Functioning of the financial system of Ukraine in extreme conditions of martial law

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Abstract
The study highlights the current features of the financial system of Ukraine. Description and justification of extreme conditions of martial law in the country is a general context for the presentation of the material. It is determined that currently the financial system of Ukraine operates in conditions of non-cyclical stress caused by the war. Smoothing its features and fluctuations requires significant volumes and rapid external financing.

The consolidated actions of international financial organizations and countries in financing the defense and humanitarian budget needs of Ukraine are shown. It is emphasized that the Ukrainian financial system restart in wartime has become one of the main tasks of fiscal and monetary policy of the state to ensure financial and price stability.

Priority tasks for the country’s financial system during the war have been identified. They are: attracting the necessary additional resources for macro-financial stabilization, maintaining the purchasing power of the national currency “hryvnia”, curbing inflation, strengthening regulated money circulation. The agreed joint action of the Government and the National Bank of Ukraine in resolving these problems is emphasized.

The changes in the financial sector of the economy functioning are shown in the analysis of activity of the Government of Ukraine, the Ministry of Finance and the National Bank of Ukraine in the context of: a) financing the army and defense needs; b) features of managing the public debt.

The growing role of the state in the periods of cataclysms and war is raised. It is emphasized that the financial authority of the state is the authority of the state budget. It is proved that the current consolidation of public financial management bodies is combined with the consolidation of society and government as a whole.

Post-war restructure of political and economic system of states is expected. Life safety and prudent financing the relevant costs will require reformatting previously familiar standards and institutions. Ukraine’s role in the new format of international relations can be seen in the political, economic and military aspects.

Keywords: financial system, budget and monetary policy, financing, public debt, Ministry of Finance, National Bank.

Introduction
Ukraine’s economy and financial system are experiencing deep shocks during the current 2022 war. Eight years of escalation before - during 2014-2022, were constantly destabilizing in military, economic and humanitarian terms. Deputies of the Verkhovna Rada of Ukraine propose to consider February 19, 2014 as the day of the beginning of the temporary occupation of the territories of Ukraine by the russian federation. It is the day when certain oil and gas facilities within the continental shelf of Ukraine were captured. The relevant bill №7270
"On Amendments to Certain Laws of Ukraine on Regulating the Legal Regime in the Temporarily Occupied Territory of Ukraine” was registered in the Verkhovna Rada of Ukraine on April 10, 2022 (Verkhovna Rada of Ukraine, 2022).

War and the imposition of martial law on February 24, 2022 became a force majeure and a huge challenge in economic terms for the financial system of the state as well as becoming an institutional break and fall in the cycle of pre-war upward dynamics. The monthly cost of hostilities for Ukraine is $10 billion (Zelensky V.O., 2022).

According to the results of the first month of the full-scale war, possible economy shrinking can reach as much as 35% in 2022, and the total losses taking into account future periods can reach $1 trillion (Bloomberg, 2022-1). In March 2022, annual consumer inflation accelerated to 13.7% (compared to 10.7% in February). The amount of damage to Ukraine’s civilian and military infrastructure is unfortunately growing, reaching $270 billion as of April 11. The assessment of the consequences of the war and the damage to Ukraine’s economy is constantly updated and refined. Projected tax revenues do not exceed 54% of the expenditure part (estimate without military losses). Ukraine’s budget deficit in March 2022 was $2.7 billion. It is expected it will double to $7 billion in the upcoming months.

Restarting Ukraine’s financial system on the expanded resource basis is a priority for the Government, the Ministry of Finance and the National Bank of Ukraine (NBU) to ensure financial and price stability in wartime. At the same time, the issues of preserving the purchasing power of the national currency, curbing inflation, and tightening the regulated circulation of money have become a priority since the first days of the war. Despite the severe consequences of the first months of the war, the Ukrainian financial system has held back the blow.

Material and methods

Official information from the websites of the President of Ukraine, the Office of the President of Ukraine; data and reports of the Cabinet of Ministers of Ukraine, the Ministry of Finance of Ukraine, the NBU and other government agencies were used in this study. Reports, press releases of international financial organizations (the International Monetary Fund, the World Bank, the European Central Bank, the European Bank for Reconstruction and Development, the Research Center of the Kiel (Germany) Institute of World Economy) and interviews with heads of national, foreign and international financial institutions were processed. Materials from news agencies (Bloomberg, Reuters, Interfax), periodicals and online publications (Financial Times, New York Times, The Washington Post, Ukrainian Pravda) served as important sources of information. Statistics is constantly updated, so it is possible it will be corrected over time.

