to 12.8%) becomes critical. This requires the development of the domestic borrowing market, the introduction of new debt instruments and public-private partnership mechanisms. The experience of other countries that have experienced military conflicts shows the effectiveness of such instruments as military bonds, special reconstruction funds, and targeted investment programs.

In the long term, the key task is to form a stable model for financing state needs, which would organically combine fiscal efficiency with stimulating economic development. The revealed phenomenon of "fiscal scissors» emphasizes the need to find a new balance between traditional and innovative sources of budget replenishment, between the centralization of resources and the preservation of incentives for business development, between meeting current needs and creating the basis for post-war recovery.

Given the depth and complexity of the identified fiscal trends and dependencies in the conditions of Ukraine's war economy, it is advisable to systematize the methodological tools for their analysis and evaluation in the form of a structured analytical matrix. Such systematization allows not only to generalize the Ukrainian experience of public finance management in extreme conditions but also to identify key methodological approaches that can be useful for other countries in similar situations. For this purpose, a fiscal sustainability analysis matrix was developed, which combines four key methodological aspects: from structural-dynamic analysis to a systematic approach in anti-crisis management, with their practical application and results in the Ukrainian context. Of particular value is the 4th column of the matrix, which translates the gained experience into the plane of methodological recommendations for the international practice of anti-crisis fiscal management (Table 3). From the point of view of public administration methodology, this matrix can serve as a simple analytical tool for assessing fiscal sustainability in emergency situations. Table 3. – Fiscal sustainability analysis matrix in a war economy: lessons from the Ukrainian experience of public finance management in 2022-2024

| Methodological<br>aspect   | Analysis tools   | Conclusions from the<br>Ukrainian experience of<br>2022-2024   | Methodological<br>significance for other<br>countries   |
|--|--|--|---|
| Structural and<br>dynamic<br>analysis of<br>budget revenues            | Comparative<br>analysis of time<br>series,<br>decomposition of<br>revenue structure,<br>assessment of<br>growth rates  | Ukraine demonstrated the<br>possibility of maintaining<br>relative stability of budget<br>revenues even in wartime<br>conditions: growth of tax<br>revenues from UAH 1,203.5 to<br>UAH 1,527.6 billion<br>(2022-2023), increase in their<br>share from 37.6% to 48.5%<br>(2022-2024)   | It demonstrates the<br>importance of diversifying<br>revenue sources and the<br>flexibility of the fiscal<br>system in crisis conditions.<br>Shows the possibilities of<br>adapting the tax system to<br>extreme challenges   |
| Analysis of<br>anti-crisis fiscal<br>policy                            | Evaluation of the<br>effectiveness of<br>fiscal instruments,<br>analysis of their<br>interaction with<br>monetary policy   | Successful use of a<br>combination of instruments:<br>raising rates of individual<br>taxes, changes in<br>administration, attracting<br>international assistance (UAH<br>476.3 billion in 2022),<br>monetization of the deficit<br>through the NBU   | It forms a methodological<br>basis for the development of<br>anti-crisis measures in the<br>context of military conflicts<br>and similar extreme<br>situations  |
| Assessment of<br>fiscal risks and<br>sustainability                    | Identification of<br>systemic risks,<br>analysis of their<br>interrelationships,<br>assessment of long-<br>term consequences   | Three key risks were<br>identified: excessive<br>centralization of resources,<br>dependence on external<br>assistance, inflationary<br>consequences of deficit<br>monetization. At the same<br>time, the share of external<br>transfers in revenues increased<br>from 5-6% to 10-16%   | It expands the methodology<br>for assessing fiscal risks in<br>crisis conditions,<br>demonstrates the<br>importance of the balance<br>between short-term<br>stabilization and long-term<br>sustainability   |
| Systematic<br>approach to<br>recovery                                  | Comprehensive<br>analysis of the<br>relationships<br>between fiscal,<br>monetary and<br>structural policies  | Key areas were identified:<br>restoration of the tax base,<br>rational use of international<br>assistance, effective<br>management of state assets,<br>coordination with monetary<br>policy  | It forms a methodological<br>basis for the development of<br>comprehensive programs<br>for post-war recovery and<br>reform of the fiscal system   |
| Analysis of<br>structural<br>transformations<br>of the fiscal<br>space | Assessment of<br>changes in the<br>structure of<br>financing sources,<br>analysis of the<br>effectiveness of<br>traditional and new<br>fiscal instruments,<br>modeling of<br>transformation<br>scenarios | There is a trend towards the<br>exhaustion of the potential of<br>traditional sources of income<br>was revealed (a decrease in the<br>efficiency of domestic taxes to<br>94.51%, PIT to 99.05%) with a<br>simultaneous increase in the<br>role of alternative mechanisms<br>(an improvement in rent<br>collection from 62.09% to<br>90.59%). A change in the ratio<br>of tax to non-tax revenues<br>from 1.21 to 1.69 was recorded | It shapes a methodological<br>basis for the timely<br>identification of structural<br>constraints of the fiscal<br>system and the development<br>of mechanisms for its<br>adaptation in conditions of<br>prolonged crisis<br>phenomena. Demonstrates<br>the importance of early<br>planning of the<br>transformation of sources of<br>budget revenues |

