

**Financial and Banking Services Market**

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**INTERNATIONAL EXPERIENCE  
FOR WAR-TIME MONETARY POLICY:  
LESSONS FOR UKRAINE****Abstract**

Monetary policy directly acts as a significant element of national security. Rather than merely influencing economic security, it is relevant in broader terms as its results indirectly affect the social, ecological and other aspects of societal existence. The paper considers the examples of monetary policy implemented in war-time of different eras based on the existing system of monetary management (Bretton Woods, post-Bretton Woods, inflation targeting, floating exchange rate, etc.). Focus is placed on the changing principles of monetary policy during the war waged by Russia against Ukraine. On the one hand, Russia's monetary policy has returned to the administrative practices of the USSR and has practically suspended conversion of the ruble. On the other hand, Ukraine has employed limited administrative restrictions as the National Bank of Ukraine tries to uphold the main principles of market economy. The author concludes that despite the reoccurrence of some key approaches, in general, the international experience indicates the absence of any particular standards of war-time monetary policy. Therefore, evidently in such conditions it is more reasonable to develop an individual approach to monetary policy that takes into account the experience of other countries in one way or another.

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### **Problem Statement and Literature Review**

Monetary policy directly acts as a significant element of national security. Rather than merely influencing economic security, it is relevant in broader terms as its results indirectly affect the social, ecological and other aspects of societal existence. Increasingly louder, voices are calling for greater attention in monetary policy on ensuring employment of the population and economic growth rather than only purely monetary goals, given the former's important role as elements of economic security.

At the same time, this applies both to the central banks of individual countries and to international institutions, such as the European Central Bank or the International Monetary Fund. In particular, the heads of the IMF and the World Bank promised to use their instruments «to the maximum extent possible», including anti-crisis financing, to help countries deal with the medical and economic problems caused by the coronavirus.

For Ukraine, the security aspect of monetary policy becomes especially important due to the combined humanitarian threats from the effects of the coronavirus pandemic and direct military invasion by Russia, which has forced the country to support the economy in conditions of war.

The peculiarities of monetary policy during war have been used repeatedly and successfully throughout the long history of humankind. In this regard, we can mention, for example, the policy of the Bank of England during the wars with

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France (first the monarchy, then the republic, and finally the empire) in the period of 1793-1815 (O'Brien & Palma, 2022).

The peculiarities of shaping monetary policy in wartime have not been widely covered in fundamental scientific works. The issue of monetary (monetary and credit) policy in the wartime period did not receive significant attention even in the current aggressor country, which appears to have been preparing in advance for the regulation of the economy in wartime conditions. For example, in the textbook *Economics* (Gabitova & Buga, 2019), intended for military universities, a lot of attention is paid to monetary issues in the section «Macroeconomics» (pp. 193-211), but in the section on the war economy, financial policy is limited only to budgetary issues. A similar approach is taken in the joint Russian-Belarusian textbook *War Economy* (Vikulov, 2018).

Of course, we are still more interested in the scientific developments of scientists from democratic countries. In this regard, we can mention the analysis of war periods in the well-known work of M. Friedman and A. Schwartz (2008) on issues of monetary history of the United States, the report of M. Friedman (1952) at the meeting of the American Economic Association in May 1952, in which he considered the experience of three war periods, and the article of the American professor (University of New Jersey) Hugh Rockoff (1981), in which he considered four wars (including the war in Vietnam). In particular, they refer to the close cooperation of the Fed with the Department of the Treasury up to the actual subordination of monetary authority to the main fiscal body, which was terminated only in 1951 as a result of the conclusion of a special agreement (*Treasury-Fed/Monetary Accord*).

Therefore, **the aim of the article** is to consider examples of changes in monetary policy in wartime, to highlight the basic principles and approaches to such policy, and to provide certain recommendations regarding the basics of monetary policy in wartime for Ukraine.

In the course of writing, the author used the historical-comparative method, as well as the horizon scanning method. This made it possible to identify similarities and differences in the conditions for the implementation of monetary policy caused by various internal and external factors, as well as to identify the main risks and potential problems, which could be solved, in part, with the use of modern monetary policy of the state with a market economy.

## Discussion of Research Results

During World War II, the Treasury asked the Fed to keep long-term interest rates low to allow for cheaper financing of the national debt accumulated during the war. After the war, the Fed continued its wartime interest rate policy.

