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FEATURES OF ENSURING THE STABILITY OF PUBLIC FINANCES DURING THE WAR

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Abstract. The *purpose of the article* is to identify, systematise and typologise the tools and macroeconomic challenges to the sustainability of public finances in the context of the current struggle for Ukraine's independence (the Russian-Ukrainian war) and the European integration orientation of the ontogenesis of the system for managing them. *Methodology*. The methodology is based on a multi-approach that combines empirical data on the structural and qualitative parameters of the functioning of the public finance system, econometric modelling of its parameters, and a "heat matrix" for visualising and developing practical recommendations for ensuring the sustainability of public finances during the Russian-Ukrainian war. *Results.* Empirical research has shown that defence spending has the greatest impact on the structure of state budget expenditure, with each increase of 1 billion UAH leading to an increase in total expenditure of 1.32 billion UAH (β_3 = 1,3178, p = 0,005). A comprehensive correlation analysis of macrofinancial indicators confirmed the high dependence of tax revenues on the macroeconomic context ($r \approx 0.99$) and an inverse correlation between defence spending and the budget balance ($r \approx -0.61$), which demonstrates the mechanism of deficit formation in conditions of armed conflict. Based on forecast models, it has been established that the budget deficit could be reduced from 20.4% of GDP in 2024 to 4.5% in 2027, provided that international financial support for Ukraine's sovereignty and its European integration aspirations remains united. *Practical significance of the study.* The developed integrated model for assessing the sustainability of public finances provides public authorities with scientifically sound recommendations on optimising the allocation of fiscal resources and attracting domestic and external sources of financing in extreme conditions marked by armed conflict. The set of macro-financial indicators and approaches to monitoring fiscal risks proposed in the study serves as a practical tool for the rapid assessment of critical changes in public finances and the timely adjustment of budgetary and tax policies, taking into account the triggers identified in sectoral documents that determine the architecture of the public finance management system. The *scientific novelty* of the study lies in the construction of a comprehensive model for assessing the sustainability of public finances, adapted to the extreme conditions of armed conflict, which synthesises econometric modelling with multifaceted correlation analysis. A key innovation is the establishment of the fact that fiscal sustainability depends not only on orthodox debt and deficit indicators, but also on systemic interaction, expressed through the transmission mechanism of the tax base, the volume of external financing and the structure of budget expenditures. This corresponds to the conditions of the new normal in public finance and is in line with Ukrainian academic discourse on assessing the sustainability of public finances, taking into account the needs of early post-war recovery.

Keywords: public finances, fiscal sustainability, State Budget of Ukraine, budget revenue and expenditure, economic stability, grants, econometric modelling, security and defence needs, tax revenues.

JEL Classification: C53, E62, H62

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1. Introduction

The full-scale aggression by the Russian Federation, which began on February 24, 2022, was a turning point in Ukraine's development. The conflict affected all spheres of society: the economy, social sphere, and political system. War, as an extreme stress factor, distorts traditional channels of state revenue formation, l eads to a deficit of budgetary resources, negates the possibility of systematic expenditure management due to a sudden decline in tax revenues, the need to allocate significant funds for defence and humanitarian purposes, and creates a critical dependence on external aid (Fatiukha & Kholod, 2024). Public finances face unprecedented challenges related to the need to simultaneously finance military operations, maintain social security systems and provide public services. The combination of these requirements creates acute fiscal tension, which requires fundamentally new approaches to ensuring the sustainability of public finances. The purpose of this article is to develop a methodological basis for analysing mechanisms for balancing military expenditures with other budget priorities in the context of Russian aggression.

The specificity of the period of the Russian-Ukrainian war lies in the fact that traditional macroeconomic models, built on assumptions about stability and predictability of development, are losing their adequacy. Military operations, humanitarian crises and mass migration create systemic shocks that have varying effects on the revenue and expenditure sides of the state budget. Uncertainty regarding the duration of the conflict, changing conditions within the country and dependence on international financial support necessitate constant revision of financial plans and adaptation of fiscal policy.

At the same time, although international aid plays a key role in supporting public finances, it cannot be the only solution, as its volume and regularity depend on political and economic factors in donor countries, which makes the stability of the national financial system dependent on internal reforms and effective governance (Zhytar, 2024).

The study aims to substantiate mechanisms for ensuring the sustainability of public finances in the context of prolonged armed conflict. This involves developing quantitative models that reflect the interrelationships between military expenditure, budget revenue and macroeconomic indicators. The analysis takes into account various scenarios depending on the duration of the armed conflict, territorial changes and the level of international financial assistance. The article substantiates the key determinants of fiscal stability during military operations and proposes practical mechanisms for ensuring the financial sustainability of the state.

The relevance of the topic is due to the fact that the lack of adequate methodological approaches to forecasting public finances during armed conflict creates risks of macroeconomic instability and threatens the long-term sustainability of Ukraine's economy. Research into these mechanisms is of not only scientific but also practical importance for the development of sound fiscal policy by the state and international partners.

2. Literature Review

A significant part of scientific works devoted to public finance issues focuses on the concept of financial security as a basic component of a state's economic security. In particular, Adhikari (2024), Han (2018), Pajak et al. (2020) emphasise in their studies the interconnection between financial stability in general and public finances in particular, and the overall economic stability of the state, highlighting the role of globalisation factors that increase the dependence of national financial flows on external markets. However, the issue of ensuring the stability of public finances during wartime has not been sufficiently addressed. In particular, there are no mechanisms in place for adapting to extraordinary circumstances, such as a mobilisation economy, reorienting the budget towards the needs of security and defence forces, or a partial loss of the tax base.

Researchers Chugunov et al. (2024) and Hamza et al. (2024) emphasise the importance of consistent coordination between branches of government to ensure fiscal sustainability, pointing to the need to protect the economy through fiscal, monetary, and budgetary policies. However, these principles leave open the question of how such coordination can function effectively in the context of armed conflict, growing budget deficits and macroeconomic instability. Nor do they propose methods for measuring the actual sustainability of public finances in real time.

A number of experts, including Bogdan (2024) and Izzeldin et al. (2025), propose that the financial system should be structured on the basis of separate subsystems, such as banking, budgetary, currency, credit, etc. The purpose of this study is to assess the country's financial security. However, the question of how these subsystems interact in conditions of deep fiscal crisis and increased pressure on the budget, which is characteristic of wartime, remains unaddressed. Pindyuk, O. (2024) and Storonyanska et al. (2024) focus in their works on the issue of maintaining a balance of interests between financial institutions and the population, as well as on the need to adequately meet the needs of all economic actors. Although, there is no in-depth analysis of how this balance can be achieved in conditions of a significant budget skew

towards military spending, substantial external financial support, reduced investment activity and declining incomes of macro-system entities.

Scientists Bak (2023) and Haponiuk (2025) propose viewing the public finance management system as a dynamic structure with constant monitoring of threats and prompt government response. However, they do not detail the specifics of financial monitoring of public finances during wartime, nor do they take into account new threats such as uneven distribution of resources between regions, losses in budget revenues due to temporary occupation of territories, and increased dependence on donor aid. Petrukha et al. (2022) and Vergeliuk & Hantsiak (2024) describe the public finance management system as a multi-component structure in which each subsystem affects overall stability. However, there is a lack of analysis of how these subsystems are transformed in the context of the hybrid Russian-Ukrainian war, sanctions pressure on the aggressor country, disruption of logistics chains, and the need for constant budgetary adjustments.

Thus, despite a significant body of highly cited research, most of it focuses either on the theoretical justification of the stability of the financial system as a whole or on the analysis of financial security as its component. Instead, insufficient attention is paid to the issue of ensuring the sustainability of public finances during the Russian-Ukrainian war, taking into account real threats, structural deficits, debt risks, changes in the structure of revenues and expenditures, as well as the impact of external financing.