The following group of methods were used as an integral tool of research: system and dialectical, comparative, historical, generalization, analysis and synthesis, whole-part approach.

Results and discussion

The state financial system operates in a state of non-cyclical stress in the current war conditions. Smoothing its features and fluctuations requires significant volumes and rapid external financing.

At the 2022 Spring Meetings of the IMF and the World Bank Group prime minister Denis Shmyhal called on the IMF to donate 10% of its reserves to finance post-war reconstruction (Bloomberg, 2022-2). To prevent a humanitarian crisis, Ukraine's monthly international aid needs are estimated at $5 billion minimum, of which $2 billion is expected from the United States (The Washington Post, 2022).

Implicitly the war in Ukraine has changed the global geoeconomic and geopolitical landscape, which “threatens to destabilize the West” (Rachman G., 2022) with the hidden “erosion of
the dominance of the dollar” (Eichengreen B., 2022). This is a global civilization shock, unthinkable in the 21st century and provoked by Russian military aggression. With the beginning of the war, the usual framework of geoeconomics and geopolitics turned out to be fragile and have been destroyed.

Accordingly, expectations of economic and other consequences of such destabilization are negative. “The world economy will face a slowdown in growth and accelerating inflation” - mentioned in the review of the IMF from March 15, 2022 (Kammer A. et al, 2022).

“IMF sees deep Ukraine recession, working on trust to boost funds” – mentioned in an analytical review on the portal of the news agency Bloomberg. The possible rate of decline in GDP depending on the characteristics and duration of martial law is estimated by the IMF from 10% to 35% by the end of this year. The IMF estimates that Ukraine needs $5 billion a month in financial assistance to support its own economy (Reuters, 2022).

According to the April forecasts of the World Bank (press release of the bank dated 10.04.2022 № 2022 / ECA / 79) - this year Ukraine’s economy “depending on the duration and intensity of the war” may shrink by 45.1%, and in Europe and Central Asia - by more than 4% (with a possible pre-war growth rate of 3%) (The World Bank, 2022-1). The Ministry of Economy of Ukraine forecasts a possible decline in GDP by the end of the year to 40% (UNN, 2022-1).

The position of the IMF and the World Bank, as important international financial organizations (IFOs), in support of Ukraine during the imposed war is quite focused and collaborating. This was reflected in a joint statement of the IMF and the World Bank from March 1, 2022: “we continue to work on Ukraine’s Stand-By Arrangement program, under which an additional $2.2 billion is available between now and the end of June. At the World Bank Group, we are preparing a $3 billion package of support in the coming months, starting with a fast-disbursing budget support operation for at least $350 million that will be submitted to the Board for approval this week, followed by $200 million in fast-disbursing support for health and education. This package will include the mobilization of financing from several development partners, and we welcome the already-announced support from many bilateral partners” (The World Bank, 2022-2).

The IMF has approved $1.4 billion to Ukraine under Rapid Financial Instrument (RFI) to finance the necessary expenses and mitigate the negative financial shock caused by the war.

With the assistance and participation of the IMF and the World Bank as of the end of March this year Ukraine’s state budget received a total of more than $3 billion from international partners. The issue of the mechanism of distribution of the IMF Special Drawing Rights (SDR IMF) which have not been used by other countries is on the agenda. The NBU estimates that international financial, technical and humanitarian support to Ukraine will total in more than $15 billion in equivalent, more than $5 billion of which - directly to the budget (NBU, 2022-1).

The financial sector of the economy functioning and first of all public finance, will be considered through the prism of the Ministry of Finance and the National Bank of Ukraine in two main directions:

- financing the army and defense needs;
- features of servicing and repayment of public debt.

I. Financing the army and defense needs. Financing the army in military conditions is the first priority of public financial policy. The role of the Cabinet of Ministers of Ukraine, the Ministry of Finance of Ukraine together with the National Bank of Ukraine was quickly formed as an organizational, mobilizing and resource-providing.