However, keeping interest rates low even while the economy was growing ran the risk of overheating the economy and rising inflation. In 1947, the Fed introduced a peg to the Treasury bill rate. However, the Treasury Department insisted that the Fed continue to set a minimum price for government debt by setting an upper limit on its yield. By the time the Korean War began in June 1950, Fed higher-ups viewed the experience of World War II in the context of price control and inflation suppression, but they did not want to repeat this experience during the Korean War. In 1951, the Treasury Department agreed to end the previous agreement and enter into a new one, which allowed the Fed to independently set interest rates if that was necessary to achieve economic stability. The Fed has remained independent since 1951, conducting monetary policy to maintain economic stability without responding to short-term political pressures.

*«A deeper question is why the Fed adhered to this target-zone regime for prices and interest rates immediately after World War II but not in other periods. The explanation, we argue, lies in policymakers' perceptions of the threats to financial stability. In the aftermath of World War II, higher interest rates were perceived to pose a threat to the stability of the banking system. Only when the banks' exposure to bond-market risk has been reduced in the 1950s was policy reoriented to other targets. Our analysis of bank portfolios suggests that fears for the stability of the banking system may have been overdrawn. But it remains true that concern over financial stability, which originated in memories of widespread bank failures in the 1930s, provides the explanation for the singular policies pursued in the aftermath of World War II» (Eichengreen & Garber, 1991, p. 200).*

It was as part of this interaction that the Fed kept interest rates low by supporting the stock market that housed the US government's war bonds. (Although Fed chair M. Eccles preferred to raise taxes). At the same time, researchers emphasized the excessive bureaucratization of such a common monetary policy and its side effects. In general, the American approach consists in strengthening the influence of the government's anti-inflation policy, including administrative control over pricing (rent control), which was overseen by a special government institution (Office of Price Administration whose staff twice exceeded the number of employees of the Treasury), as well as wide use of monetary theory recipes (interest rate influence), etc. Today's calamities (even without taking into account the consequences of the war against Ukraine) according to some experts, require similar steps (Stein, 2021).

However, such views, firstly, still consider the periods before the establishment of the latest post-Bretton Woods world monetary system and the introduction of the inflation targeting system, and, secondly, relate to the monetary policy of the United States, whose currency has a special status is inevitably reflected in the options and instruments of monetary policy. It is no coincidence that J. Friedman, a well-known analyst in the field of geopolitics, speaks of the «weaponized dollar», considering it «perhaps the most powerful weapon in the world» with the help of which the United States creates a coalition with countries

(for example, Japan) that are «far from the fighting but close to the dollar» (Friedman, 2022). And if the war against Ukraine intensifies, the Fed will continue to use this «weapon» by further reducing interest rates and returning to the policy of quantitative easing to ensure economic activity (Manason, 2022).

The experience of the war monetary economy of the countries of the Middle East in the time of the Iran-Iraq war of 1980-1988, or that of Afghanistan, Iraq, and Syria in the first decade of the 21st century is not of great value either due to the non-market nature of their economy. In particular, the fiscal component of monetary policy dominated in Shia Iran (some researchers even called «financial repression») with significant restrictions on currency transactions, capital movements, monetary payments, etc. (Jbili et al., 2007; Resolution of the Cabinet of Ministers of Ukraine, 2022). The wide use of the principles of «Islamic banking» was also an additional factor. Similar approaches were typical for other Islamic states of the region.

In this context, the experience of Israel, which has been in a state of military readiness for many decades, could be useful. But it is precisely as a result of such a long effect of the actual martial law that the monetary policy of the central bank takes into account the corresponding risks as if they are business as usual. The results of the corresponding analysis show that the influence of money on the variability of output is significantly reduced during periods of recovery from the crisis. However, it seems that the variables do not depend directly on monetary changes, but are rather explained by monetary policy and price markup shocks in the short and long run (Benchimol, 2016; Georgieva, 2022).

The experience of the Soviet Union during the Afghan war of 1980-89 does not look very suitable either. This period was characterized by an increase in budget expenditures (in part due to direct lending at the expense of the State Bank and deposits of Sberbank of the USSR, which, as we know, resulted in freezes and the subsequent «disappearance» of these deposits) and an increase in the money supply not backed by goods. Under market conditions this would have led to an inflationary rise in prices, but, as goes the catchphrase of the famous then head of the State Bank V. S. Alkhimov, «inflation is forbidden in the USSR», so instead the goods disappeared from shops (albeit at constant prices). Theoretically, all this was well described by the famous Hungarian economist J. Kornai in his monograph *Deficit Economics*. The resulting «repressed inflation» turned first into galloping inflation at the first signs of economic liberalization in the final period of Perestroika and then into hyperinflation in 1992-93.

