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FINANCIAL REGULATION MECHANISM THE UKRAINIAN ECONOMY UNDER MARTIAL LAW: A REVIEW OF POLICIES AND INSTRUMENTS

Summary

The aim of the research is to review and evaluate the prerequisites and needs for transforming the mechanisms of financial regulation in the Ukrainian economy in the conditions of war and post-war recovery. The losses of the economy and specific industries during wartime were analyzed based on open data. A review of legislation regarding innovative fiscal regulation introduced during the period of war to ensure national security, support the livelihoods of the state, businesses, and the population was conducted. It was argued that the accumulation of financial resources is necessary based on principles of systematics and balance, with prioritization of sources and distribution of resources based on the importance of funding directions for ensuring national security, payment of government debt, support of vital economic sectors, and provision of social guarantees. Priorities for post-war reconstruction funding were concentrated in supporting the financial market and economically significant sectors, which are the foundation of national security, particularly the agricultural sector. The role of international financial institutions and their participation in funding Ukraine's reconstruction in the form of grants, aid from charitable funds, and provision of financial assets in the short and medium term were analyzed. It was determined that a higher level of harmonization between national and global concepts of financial mechanism development is necessary. It is envisioned that in the field of financial regulation, priority tasks should be outlined in correlation with Ukraine's recovery strategy by segments and industries, as well as expected volumes and *results of financial support for the economy in a strategic perspective. The configuration of financial regulation mechanisms in the Ukrainian economy in the conditions of war and their probable post-war transformation was outlined.*

Introduction

Financial regulation of the economy is the organizing influence of financial levers on the economic activity of market entities to streamline it and improve performance [28, p. 10]. In general, financial regulation is implemented and carried out within the framework of financial policy and involves the planning and direction of financial flows at the macro level to promote economic development, protection from financial crises and increase economic efficiency [5, p. 4].

The mechanism of financial regulation is positioned as a set of forms and methods for the creation and use of financial resources to meet the diverse needs of state structures, business entities and the population. It is used to create favorable conditions for the economic and social development of society [23; 27; 29]. Financial regulation mechanisms include the following main components: fiscal policy – regulation of state revenues and expenditures, aggregate demand and national income through state budget and transfer payments and taxes; monetary (monetary) policy – a set of interrelated measures aimed at achieving certain goals to regulate the money market, carried out by the state through its central bank; investment policy – the activities of the state in the field of support and development of various sectors of the economy.

Since the beginning of the Russian-Ukrainian war, the role of the state has increased dramatically, and the methods of managing and regulating the national economy, primarily financial ones, have also deepened and transformed [31; 32; 35; 38]. The existing financial mechanisms are being transformed exclusively into ensuring national security and maintaining the vital activity of the economy. To reduce the decline in production indicators, the level of corporate incomes, and equalize the national, and in its composition, financial security, adequate compensatory mechanisms, primarily financial ones, are needed.

At a conference in Lugano, Switzerland [40], Ukraine announced the necessary amount of investments for recovery at $750 billion, of which it is planned to attract ~200–300 billion in 2023–2025 and in 2026–2032 through partner grants and loans, another $50 billion. Ukraine [15] is preparing several legislative changes for Ukrainian businesses and international investors to simplify the business environment for economic recovery. Therefore, it seems necessary to provide scientific support for certain processes, namely: a review of the financial mechanisms and macroeconomic indicators of Ukraine during martial law; fiscal instruments of the financial mechanism; innovative components of financial regulation of individual sectors of the economy; the priorities of post-war reconstruction and the mechanisms for their financial support.

Part 1. Review of financial mechanisms and macroeconomic indicators of Ukraine during martial law

The need to transform the mechanisms of financial regulation is due to the critical state of the economy during martial law. International Monetary Fund [41; 42] predicted a decline in the Ukrainian economy in terms of real GDP by 35% in 2022. According to the actual results of 2022, the Ministry of Economy [20] reports its decrease by 30.4%. According to the analysis of Monthly Economic Outlook [37], the decline in Ukraine's dollar GDP in 2022 reached 21.3% ($158 against $200.8 billion in 2021). At the same time, the output of sectors whose income was supported by government spending financed by external financing from allied countries more than halved, from $132 billion to $53 billion (-60%). The industrial production index in 2022 against 2021 fell by 36.9%.

The top unprofitable ones are headed by state-owned enterprises: NJSC Naftogaz Ukrainy, Naftogaz Trading, Ukrzaliznytsia, Energorynok, Centrenergo, Energoatom, Operator of the Gas Transportation System of Ukraine, Odessa Portside Plant, Southern Machine-Building Plant, etc. d. Metallurgical enterprises suffered the greatest losses [12]: a total of UAH 87 billion (-71%), since the two largest plants Azovstal and MMK im. Ilyich" were completely destroyed during the hostilities, and bankruptcy proceedings were initiated against them. Many other enterprises were shelled, and ArcelorMittal Kryviy Rih became the leader in net loss – UAH 49 billion. In addition, numerous creditors do not approve of all possible options for restructuring the debts of state enterprises [8].

The Page [25] analyzed the net profit in 2022 for a total of UAH 459 billion of 9335 Ukrainian companies, noting that in Ukraine it is still profitable to engage in the production of agricultural products, extract minerals, and also finance (the segment of trusts, funds and other companies). The following types of activities were profitable: wholesale trade in fuel – UAH 16.3 billion; iron ore mining – UAH 14.7 billion; electricity production – UAH 14.0 billion; electricity trade – UAH 12.1 billion; activities in the field of wireless telecommunications – UAH 11.7 billion.

The financial system of Ukraine withstood the pressure of a full-scale Russian invasion, although it could not avoid negative consequences [18]. The acceleration of inflation, the increase in the cost of money, the deterioration in the quality of loans and the growing need of Ukrainians for round-the-clock access to savings are only trends that have become aggravated in the first year of the invasion. At the end of 2022, according to the Macroeconomic and Monetary Review of the National Bank of Ukraine (NBU) for April 2023 [22] and Ukraine Economic Outlook [37], there are clear trends in the state of the national economy due to financial regulation. State budget revenues in 2022 amounted to UAH 1.77 trillion, tax revenues amounted to 54%, more than a quarter of budget revenues (27%) were formed through grant funding. Expenses amounted to 2.7 trillion. hryvnia, deficit – 930 billion hryvnia, a significant part of which was covered by Western loans. The consumer price index in 2022 was: January-December – 20.1% (average for the year), December 2022 to December 2021 – 26.6%. The preliminary estimate of the Producer Price Index in 2022 is 59.3% (average for the year), the GDP deflator in 2022 was 36.6% of the 2021 level.