| Methodological<br>aspect                               | Analysis tools   | Conclusions from the<br>Ukrainian experience of<br>2022-2024  | Methodological<br>significance for other<br>countries  |
|--|--|---|--|
| Analysis of<br>fiscal-monetary<br>interaction          | Assessment of the<br>impact of deficit<br>monetization on<br>inflation and the<br>exchange rate,<br>analysis of<br>transmission<br>mechanisms<br>between fiscal and<br>monetary policy | A complex balance was<br>revealed between the needs of<br>budget financing (monetization<br>through the NBU in<br>2022-2023) and the need to<br>maintain macro-financial<br>stability. The share of<br>monetization decreased from<br>27.3% in 2023 to 12.8% in<br>2024 | It demonstrates the<br>importance of coordination<br>of fiscal and monetary<br>policy in crisis conditions,<br>determines the limits of the<br>use of emission financing |
| Scenario<br>forecasting of<br>fiscal<br>sustainability | Development of<br>baseline, optimistic,<br>and pessimistic<br>development<br>scenarios, stress<br>testing of the fiscal<br>system, sensitivity<br>analysis to external<br>shocks       | Based on the experience of<br>2022-2024, a model for<br>forecasting fiscal sustainability<br>was developed, taking into<br>account war risks. Critical<br>points of loss of stability were<br>identified under different<br>scenarios of conflict<br>development        | It provides a<br>methodological basis for the<br>development of preventive<br>measures and response<br>plans for various scenarios<br>of crisis situations               |

\*Source: developed by Dunayev I. V.

The conceptual prerequisites for constructing a methodological matrix for analyzing fiscal sustainability are based on the understanding that in conditions of war or other extreme challenges, traditional approaches to assessing public finances are insufficient. During a crisis, the public finance system functions in a mode of constant adaptation, where both short-term mechanisms for responding to shocks and long-term structural changes interact. Therefore, the matrix is built on the principle of multilevel analysis, where each subsequent level reveals deeper aspects of fiscal sustainability – from basic indicators of budget execution to complex structural transformations of the fiscal space.

The key principles of matrix construction are: systematicity (consideration of the fiscal system as an integral organism with interconnected elements), consistency (logical transition from simple to complex aspects of analysis), practical orientation (focus on real indicators and their significance for policy), universality (the possibility of adaptation to different contexts) and openness to additions (the ability to include new aspects of analysis). A feature of the matrix is its dual purpose: on the one hand, it systematizes the Ukrainian experience of public finance management in war conditions, and on the other hand, it offers a methodological toolkit that can be used by other countries to assess and strengthen their own fiscal sustainability in crisis conditions.

Based on the developed matrix for analyzing fiscal sustainability (Table 3), it is important to note the key caveats and conditions for its practical application. First, the matrix is based on the experience of Ukraine in the specific conditions of the full-scale war of 2022-2024, so its use for the analysis of other types of conflicts or crises

requires significant adaptation. In particular, the indicators of deficit monetization through the central bank (which decreased from 27.3% to 12.8%) may be unacceptable for countries with stricter monetary regimes or international obligations.

Second, the effectiveness of the matrix application largely depends on the quality and availability of statistical data. Countries with less developed fiscal reporting systems may face difficulties in conducting a detailed structural and dynamic analysis. In addition, some components of the matrix, especially in terms of assessing fiscal risks and scenario forecasting, require significant expert experience and developed analytical infrastructure.

Particular attention should be paid to the fact that the matrix does not take into account the specific institutional features of different countries, such as the federal structure, peculiarities of tax legislation or the structure of the financial sector. For example, Ukraine's experience in centralizing fiscal resources may be unacceptable for federal states with a high degree of fiscal autonomy of regions. Therefore, when adapting the matrix, it is recommended to additionally take into account: (a) the specifics of the state structure and the system of inter-budgetary relations; (b) the level of development of the financial market and its structure; (c) the features of the monetary regime and the independence of the central bank; (d) the nature of foreign economic relations and access to international assistance; (e) the state of development of digital technologies in the field of public finance. These factors can significantly affect the possibilities of applying individual components of the matrix and require their modification in accordance with the local context.

The presented matrix (Table 4) is a new analytical tool for studying fiscal sustainability in the face of extreme challenges, in particular the war in Ukraine in 2023-2024. For the purposes of its practical use, for example, by international researchers, it is worth understanding its multilevel structure and logic of application.

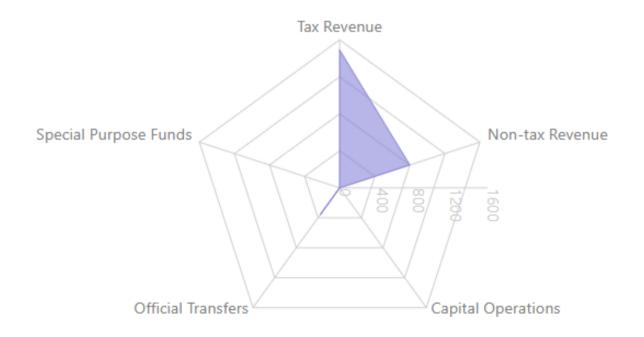
First, the matrix is built on the principle of "from the general to the specific", where each subsequent methodological aspect deepens the previous analysis: from the basic structural and dynamic analysis through the assessment of anti-crisis measures and risks to a systematic approach and structural transformations.