3. Objectives

The **objective of this article** is to identify, systematise and typologise the tools and macroeconomic challenges of ensuring the sustainability of public finances in the context of the current struggle for Ukraine's independence (the Russian-Ukrainian war) and the European integration orientation of the ontogenesis of the system of public finance management.

4. Methodology

The research methodology is based on an integrative approach that combines quantitative and qualitative methods of analysis to assess macroeconomic and fiscal indicators reflecting the state of public finances in conditions of extreme stress caused by armed conflict. This approach aims to ensure the comprehensiveness of the research and the adequacy of the results to the specifics of the war period.

The methodological components of the study include regression analysis used to model the relationships between key financial variables of public finances. Total government expenditure was selected as the dependent variable, while tax revenues, grant volumes and defence expenditure were selected as independent variables. The choice of these variables is justified by their representativeness in terms of the main structural components of the revenue and expenditure sides of the budget in conditions of military action. The parameters of the regression model were estimated using the least squares method (LSM).

The empirical basis for the study was provided by official macrofinancial data from the International Monetary Fund and the National Bank of Ukraine for the period 2022–2027. The data for 2025–2027 are forecasts based on assumptions about the development of the macroeconomic situation, taking into account the uncertainty regarding the duration and intensity of the armed conflict. The analysis is supplemented by a correlation method, in particular the application of Pearson's heat matrix, to assess the interaction and synergistic links between budget revenues, expenditures and government debt instruments. Correlation coefficients allow identifying both positive and conflicting relationships between the main components of the financial system as a whole and public finances in particular during the period of military operations. The results obtained were interpreted with the help of expert assessments by specialists in the field of public finance and macroeconomic management, which contributes to an adequate understanding of the results in the context of strategic management of public finance and the specifics of wartime. The validity of the econometric model has been verified using standard statistical tests. The results and conclusions should be considered as conditional scenarios for development, depending on assumptions about the duration of the active phase of the armed conflict and the amount of external financial support.

5. Results and Discussion

5.1. The Architecture of the Public Finance Management System and the Model for Assessing its Sustainability

The theoretical justification of the model for assessing the sustainability of public finances (PF) requires a clear definition of its structural components and methodological approaches to their analysis. In the context of wartime, when public finances are subject to extraordinary systemic pressure, such modelling becomes practically significant for justifying management decisions by authorities at all levels. International practice in assessing financial stability in general and PF in particular, developed by the IMF, the World Bank and the OECD, shows that PF stability depends on the interaction of a number of interrelated factors, including macroeconomic indicators, debt policy parameters, the quality of budget management and the institutional capacity of the state apparatus.

The relevance of ensuring the sustainability of public finances in the context of armed conflict is determined by the need for a systematic analysis of a set of macroeconomic and fiscal indicators that reflect the real state of the state's financial system. During wartime, such approaches become critical, as they must adapt to new conditions caused by full-scale armed aggression and associated macroeconomic imbalances.

The basic component of diagnosing PF sustainability is assessing the effectiveness of executive bodies in budget management. This assessment involves using a system of indicators that characterise the effectiveness of budget policy, the transparency of fiscal administration, the level of implementation of priority programmes, and the quality of financial control (Table 1).

Ensuring the stability of the PF during wartime is based on the principles of systematic management of risks that arise suddenly and have the potential to significantly disrupt the functioning of the economic system in conditions of extreme stress. Given the complexity of the modern economic environment, which is determined both by global transformations and specific internal circumstances in each country, it is critically important to integrate macroeconomic factors into the process of developing and implementing public policy, taking into account their interaction and comprehensive impact on budgetary, tax, inter-budgetary and debt policy.

Table 2 contains the results of assessing the effectiveness of public administration in ensuring the sustainability of public finances according to four key dimensions, namely strategic, legal, methodological and institutional. These dimensions reflect the level of institutional and regulatory capacity of the public finance management system in the context of armed conflict and its readiness to implement complex macroeconomic tasks.

It is precisely the systematic assessment of both the current and projected state of public finances that is aimed at responding to risks in a timely manner and preventing crisis scenarios. On this basis, a comprehensive policy is formulated that is focused on the long-term sustainability of public finances (Fig. 1).

The formation of a multi-model of public finance management requires in-depth diagnosis of the current conditions of functioning of relevant state institutions, the widespread use of modern economic analysis and

Table 1

System of indicators for assessing the stability of the financial system as a whole and the PF in particular during the Russian-Ukrainian war

Name of indicator and its content	Formulaic approach to calculation
Banking stability (degree of stability of the banking sector)	1. Share of overdue loans (%): overdue debt, million UAH ÷ loans granted, million UAH × 100. 2. Share of non-performing loans (%) ÷ payments overdue for more than 90 days. 3. Ratio of loans to deposits (%): loans granted to residents, million UAH ÷ deposits attracted from residents, million UAH × 100. 4. Return on assets (%). 5. Ratio of liquid assets to short-term liabilities (%).
Resilience of the non-banking sector (development of insurance and stock markets)	1. Insurance penetration rate (%) ÷ gross insurance premiums, billion UAH ÷ GDP, billion UAH × 100. 2. Capitalisation level of listed companies (% of GDP). 3. Volatility of the PFTS index ÷ number of critical deviations (-10%).
Debt sustainability (level of internal and external debt)	1. Ratio of public debt to GDP (%): public and guaranteed debt, billion UAH ÷ GDP, billion UAH × 100. 2. Ratio of gross external debt to GDP (%): gross external debt, billion USD × UAH/USD exchange rate ÷ GDP, billion UAH × 100. 3. Yield on government bonds in the primary market (%). 4. Amount of funds raised through government bonds, billion UAH.
Budgetary stability (ensuring the solvency of public finances)	1. State budget deficit/surplus (% of GDP): state budget deficit, billion UAH ÷ GDP, billion UAH × 100. 2. Level of GDP redistribution through the consolidated budget (%): consolidated budget revenues, million UAH ÷ GDP, million UAH × 100. 3. Ratio of debt service payments to state budget revenues (%) ÷ (debt service + debt repayment, million UAH) ÷ state budget revenues, million UAH × 100.
Currency stability (stability of the national currency)	1. Index of change in the hryvnia exchange rate against the USD: exchange rate in the current period ÷ exchange rate in the previous period. 2. International reserves, million USD. 3. Share of foreign currency loans (%): foreign currency loans, million UAH ÷ total loans, million UAH × 100.
Monetary and credit stability (availability of credit resources)	1. Share of cash in circulation (%): M0, million UAH / M3, million UAH × 100 2. Difference between loan and deposit rates (%) 3. Share of long-term loans (%): loans over 5 years ÷ all loans × 100.