Therefore, with regard to monetary policy in the conditions of war, in fact, only the experience of the countries of the former Yugoslavia can be used. After the collapse of the old communist regime, the Yugoslav currency fell as most former republics – now independent countries – abandoned it and only Serbia tried to keep it. In 1992, when Belgrade began printing additional dinars to pay the salaries of civil servants and pensioners, hyperinflation erupted in Serbia. At the height of the crisis, prices rose by 2 percent every hour. Money became vir-

tually worthless and Serbs bartered goods or exchanged whatever stable currency, e.g. German marks, they had saved up. By the end of 1994, half of the population spent between 66 and 100 percent of their family income on food alone. Everyday existence was a challenge for many.

However, considering that Serbia acted as the aggressor in the Balkan War, or at least, as the side that supported the separatists, the experience of Croatia is more valuable for Ukraine (Škreb, 1998). Just recently (in mid-December 2021) it was considered at a scientific conference dedicated to the 30th anniversary of the monetary policy of the Central Bank of Croatia. The reports mentioned not only the strengthened cooperation and coordination of the actions by the central bank and the Ministry of Finance, but also the «increasingly harsh monetary policy», which was carried out «not according to the textbook». Along with the introduction of a quasi-fixed exchange rate (which is not only still in use but, according to the Chairman of the Central Bank of Croatia B. Vujčić, will be maintained until the moment Croatia joins the euro area), this made it possible to quell the growing inflation (Croatian National Bank, 2021).

Now, the **war against Ukraine created a completely new situation** that put even the European Central Bank in a dilemma. In the pre-war period, a consensus was reached in the EU on a growth strategy based on the green economy, digital modernization, reforms to the tax system, and industrial policy that responded to new geopolitical and technological challenges from competitors. But the war unravelled these plans, destroying supply chains and creating threats to financial stability.

Thus, it was necessary to forget about the ECB's optimistic forecasts regarding the pan-European economic growth this year, and the ECB itself is forced to avoid long-term decisions for the time being, preferring more flexible approaches (Duguid et al., 2022). The war completely changed the economic situation and the ECB, instead of determining its schedule for the implementation of the already existing programme to support economic growth, was forced to prepare for the implementation of all possible scenarios (Ashworth, 2022). As noted by the chief economist of the international auditing company SRM, a well-known specialist in monetary policy J. Brusuelas:

*«We have most likely arrived at a turning point where elevated inflation will define the economic narrative for several years. That may require much higher interest rates than have been observed in recent years and will diminish the probability of central banks achieving a soft landing for the economy» (Brusuelas, 2022).*

However, in his opinion, the introduction of administrative price control is not at all inevitable since, as the experience of the beginning (the Arab embargo on oil supply) and the end of the 1970s (the Islamic Revolution in Iran) has shown, control over the prices of petroleum products proved counterproductive.

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And in general, united Europe, according to French President E. Macron, should give a consolidated response to this shock (Mollet & Riekeles, 2022).

Of course, one cannot ignore the measures of Russia's monetary policy, which, in particular, took care in advance to increase the share of the «yellow» in the total gold and foreign exchange reserves and reduce the dollar share (increasing the volume of reserves in other currencies, first of all, in Chinese Yuan). Since the beginning of the invasion into the territory of Ukraine, the new financial (in a broad sense) policy of the Russian Federation entailed significantly limiting capital transactions, introducing the mandatory sale of 80 percent of foreign currency earnings of exporters, and actually stopping the exchange of rubles for foreign currency for individuals and limiting the possibility of withdrawing foreign currency cash from their bank accounts (in the amount of 10 thousand dollars). That is, the ruble has actually ceased being a freely convertible currency and its exchange rate has turned into a manipulation (Kalwasinski, 2022).

After the start of the war, a two-level Russian ruble market actually emerged: non-residents traded with non-residents, and residents – only with residents. Moreover, on the first level (offshore market), the ruble exchange rate is on average 10-15 percent lower than on the second (onshore market). Under such conditions, the volume of trades on the foreign exchange market of Moscow Exchange in March increased by 28.6 percent (up to 41 trillion rubles).

Such a strengthening of the ruble rate was assessed by most experts as temporary in nature and achieved at too high a price. As Mārtiņš Kazāks, head of the Central Bank of Latvia, figuratively put it: «You can break the windows, turn off the heating and pretend that summer is here». But this will not change the fact that the tools used to support the ruble turn it into the «currency of the «Potemkin village» (as the Reuters agency pointed out) (Treeck & Rosca, 2022). The artificial overestimation of the ruble exchange rate (recall that in the USSR it ranged from 90 to 54 kopecks to the dollar in different years with a black market exchange rate of 10-15 rubles) essentially meant the introduction of a special «tax» on all holders of Russian rubles, who wanted to continue buying imported goods (Miller, n.d.). Maintaining such an artificial exchange rate has cost the Central Bank of the Russian Federation (by the end of March 2022) almost 40 billion dollars spent on currency interventions.