Second, each row of the matrix can be used as an independent research tool - for example, to analyze a specific aspect of fiscal policy in your country, or comprehensively - to form a holistic understanding of the processes of adaptation of the fiscal system to crisis conditions.

Of particular value is the third column of the matrix, which contains specific quantitative indicators and qualitative characteristics of the Ukrainian experience that can serve as benchmarks or control points for comparative analysis. The fourth column offers some methodological conclusions "as benchmarking", which can be analytically adapted to the specifics of some other (of course, not all!) comparable countries. For example, Ukraine's experience in diversifying sources of income (from traditional taxes to rental payments and international assistance) may be useful for countries facing similar challenges. For the practical application of the matrix, it is recommended to first determine the specific aspect of fiscal policy that interests you, then find the appropriate row of the matrix and use the proposed analysis tools, comparing the results with the Ukrainian experience and adapting the methodological conclusions to your conditions. The matrix is especially useful for developing preventive measures and long-term fiscal sustainability strategies, since it allows taking into account a wide range of factors and their interrelationships, from operational aspects of tax administration to structural transformations of the fiscal space.

But it is also necessary to recognize the methodological limitations that are now in this matrix of fiscal sustainability, which is considered as a universal tool: 1) it misses regional features (for example, the specifics of Ukraine (high dependence on international assistance, weakness of local self-government) are not always relevant for other countries (for example, for developed economies)); 2) there is limited data, e.g., to adapt the matrix to other contexts (for example, Israel), not only quantitative data are needed, but also taking into account qualitative factors (for example, demographic or cultural); 3) lack of quantitative evaluation criteria: many conclusions are qualitative, but not supported by clear metrics or models.

For better visualization of the results, which is especially valuable for foreigners, the following two simple accompanying graphic elements can be used: 1) a radar chart showing changes in key indicators in 2022-2024, 2) a time series graph for the main fiscal indicators (Figures 1 and 2).



# Figure 1. – Structure of state budget revenues, 2024 (bn UAH).

\*Calculated according to data from the Ministry of Finance, 2024

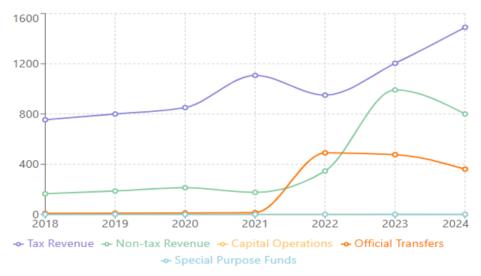


Figure 2. – Dynamics of revenue components of the state budget of Ukraine in 2018-2024, in billion UAH.

### \*Calculated according to data from the Ministry of Finance, 2024

\*\*Explanation: (1) tax revenues (blue line) show an overall upward trend from UAH 753.82 billion in 2018 to UAH 1,490.11 billion in 2024, with a temporary decline in 2022 due to the start of the war; (2) non-tax revenues (green line) demonstrate a sharp increase in 2023 to UAH 991.60 billion, which is almost three times the pre-war level; (3) official transfers (red line) show the most dramatic change – a sharp increase from UAH 13.87 billion in 2021 to UAH 490.56 billion in 2022 due to the start of the war and international assistance; (4) revenues from capital transactions (yellow line) and trust funds (purple line) remain at a relatively low level throughout the entire period, not exceeding UAH 2 billion.

How can this tool (in its current "draft" state as is) work in other countries and contexts? For example, for Israel – for analyzing Israel's fiscal sustainability in the current conditions – it is relevant for several reasons: 1) both Ukraine and Israel are countries facing existential military threats and the need to mobilize significant resources for defense in asymmetric conflicts; 2) Israel, like Ukraine, has a developed economy with a diversified (Ukraine has worse positions here) tax base and mature fiscal institutions that need to be adapted to military challenges. Let's consider the specific application of the matrix for Israel:

a) in the context of structural and dynamic analysis of budget revenues, Ukraine's experience in increasing the share of tax revenues (from 37.6% to 48.5%) can be especially valuable for Israel, which also needs stable domestic sources of financing for defense spending. The Israeli government could use the Ukrainian experience of gradually expanding the tax base and improving administration, especially in the context of the need to finance new defense programs on the southern and northern fronts;

b) in the aspect of anti-crisis fiscal policy, Israel can adopt the Ukrainian experience of combining various instruments – from raising individual tax rates to attracting international assistance. Particularly relevant is Ukraine's experience in monetizing the deficit through the central bank, although special caution is needed here due to the risks to macro-financial stability. Israel could adapt the Ukrainian practice of issuing military bonds and creating special funds to finance specific defense projects;

c) regarding the assessment of fiscal risks, Ukraine's experience is valuable in the context of finding a balance between centralizing resources for defense needs and maintaining the financial autonomy of regions. Israel, like Ukraine, faces the need for significant expenditures on the restoration of affected territories (for example, border settlements in the south) while maintaining overall fiscal sustainability.