Source: Bogdan (2024), Bublyk (2024), Fatiukha & Kholod (2024), Kyiv School of Economics, Institute for Public Finance and Governance (2025b)

Table 2

Indicative measures of the effectiveness of the architecture of the state management system for PF sustainability during the Russian-Ukrainian war

Dimension	No.	Indicator name
Strategic dimension	1	The existence of conceptual and strategic foundations for ensuring the sustainability of the PF
	2	The state of formation and implementation of financial policy in general and the PF management system in particular in wartime conditions
	3	Existence of strategic and programmatic principles for public debt management
	4	Implementation of the action plan for modernising the public finance management and public debt management systems, taking into account the needs of early post-war recovery
	5	Balance between fiscal and monetary policy, existence of transparent transmission channels for their aggregate and individual impact on the stability of the financial sector
Normative dimension	6	The state of regulatory and legal support for transparency, accountability, predictive interactions and interdependencies between the macroeconomic situation, the needs of security and defence forces, and the sustainability of the PF
Methodological dimension	7	Availability of methodology, techniques, system of criteria and indicators for assessing the level of sustainability of the PF
Institutional dimension	8	Effectiveness of internal and external audits of the state of the PF
	9	Performance of functions by state authorities responsible for shaping the system and managing the sustainability of the PF
	10	Effectiveness of public debt management (existence of a central executive body implementing public budget policy in the area of public debt and state-guaranteed debt management, effectiveness of its activities)
	11	Level of development of international co-operation in the field of government borrowing, coverage of immediate budgetary needs, coordination of tasks under the Ukraine Facility programme, implementation of statistical measures of the level and structure of public debt
	12	Degree of centralisation/decentralisation of PF management, level of financial autonomy of local authorities in financial decision-making, meeting the needs of early post-war recovery
	13	The level of digitisation of the PF management system, the availability of specially designed interactive tools for visualising the sustainability of the financial system as a whole and its individual components

Source: Makedon et al. (2020), Petrukha et al. (2025), International Monetary Fund (2011), European Central Bank (2019), Eurostat (2022), RAND Europe (2024), Trading Economics (2025)

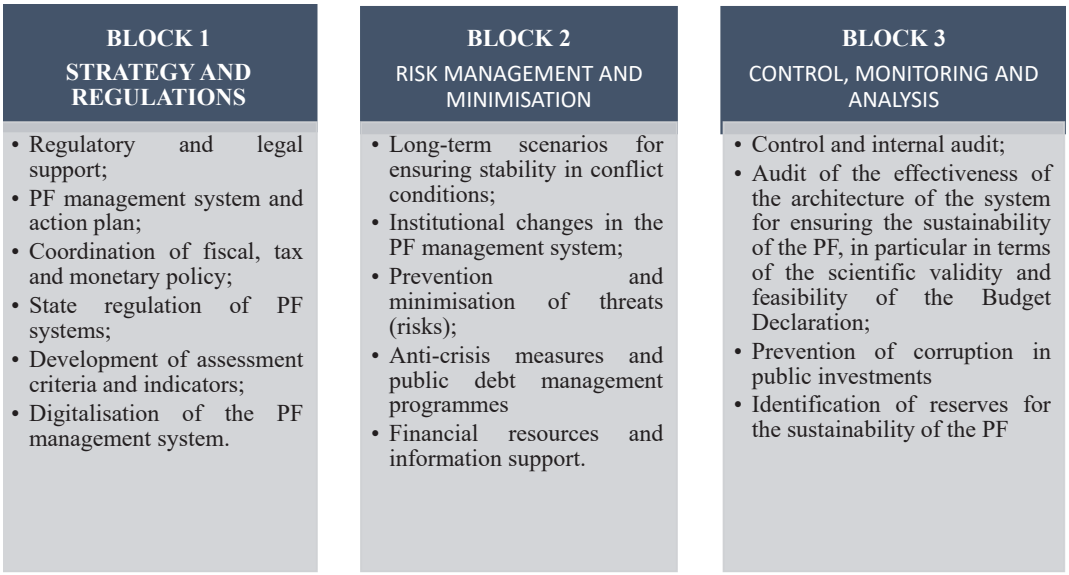

Figure 1. Multi-model assessment of the effectiveness of measures to ensure the sustainability of the PF in conditions of armed conflict

Source: formed by the authors on the basis of International Monetary Fund (2011), Bogdan (2024), Bublyk (2024), RAND Europe (2024)

modelling tools, and the study of the interrelationship and interdependence between the strategic goals of the state's financial policy and the results of measures aimed at ensuring budgetary balance, financial discipline and economic stability in the country in the context of armed conflict.

5.2. Modern Developments and Transformation of the Public Finance Management System in the Context of Armed Conflict

Ukraine's public finance management system operates in an environment of exceptional macroeconomic and geopolitical risks, which significantly affect the formation of budget expenditures and revenues. The security dimension of fiscal risks is determined by the Russian Federation's ongoing armed aggression and the associated destruction of critical energy infrastructure through massive missile and drone strikes on thermal and hydroelectric power plants, which has led to a significant reduction in electricity production capacity, as well as the blockade of seaports and attacks on port infrastructure, which limit the state's export potential and narrow the tax revenue base.

External economic and macroeconomic threats arise in the context of neighbouring countries imposing a network of restrictions on imports and transit of Ukrainian agricultural products, which is compounded by the global economic slowdown due to the protectionist policies of the United States and fluctuations in world food and energy prices. At the same time, macroeconomic distortions are emerging in the form of an acute shortage of skilled labour due to demographic challenges and migration processes, low crop yields, accelerating inflationary processes and business expectations.

The impact of these risks on the budgetary sphere creates a set of fiscal challenges, manifested in the possibility of exceeding expenditures on servicing and repaying public debt, the need to finance additional unplanned expenditures on security and defence, infrastructure restoration and meeting social needs, the risk of a reduction or cessation of US military aid, a significant increase in budget expenditures for post-war reconstruction and elimination of the consequences of the war, as well as a possible reduction or delay in the receipt of financial assistance from international partners, which together determine the trajectory of public finance development and require the development of effective mechanisms for adaptive fiscal management (The Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Budget Declaration for 2026-2028", 2025)

During this full-scale war, Ukraine's public finances are under crazy pressure because they need to fund security and defence, social spending, and early economic recovery at the same time, while their income base has shrunk a lot. This section is devoted to the analysis of structural and dynamic shifts in Ukraine's budget system for the period 2022–2027 under the influence of macroeconomic stimuli and taking into account the forecasts of the International Monetary Fund and the adjusted (revised) data of national statistical agencies.

During the period of full-scale war that began in 2022, Ukraine was forced to accumulate significant international reserves thanks to financial support from international partners. This support contributed to the stabilisation of the macroeconomic situation and promoted the stability of the PF. At the end of the third year of full-scale war (as of early December 2024), reserves reached 38.8 billion USD, equivalent to 5.2 months of import operations, ensuring not only monetary stability but also maintaining confidence in the state's monetary system as a whole. In October 2024, under favourable conditions such as a consistent decline in inflation and high interest rates on debt instruments, the National Bank of Ukraine made a strategic decision to transition to a managed floating exchange rate regime. This means abandoning the fixed peg and adjusting the hryvnia exchange rate daily within acceptable fluctuations in line with market conditions (Kyiv School of Economics Institute for Public Finance and Governance, 2025a).

The exchange rate is one of the key elements of the forecast macroeconomic indicators of Ukraine's economic and social development for 2025–2027, approved by Resolution of the Cabinet of Ministers of Ukraine No. 780 of June 28, 2024. These forecast indicators, including the exchange rate of the national currency against foreign currencies, are used as the basis for developing the Budget Declaration for the medium term and, subsequently, the draft state budget for the relevant year. The exchange rate affects key macroeconomic parameters such as inflation, foreign trade indicators and state budget revenues, which form the basis for programming the stability of the PF in the medium term.

Thus, clearly defining the exchange rate makes it possible to reduce the risks associated with currency fluctuations and, at the same time, ensure the stability of the PF in a changing global economic environment.