FinClub summarized that inflation, which became the main economic problem of the world in 2022, reached its maximum in autumn and began to slow down. In Ukraine, as in many other European countries, consumer inflation reached a local peak in October and reached 26.6% per annum. Further tightening of inflationary and devaluation pressure forced the National Bank to abandon its loose monetary policy in June. Raising the discount rate to 25% automatically made all refinancing provided to banks expensive: they began to look for ways to return the refinance as soon as possible, for which they were forced to pay 27% per annum. By the end of the year, banks returned UAH 76 billion, the remaining debt fell to UAH 38 billion, and this trend continued at the beginning of 2023. Banks were not inclined to use the funds raised for lending due to the deterioration of payment discipline. The NPL level, which was at a record low of 26.6% by the beginning of March, rose to 38.1% by the end of the year. The volume of non-performing loans during this period increased from UAH 305 billion to UAH 432 billion [33].

The macroeconomic forecast carried out by the National Bank of Ukraine (October 2022) [22] provides for a fall in GDP, rising inflation, and a critical budget deficit (Table 1).

Table 1

Macroeconomic forecast for the development of Ukraine for 2022–2024, UAH billion

	2019	**2020**	**2021**	**2022**	**2023**	**2024**
Nominal GDP	3977	4222	5460	4750	6175	7350
Real GDP	3,2	-3,8	3,4	-31,5	4,0	5,2
Core inflation	3,9	4,5	7,9	24,5	13,1	3,0
Consolidated budget, balance	-87,3	-224	-187	-764	-804	-591
% of GDP	-2,2	-5,3	-3,4	-16,1	-13,0	-8,0

Source: [22]

In particular, the NBU Inflation Report (for December) stipulates that in 2022 the fiscal policy was quite soft and will remain stimulating until the end of the forecast period. This is done in order to support the economy during the war and promote recovery while reducing security risks. International support will remain a key source of funding for budgetary needs. Together with an increase in market attraction, this will completely stop the monetization of the budget deficit from 2023. The budget deficit will be reduced gradually (from 25% of GDP in 2022 excluding grants to 12% of GDP in 2024). So far, the burden of public debt is at the level of 85% of GDP according to the forecast for the end of 2022 [7].

The need for effective use of the fiscal space that has developed under martial law requires significant structural reforms (Table 2).

Table 2

Components of fiscal structural reforms

Directions of reforms	**Event content**
Revenue mobilization policy	Increase revenue through a multi-year National Revenue Strategy: in the short term, measures to improve tax and customs administration; analysis of existing tax debt; the possibility of repayment; further revenue mobilization measures that can be integrated into budget revenue projections (tax harmonization with EU directives)
Medium-term budget planning	The measures are aimed at strengthening the tax and customs services, the simplified taxation regime has been revised to eliminate the erosion of taxes on labor by replacing the legal basis of labor relations with civil law provisions; harmonization of VAT and excise rules with EU law, strengthened anti-corruption measures and governance procedures to eliminate the risks of impiety, tax reforms that balance the need of the revenue base
Fiscal transparency and risks	In order to better prepare for the post-war recovery and consolidate fiscal and debt sustainability, a restoration of medium-term budgeting is expected. A draft law is envisaged to repeal the rule to suspend the preparation of the medium-term budget (Budget Declaration) on the eve of the 2024 budget cycle, with entry into force in January 2024; presentation in the 2024 budget of projections of key revenue and expenditure categories, and deficit financing sources for the general government sector for 2025–2026. Inclusion of a fiscal risk report, including details of state-owned enterprises in the energy and critical infrastructure sectors. Improving strategic budgeting and valuation of new public services, as well as mechanisms for linking the budget and fiscal risk assessment
Strengthening Public Investment Management	Measures to increase fiscal transparency, reduce fiscal risks and strengthen control over liabilities. In particular: The Ministry of Finance will continue to strengthen the current centralized approach to liability control, control of the volume of debt of the general government sector, resumption of regular reporting by state enterprises not located in the temporarily occupied territories. Transfer of control over obligations and appropriations to the Ministry of Finance, as provided for by the budget legislation
External and internal financing	Improving the efficiency of public investment and channeling resources to projects that deliver the most value for money while supporting recovery and growth. Review current public investment management procedures and develop a roadmap of activities

Source: [11]

According to the IMF Memorandum, the implementation of fiscal structural reforms continues to support medium-term budget planning, preserve fiscal and debt sustainability, and lay the foundations for long-term growth. As defense expenditures are reduced, resources are expected to be directed to recovery and reconstruction, as well as to the social protection system to meet the post-war needs of society and the vulnerable population [11]. The program of fiscal structural reforms, as stated in this document, will focus on: raising adequate revenues to meet the needs of funds for recovery and social spending by implementing measures that increase the efficiency, fairness and simplicity of the tax system, including through the implementation of its own multi-year National Strategy income; preparation of public investment and finance management for the post-war era, by strengthening public investment processes, project management cycle and commitment control; strengthening fiscal transparency and fiscal risk management; ensuring fiscal stability and predictability of budget policy.

Part 2. Fiscal Instruments financial mechanism of Ukraine

The IMF Memorandum [11] notes that in 2022, the Russian invasion forced fiscal policy management in an environment of unprecedented uncertainty, which led to unpredictable complications in budget predictability and the emergence of a large fiscal deficit. In general, the war radically changed the state and its financial system. This also affected the dynamics of individual macro indicators (Table 3).

Table 3

Dynamics of individual macro indicators of Ukraine, 2014–2022, UAH billion

	2014	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Budget revenues	357	534	616	793	928	998	1070	1296	1787
Taxes and tax payments	280	409	504	627	753	800	851	1107	949
GDP at current prices	1568	1979	2383	2983	3558	3974	4194	5460	5191
Share of budget revenues in GDP, %	22,77	26,98	25,85	26,58	26,08	25,11	25,51	3,74	34,43
Share of taxes in GDP, %	17,86	20,67	21,15	21,02	21,16	20,13	20,29	20,27	18, 24

Source: Compiled according to NBU data [7; 22], Ministry of Finance [21]

In 2022, compared to 2021, state budget revenues increased by 36%, but direct tax revenues decreased by 14%; non-tax revenues increased by 98%; revenues from the EU and foreign governments grew 40 times. The dynamics of taxation in the areas of income tax and personal income tax for the specified period is shown in Figure 1.