The Ministry of Finance of Ukraine has introduced auctions for the sale of war bonds to accumulate funds to finance the military and social needs of the state under martial law.

Within the budget process war bonds are special investment tool to support the state
budget, available to a wide range of investors - citizens, businesses and non-residents. Auctions for the sale of war bonds are held every Tuesday through primary dealer banks and licensed brokers. The amount of investment ranges from UAH 1 thousand (minimum price) up to UAH 500 thousand with variable yield depending on the currency of the issued bonds and their maturity. The first auction was held on March 1, 2022 and as of May 17, 2022 UAH 77,294 million ($2,637 million) of funds were attracted to the state budget for the whole period. Citizens are active as investors in military bonds - there are more than 9.1 thousand people. Non-residents have invested more than UAH 50 million in military bonds and the largest stake is held by primary dealer banks.

Negotiations between representatives of the Ministry of Finance and the National Bank of Ukraine with international partners and donors to provide the necessary financial assistance to Ukraine since the beginning of the war have taken place and continue intensively and regularly.

During such negotiations multidimensional agreements were agreed and largely reached. At the initiative of the IMF and the World Bank, two new sources / mechanisms of financial support for Ukraine were launched:

- administrative (special, managed) account for crediting funds from donor countries with an increase in the share of distributed SDRs from the IMF;
- a supplemental emergency budget support package “FREE Ukraine” together with the World Bank Trust Fund.

Opening a separate IMF administrative account for crediting funds (loans and grants) from donor countries is an important tool to support Ukraine’s budget. Funds from the IMF’s administrative account will be used to support Ukraine’s financial stability. Not only the governments of the IMF member countries, but also international organizations will be able to provide funds. Representatives of the IMF and the governments of a number of countries have expressed their readiness to provide assistance using Fund's account. From the donors’ side this initiative is coordinated by the Government of Canada. Increasing Ukraine’s quota with the IMF through the redistribution of SDRs is needed to increase the ability to finance its needs (usually the standard amount of loans does not exceed the size of three quotas).

This year in March the World Bank approved a package of additional budget support for Ukraine called “Financing of Recovery from Economic Emergency in Ukraine” or “FREE Ukraine” with an initial funding of $723 million. The package consists of an additional loan of $350 million, guarantees of $139 million, mobilized grant funding of $134 million and parallel financing of $100 million. In cooperation with the World Bank's International Development Association (IDA) Ukraine has gained access to $1 billion of financial resources.

Along with “Free Ukraine” World Bank has introduced a Multi-Donor Trust Fund (MDTF) to facilitate the rapid and secure transfer of targeted financial grants provided to the Government of Ukraine from international partners. Contributions to the MDTF were made by the United States, the United Kingdom, Denmark, Latvia, Lithuania, Iceland, Sweden, Japan, and other countries. The initial capital was $134 million (The World Bank, 2022-3), which increased rapidly (for example, only the United States contributed $500 million in April this year through the United States Agency for International Development (USAID) (U.S. Embassy in Ukraine, 2022). The MDTF is scheduled to start in early May this year.

The EU also plans to set up a solidarity trust fund to finance the reconstruction of Ukraine, most costs of which will be taken by European countries. The European Bank for Reconstruction and Development (EBRD) has a well-known 2 billion euros “sustainability package” to finance measures to help citizens, companies and countries affected by the war against Ukraine.

In terms of financing budget deficit debt (loans) and non-debt tools (including grants) are distinguished. Providing grants has its
peculiarities since is given on non-return basis. The provision of grants is of particular importance to the economy and public finances, as it is provided on a non-repayable non-credit basis. Operationally, this allows us to focus on financing the necessary needs, rather than on debt service. It is grant funding of the budget in unstable times that distinguishes partnerships from others types of relations. On April 29, 2022 the World Bank sent a grant of 88.5 million euros to the general fund of the State Budget of Ukraine. Additionally, Ukraine will receive another 495 million euros in grants from the World Bank Trust Fund with the participation of the United States, Norway and Austria.

Interstate agreements on financing the budget of Ukraine (grant and credit) have become an important source of replenishment of necessary resources. The following are among them:

- **Receiving $1 billion of grant funding from the United States** in two equal parts for humanitarian aid to the population of Ukraine.