At the same time, it is worth understanding the limitations in applying this matrix (in its current draft). Israel has specific characteristics that distinguish it from Ukraine: a more developed domestic capital market, a much smaller territory, a rapid increase in the birth rate in 2023-2024 despite the war with Arab terrorists; a more diversified economy, a stronger technological base. Therefore, the matrix should be supplemented with Israel-specific indicators, for example, regarding the financing of high-tech defense developments or the management of reserve funds.

Next, we will try to generalize Ukraine's unique experience in ensuring the functioning of the public finance system in war conditions and, on this basis, formulate practical recommendations for strengthening fiscal sustainability, taking into account new security challenges. First of all, it is worth noting that Ukraine's experience in 2022-2024 is an unprecedented case of adaptation of the fiscal system to the extreme conditions of large-scale military aggression. Despite the colossal challenges associated with significant destruction of the economy, infrastructure, and a drop in income, Ukraine managed to ensure the continuity of the critical functions of the state, avoid default, and lay the foundation for post-war recovery. This result was achieved thanks to the flexible and rapid response of fiscal institutions to the crisis, in particular through the use of a number of anti-crisis instruments:

1) Urgent adjustment of tax legislation, including a temporary increase in the rates of individual taxes (excise taxes, PIT), expansion of the tax base, cancellation of a number of benefits and preferences. This made it possible to partially compensate for the drop in tax revenues and mobilize additional resources for critical expenditures.

2) Attracting significant amounts of international financial assistance in the form of grants and concessional loans from partner countries and international organizations. These funds played a crucial role in covering budget financing gaps and accumulating foreign exchange reserves.

3) Use of monetary deficit financing instruments through the purchase of government bonds by the National Bank. Despite the potential risks to price and financial stability, this mechanism made it possible to close the most acute cash gaps in the budget at the first stage of the war.

4) Redistribution of expenditures in favor of the defense and security sector while simultaneously reducing a number of social and capital expenditures. Although such measures were extremely painful, they made it possible to concentrate limited resources on the most critical areas.

5) Strengthening fiscal centralization through an increase in the share of national taxes directed to the state budget and limiting the financial autonomy of local budgets. Such a model, although controversial from the point of view of the principles of fiscal federalism, was a forced step in the conditions of war.

6) Prompt development of compensatory mechanisms to support businesses and the population most affected by hostilities - tax holidays, direct subsidies, payment deferrals, etc. Although the scale of such support was limited by fiscal opportunities, it made it possible to ease social tension.

7) Active use of digital technologies in the field of tax administration, expenditure management, control over public procurement. Thanks to the developed digital infrastructure, Ukraine managed to ensure a higher level of transparency and efficiency in the use of limited budget resources even in war conditions.

However, as the analysis of structural and dynamic trends has shown, anticrisis measures and instruments that are effective in the short term can generate additional risks to fiscal sustainability in the long term. In particular, excessive concentration on fiscal consolidation through tax increases and cuts in development spending can undermine the potential for economic recovery in the post-war period. As international experience shows, countries that applied a more balanced and stimulating fiscal policy during military conflicts (for example, Israel, Croatia) demonstrated higher growth rates and social stability in the long term.

On the other hand, excessive dependence on external financing and deficit monetization poses threats to the sustainability of public debt and price stability. Despite the extremely favorable current conditions for attracting international assistance, Ukraine must take into account the uncertainty regarding the duration and intensity of such support in the future. At the same time, calculations of fiscal space show that even under the implementation of an optimistic scenario (rapid end of the war, restoration of growth at the level of 5-7% per year, preservation of preferential lending conditions), Ukraine will face serious challenges to debt sustainability. Under the baseline scenario, the ratio of public and publicly guaranteed debt to GDP may exceed 100% as early as 2025 and remain at this level for the next decade.

Another serious challenge is the need to balance the processes of fiscal centralization and decentralization in the context of post-war reconstruction. As the GAP analysis has shown, excessive concentration of fiscal resources at the central level limits the investment and managerial potential of local self-government, which will play a key role in the reconstruction of infrastructure and the socio-economic reintegration of affected communities. Therefore, the search for a new model of interbudgetary relations that would optimally balance the needs of financing national priorities with the fiscal autonomy of the regions will become one of the determining factors for the success of post-war reconstruction.

Finally, the war exposed the structural vulnerabilities of the domestic public finance system, which will require comprehensive solutions in the medium and long term. This refers, in particular, to such problems as the limited non-traditional sources of budget revenues, high volatility and pro-cyclicality of tax revenues, a significant volume of quasi-fiscal operations, insufficient predictability and manageability of fiscal risks. Without systemic reform of these areas, the temporarily achieved stabilization can quickly turn into a new fiscal crisis under the influence of external or internal shocks.

Understanding these challenges and opportunities should form the basis for developing a holistic strategy for reforming Ukraine's public finance management system in the post-war period. In our opinion, the key elements of this strategy should be the following (Table 4):

1) a new philosophy of fiscal policy focused on stimulating accelerated and inclusive economic recovery;

2) a medium-term budget framework aligned with the goals of sustainable development and European integration;

3) development of a national system for managing fiscal risks and state assets, especially – subsoil and state corporations;

4) a new architecture of intergovernmental relations based on the principles of fiscal federalism;

5) integration of the world's best debt policy practices;

6) comprehensive digitalization of public finance management to increase their transparency and efficiency.