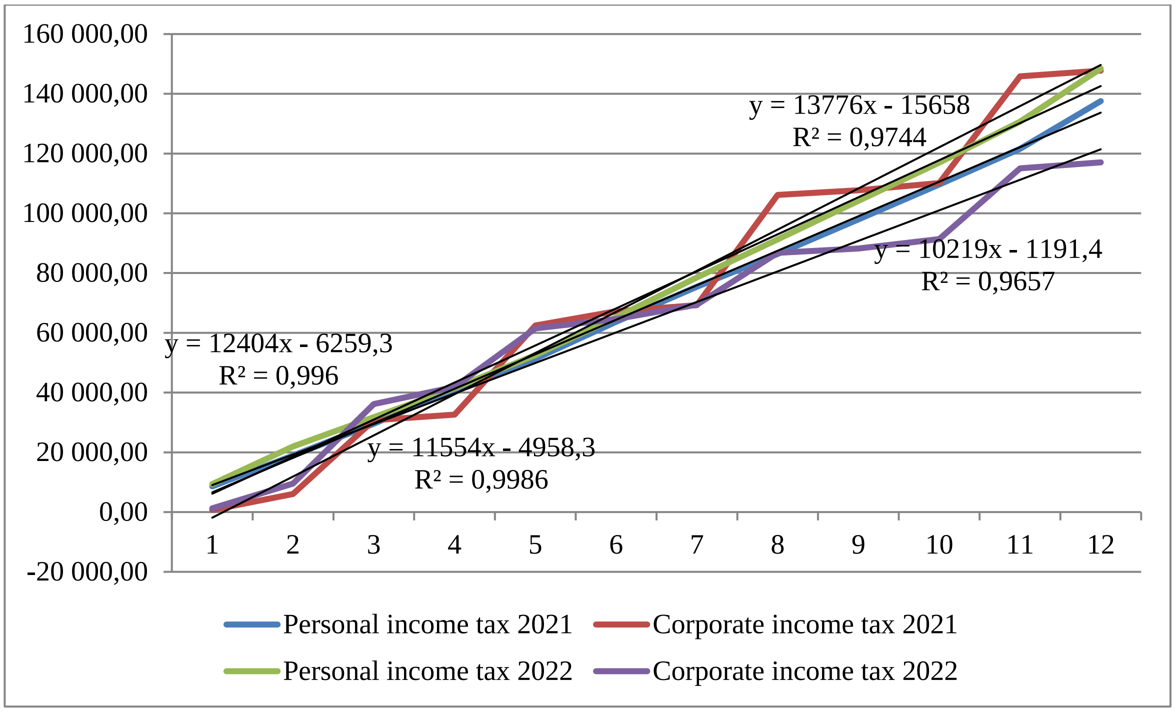


Figure 1. Dynamics and structure of tax revenues
State budget for January-December 2021–2022, UAH million

Source: calculated by the authors according to [22]

The reaction of business and entrepreneurship to tax innovations in terms of personal income tax (PIT) and corporate income tax (CIT) was the following. Personal income tax in January 2022 was 9% higher than the same period in 2021, maintaining the same moderate prevailing trend over the analyzed period to 8% in December 2022, reaching a volume of UAH 148 billion. PPP from 6% growth in January 2022 compared to January 2021 decreased by 20.3% compared to December 2021, reaching UAH 147 billion. Behind the trend lines shown in Figure 1, with 97% certainty, we can assume that the increase in tax revenues from PPP in 2021 amounted to UAH 13.7 million monthly, and in 2022 – UAH 10.3 million. Consequently, personal income receipts were relatively stable, marginally ahead of 2021 levels, while business tax receipts declined. This trend indicates the need for more fiscal assistance to the second category of taxpayers.

The state budget of Ukraine is filled mainly with revenues from internal taxes on goods and services. So, in 2021, in the total structure of tax revenues of

UAH 1,107.09 billion. their share was 63.13%. In 2022, the Ministry of Finance planned to collect UAH 405 billion of VAT, UAH 76 billion of excise duty, and UAH 37.5 billion of duty. In general, only indirect taxes on imported goods should amount to almost UAH 520 billion – 40% of all budget revenues.

A drop in the dynamics of tax revenues to the budget from legal entities in 2022, despite the heavy destructive effect of the war, because in the first months of the war, some businesses did not work at all (according to the research of the European Business Association (EBA) [2], this is about half of the entrepreneurs), due to: the deadline for the payment of taxes and fees (no later than 07/31/2022); the impossibility of VAT payers to reduce their tax liability by the amount of the tax credit through certain counterparties who have switched to the simplified 2% system; cancellation from July 01, 2022 of a number of customs exemptions for taxation when importing goods by single tax payers – non-payers of VAT; insignificant VAT refund; rising prices and an increase in the hryvnia exchange rate [36].

According to the Ministry of Finance [21], the sources of financing of the state budget for the period from February 24 to December 30, 2022 reached the amount of UAH 1696.395 million or USD 51.31 million. UAH 402.1 billion was attracted from the placement of domestic government bonds (OVGZ) to finance the state budget, including UAH 44.2 billion in foreign currency (USD 1,066.1 million and EUR 388.3 million).

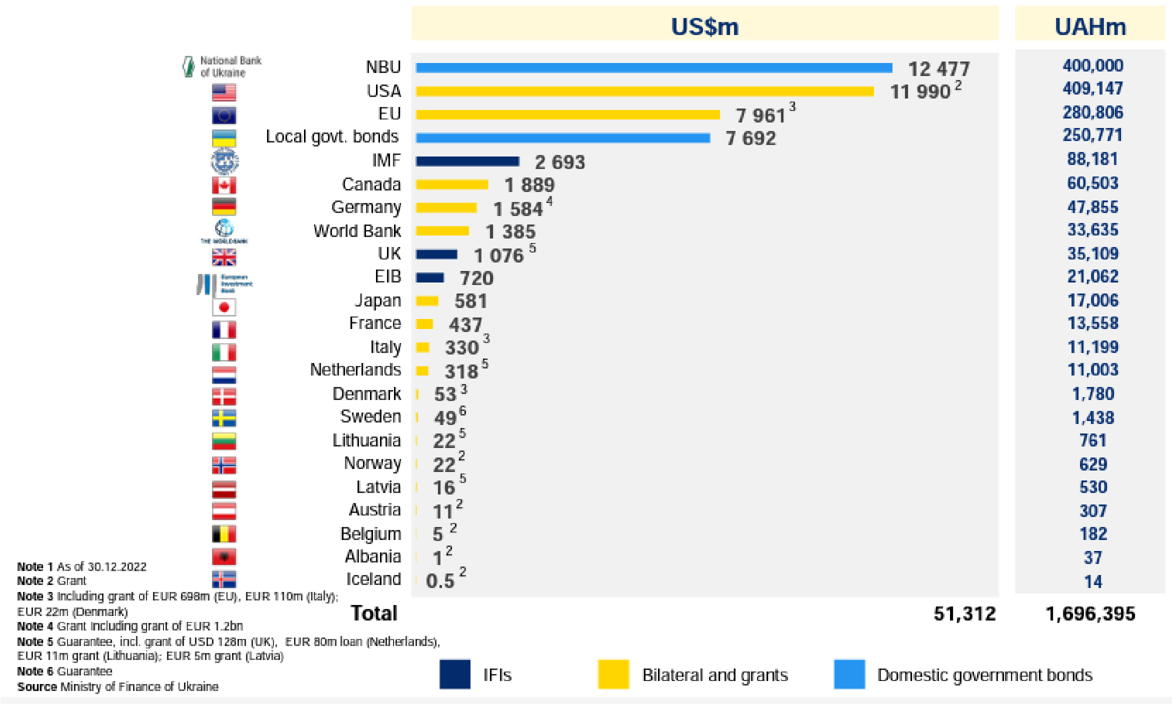


Figure 2. Sources of state budget financing for the period from February 24 to December 30, 2022, UAH million, USD million

Source: [21]

At the same time, UAH 344.5 billion was attracted through the issuance of military government bonds, including UAH 255.0 billion by acquiring ownership of the NBU. Moreover, the NBU predicts extremely negative consequences for macroeconomic stability from excessive monetary financing of the state budget deficit.