- **Grant aid of 120 million euros from the European Commission and 110 million euros from Italy.** The funds are directed to the general fund of the state budget to finance priority expenditures, including those related to ensuring guaranteed social protection of citizens, the functioning of critical infrastructure and the security sector.

- **Agreement with the government of Japan** on a loan in amount of $100 million from the Japan International Cooperation Agency for development policy in the field of emergency economic recovery and the grant of $2.3 million to strengthen health care and medicine in Ukraine.

- **Loan agreement with the government of Canada** to provide 500 million Canadian dollars with a maturity of 10 years. This is the largest bilateral intergovernmental loan for Ukraine.

- **Receiving 400 million British pounds (equivalent to $520 million) from the UK.** In addition, the United Kingdom: (a) will send 220 million pounds for humanitarian purposes to partner countries hosting Ukrainian refugees; b) acts as a guarantor of a loan to Ukraine from the World Bank in the amount of $1 billion; c) provides financial assistance in amount of $500 million in credit guarantees to mitigate the economic consequences of the full-scale war started by Russia. Words of Boris Johnson about “protected mobility” reflect the essence of such a partnership.

- **Getting a loan of 300 million euros with a preferential 15-year loan repayment period from France, through the French Development Agency.** The French Treasury was one of the first financial institutions to initiate a freeze on foreign assets of the Russian central bank.

- **Receiving the credit of 150 million euros from the German Credit Institution for Reconstruction (KfW) to support small and medium-sized businesses.** This loan is an important instrument to support the State Budget of Ukraine and is aimed at reimbursing spending of the Government of Ukraine related to financing small and medium-sized businesses. The terms of the loan are operationally acceptable and extended: a period of 15 years, including a preferential 5-year grace period for repayment of the principal amount of the loan, with a floating interest rate with the possibility of converting it to a fixed rate.

- **Receiving 44.5 million euros from Sweden through the World Bank under the Economic Recovery Development Policy Agreement.**

To stimulate business activity, the Cabinet of Ministers of Ukraine adopted a resolution No. 374 “On the provision of state guarantees on a portfolio basis in 2022” from 27.03.2022 (Cabinet of Ministers of Ukraine, 2022).

This resolution establishes the possibility of providing state guarantees to 17 creditor banks that have been selected to receive a partial state guarantee of liabilities under the loan portfolio for micro, small and medium-sized businesses, and the maximum amount of such guarantees (from UAH 40 million up to UAH 5.65 billion for different banks). Based on the applications received from banks, the maximum amount of state guarantees on a portfolio basis were approved in the total amount of UAH 18.850 billion. As a reference: in support of micro, small
and medium-sized businesses in Ukraine since the start of using the instrument of state guarantees on a portfolio basis in December 2020, 5491 loans worth about UAH 11.12 billion were issued as of April 25, 2022 (Ministry of Finance of Ukraine, 2022-1).

Ensuring proper cybersecurity as well as a coordinated and focused digital response required special attention in deploying resistance to the enemy. There is an unprecedented combination of business and government in this direction. Cyber sabotage has been leveled since the first hours of the war (UNN, 2022-2). Digital blockade of the enemy has continued since then. Supporting examples are: focused DDoS-attacks of the group of hackers “Anonymous” that blocks information resources and discloses data from Russian government agencies and individuals (Epravda, 2022-1). In addition, on April 1, 2022 it was announced about creation of a special “Center for the Protection and Monitoring of Digital Systems of Kyiv” or the IT Battalion of Kyiv (Interfax, 2022).

Security against cyberattacks as well as the use of preventive and controversial technological innovations have become the forefront of the fight against the enemy and its neutralization which is invisible to the wider public. Maintaining the confidentiality of our own information and disclosing hostile data and intentions determined the results of such a struggle on the cyber front.

In addition, to address the relocation of businesses to relatively safe regions of the country, the government of Ukraine has launched a free platform to help relocate businesses. Operationally, the platform was launched by “Prozorro.Sales” at the initiative of the Ministry of Economy with the support of the Ministry of Finance and “Diia.Business” (Diia.Business, 2022). As of April 14, 2022 more than 1,500 companies have applied for relocation from “hot regions” (BusinessCensor, 2022). During March this year 216 enterprises were evacuated from the war zone and 97 of them resumed work at the new location.