The International Monetary Fund's forecasts for 2024–2027 predict moderate economic growth in Ukraine, which is consistent with the key macroeconomic indicators declared by the National Bank of Ukraine in its forecasts (Table 3). This growth is an important indicator for strengthening the fiscal framework, especially given the impact of the exchange rate on economic and budgetary parameters. Taking into account the projected exchange rate in strategies for transition to a war economy and early post-war recovery will gradually strengthen the country's financial stability and ensure its resilience to possible

Table 3
Key current and projected indicators for Ukraine regarding the sustainability of public finances during the war (2022–2027)

Indicator	Years under review					
	2022	2023	2024	2025	2026	2027
Real GDP, %	-28,8	5,5	2,9	1,9	2,0	2,8
Unemployment, %	20,6	18,2	13,1	11,3	10,2	9,2
Inflation, %	26,6	5,1	12,0	9,2	6,6	5,0
Real wages, %	-11,9	4,1	15,6	6,2	5,6	4,4
Government budget deficit (excluding grants), % of GDP	-25,3	-26,6	-23,8	-25,3	-19,3	-13,8
Gross reserves, billion USD	28,5	40,5	43,8	53,6	52,2	59,2

Source: compiled by the author based on the NBU Inflation Report, 2025; IMF DataMapper, 2025; IMF WEO, 2025

external shocks, creating a solid foundation for future economic transformation.

According to estimates by the IMF and the NBU, Ukraine's real GDP will grow by 1.9-2% in 2025, accelerating to 2.8% in 2027. Growth will be driven by private consumption, driven by rising household incomes, and increased investment activity (NBU Inflation Report, 2025; IMF DataMapper, 2025; IMF WEO, 2025). Unemployment is expected to gradually decline from nearly 27% in 2022 to 9.2% in 2027 and return to pre-war levels (8.5%) in 2030. This decline will expand the budget revenue base through growth in domestic consumption and tax revenues (Centre for Economic Strategy, 2025a).

Annual inflation in 2024 is forecast at 12%, which remains within acceptable limits and corresponds to the definition on the basis of which the stability of the PF was programmed in the Law of Ukraine "On State Budget of Ukraine for 2025", and the further transformation of this stability was determined in the draft of the new Strategy for Reforming the Public Finance Management System for 2026-2030. This price increase is due to the low base comparison curve for 2023, especially for food products, and to rising production costs due to damage caused by the Russian Federation to production infrastructure. Real wage growth is expected to be 6.5%, boosting domestic purchasing power and stimulating consumption of Ukrainian goods and services. This is important for restoring tax revenues and securing the resource base of the state budget (State Statistics Service of Ukraine, 2025).

According to the new budget declaration for 2026-2028, there will be a significant change in the structure of expenditures. In particular, this is due to a significant reduction in assistance from Ukraine's partners. Thus, in 2024, official transfers from the EU, foreign governments, international organisations and donor institutions accounted for a colossal 15.2 per cent of total state budget revenues, while total revenues reached 40 per cent of GDP, which is an excessively high figure. Judging by the latest declaration, a significant reduction is expected, and the share of non-tax revenues will decrease substantially. However, the projected dynamics of the revenue side of the budget indicate a gradual increase in revenues, with the share of total revenues in GDP stabilising at 26-23% of GDP in 2025-2028 (Fig. 2). This is facilitated by the following macroeconomic factors:

– Increasing tax revenues during the early post-war recovery process, including through the use of state (support) aid programmes changing the structure of the national economy towards its "greening", digitalisation and the implementation of the tasks set out in the Ukraine Facility Plan;
– increase in imports, particularly of products from sectors of the economy that have been most affected by the full-scale aggression of the Russian Federation (primarily metallurgy and food products with high added value);
– changes in tax legislation, including the adoption of the National Revenue Strategy until 2030 (prior to its approval, tax policy remained fragmented and focused on operational administration without a clear medium-term roadmap, and after its approval, a comprehensive plan for tax and customs policy reforms was defined with the aim of strengthening the fiscal capacity of the state and improving the efficiency of revenue administration) (Ministry of Finance of Ukraine, 2024);
– expansion of the tax base due to inflation, particularly food inflation (this group of goods has the lowest price elasticity, and the country's food sovereignty remains at a fairly acceptable level despite the armed conflict).

In the third year of full-scale armed aggression, the trend towards the de facto dualisation of the state budget into "defence" and "civilian/social" continues, with more than half of all state budget expenditures, and in some periods, virtually all of its own revenues, being directed towards financing the needs of the security and defence forces. This situation imposes restrictions on long-term budget planning and causes a "freeze" on funding for other areas, such as health care, education, and economic activity, at the level that preceded the full-scale invasion, or even to their reduction.

From 2024 to 2028, stable levels of social support spending (including for veterans of the Russian-

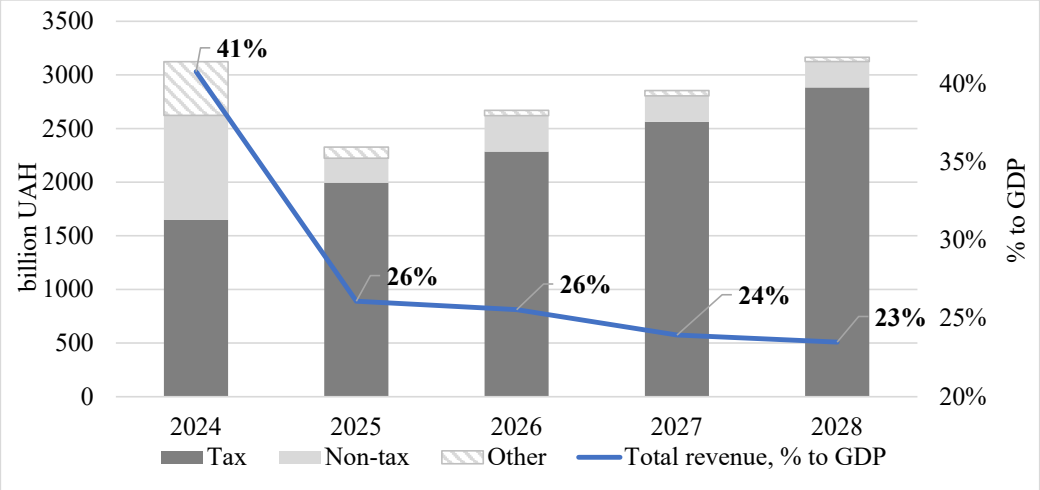

Figure 2. Dynamics of Ukraine's public revenue structure and share of total revenue in the country's GDP

Source: developed by the authors based on Ministry of Finance of Ukraine (2025), NBU (2025)

Ukrainian war) are planned. Thus, the nominal growth of these expenditures starting in 2026 is planned at 1–2%, which does not even cover inflation expectations, indicating a deterioration in the situation with social support for the population, which is a critically important element during a full-scale invasion and immediately after it (Fig. 3).

The largest share of state budget expenditures is accounted for by defence and security-related expenses (expenditures on the Ministry of Defence, the Main Intelligence Directorate, and the Ministry of Internal Affairs). In 2024, more than 61% of all budget allocations will be directed to these needs, which is an unprecedented figure for peacetime and indicates the dominance of the military factor in the structure of state budget expenditures. Despite earlier optimistic forecasts included in the Law of Ukraine "On State Budget for 2024", which predicted that the acute phase of hostilities would end by the end of the year, the actual intensity of hostilities turned out to be significantly higher, leading to a significant underfunding of the defence sector. In this regard, the Verkhovna Rada of Ukraine was forced to quickly adjust the expenditure side of the state budget, allocating an additional 500 billion UAH for the needs of security and defence forces, which amounted to 2,767.5 billion UAH at the end of 2024.