The volumes and forms of budget expenditures are regulated by law and depend on the financial capacity of the state. As of the end of 2022, according to statistics (NBU) [22], in the structure of public spending, 42.23% was for defense, 15.74% for social protection and social security, 16% for public order, security and the judiciary, 9% for national functions; 3.25% for the economy. There was a significant budget deficit, and given that defense spending can only be reimbursed from domestic sources, this requirement was partly the reason for the increase in fiscal pressure on business. Dynamics of functional expenses of the State Budget of Ukraine in 2014–2022 is given in Table. 4.

Table 4

Functional cost indices State budget of Ukraine in 2018–2022 (base year 2014), UAH mln

Indicators	2014	2018	2019	2020	2021	2022
Budget expenditures	430217	2,292	2,499	2,622	3,464	6,289
defense spending	27363	3,546	3,897	4,399	4,661	41,767
Share of defense in expenses, %	6,34	1,547	1,563	1,464	1,350	6,661
Spending on the economy	34410	1,848	2,103	4,911	5,260	2,772
Share of economy in expenses, %	8,00	0,806	0,841	1,873	1,518	0,406
Social protection spending	80558	2,034	2,714	4,006	4,137	5,288
Share of social protection in expenses, %	18,72	0,888	1,087	1,528	1,194	0,841

Source: compiled according to NBU data [22], Calculated according to the Open Budget Website URL: https://openbudget.gov.ua/

In 2023, the Ministry of Finance [21] represents State budget revenues of UAH 1,329.3 billion, expenditures of UAH 2,640.2 billion, and a projected deficit of up to 20.6% of gross domestic product (GDP). At the same time, among the priority expenditures are: national security and defense of the country, which amounts to UAH 1,141.1 billion or 18.2% of GDP; social protection and provision – UAH 447.6 billion; support for veterans – UAH 6.8 billion; education – UAH 156 billion; health care – UAH 176.1 billion.

The government predicts a conservative-pessimistic scenario for the development of the economy for 2023, taking into account the continuation of the war, at least in the first half of the year. In particular, this is the growth of real GDP by 4.6% to 6.4 trillion. predicts that inflation will remain at the level of 30% at the end of next year (as for the current year 2022), while the NBU [7] in its forecast proceeded from the trend for disinflation next year to 20.7% in the base scenario and 19.4% in alternative. According to the estimates of the Ministry of Finance [21], the recovery of industrial activity in the country will be driven by domestic demand due to the gradual return of the population from abroad and the growth of employment, as well as improved logistics, which will contribute to a better use of existing external demand. The resumption will take place in conditions of high price dynamics caused by the action of significant cost factors caused by the disruption of production and logistics chains, the negative impact of external factors.

When forming the budget for 2023, the government stated that Ukraine needs $38 billion to cover the budget deficit, which they hope to attract from international partners – the United States, the EU and the IMF. It is also possible, based on the assessment of losses, to form a budget Fund for the Elimination of the Consequences of Armed Aggression, the sources of which will be the confiscated funds of Russia [16]. Now new areas of cooperation with Ukraine are offered by the European Investment Bank; well-known investment company BlackRock, International Finance Corporation (IFC) from the World Bank Group.

According to the Memorandum [11], fiscal policy in 2023 will focus on maintaining fiscal and debt sustainability, while at the same time continuing to provide sufficient resources for key priority spending and helping to prepare for recovery. It is intended to refrain from any tax policy and administrative measures that could adversely affect the tax revenue base in 2023 and beyond, while taking steps to promote post-war recovery and EU accession.

Part 3. Innovative components of financial regulation economy of Ukraine on the example of the agricultural sector

In the context of a shortage of public funds due to their priority allocation to defense and security needs, it is obvious that direct methods of supporting the economy and its sectors are practically exhausted, and the existing ones will not have the expected effect due to the limited coverage of measures and programs. The possibilities of fiscal instruments due to the easing of tax pressure are also limited, since the government plans to provide significant benefits only to military-industrial complex enterprises.

The state has abandoned spending that should be spent on capital construction or development, which is about UAH 140 billion according to the estimate of the State Budget plan for 2022. In practice, funds are spent in only three areas: defense, pensions, public sector salaries, and servicing the public debt [22] (Figure 3).