II. Features of public debt service and repayment. To determine the peculiarities of servicing and repaying public debt in wartime, it is necessary to assess the balance and structure of the state budget in wartime. The need for additional financial resources has increased sharply since February 24, 2022 and still the situation is extremely tense.

Leadership of the Ministry of Finance of Ukraine in an interview with the Financial Times on April 11, 2022 emphasized the urgent needs of emergency financial assistance (Marchenko S.M., 2022). Later it was raised during meetings with IFI leaders and the financial establishment of the G7 and G20.

It is known that during the war on March 1, Ukraine paid $110 million coupon on Eurobonds from 2015. On March 9, UAH domestic government bonds in amount of almost UAH 19 billion were repaid. The following day, on March 10, domestic government bonds in foreign currency were repaid. According to the schedule of public debt payments in the 2nd quarter of this year debt of UAH 167 billion will have to be paid (Ministry of Finance of Ukraine, 2022-2). From the perspective of maintenance of Ukraine's reputation as a sovereign borrower and its ability to service debt, the issue of public debt restructuring is currently not on the agenda. In times of war the receipt of necessary funds, mostly grants (non-debt) means the ability to finance the needs of defense and the viability of the country.

In terms of the performing resource and stabilization tasks monetary policy and activities of the NBU are extremely important during the war.

The Government and the NBU participated in the Spring Meetings of the IMF and the World Bank, developed and strengthened financial and diplomatic cooperation with international partners during the meetings with the IMF, World Bank and European Central Bank (ECB) leadership, representatives of other central banks and government officials. For the first time, the NBU received an invitation from the...
ECB to join an ad-hoc meeting of the ECB’s General Council.

An indicative sample of the main measures and results of the NBU's activities during the current martial law is given below:

- **Ensuring a proper functioning of the payment system in wartime.** In the interests of customers, electronic payments are made smoothly, non-cash payments are unlimited. The NBU's BankID system continues to operate steady and reliably under martial law (NBU, 2022-2).

  - **Opening a special account to help the army.** As of April 25, this year the NBU transferred almost UAH 15.4 billion for the needs of the military. Details of the targeting of funds transfer are available on the NBU website (NBU, 2022-3).

  - **Urgent transfer of part of the profit for distribution in the amount of almost UAH 19 billion to the State Budget of Ukraine for financial support of the state's functioning under martial law.**

  - **Termination of short-term tenders** for the placement of deposit certificates for a period of 14 days to limit the circulation of short-term speculative money.

  - **Simplification of access of non-residents to the government bonds market,** especially the military bonds.

  - **Regulatory administration in the foreign exchange market** appears in several aspects. There are no restrictions on the sale of foreign currency, both cash and non-cash. At the same time, the purchase of foreign currency was temporarily banned from the beginning of the war on February 24, 2022 till April 14, 2022 with some exceptions (except for territories under threat of occupation by the aggressor state and for the purchase of critical imports).

  - ATMs are backed by cash without restrictions. The daily limit for cash withdrawals in Ukraine from foreign currency accounts has been increased from UAH 30,000 up to UAH 100,000. Instead, withdrawal of currency from UAH accounts abroad is limited to the limit of UAH 100,000 per month, which will prevent excessive outflow of currency. The National Bank also made it possible to transfer funds to pay for study abroad without restrictions.

  - The NBU allowed clients in territories under threat of occupation by the aggressor state to withdraw cash in national and foreign currency from accounts without restrictions on the amount and identify military personnel by military ID.

  - The exchange rate is fixed at the level at which it operated on February 24, 2022 - UAH 29.254 for the US dollar. This requires improving the predictability of the value of money under current conditions. It also allows: a) to avoid uncertainty and keep devaluation and inflation expectations under control; b) curb inflation, which could further destabilize the macroeconomic situation. The information effect of such a decision is multiplicative.

  - **Support for the liquidity of the banking system** is provided through the refinancing mechanism, including blank refinancing. This ensures financial stability. The amount of such support is estimated to be in the range of UAH 55-60 billion. The volume of bank customers' funds in all currencies has increased by UAH 41 billion since the beginning of hostilities.