Table 4. – Key directions and steps of reforming the management of the revenue part of Ukraine's public finances in the post-war period

| Strategy<br>element                   | Key characteristics  | Practical implementation steps   | Expected results  |
|---------------------------------------|--|--|---|
| New<br>philosophy of<br>fiscal policy | <ul> <li>Stimulating accelerated and inclusive economic recovery</li> <li>Expansion of the tax base through structural modernization of the economy</li> <li>Reducing the overall fiscal burden while eliminating sectoral distortions</li> </ul>            | <ul> <li>Review of the Tax Code with<br/>an emphasis on de-shadowing<br/>and expanding local tax<br/>autonomy</li> <li>Improving the business<br/>environment and integration into<br/>global value chains</li> <li>Development of sectoral<br/>modernization strategies with<br/>fiscal incentives</li> </ul> | <ul> <li>Restoring the confidence<br/>of businesses and<br/>investors</li> <li>Growth of tax revenues<br/>by 15-20% in the medium<br/>term</li> <li>Creating fiscal space for<br/>productive expenditures</li> </ul>  |
| Medium-term<br>budget<br>framework    | <ul> <li>Transition to three-year<br/>budget planning</li> <li>Aligning budget priorities<br/>with sustainable development<br/>and European integration<br/>goals</li> <li>Introduction of fiscal rules<br/>on deficit, debt and<br/>expenditures</li> </ul> | <ul> <li>Development and approval of<br/>the Budget Declaration for 2024-<br/>2026</li> <li>Implementation of medium-<br/>term expenditure frameworks in<br/>the context of main managers</li> <li>Amendments to the Budget<br/>Code regarding fiscal<br/>responsibility rules</li> </ul>                      | <ul> <li>Improving fiscal<br/>discipline and<br/>countercyclical fiscal<br/>policy</li> <li>Consistent reduction of<br/>the budget deficit to 2% of<br/>GDP and debt to 60% of<br/>GDP by 2030</li> <li>Redirection of<br/>expenditures to the goals<br/>of reconstruction,<br/>modernization, and<br/>human capital<br/>development</li> </ul> |

| Strategy element   | Key characteristics   | Practical implementation steps   | Expected results   |
|--|---|--|--|
| System of<br>fiscal risk<br>management<br>and state<br>assets              | <ul> <li>Creation of an integrated<br/>system for identifying,<br/>monitoring and minimizing<br/>fiscal risks</li> <li>Managing the full range of<br/>risks – from macro shocks to<br/>contingent liabilities</li> <li>Effective use of the<br/>potential of state assets as a<br/>source of income</li> </ul>  | <ul> <li>Development of a<br/>methodology for assessing fiscal<br/>risks and its integration into the<br/>budget process</li> <li>Creation of a centralized<br/>register of contingent liabilities<br/>and public-private partnerships</li> <li>Restarting privatization on the<br/>principles of transparency and<br/>competitiveness</li> </ul>  | <ul> <li>Reducing fiscal vulnerability to macroeconomic shocks by 10-15%</li> <li>Reduction of quasi-fiscal operations and contingent liabilities by 20-30%</li> <li>Attracting private investments through concession and PPP mechanisms</li> </ul>   |
| New<br>architecture<br>of intergo-<br>vernmental<br>relations              | <ul> <li>Deepening decentralization<br/>through expanding the tax<br/>powers of local self-<br/>government</li> <li>Completion of sectoral<br/>reforms for a clear delineation<br/>of expenditure commitments</li> <li>Stimulating local<br/>development through a<br/>system of transfers</li> </ul>   | <ul> <li>Amendments to the Tax and<br/>Budget Codes regarding<br/>strengthening the fiscal<br/>autonomy of communities</li> <li>Implementation of the formula<br/>for the distribution of educational<br/>and medical subventions based<br/>on clear criteria</li> <li>Introduction of an additional<br/>corrective coefficient for the tax<br/>capacity of communities</li> </ul>   | <ul> <li>Growth of the share of<br/>own revenues of local<br/>budgets to 50% in the<br/>medium term</li> <li>Reduction of horizontal<br/>fiscal imbalances between<br/>communities by 30-40%</li> <li>Increasing the efficiency<br/>of expenditures on<br/>education and healthcare<br/>by 15-20%</li> </ul> |
| Integration of<br>the world's<br>best debt<br>policy<br>practices          | <ul> <li>Optimization of the debt<br/>portfolio according to the<br/>criteria of cost, riskiness,<br/>transparency</li> <li>Securitization of part of the<br/>external debt and distribution<br/>of currency risks with<br/>creditors</li> <li>Expansion of the base of<br/>domestic investors through<br/>the integration of the<br/>government bond market<br/>with NPFs</li> </ul> | <ul> <li>Development of a medium-<br/>term public debt management<br/>strategy</li> <li>Conducting negotiations with<br/>the World Bank, IMF, EU on<br/>debt restructuring</li> <li>Amendments to legislation on<br/>the development of the domestic<br/>capital market and urgent<br/>activation of work with secured<br/>tokenized assets</li> </ul>   | <ul> <li>Reducing the weighted average cost of borrowing by 150-200 bps.</li> <li>Increasing the maturity of domestic borrowings to 5-6 years</li> <li>Achieving the target debt indicator at the level of 60% of GDP by 2030 year</li> </ul>  |
| Com-<br>prehensive<br>digitalization<br>of public<br>finance<br>management | <ul> <li>Transition to digital rails for<br/>all stages of the budget<br/>process</li> <li>Creation of a unified<br/>electronic public finance<br/>management system</li> <li>Ensuring a high level of<br/>cybersecurity of financial data</li> </ul>   | <ul> <li>Development and<br/>implementation of IT solutions<br/>for revenue forecasting, expen-<br/>diture management, reporting<br/>Integration of private blockchain<br/>registries with state registries</li> <li>Integration of information<br/>systems of the Ministry of<br/>Finance, State Tax Service, State<br/>Treasury, Accounting Chamber</li> <li>Implementation of projects to<br/>ensure information and cyber-<br/>security based on blockchain<br/>technologies and quantum/post-<br/>quantum encryption</li> </ul> | <ul> <li>Reduction of time and<br/>human losses for routine<br/>operations by up to 50%</li> <li>Improving the accuracy<br/>of revenue forecasting by<br/>10-15%</li> <li>Achieving Ukraine's<br/>status as a regional leader<br/>in budget transparency<br/>according to the PEFA<br/>assessment</li> </ul> |