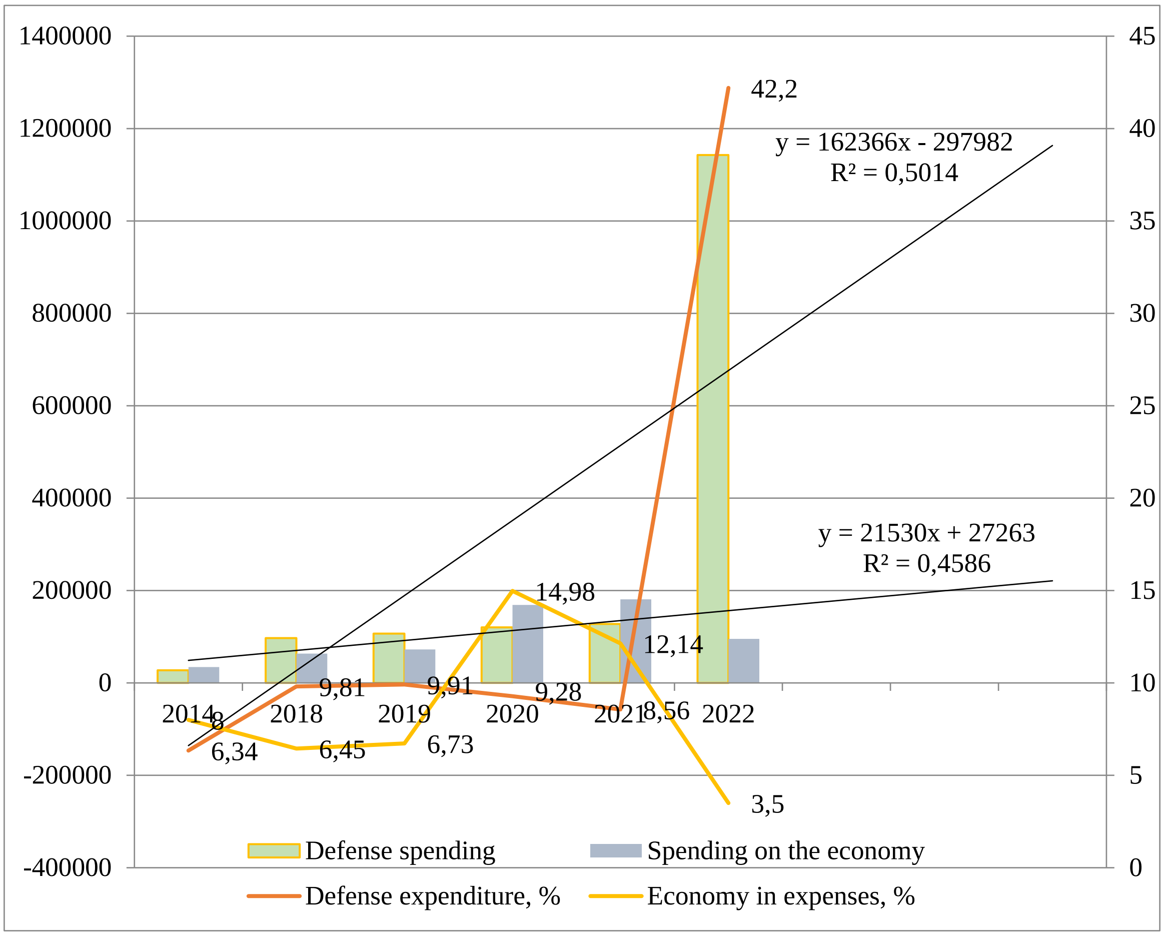


Figure 3. Dynamics of individual functional expenses of the State Budget of Ukraine in 2014-2022, UAH million

Source: built by the authors according to [22]

National business, even in war conditions, is optimistic. In particular, according to a survey of company executives that the National Bank conducted in the first quarter of 2023 [22], despite active hostilities and shelling of civilian infrastructure, it continued to mitigate negative expectations both for its own development and for the dynamics of the volume of production of goods and services in Ukraine in the next 12 months. Simultaneously, inflation estimates and exchange rate expectations improved. The index of business expectations of enterprises increased to 91.2% compared to 83.5% in the 4th quarter of 2022. Improvement in estimates occurred in enterprises of almost all types of economic activity, except for construction and trade.

GDP in agriculture decreased by 34%, primarily due to the blockade of seaports, where 70% of products were shipped for export. In addition to the decline in exports, the level of food security according to the analysis of the index of food availability [13; 14] decreased by almost 50%. Industry losses according to experts [6; 39], in direct losses exceed 6 billion dollars, additional – 22 billion dollars, and from a decrease in income along the agro-industrial complex – 30 billion dollars, the volume of which is increasing. Losses have already reached more than 50% of the financial resources of agricultural corporations at the level of 2020 (according to the financial balance – UAH 1,130 billion), and 38% of their average annual level in 2013–2020.

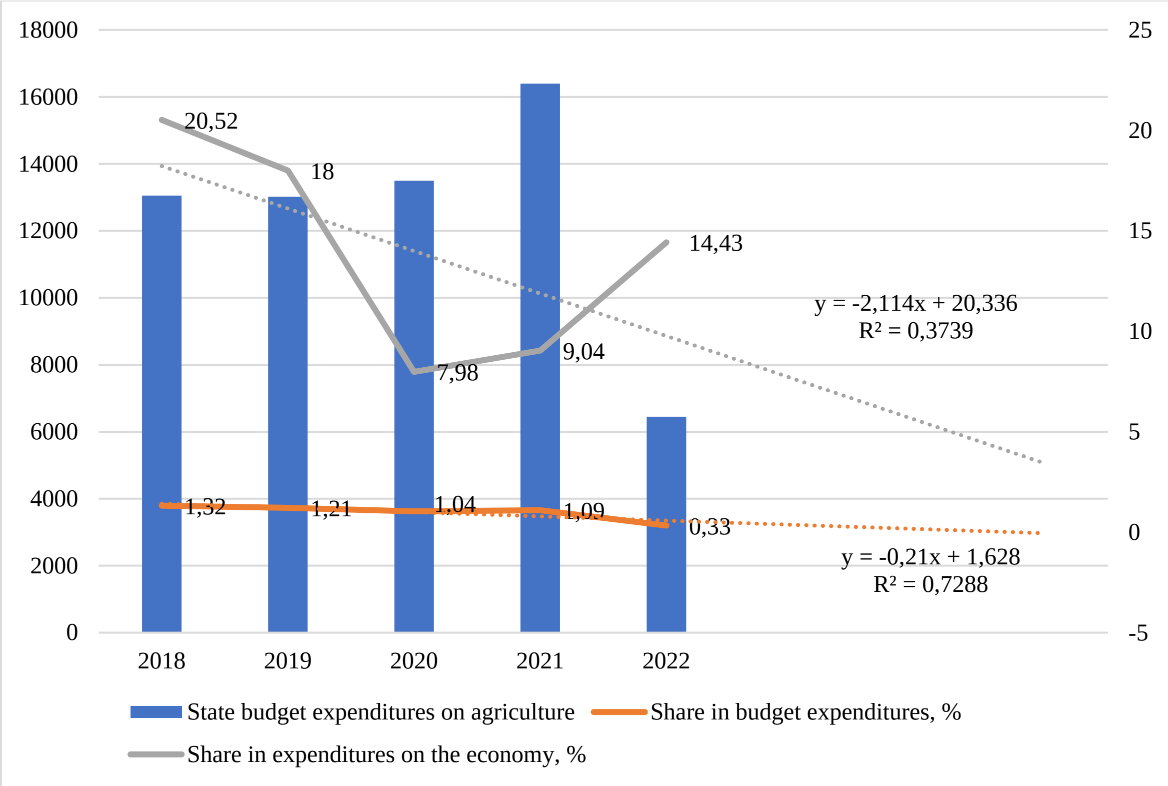
State regulation of the financial mechanism of the agricultural sector contributes to the growth of qualitative organizational characteristics of the financial potential, without which agricultural entrepreneurship is impossible: expansion of the regulatory field for the formation of financial resources in terms of customs, tax, budgetary, investment regulation, simplification of agricultural business, expansion of logistics and ways of marketing products, formation food balances, export-import transactions, mitigation of the impact of inflation and foreign exchange pressure.

Under martial law, the agricultural sector faced significant difficulties. In addition to direct destruction in the occupied territories, almost all components of agricultural production were significantly affected in terms of material and technical resources, working capital, human capital, logistics, and sales volumes and channels. Producers are faced with the need to fully pay for the material components of production, whereas previously, payments were mainly made upon the sale of the grown crop.

For the period of martial law, the financial potential of the agricultural sector (financial market resources, budgetary and credit resources, investments and own financial resources), according to preliminary calculations, reaches UAH 1.65 trillion, of which the share of own resources is about 80-82%, therefore, agricultural corporations must receive in the financial market or as government support. The state of budget financing of the agricultural sector in terms of functional expenditures in the pre-war period and in 2022 is shown in Figure 4.