  - **Maintenance of Ukraine's international reserves** in amount of more than 28 billion dollars is quite an acceptable figure.

  - **A separate issue regarding the change in the role of the key policy rate.** In times of war, the NBU key policy as a key indicator of monetary policy has limited use. To curb inflation expectations, the NBU maintains the key policy rate at 10% from January 21, 2022. The planned decision to change it in March this year due to the circumstances of the war has been postponed (NBU, 2022-4).
According to the NBU inflation in 2022 may exceed 20% (due to military destruction - high energy costs, disruption of production processes and logistics problems in the regions, the postponement of the UAH exchange rate devaluation). The NBU's countermeasures to curb inflation are the temporary fixing of the UAH exchange rate and prices for housing and communal services; the reduction of taxes and indirect import taxation as well as the administrative regulation of fuel and food prices. Systemic risks in banking are high, but controlled, which was noted at the meeting of the Financial Stability Board on April 12, 2022 (NBU, 2022-5).

Conclusions

Conclusion 1. The role of the state in times of cataclysms and war is systemic, basic and growing, which has been reaffirmed in the current and previous difficult years. Last year's thesis of Mario Draghi, the Prime Minister of Italy and the former head of the ECB on the peculiarities of public administration is becoming relevant again: “it is the proper role of the state to deploy its balance sheet to protect citizens and the economy against shocks that the private sector is not responsible for and cannot absorb. The role of the state is to develop its balance to protect citizens and the economy from shocks that the private sector does not bear and cannot absorb. The shock we face is not cyclical” (Draghi M., 2020).

Therefore, the mantra of the “almighty hand of the market” is a liberal construction working only under stable conditions. It is of little use when it is necessary to quickly concentrate resources and efforts for the purpose of preserving the nation and the state. Too often (and now in 2022 particularly) the “almighty hand of the market” is being replaced by the saving hand of the state (in cooperation with other partner countries).

Conclusion 2. The war showed that the financial authority of the state is, above all, the authority of the state budget. “As long as the war continues, budget demands will increase…” (Ministry of Finance of Ukraine, 2022-3) - this phrase of Kristalina Georgieva at the IMF and World Bank meeting on April 21, 2022 in the round table in support of Ukraine shows the exceptional role of the budget in modern period.

Sources of funding for the state budget of Ukraine during martial law were: a) military bonds; b) loans from IFOs; c) bilateral loans and grants. As of May 17, the total amount of financing the budget deficit was over $ 11.9 million, or about UAH 352.8 million (Ministry of Finance of Ukraine, 2022-4).

Changes in the emphasis of the state financial policy relates to the two following points. First, in volatile times fiscal policy becomes more active than monetary policy as the state’s ability to withstand threats and challenges is provided by its ability to finance the necessary budget expenditures - defense, social and preventive in various spheres of life. This aspect was previously noted in the publication of Jim McCormick: “Four ways coronavirus changed capital markets” (McCormick J., 2020) and was confirmed during the current war.

Second point is that the challenges of new and extreme military threats motivate the executive and monetary authorities to cooperate to achieve common goals. Past theses about the denial of the dominance of fiscal policy as opposed to monetary policy in the current environment are clearly irrelevant. The government’s economic bloc along with the central bank must continue to provide a synchronized regulatory mixed. This is now observed as a coordinated regulatory community with mutual support of relevant decisions.

Such consolidation of public financial management is combined with the consolidation of society and government as a whole, when mutual trust and common faith in victory determine new features of interdependent existence. This is evidence of the real civic consensus quickly gained under
extreme threats, which would have taken longer to form under other circumstances.

**Conclusion 3.** The international consolidation of support for the reconstruction and development of Ukraine from IFOs, unions and individual countries is growing. However, in order to receive the declared amounts of resources, careful work on budgeting opportunities of donor countries is required. It takes time.

The world is on the threshold of a new post-war political and economic system, when the security of life will require the reformatting of the usual state and supranational institutions. The past fragility of international structures and relations is too expensive to all democracies.

Under such conditions actions and events on a regional scale do not remain isolated, but acquire an interconnected multilateral “linking”. Ukraine’s role in the new format of international relations can be seen in the political, economic and military aspects.

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