\*Source: developed by Dunayev I. V.

An additional factor in the success of fiscal reforms should be the strengthening of the institutional capacity and independence of key bodies – the Ministry of Finance, the Accounting Chamber, the State Tax and Customs Services. During the times of wartime calamity, it was the professionalism and patriotic dedication of the teams of these departments that allowed the state finance system to be kept from collapse. Therefore, there is an urgent need to legalize guarantees of the institutional, personnel and financial autonomy of fiscal bodies to ensure the stability and continuity of reforms. A system of staff rotation, real wages and bonuses for civil servants should be introduced.

**Conclusions**. Based on the above research, the following generalized conclusions can be drawn.

1) The Russian armed aggression against Ukraine has become an unprecedented challenge for the national financial system, which was forced to simultaneously ensure the financing of colossal military needs, maintain the viability of the economy and social stability in the face of a sharp drop in income and destruction of infrastructure. The analysis of the dynamics of the state budget in 2022-2024 indicates a gradual adaptation of fiscal policy to these challenges through a flexible combination of traditional and extraordinary instruments. The key trend was the restoration of the dominant role of tax revenues (up to 56% in 2024) while simultaneously reducing dependence on non-tax sources and official transfers. At the same time, this recovery occurred mainly in an extensive way through raising rates, expanding the base, and centralizing resources at the level of the state budget at the expense of local budgets. Such a model, despite its compulsion in war conditions, creates risks for fiscal sustainability and economic recovery in the long term.

2) The analysis of Ukraine's fiscal dynamics for 2022-2024 demonstrates a gradual transformation of the structure of budget revenues from emergency war measures to more systemic mechanisms. A key indicator of this trend is the growth in the share of tax revenues from 37.6% in 2022 to 48.5% in 2024 while simultaneously reducing non-tax revenues from 31% to 11.3%. Particularly indicative is the improvement in the administration of rental payments, the efficiency of which increased from 62.09% in 2023 to 90.59% in 2024. At the same time, there is an alarming trend towards a decrease in the efficiency of traditional fiscal instruments: the execution of the plan for domestic taxes on goods decreased from 97.55% to 94.51%, and for PIT – from 103.28% to 99.05%. This indicates a gradual exhaustion of the potential for fiscal consolidation through administrative levers. The dependence on external assistance remains a critical aspect – the share of official transfers stabilized at the level of 10-16% of budget revenues, which significantly exceeds the pre-war figures of 5-6%.

3) Structural analysis of budget indicators reveals the formation of a new model of fiscal sustainability, which is characterized by greater diversification of revenue sources. The ratio of tax to non-tax revenues increased from 1.21 in 2023 to 1.69 in 2024, reflecting the transition to more traditional mechanisms of replenishing the budget. At the same time, the share of direct taxes in total revenues increased

from 13.12% to 19.13%, indicating an expansion of the tax base. A significant increase in planned revenues from capital transactions (from UAH 150.5 billion in 2023 to UAH 611 billion in 2024) points to the search for new sources of income, although the realism of these plans raises doubts. It is significant that the overall execution of budget revenues decreased from 117.86% in 2023 to 113.54% in 2024, which may indicate the normalization of the budget process and an improvement in planning quality in a war economy.