According to the proposal submitted back in 2016 by the Agrarian Committee to the BP Budget Committee to send to the agricultural sector an amount of 1% of agricultural output, as the provisions of the Budget Code allow, the agricultural sector in 2023 should receive UAH 4.5 billion, if we take the average annual value of GDP for the previous three years. The share of budgeted expenditures for 2023 is 0.05% of GDP. Financing of the agricultural sector for 2023 is given in Table 5.

Agrarians, who in the pre-war period received a stable profit, and there were more than 80% of such enterprises, consider reaching zero profitability for the period of martial law a success. According to the results of 3 quarters of 2022, the economy received 56.695 billion profits, while in agriculture a loss of UAH 345 million was recorded, and the share of unprofitable enterprises is 56%.



Figbre 4. Dynamics of functional expenditures of the State budget for the agricultural sector of Ukraine in 2018–2022, UAH million

Source: Calculated according to the Open Budget Website URL: https://openbudget.gov.ua

At the end of 2022, GDP (in prices of the previous year), according to the State Statistics Service of Ukraine, amounted to UAH 3,865,780 million, including agriculture – UAH 425,146 million (11%). These figures are 11.48% lower than the total GDP, which amounted to UAH 4,367.501 million in 2021, and 6% lower than the agricultural GDP, which amounted to UAH 452.54 million (10.36%). This state has been achieved thanks to the previously accumulated potential, as well as the increased efforts of the business. In actual prices, the estimate of GDP is more pessimistic.

Budget expenditures on the agricultural sector according to the program classification of the planned 1108 mln. in 2022 were adjusted to UAH 1,120 million. and paid for UAH 155 million. (14%). According to the functional classification, UAH 832 million was financed. or 6.38% of the planned 13043 million for 2022. Similar meager amounts of funding are provided for 2023, which does not improve the tense situation.

Table 5

Financing plan from the State budget of the agro-industrial complex of Ukraine for 2023 and approved budgets for 2021–2022, UAH mln.

Code	Direction of funding	2023	2022	2021
	Total expenditures of the State budget	**2580676611**	**3037013112**	**1444342052**
2800000	Ministry of Agrarian Policy and Food of Ukraine	**4 324 894,8**	**8 343 370,1**	**7 019 727,8**
	Share in the State budget, %	0,17	0,27	0,49
2801000	Office of the Ministry of Agrarian Policy and Food of Ukraine	**1 108 969,6**	**6 607 480,0**	**5 074 024,8**
	Share in the expenses of the Ministry, %	25,64	79,19	72,28
2801010	Leadership and management in the field of agro-industrial complex	105 740,5	105 865,6	67 937,2
2801050	Scientific and scientific and technical activities in the field of development of the agro-industrial complex, standardization and certification of agricultural products	112 124,0	149 067,9	147 367,9
2801130	Advanced training of specialists of the agro-industrial complex	29 681,0	28 278,8	27 061,4
2801250	The expenses of the Agrarian Fund are related to a set of measures for the storage, transportation, processing and export of objects of state price regulation of the state intervention fund	105 000,0	-	-
2801310	Organization and regulation of the activities of institutions in the agro-industrial complex	188 671,1	178 767,7	166 658,3
2801380	Formation of the authorized capital of the Fund for Partial Guarantee of Loans in Agriculture	360 000,0	200 000,0	-
2801570	Organization and functioning of the Agrarian Fund	6 753,0	-	-
2801500	Support for farms and other agricultural producers	-	1545500	-
2801580	Financial support for agricultural producers	201000,0	4400000	4 665 000,0
	Share of support costs in the State budget, %	0,01	0,20	0,32
	Share of support expenses in the expenses of the Ministry, %	4,65	71,26	66,46

Source: Law of Ukraine On the State Budget of Ukraine for the relevant and 2023 2710-IX, dated 03.11.2022. URL : https://zakon.rada.gov.ua/laws/show/2710-20#Text

Relatively stable in 2022, the lending program worked under the state program "5-7-9", which is planned to be resumed in 2023 with a guarantee of 50% of the loan amount. The amendments adopted in April 2023 continued to provide state financial support to agricultural producers who received loans as part of the sowing campaign in 2022. Namely: the period during which agricultural producers will be able to receive financial support for the sowing campaign has been extended, including the possibility of prolonging loans issued for sowing work when repaying representatives of large and medium-sized agribusiness up to 25% of the loan received and the possibility of providing state guarantees for ensuring partial fulfillment of debt obligations under such loans [19].

Within the framework of the program “Affordable loans 5-7-9%”, it is envisaged to establish a compensatory rate for loans for investment purposes for medium and large enterprises of 9% per annum with the possibility of reducing when creating new jobs up to 7% per annum; for micro and small enterprises – at the level of 7% per annum with the possibility of reducing for investment loans up to 5%. In replenishment of working capital, the compensation rate for all enterprises is set at 9% per annum for loans.

According to the Ministry of Agrarian Policy [19], the state program «Affordable financial leasing 5-7-9%» provides for the establishment of compensatory remuneration for medium and large enterprises at 11% per annum with the possibility of reducing when creating new jobs up to 9% per annum; for micro and small enterprises – 9% per annum with the possibility of reduction when creating new jobs up to 7% per annum.

The Verkhovna Rada in January 2023 adopted a law amending the Tax Code of Ukraine and some other legislative acts of Ukraine regarding the application of the export security regime for the period of martial law, state of emergency. It provides that farmers will receive a guarantee of the return of foreign exchange earnings when exporting grain. There are bills providing for exemption from taxation of single tax payers of the fourth group for land plots located in the territories of hostilities and / or temporarily occupied territories. Also exempt from paying real estate tax the owners of destroyed or damaged property as a result of Russia’s armed aggression.

Solutions to the problems of financing the agricultural sector are possible by combining into horizontal and vertical integral structures to align the formation of value chains. Here you can use the foreign experience of cooperating food systems in the post-war history of recovery after World War II and the experience of overcoming the challenges of the economic downturn, including in 2014. An important direction is the purposeful coordination of international donor assistance, transparent procedures for the formation of funds for such support and directions for distribution.

The vector of influence of agrarian policy on financial processes under martial law is an increase in the share of market resources and international loans.

Further development of the financial mechanism of the agricultural sector involves its integration and interaction with the Strategy for the post-war renewal of Ukraine. To implement the strategic goals and objectives that wartime challenges pose for the agricultural sector, its financial mechanism needs to transform methods, tools and levers. military period, as well as entry into the financial system of the EU through the warehouses of the financial market and special programs of state and international support. For the effectiveness of the financial policy in order to develop the financial mechanism, it is necessary to coordinate the work of agrarian corporations, the government's accountants, and to ensure regulatory security in terms of guaranteeing investment, lending, lending, insurance, etc. income, distribution, export, logistics and other.