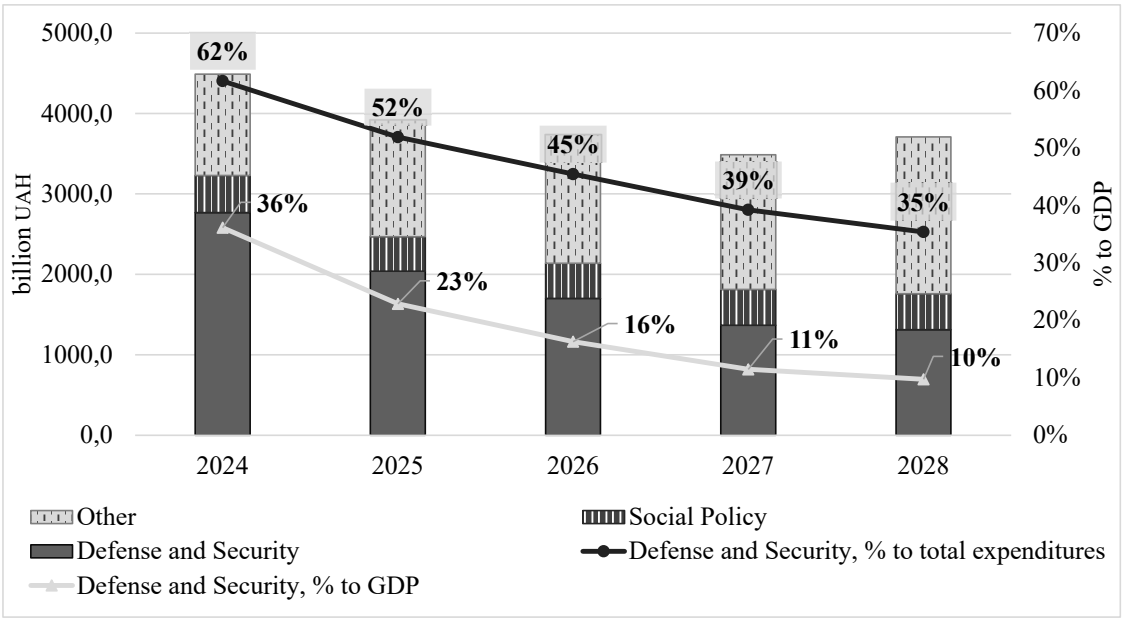

Figure 3. Dynamics of the structure of state budget expenditures by functional purpose, billion UAH

Source: developed by the authors based on Ministry of Finance of Ukraine (2025)

Planning errors for 2024, which stemmed from overly optimistic estimates of the duration of the conflict, were taken into account in the preparation of the Budget Declaration for 2026–2028, on the basis of which the Law of Ukraine "On State Budget for 2025" was formed, but already taking into account the inertia of high-intensity hostilities throughout the budget year. According to the latest estimates, defence spending in 2025 will steadily approach 52% of total expenditure or 23% of GDP. The total cost of the Russian-Ukrainian war in 2024 reached 2.8 trillion UAH, equivalent to 36.4% of Ukraine's GDP. Of this amount, 2.153 trillion UAH (or 27.9% of GDP) was covered by internal resources of the state budget, in particular accumulated tax revenues and other own revenues, while the rest, approximately 654 billion UAH (or 8.5% of GDP) was provided through external financial assistance received from international partners (Romanovska & Smoliar, 2024). Defence expenditure forecasts remain very high–45% of total expenditure in 2026 and 35% in 2028. Given previous experience in drafting budget declarations, it can be concluded that there is an annual adjustment to the structure of budget expenditure, the essence of which is a significant increase in spending on the needs of the security and defence forces, effectively reducing the long- and medium-term predictive capabilities of the PF to zero.

The state budget deficit since the start of the Russian-Ukrainian war remains one of the most critical issues in terms of PF sustainability. Although it decreased to 24% of GDP in 2024 from 25–27% in 2022–2023, it is important to note that the deficit is covered, among other things, by grants, and if their impact on the overall result is deducted (subtracted from budget revenues), the deficit has already reached 24–25% in 2024 and is estimated to reach 24–25% in 2025. Despite a further reduction in this indicator in 2026–2027 to 19–14% of GDP, this remains one of the biggest challenges and risks, as a change in the political will of any key partner could lead to a collapse in the financing of the state budget deficit, and this must be taken into account even when assessing the sustainability potential of the PF and making short-term projections (Fig. 4).

Covering (financing) the deficit requires a comprehensive approach. Also, in 2024, 90% of this deficit was covered by external loans and grants, while the remaining 20% will be financed by placing government bonds on the domestic market. The financing structure for the period 2025-2027 is almost unchanged, with the exception of 2027, when it is planned to raise about 20% not through international loans, but through Eurobonds (Fig. 5).

The projected revenue dynamics indicate a gradual increase in state budget revenues, primarily due to an increase in tax revenues against the backdrop of a gradual economic recovery in general and early post-war recovery in particular, growth in import volumes, changes in tax legislation, including those resulting from the adoption of the National Revenue Strategy until 2030, as well as the expansion of the tax base due to controlled inflationary processes.

Although grant support from external donors will decline somewhat after peaking in 2024 (equivalent to 13.1 billion USD or approximately 530 billion UAH), it will remain a critical element of government revenues and, therefore, their sustainability. Funds received through the European Reconstruction Instrument (ERA) play a particularly important role in the structure of financial assistance, significantly curbing the growth of the state budget deficit (European Parliament,

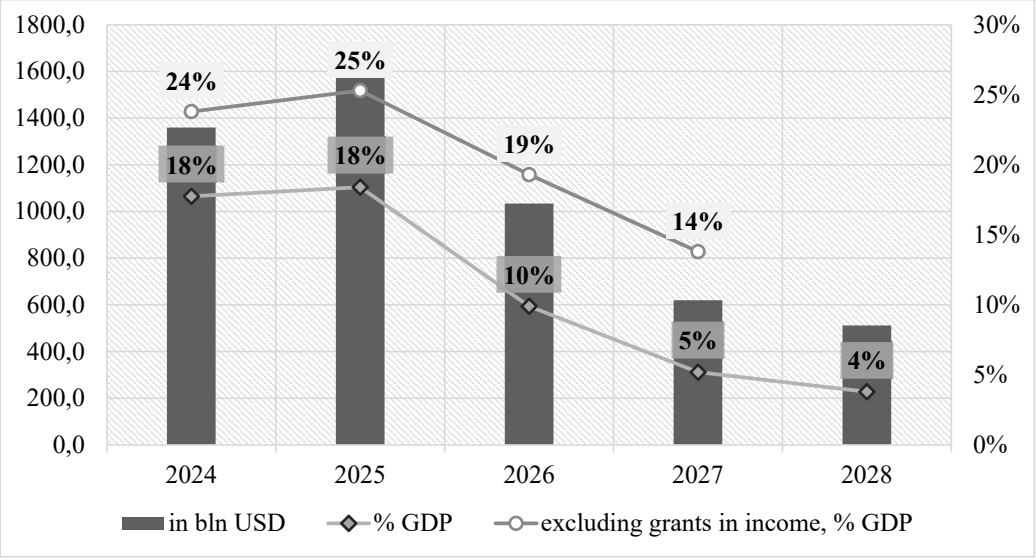

Figure 4. Dynamics of the state budget deficit during the Russian-Ukrainian war

Source: constructed by the authors based on NBU (2025), Ministry of Finance of Ukraine (2025)