4) The key trend was the restoration of the dominant role of tax revenues (up to 56% in 2024) while simultaneously reducing dependence on non-tax sources and official transfers. At the same time, this recovery occurred mainly in an extensive way through raising rates, expanding the base, and centralizing resources at the level of the state budget at the expense of local budgets. Such a model, despite its compulsion in war conditions, creates risks for fiscal sustainability and economic recovery in the long term. Based on the identified trends and structural relationships, three key patterns can be identified that will determine the development of Ukraine's public finance management system in the post-war period: (1) the "fiscal scissors effect», i.e., the narrowing of the potential for increasing traditional taxes (as evidenced by a decrease in the efficiency of VAT and PIT collection) with the exhaustion of extraordinary sources (external assistance, deficit monetization). This trend will require the search for new points of fiscal efficiency through base expansion, the introduction of innovative instruments, the development of the domestic borrowing market, etc. (2) The contradiction between fiscal centralization and the financial capacity of the regions. Increasing the norms of deductions in favor of the state budget objectively weakens the ability of local communities to finance their needs, which is especially dangerous in the context of post-war reconstruction. A new social contract is needed regarding the distribution of financial resources and responsibilities between levels of government. (3) The dependence of fiscal sustainability on coordination with monetary policy and international partners. The gradual reduction of emission financing of the deficit (from 27% in 2023 to 13% in 2024) will become a serious challenge for fiscal policy, given the scale of financial needs. Synchronization of the actions of the Government and the NBU, as well as maintaining the confidence of external creditors, will be decisive factors in financial stabilization. Understanding these patterns makes it possible to form a strategic vision for the development of the public finance system in the post-war period. It is based on the transition from the dominance of short-term reactions based on traditional instruments to the formation of an innovative model of fiscal policy focused on ensuring sustainability, inclusiveness and efficiency.

5) The developed matrix for analyzing fiscal sustainability is a new tool for scientific diagnostics of the ability of public finances to function in a state of war. The logic of its construction lies in the combination of four interrelated analytical perspectives – from basic structural and dynamic analysis to the assessment of structural transformations, which allows us to trace both short-term adaptation mechanisms and long-term trends in the development of the fiscal system. The matrix

is built on the principle of a "methodological cascade», where each subsequent level of analysis deepens and complements the previous one, forming a holistic picture of fiscal sustainability. Particularly valuable is the inclusion in the matrix not only of analytical tools and empirical data of the Ukrainian experience but also of methodological recommendations for international practice, which makes it a universal template for adaptation to the specific conditions of different countries. At the same time, the matrix remains an open system that can be supplemented with new aspects of analysis and indicators in accordance with the specific needs of the study and the characteristics of the country under study.

#### REFERENCES

1. National Institute for Strategic Studies (NISS). (2024). Overview of tools to support financial stability under martial law in Ukraine (November–December 2024). Kyiv: NISS. URL: https://surl.li/kvryrv

2. Bloomberg. (2023). Building fiscal resilience: Wall Street Week. URL: https://www.bloomberg.com/news/videos/2023-08-04/building-fiscal-resilience-lkx87jvh

3. CEPR. (2022). Reforming the European fiscal framework: Increasing compliance, not flexibility / W. Reuter, L. Feld. URL: https://surl.li/jicitv

4. European Fiscal Board. (2024). Annual Report 2024. Brussels. URL: https://surl.li/cwbbvp

5. Fall, F., Bloch, D., Fournier, J. M., & Hoeller, P. (2015). Prudent debt targets and fiscal frameworks. *OECD Economic Policy Paper*, *15*, *1–47*. DOI: https://doi.org/10.1787/5jrxtjmmt9f7-en

6. Gaspar, V., Eyraud, L., & Poghosyan, T. (2017). Fiscal politics in the Euro area. International Monetary Fund. URL: https://www.imf.org/en/Publications/WP/Issues/2017/03/23/ Fiscal-Politics-in-the-Euro-Area-44768

7. Heimberger, P. (2024). Fiscal consolidation and its growth effects in euro area countries: Past, present and future outlook. Wien. URL: https://surl.li/bmnvvx

8. International Monetary Fund (IMF). (2021). Fiscal policy for an uncertain world / Vitor Gaspar, Sandra Lizarazo, Paulo Medas, Roberto Piazza. URL: https://www.imf.org/en/Blogs/Articles/2021/10/13/blog-fiscal-policy-for-an-uncertain-world

9. International Monetary Fund (IMF). (2022a). Fiscal Monitor, April 2022: Fiscal Policy from Pandemic to War. URL: https://www.imf.org/en/Publications/FM/Issues/2022/04/12/fiscal-monitor-april-2022

10. International Monetary Fund (IMF). (2022b). Fiscal Monitor: Helping People Bounce Back. Washington, D.C.: International Monetary Fund. URL: https://surl.li/gkbazs

11. International Monetary Fund (IMF). (2024a). Fiscal risk toolkit: Fiscal risk analysis and management. URL: https://surl.li/iudkei

12. International Monetary Fund (IMF). (2024b). Global Financial Stability Report. New York. URL: https://surl.li/ikrmgj

13. Ministry of Finance of Ukraine. (2023). Macro-Financial Review 2022–2024. URL: https://mof.gov.ua/en/macroeconomic\_forecast\_for\_2022-2024-379

14. OECD/The World Bank. (2019). Fiscal resilience to natural disasters: Lessons from country experiences. Paris: OECD Publishing. https://doi.org/10.1787/27a4198a-en

15. Schick, A. (2013). Lessons from the crisis. *OECD Journal on Budgeting*, *12*(*3*), *1–29*. DOI: https://doi.org/10.1787/budget-12-5k47tb29wn6h

16. Tanzi, V. (1992). Fiscal Policies in Economies in Transition. New York: IMF. DOI: https://doi.org/10.5089/9781557751911.071 URL: https://surl.li/cmylpk