Part 4. Priorities for the post-war renewal of Ukraine and mechanisms for their financial support

The issues of post-war restoration of the economy of Ukraine, the time of the ongoing armed anger of the Russian Federation, have been raised and have been developing in fact since the beginning of the introduction of the legal regime of martial law. In the sphere of selection of sources of financing, the state relies on the experience of armed conflicts in the world and confidently plans post-war reconstruction.

Thus, on April 21, 2022, the order of the President of Ukraine No. 266/2022 On the formation of the National Council for the Restoration of Ukraine from the consequences of the war was promulgated. According to the documents currently being developed by the National Council, the key Strategies for such a recovery are: full access to the EU and G7 markets; obtaining the status of a candidate, and then full membership in the EU [16]; building the economy on the principles of deregulation and liberalization; debugging logistics routes to the west; transition from the export of raw materials to processing in industries that provide the highest export earnings; development of the domestic military-industrial complex; self-sufficiency in the energy sector will be achieved by increasing the production of own gas and the development of nuclear energy; climate modernization, etc. At the conference in Lugano on July 4–5, 2022 [40] Ukraine presented a national recovery plan that reflects the main directions of economic recovery, consists of 15 national programs that largely meet the country's basic needs.

International experience in assessing the damage caused by military operations has been developed over many years, different methods and techniques have been used in different countries and conflicts. The most common method is the use of economic and mathematical models to estimate the financial losses caused by the conflict. Some of them are given in Table 6.

Table 6

Approaches to assessing the damage caused by war in international practice

Appropriate	Methods
Humanitarian Emergency Response Review (HERR), United Nations Development Program (UNDP)	is a tool for assessing humanitarian needs and the economic and social impact of an emergency
Conflict Assessment System Tool-CAST, World Bank	to assess the economic and social consequences of the conflict, including the assessment of the costs of reconstruction and restoration
Cost of War project, USA	estimates the total cost of a war, including direct costs, support for veterans, and war-related debt
Conflict, Stability and Security Foundation (CSSF)	a funding program aimed at addressing the causes of conflict and instability in conflict-affected states.
RAND Damage Assessment System (DAS)	to estimate the cost of damage caused by military operations under different scenarios
Global Integrated Monetary and Financial Model (GIMF)	modeling the impact of military conflicts on macroeconomic variables such as GDP, inflation and public debt
Conflict Economic Impact Model (CEIM), European Union Institute for Security Studies (EUISS)	to estimate the cost of military conflicts in terms of economic damage, humanitarian aid and reconstruction costs
CEP War Model, London School of Economics	to assess the long-term economic impact of conflicts on GDP growth, trade and investment

Source: summarized by [10]

The direct goals of post-war economic recovery include: monitoring and assessing losses; stabilization of the social sphere; restoration of property and infrastructure destroyed or damaged as a result of the war; resumption of economic activity; laying the foundations for sustainable economic growth.

Directions for financing post-war economic recovery in accordance with forecasts [3; 17; 24; 30] concern: the restoration of critical infrastructure (electricity networks, roads, railways, gas supply, water pipelines, the Internet), strengthening the energy sector; restoration of the natural environment; restoration of social facilities, including schools and hospitals, reconstruction of housing stock; rehabilitation of victims, restoration of social infrastructure and social services. In the future, the state and partners will focus their efforts on restoring the economy as a whole and its stable growth.

Experts studied the directions of anti-crisis policy in the real sector of the economy of Ukraine through priority areas and tasks [1]. The main efforts are supposed to be focused on creating jobs and permanent sources of income generation: programs to support and develop entrepreneurship, revive the industrial sector, and create production capacities. The following industries were strategically important for the national economy in the post-war period: mechanical engineering (in terms of equipment for the fuel and energy complex, transport engineering and the production of weapons); iron ore and metallurgical industry; Oil and gas; oil refining; chemical and pharmaceutical industry [2]. An important link is the formation of state orders to strengthen the country's defense capability, a balanced financial policy in terms of priorities, improving the quality of public administration and strengthening the institutions of a market economy.

Other prerequisites include the restoration of effective macroeconomic policies, in particular the gradual reduction of wartime fiscal dominance, as well as a return to inflation targeting. Social policies that reduce income inequality and increase self-sufficiency, including through long-term private savings, will help build a local investor base. Finally, it is critical that the majority of future international recovery assistance be channeled to commercially viable projects through commercial investors, in many cases with the active involvement of international financial institutions.

The recovery priorities are based on the following overall objectives: ensuring a rapid recovery of the banking sector; increase in market financing; development of a local base of investors and shareholders; increasing the share of sustainable financing; promoting financial inclusion. The deepening of the financial sector should benefit the wider society and improve people's lives in the long term [2; 3; 17; 24].

Sources of financing for current life activity and post-war reconstruction are provided for quite diverse, from all available and possible. As for internal sources, these are, first of all, the funds of the State budget. In 2022, the State Budget, according to the Ministry of Finance [21], with reference to the State Treasury of Ukraine, amounted to UAH 1,491.1 billion in revenues from the general fund, of which UAH 480.6 billion (32%) was received during the year in the form of international assistance (grants). Cash expenditures amounted to UAH 2,702.4 billion, that is, the state budget was executed with a deficit of UAH 911.1 billion, against the planned deficit of UAH 1,399.5 billion. Actual government borrowings to the general fund amounted to UAH 1,261.1 billion. or 67.3% of those planned for this period. UAH 666.9 billion was attracted from the placement of government bonds to finance the state budget, including UAH 103.9 billion in foreign currency (USD 2.1 billion and EUR 980.6 million). UAH 564.2 billion was attracted from external sources.

Since the beginning of 2023, Ukraine has received 6 billion euros as part of large-scale assistance from the European Union. According to the Ministry of Finance [21], at auctions for the sale of domestic government bonds held on April 25, 16.29 billion hryvnias (in equivalent) were attracted to the state budget. From the sale of annual bonds in hryvnia, 1.88 billion hryvnias were received at 18.5% per annum. In addition, the Ministry of Finance placed bonds with a maturity of 16 months for UAH 2.71 billion at 19% per annum. The Ministry of Finance also placed 19-month bonds for UAH 1.49 billion at 19.5% per annum and two-year benchmark bonds for UAH 21.9 billion at 19.6% per annum, satisfying all 14 submitted applications. In addition, $165.56 million was attracted from the placement of six-month dollar government bonds at 4.75% per annum, another $54 million came from the sale of nine-month bonds at 4.8%.

On April 25, Ukraine received the third tranche in the amount of 1.5 billion euros as part of large-scale macro-financial assistance for 2023. Thus, direct budgetary support from the EU in 2023 amounted to 6 billion euros. The total amount of concessional financing from the EU under this program is 18 billion euros.