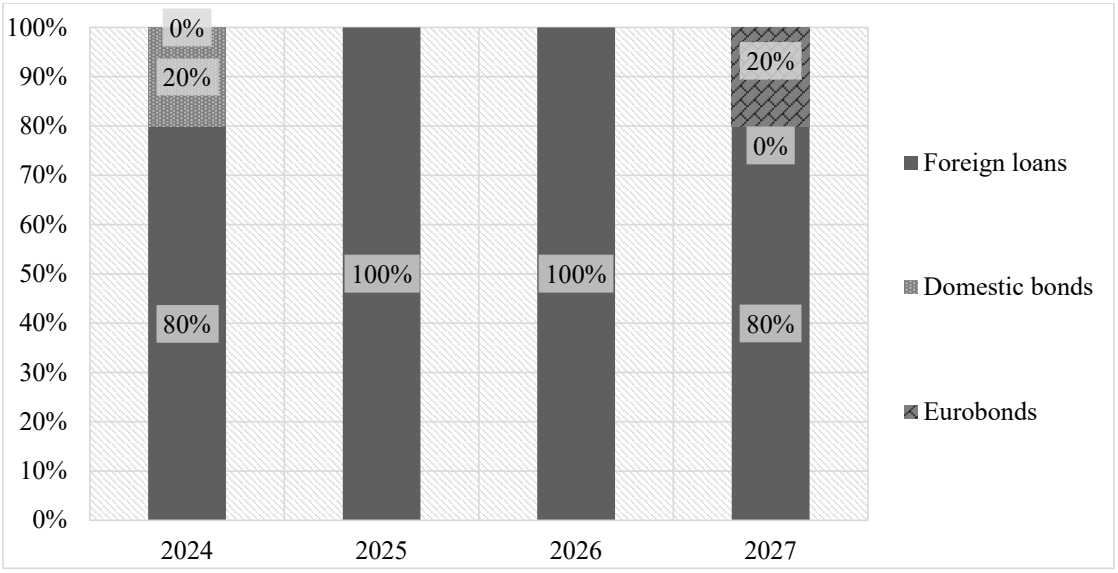

Figure 5. Dynamics of the structure of state budget financing sources during the Russian-Ukrainian war

Source: constructed by the author based on International Monetary Fund (2025), Ministry of Finance of Ukraine (2025)

Economic Governance and EMU Scrutiny Unit, 2024) and ensuring the stability of the PF, primarily in the early post-war recovery phase. As a result, the total amount of state budget revenues, including grant support, after growing by approximately 18% in 2024, has all the prerequisites for a further increase of 13% by 2027, reflecting a moderate but stable trend towards strengthening the state's revenue capacity even in conditions of prolonged military destabilisation (Petrukha et al., 2024). Despite the fact that the domestic financial market, in particular the banking system, has limited opportunities for further increasing the volume of net placement of public debt within the country, external support instruments will play a key role in ensuring the stability of the PF. In particular, the Ukraine Facility instruments and credit programmes within the European Recovery Instrument (ERA) mechanism remain significant sources of funding from the European Union (Situation Ukraine Refugee Situation, 2025). It is expected that in the post-war period, probably in 2026–2027, foreign investors will return to the domestic borrowing market, which will also contribute to the stabilisation of budget revenues and the diversification of sources of budget coverage. In addition, Ukraine is expected to be able to return to full use of the Eurobond market as early as 2027 or even earlier, which will open up new opportunities for mobilising external financing, contributing to the long-term sustainability of the PF.

However, it is necessary to take into account the limitations of the above assumptions (analysis):

– Macroeconomic forecasts and forecasts regarding the stability of the PF are based on the assumption that the active phase of the conflict will end no later than 2026, but they are not sufficiently determined by exogenous factors generated by the new reality;

– the econometric models used, including by the International Monetary Fund, do not sufficiently take into account the volatility of geopolitical and security risks, which can suddenly change the macroeconomic environment and thus affect the state budget indicators and the stability of the PF beyond the standard statistical error;

– the amount of international financial support is highly dependent on the political decisions of donor countries (both domestic and foreign), which can be unpredictable and change depending on the global geopolitical and economic situation;

– the estimates are based on initial data collected during the full-scale Russian-Ukrainian war and therefore are likely to contain statistical errors and methodological and methodological uncertainties regarding their comparability across different years of the armed conflict.

Thus, the macroeconomic scenarios on which the financial calculations are based, as summarised in this study, should be considered as basic trajectories for the development of the PF under the most likely conditions, rather than as deterministic forecasts of their future stability.

5.3. Predictive Modelling of Ukraine's Public Finances Amidst the Ongoing Russian-Ukrainian War

The current state of fiscal stability in Ukraine, a country embroiled in armed conflict, is influenced by a complex set of endogenous and exogenous factors of various nature, ranging from structural and economic

to political and institutional. This necessitates a systematic, comprehensive analysis of these factors in the context of public finance management, especially given the latest updates to macroeconomic forecasts and the triggers contained in the Public Finance Management Strategy for the new programme period. Since declaring independence, Ukraine has repeatedly faced challenges in managing its public finances, which became particularly acute during the period of full-scale armed aggression. In these conditions, the state must not only accumulate budget revenues, but also promptly and effectively redistribute expenditures, taking into account defence and social needs (Makedon et al., 2023). The latest updates to the forecasts of the International Monetary Fund and the National Bank of Ukraine for 2025 indicate the need to adjust assumptions regarding the intensity of the armed conflict, its duration, early post-war recovery needs, and their aggregate and itemised impact on macroeconomic indicators (The National Bank of Ukraine, 2025). The key theme of the updated forecasts, as opposed to the baseline scenario, is a change in predictions regarding the end of the active phase of the armed conflict at the end of 2025. In other words, both the International Monetary Fund and the National Bank of Ukraine consider a transition to a more negative scenario of prolonged and intense armed conflict to be highly likely. Thus, under this scenario, the armed conflict is expected to continue until mid-2026, with the total external financing gap reaching 177.2 billion USD (almost 20% or 29.2 billion USD more than in the baseline scenario), significantly affecting the trajectory of the PF. A shock with signs of economic stagnation is expected in the first quarter of 2025, giving a strong impetus to the deterioration of the business climate, household sentiment and the pace of reverse migration of Ukrainians. This scenario assumes further large-scale destruction of energy infrastructure, which will significantly affect the real sector's ability to produce goods. Real GDP is also expected to decline by 2.5% in 2025, compared to growth of 2.5–3.5% in the baseline scenario. The high dependence of the budget deficit on the duration of the conflict and the volume of defence spending significantly increases the vulnerability of the fiscal framework to adverse external and internal threats, risks and shocks.

For the purposes of constructing a regression model, the variable "Total state budget expenditure" was selected as the dependent variable, while "Tax revenues", “Grants” and "Defence expenditure" served as independent variables. The choice of these variables is justified by the fact that they represent the main structural components of the revenue and expenditure sides of the budget in the context of the Russian-Ukrainian war. The econometric model took the following form:

$$Y_t = \beta_0 + \beta_1 \times X1_t + \beta_2 \times X_{2t} + \beta_3 \times X_{3t} + \varepsilon_t \quad (1)$$

where Y_t – total state budget expenditure for the year t; $X1_t$ – tax revenue for the year t; X_{2t} – volume of grants in year t; X_{3t} – defence expenditure in year t; ε_t – random error.

Official macroeconomic data and forecasts for the period 2022–2027 based on International Monetary Fund assumptions, which included aggregate indicators in billion hryvnias (Table 4), were used to assess the regression dependence. It is important to note that the data for 2025–2027 are forecasts and are based on assumptions about the development of the macroeconomic situation, which are probabilistic estimates in the context of uncertainty about the duration and intensity of the armed conflict.