17. World Bank. (2024a). Ukraine rapid damage and needs assessment (Rdna3): February 2022 – December 2023. URL: https://surl.li/ozffip

18. World Bank. (2019). Fiscal resilien ce to natural disasters: Lessons from country experiences (Report Number 141358). Washington, D.C.: World Bank Group. URL: https://surl.li/dotast

19. World Bank. (2024b). A journey from post-conflict reconstruction to sustainable peace and development: Three decades of trusted partnership with Bosnia and Herzegovina. URL: https://surl.li/uedpsg

20. World Bank. (2024c). Building resilience in investment projects: The power of resilience rating system. URL: https://blogs.worldbank.org/en/climatechange/building-resilience-in-investment-projects--the-power-of-resilie

21. World Bank. (2024d). Global Economic Prospects 2024: Highlights from Chapter 4: Fiscal Challenges in Small States: Weathering Storms, Rebuilding Resilience. URL: https://surl.li/dpilca

*The article was received by the editors 03.09.2024. The article is recommended for printing 15.10.2024.* 

#### Дунаєв Ігор Володимирович,

доктор наук з державного управління, професор, професор кафедри економічної політики та менеджменту навчально-наукового інституту "Інститут державного управління" Харківського національного університету імені В. Н. Каразіна, майдан Свободи, 4, м. Харків, 61022, Україна e-mail: i.dunaev@karazin.ua https://orcid.org/0000-0002-0790-0496

#### Басюк Олександр Петрович,

аспірант кафедри економічної політики та менеджменту навчально-наукового інституту "Інститут державного управління" Харківського національного університету імені В. Н. Каразіна, майдан Свободи, 4, м. Харків, 61022, Україна заступник генерального директора ТОВ "Сімкорд» e-mail: aleksandr.basiuk777@gmail.com https://orcid.org/0000-0002-3224-5489

## ЗАБЕЗПЕЧЕННЯ СТІЙКОСТІ ДОХІДНОЇ ЧАСТИНИ ДЕРЖАВНОГО БЮДЖЕТУ В УМОВАХ ПОВОЄННИХ НАДЗВИЧАЙНИХ СИТУАЦІЙ: ДОСВІД УКРАЇНИ ДЛЯ СВІТУ

Анотація. Стаття присвячена актуальній проблемі забезпечення стійкості дохідної частини державних фінансів України в умовах повоєнних надзвичайних ситуацій. Зокрема, аналізується досвід функціонування фіскальної системи України у 2022–2024 роках, коли вона стикалася з безпрецедентними викликами: суттєвим падінням ВВП, значним зростанням бюджетного дефіциту, руйнуванням інфраструктури та екстремальною залежністю від зовнішньої фінансової допомоги. На основі аналізу макроекономічних трендів, структурних трансформацій бюджетної системи та механізмів антикризового управління обґрунтовано доцільність системного підходу до оцінки фіскальної стійкості в умовах воєнної економіки. Мета дослідження полягає у виявленні ключових чинників стійкості публічних фінансів України у період війни та формулюванні рекомендацій щодо їх адаптації до нових глобальних і безпекових викликів. Методологія дослідження поєднує

структурно-динамічний аналіз, сценарне прогнозування, системний підхід до управління ризиками та аналіз політик. Зокрема, використано офіційні дані Міністерства фінансів України та міжнародних організацій.

Розроблена у статті матриця аналізу фіскальної стійкості охоплює ключові аспекти оцінки, включаючи: динаміку доходів бюджету, ефективність антикризових заходів, ідентифікацію ризиків, структурні трансформації та прогнозування довгострокових трендів. Висновки дослідження засвідчують, що Україна змогла досягти стабілізації бюджетної системи завдяки гнучкому поєднанню податкових реформ, залученню міжнародної допомоги, тимчасовій монетизації дефіциту та цифровізації фіскальних процесів. При цьому частка податкових надходжень зросла з 37,6% у 2022 році до 48,5% у 2024 році, що свідчить про поступове відновлення економіки. Водночас виявлено значні структурні ризики, зокрема надмірну залежність від зовнішньої допомоги (до 13.6% доходів бюджету у 2024 році) та обмеженість традиційних джерел доходів. Обґрунтовано, що для досягнення фіскальної стійкості у середньо- та довгостроковій перспективі необхідно зді йснити низку реформ: (1) розширення податкової бази за рахунок детінізації економіки; (2) оптимізацію міжбюджетних відносин із розширенням податкової автономії регіонів; (3) створення інтегрованої управління фіскальними ризиками; (4) запровадження системи середньострокової бюджетної рамки з урахуванням макроекономічних шоків; (5) комплексну цифровізацію бюджетного процесу для підвищення прозорості та точності прогнозів. Результати дослідження мають практичне значення для урядів інших країн, які стикаються з екстремальними економічними викликами через війни або інші кризи.

Ключові слова: публічне управління, воєнні виклики, надзвичайні умови, фіскальна стійкість, державні фінанси, воєнна економіка, фіскальні реформи, антикризове управління.

Стаття надійшла до редакції 03.09.2024 р. Стаття рекомендована до друку 15.10.2024 р.