The Financial Klub informs that the first full-fledged IMF program for Ukraine with a total of $15.6 billion has started since the beginning of the full-scale invasion of Russia. This is part of the total need for financing Ukraine for the coming years in the amount of $115 billion [33]. According to the Ukraine Economic Outlook [37], the Ukrainian economy reached the lower extremes of its decline in April-May 2022 and since then, despite any intensity of shelling of its territory, it has been demonstrating a slow but stable trend in updating the main macroeconomic indicators. Thus, Ukraine's GDP in US dollars, which fell from $200 to $158 billion in the first year of the war, will grow to $170 billion in the second year, which will be the starting point for the start of dynamic recovery.

Currently, Ukraine has established funds for recovery, in the most critical areas of support – defense capability; sectors of the economy and business; restoration and transformation of the national economy; humanitarian fund; service and repayment of public debt; restoration of property and destroyed infrastructure [2]. Receipt in the funds occurs mainly due to the assistance of partner countries and international institutions, as well as other sources (Table 7).

An important point is the need to support Ukraine mainly in the form of grants (gratuitous assistance), and not loans, which is confirmed by world experience. For the period 1985–2015. 20 countries out of 35 with armed conflicts received assistance free of charge [2]. The Marshall Plan for Europe (1948–1953) [16], provided that more than 90% of American aid would come in the form of grants; the reconstruction plan for Bosnia and Herzegovina

(1996–2004) [43] assumed that 80% of international aid comes through grant funding. At present, according to the Ministry of Finance [21] and experts [3], lending prevails, since the financing of operating expenses of the budget of Ukraine by 23.964 billion dollars. USA, 57% consists of lending.

Table 7

Possible sources of funding for funds for the post-war renewal of Ukraine

Sources	Origin and direction
Governments and financial institutions of the EU	The European Commission proposed to establish the RebuildUkraine fund as the main legal instrument for EU support, from the EU budget through grants and loans
Funding programs for Ukraine's membership in EU structures	Pre-Introduction Assistance Tool Instrument for Pre-Accession. Designed to develop institutions in candidate countries following the EU models, enhance regional cooperation, improve the quality of human capital, develop transport infrastructure, protect the environment, and revitalize the economy.
International aid projects	Projects of the World Bank, International Monetary Fund, European Investment Bank, European Bank for Reconstruction and Development, assistance from large international companies and charitable foundations
Bilateral assistance	Budgetary resources are used to issue grants to Ukraine. Needs fine coordination. Creates uncoordinated recovery issues identified by donors such as USG Grants.
International Business and Entrepreneurial Fund	The World Bank and other development banks provide grants to countries recovering from natural disasters, wars and other disagreements (Global Shield Financing Facility). The Bank can provide war risk insurance funding through the Multilateral Investment Guarantee Agency (MIGA) to attract private investment
Coordination Group of European Development Financial Institutes	Institutions in the European Union and the European Free Trade Association (EFTA), to provide financing to the private sector in countries outside the EU

Source: [17]

Thus, the needs of the post-war restoration of Ukraine require the attraction of funds from a wide range of sources, from almost all known in the history of wars of the XX and XXIst centuries and the subsequent stabilization of their consequences for society. Financing the post-war recovery of the Ukrainian economy requires a clear positioning of strategies, directions and sources. These problems have been in the focus of the government of Ukraine and international partners since the beginning of the introduction of the legal regime of martial law and have a conceptual solution, in particular, in the IMF Memorandum [11].

The memorandum notes that the ultimate goal of the Ukrainian government's IMF-supported economic program is to restore fiscal and debt sustainability while promoting long-term growth in the context of post-war recovery and our path to EU accession. It is anticipated that in the first phase, our focus will be on supporting macroeconomic, external and financial stability in order to strengthen the potential of Ukraine on the path to victory. The program includes policies to ensure a robust 2023 budget, coupled with medium-term budget planning, which will serve as the basis for fiscal policy and funding gap assessments.

Measures are being taken to prepare for the post-war growth of Ukraine, in particular in the fiscal structural areas, the financial sector, monetary and foreign exchange policy, corporate governance, the fight against corruption and the energy sector. Social spending will be protected to the extent possible, given the massive humanitarian support from UN agencies and non-governmental organizations.

The main direction of the process of searching and selecting sources for the post-war reconstruction of Ukraine is that the government should have as accurate data and knowledge as possible about the needs of the country and take responsibility for the restoration, assessment of losses, a list of priority projects, sources of funding and legal support for these processes. It is obvious that the share of the state in the recovery processes is already high, and will continue to grow, since even a large business is not able to organize a holistic recovery strategy and become a guarantor of attracting funds from the international community. In turn, the providers of funds have their own vision of the effectiveness of their use, which also cannot be solved in private investment. But since the military success and recovery of Ukraine shape the future of Europe and the world, for the prospects of global security, the efforts of the whole world must be united to solve the identified problems of financing post-war reconstruction [38].

Conclusions

An overview of the financial regulatory policy of Ukraine's economy in conditions of martial law has been carried out along the directions of describing current financial mechanisms and tools and their correlation with macroeconomic indicators; detailed analysis of budgetary and tax instruments of the financial mechanism; in-depth analysis of the financing of the agricultural sector as a component of financial regulation of food security; generalization of post-war recovery priorities of Ukraine and mechanisms for their financial support according to strategic documents and expert assessments.

It has been established that the losses of the economy and individual industries during the period of martial law reach almost 30% of GDP.

Accumulation of financial resources is necessary based on the principles of systematic and balanced prioritization of sources, distribution of resources by financing directions to ensure national security, payment of government debt, and support of the economy.

In the field of financial regulation, it is necessary to outline the priority tasks in correlation with the strategy for the restoration of Ukraine by segments and industries, as well as expected volumes and results of financial support for the economy in a strategic perspective. To specify the directions of restoration, a review of innovations in fiscal regulation legislation introduced during the period of martial law to ensure national security has been carried out.

It has been recognized that funding priorities are focused on supporting the financial market and economically important industries that form the basis of national security, including the agricultural sector. In turn, financial instruments to support the agricultural sector of Ukraine's economy should address issues of stabilization and growth of agricultural investments in wartime and post-war periods.

For effective policy implementation, coordinated work of relevant branches of government and appropriate regulatory support in taxation, lending, insurance, income support, sales, exports, and security guarantees are necessary at all levels.

Post-war recovery will require a focus on reforms aimed at maintaining macroeconomic stability, with the ultimate goal being progress towards EU accession. Analysis of the role of international financial institutions indicates their involvement in financing Ukraine's reconstruction through grants, assistance from charitable funds, and the provision of financial assets in the short- and medium-term. It has been determined that a higher level of harmonization between national and global concepts of financial mechanism development is necessary. The configuration of financial regulation mechanisms in the Ukrainian economy in conditions of martial law and their post-war transformation tends towards the European model, but with the understanding that it was formed for peaceful conditions. Therefore, more decisive and effective measures are needed to mobilize financial resources and institutions of the financial market for the reconstruction of Ukraine. The specific mechanism and its instruments are directions for further scientific research.

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