Using the least squares method (LSM) with a limited sample size (n=6), the following model parameter estimates were obtained:

$$Y_t = 656,29 + 0,61 \times X_{1t} - 0,14 \times X_{2t} + 1,32 \times X_{3t} \quad (2)$$

This equation reflects the value of total expenditure in a hypothetical situation where all independent variables are equal to zero. In the context of this analysis, this coefficient has mainly technical significance, serving as a reference point for interpreting the impact of the factors included in the model (Zhyvko & Petrukha, 2023). Given the scale of Ukraine's state budget, no direct practical interpretation is provided.

The tax coefficient ($\beta_1 = 0,6137, p = 0,025$) demonstrates a statistically significant impact at the 5% significance level, which is confirmed by the low p-value

Table 4
Dynamics of current and forecast macroeconomic data, billion UAH

Years under study	Total expenditure	Taxes	Grants	Defence
2022	2705	950	481	1143
2023	4014	1204	433	2098
2024	4377	1598	526	2098
2025	4812	1886	198	2267
2026	4070	2103	299	1623
2027	4014	2379	305	1512

Source: constructed by the authors based on International Monetary Fund (2025)

obtained as a result of the *t*-test, and indicates that an increase in tax revenues by an average of 1 billion UAH leads to an increase in total state budget expenditures by an amount equivalent to 613.7 million UAH, reflecting a direct relationship between these indicators, which can be justified by the need to finance relevant budget programmes through an expanded fiscal base.

The coefficient for grants ($\beta_2 = -0{,}1386, p = 0{,}779$) is statistically insignificant, which is explained by the high *p*-value exceeding the standard threshold of 0.05, indicating the absence of a significant impact of grant revenues on total budget expenditures within the available data set, which may be due to the instability or insufficient integration of external aid into the budget system, as well as the specifics of their targeted use, which does not always correlate with total expenditures.

The coefficient for defence ($\beta_3 = 1{,}3178, p = 0{,}005$) is characterised by high statistical significance, as confirmed by a very low *p*-value of less than 0.01, indicating that each increase in defence spending by UAH 1 billion causes an average increase in total state budget expenditure of 1.32 billion UAH, which is logically explained by the significant impact of military needs on the budget during the Russian-Ukrainian war, when the defence sector becomes a priority area of budget expenditure, and, consequently, the stability of the PF.

It should be noted that the regression model is based on a small sample of data (n=6), which limits the degrees of freedom and reduces the reliability of forecast estimates. In addition, the model does not take into account the possibility of structural breaks in time series, which is particularly relevant in the new reality, in particular the Russian-Ukrainian war, when economic dynamics and government spending can change dramatically.

For further analysis of the relationships and interdependencies between the indicators of PF stability, a Pearson correlation heat matrix was constructed based on the data in Table 3.

This visualisation tool allows assessing the degree of linearity of the relationship between key macro-financial variables, including total budget revenues and expenditures, tax revenues, grants from external partners, defence expenditures, the state budget balance, domestic and external financing volumes, domestic bond issuance, and debt amortisation payments. The correlation coefficients in the matrix range from -1 (complete inverse dependence) to +1 (complete direct dependence), allowing both synergistic and conflicting relationships between the components of the PF management system to be identified.

The study revealed a number of important correlations. The closest positive correlation is observed between total revenues and tax revenues ($r \approx 0.99$), which is quite logical, since taxes are the main source of state budget revenues.

A similarly high level of positive correlation is observed between total revenues and total expenditures ($r \approx 0.96$), which indicates a strong dependence of niche policy documents (National Revenue Strategy,

Table 3

Dynamics and forecasting of the quantitative and qualitative composition of the PF during the Russian-Ukrainian war and early post-war recovery

Indicator	Years under study					
	2022	2023	2024	2025	2026	2027
Total revenue, billion UAH	1788	2629	3095	3207	3295	3481
as a percentage of GDP	34,1	40,2	40,5	35,8	32,1	29,8
Taxes, billion UAH	950	1204	1598	1886	2103	2379
Grants, billion UAH	481	433	526	198	299	305
Total expenditure, billion UAH	2705	4014	4377	4812	4070	4014
as a percentage of GDP	51,6	61,4	57,3	53,7	39,6	34,4
Defence, billion UAH	1143	2098	2098	2267	1623	1512
as a percentage of GDP	-19,3	-1,386	-1,282	-1,604	-775	-532
Balance, billion UAH	-917	-1385	-1282	-1605	-775	-533
as a percentage of GDP	-17,5	-21,2	-16,8	-17,9	-7,5	-4,6
Funding, billion UAH	-3,6	-26,7	-27,8	-20,1	-10,4	-7,2
Bond issue	257	640	502	258	239	11
Depreciation	383	502	247	229	7	–
Eurobonds	-8	-9	-9	132	139	–
Penalty	606	9	9	7	–	–
Depreciation (other)	614	9	9	7	–	–
Revenue	1133	1739	756	524	678	–
Repayment	113	114	131	154	–	–

Source: constructed by the authors based on International Monetary Fund (2025)

	Total revenue	Taxes	Grants	Total expenditure	Defence	Balance	Financing	Bonds issued	Depreciation
Total revenue	1,00	0,92	-0,54	0,91	0,70	-0,27	-0,50	-0,01	-0,67
Taxes	0,92	1,00	-0,69	0,74	0,42	-0,02	-0,13	-0,37	-0,87
Grants	-0,54	-0,69	1,00	-0,53	-0,32	0,25	-0,12	0,53	0,49
Total expenditure	0,91	0,74	-0,53	1,00	0,92	-0,65	-0,71	0,17	-0,35
Defence	0,70	0,42	-0,32	0,92	1,00	-0,85	-0,90	0,49	0,04
Balance	-0,27	-0,02	0,25	-0,65	-0,85	1,00	0,74	-0,42	-0,41
Financing	-0,50	-0,13	-0,12	-0,71	-0,90	0,74	1,00	-0,79	-0,27
Bonds_issued	-0,01	-0,37	0,53	0,17	0,49	-0,42	-0,79	1,00	0,63
Depreciation	-0,67	-0,87	0,49	-0,35	0,04	-0,41	-0,27	0,63	1,00
Scale	-1,00				0,00				1,00

Figure 6. Pearson's thermal correlation matrix between components of the PF control system

Source: developed by the authors

Medium-Term Public Debt Management Strategy, Strategy for Digital Development, Digital Transformation and Digitalisation of Public Finance Management) on the Public Finance Management Strategy for the new programme period and the medium-term objectives of the Budget Declaration, i.e., budget expenditure policy on fiscal space.

The strong positive correlation between defence spending and total government spending ($r \approx 0.93$) deserves significant attention, as it empirically confirms the dominance of military needs in the structure of the state budget. This indicator shows that more than 86% of the variation in total expenditure is explained by the variation in defence expenditure, which confirms the unconditional dependence of the fiscal situation on the intensity of the armed conflict. Concurrently, a negative correlation has been observed between defence spending and the budget balance ($r \approx -0.61$), thereby reflecting the mechanics of the budget deficit formation process. It can be deduced that an increase in defence spending, in the absence of adequate revenue growth, inevitably leads to a widening of the budget gap and an increased reliance on external sources of financing. The correlation coefficient of -0.61 indicates a moderately strong inverse relationship, confirming the role of defence spending and determining it as a key factor in the formation of the state budget deficit. A moderately strong positive correlation is observed between the volume of domestic financing and the issuance of domestic government bonds ($r \approx 0.68$), which confirms the dominant role of debt instruments in covering the budget gap (deficit). This dependence indicates that during armed conflict, the state mainly resorts to domestic borrowing by placing bonds on the Ukrainian market. Nevertheless, the somewhat weak or near-zero correlation between grants and bond issuance (r close to 0) indicates the relative autonomy of these sources of financing, which is logically explained by their different nature and purpose. This is because grants are mainly directed towards specific projects and are outside the orthodox set of budget programmes and the elemental structure of expenditure within them. The correlation between total revenues and the budget balance ($r \approx -0.55$) is the weakest among the relationships considered, indicating the dominant role of the expenditure side of the state budget in shaping the deficit. In other words, even with an increase in the state's fiscal space, the budget deficit does not decrease proportionally, as expenditures, primarily defence expenditures, are growing at a faster rate, causing an inertia effect in destabilising the sustainability of the PF. Low correlations between depreciation and other variables indicate their isolation (autonomy) in the short term, although in the long term they will have a growing impact on fiscal policy, especially during early post-war recovery through reinvestment mechanisms and the implementation of public investment projects. Thus, the results of econometric modelling using Pearson's heat matrix made it possible to establish the density of interrelationships between the components of the PF management system, assess their interdependence and the level of projection on PF stability. In particular, it was established that:

– The PF of Ukraine for the period 2022–2027 demonstrates a high degree of interdependence between key budget indicators, which is due to the extraordinary circumstances of prolonged armed aggression and the need for a large-scale rethinking of primary needs, their adaptation (reorientation) in the Budget Declaration

to the conditions of a war economy and the redirection of budget resources to the needs of the security and defence forces, which are constantly growing, initially causing budget gaps or deficits in the state budget, and subsequently negatively affecting the stability of the PF through transmission channels;

– tax revenues form the core of the stability of the PF and play a fundamental role in shaping the revenue capacity (fiscal space) of the state budget. However, their volumes are determined primarily by the state of the war economy, which is in deep crisis, creating the effect of narrowing this source, negatively affecting the stability of the PF, exacerbating the negative effect of the low level of predictability of fiscal space, and thus the stability of the PF, exacerbating the risks of implementing the National Revenue Strategy;

– Expenditures on security and defence are dominant in the expenditure part of the state budget (in 2025, 26.3% of GDP will be allocated for these purposes, amounting to 2.23 trillion UAH, which is 47.6 billion UAH more than in the revised plan for 2024). and is the main factor posing key threats (risks) to the sustainability of public finances due to the interaction and interdependence between expenditure, revenue and deficit, necessitating the development of interrelated and, at the same time, sequential policy documents in the field of public finance management– Strategy for reforming the public finance management system (fundamental basis), Medium-term public debt management strategy, Strategy for digital development, digital transformation and digitalisation of the public finance management system (both documents are subordinate and at the same time interdependent);

– a significant and permanent state budget deficit, ranging from 20.4% to 22% of GDP depending on the scenario, and variations within each of them macroeconomic forecasts, mainly caused by expenditures for the needs of security and defence forces, which are mainly financed from domestic sources, including financial resources generated through the issuance (sale) of domestic government bonds, while the "civilian" component of the state budget is financed by external assistance from allied countries, including in the form of grants, concessional loans, etc., in particular those received through the Ukraine Facility mechanisms. And here, in order to ensure short-, medium- and long-term sustainability of the PF, it is necessary to strike a balance between defence, debt dependence and social risks by forming a budgetary transmission mechanism similar to the one existing in the monetary sphere;

– The lack of methodology, techniques, a system of principles and dashboards for the budget transmission mechanism, against the backdrop of a high level of dependence on external sources of financing, creates an unprecedented risk to debt sustainability in Ukraine's modern history, creating additional uncertainty and an information vacuum during medium and long-term assessment of the sustainability of the PF, the ability to ensure both early and later post-war recovery at an acceptable level of public deficit, public and state-guaranteed debt.

6. Conclusions

Based on the study, it was established that the stability of PF depends on a complex of factors that interact with each other, forming a budget transmission mechanism, the manifestation of which is the interdependence and mutual influence between selected budget indicators that determine budget policy and indicators of PF stability that embody the results of the implementation of measures provided for in the Strategy for Reforming the Public Finance Management System and are partially reflected in the Budget Declaration for the corresponding three-year period. It has been established that these factors include both quantitative indicators of budget performance (deficit size, tax revenues, amounts of grants received for direct budget support, etc.) and qualitative indicators (effectiveness of public debt management, institutional capacity of public authorities to ensure effective management of budgetary resources in conditions of armed conflict with parallel search for opportunities to provide resources for early post-war recovery, approximation of statistical standards and implementation of monitoring and control measures in the field of PF). In this regard, and additionally taking into account that the PF management system is in a state of high turbulence, the speed of which is determined by the intensity of the armed conflict and the need to find an optimum balance between defence spending and social needs, a high degree of reliability in assessing the stability of the PF is obtained through correlation analysis. To this end, we have developed an econometric model for assessing (forecasting) the sustainability of PF, which covers (empirical results and scenario forecasts for the two budget periods following the reporting period) macroeconomic indicators, debt policy parameters and indicators of the institutional capacity of public authorities, adapted to the conditions of extreme uncertainty inherent in a wartime economy.

Empirical analysis has shown that the main factor determining the structure of state budget expenditure is the dynamics of expenditure on security and defence needs ($\beta_3 = 1{,}3178, p = 0{,}005$). Given this relationship, each increase in defence spending by 1 billion UAH leads to an increase in total state budget expenditure by 1.32 billion UAH, which empirically confirms the dominance of the military factor in the expenditure sections of Ukraine's state budget laws during the Russian-Ukrainian war (2022–2026). In addition, a high dependence of tax revenues on the macroeconomic situation (r=0.99) was identified,

with a simultaneous inverse correlation between defence spending and the state budget balance (r=-0.61), proving the dominance and, at the same time, the subordination of the National Revenue Strategy to the new vision and philosophy of what a successful Ukraine will look like after victory and how it will achieve it.

Taking into account structural, institutional and dynamic shifts in the PF during the Russian-Ukrainian war, a regression of the main PF parameters for the medium term (until 2027) was carried out. This was modelled using dual invariance of baseline and negative scenarios. This made it possible to identify strong correlations between the structural components of the state budget during the early post-war recovery period. According to forecasts, the active phase of the armed conflict should not extend beyond the 2026 fiscal year. The correlations were found to exist between total budget expenditure, tax revenue, international financial support and defence expenditure. It has been established that if the armed conflict continues or intensifies, the budget deficit will steadily increase (constantly reaching new historical highs), while fiscal space will narrow, creating inertia in the destabilisation of PF and their unmanageable sustainability. Thus, without systematic and consistent changes in the structure of fiscal policy aimed at organic expansion of domestic revenue sources and rationalisation of expenditure, it is impossible to achieve long-term sustainability of the PF, ensuring a controlled departure from dependence on external sources of financing the budget deficit. To this end, the critical need to redesign the strategy for ensuring the sustainability of the PF has been proven and substantiated, which should be based on the following triad:

– Identifying additional sources of sustainability and expanding domestic financing sources through early economic recovery programmes (in particular, using Ukraine Facility mechanisms), reforming tax and debt policies within the framework of, on the one hand, measures to implement the National Revenue Strategy and, on the other hand, the development of Public Debt Management Programmes for 2026–2027;

– optimal use of international financial assistance, including direct budget support for priority social needs and early post-war recovery, taking into account their overall correlation with long-term debt sustainability;

– developing a prototype for prioritisation, i.e., real-time prioritisation of expenditure for the needs of security and defence forces, social protection and early economic recovery, taking into account fiscal space behaviour.

It should be emphasised that the forecasts presented are based on assumptions about macroeconomic development, which contain a significant degree of uncertainty due to the unpredictability of the armed conflict. Therefore, these scenarios should be considered as conditional trajectories of development rather than deterministic forecasts. However, the main conclusions regarding the need for systematic management of the PF remain relevant regardless of how the situation develops in the near future.

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