Polish Prime Minister Mateusz Jakub Morawiecki also drew attention to the manipulative nature of the ruble exchange rate, pointing out that despite harsh sanctions from Western countries, the ruble exchange rate (which had dropped significantly at the beginning of the war) soon almost recovered (rising from level of 153 rubles for 1 dollar, to the mark of 83 rubles) and remained quite stable. In his opinion, this showed only that Putin and his entourage have been able to change fiscal policy, monetary policy, financial policy in such a way that they are completely immune to sanctions... at least for the next few months (Ukrainska Pravda, 2022).

In addition, the Russian authorities hoped to achieve an increase in demand for their currency by introducing payment in rubles for natural gas supplies abroad (to so-called «unfriendly countries»). According to this idea, gas buyers would have to look for rubles on the world market and since the supply of rubles on the world market is small, they would either have to buy them from the Central Bank of Russia at an inflated rate, or demand the easing of sanctions to increase Western exports to Russia. However, most foreign exchange dealers have managed to avoid transactions with dubious currency, and since Western countries resolutely and unanimously refused to change the currency of payment for long-term contracts, this eventually led to the fact that buyers continued to remit payments in dollars and euros, and Russian banks converted them into rubles that were then transferred to Gazprom. That is, in practice, everything came down to establishing a 100-percent cession of foreign currency receipts from Western consumers for Gazprom alone.

In this regard, it should be noted that the statements of some experts regarding the professionalism of the team of E. Nabiullina (Governor of the Central Bank of Russia) can be taken seriously only with the clarification that they refer to non-market professionalism of the Soviet kind. It is obvious that after the lifting of administrative bans, the exchange rate of the ruble will inevitably collapse, burying hopes for its transformation into an alternative world currency (likened to the Chinese yuan). In addition, «the Neglinnaya professionals» significantly miscalculated believing that Western sanctions would not apply to the assets of the Central Bank of Russia (although there were already such precedents in global practice).

Other, or precisely **market approaches**, were preserved as much as possible in Ukraine. Nevertheless, as the Deputy Chairman of the National Bank S. A. Nikolaychuk stated, the central bank's leadership abandoned the lexical, orthodox policy of inflation targeting, understanding the limited influence of the key interest rate, and was reluctantly forced to resort to certain administrative restrictions (in particular, this concerns the introduction of a fixed official hryvnia exchange rate). In general, the monetary and prudential policy of the National Bank is aimed at ensuring the uninterrupted functioning of the banking system, and therefore the imposed restrictions will be gradually abolished after the end of the war (CASE Ukraine Think Tank, 2022).

Thanks to this approach, a month after the start of the war, the rate of inflation (2.1 percent – for March or 11.1 – in annual terms) exceeded pre-war forecasts (9.2 – in annual terms) with a slight deviation, which the Chairman of the National Bank of Ukraine assessed as moderate even in spite of the war.

It should be noted that for Ukraine, both the internal aspect of monetary policy (issue activity of the National Bank) and the external aspect (e.g., connected to relations with the International Monetary Fund) are important.



As evidenced by world experience, ensuring price stability remains, if not the only, then the most important goal of monetary policy (including in crisis situations of humanitarian and military danger). It can be achieved within one of the four monetary regimes: (a) monetary targeting, (b) exchange rate targeting, (c) inflation targeting, or (d) implementation of monetary policy with multiple goals without a clear nominal anchor. It is through the choice of monetary regime that central banks influence the «price of money», which is a determining factor of a market economy.

The price of money itself has two dimensions – internal and external. The internal dimension determines the development of inflation/deflation processes, which directly affect the redistribution of GDP between individual economic agents and population groups, the level of employment, etc. That is, they determine the level of economic inequality, and hence social tension within society. The external dimension, in turn, determines the exchange rate of the national currency and its dynamics. Thus, it affects the development of the sectoral structure of the economy (exporters-importers), the ratio between domestic and foreign investors, the level of foreign debt, which, in the end, determines the level of international competitiveness of the domestic economy, the place of Ukraine in the global economy and the degree of its economic dependence on foreign countries, transnational corporations/banks and international financial organizations.

Thus, the choice of the strategic direction of monetary policy, its institutional support and the degree of consistency with the economic policy of the government (first of all, with its fiscal component) act as important elements of national security, affecting the interests of not only economic agents, but also individual citizens.

In the pre-war period, criticism from many domestic independent experts was aimed at the fact that the National Bank of Ukraine ignored not only the numerous comments of domestic experts, but also the experience of the ECB and the overall monetary policy of the EU countries (which contradicts the European integration direction of Ukraine's policy). All this meant that the National Bank had a singular goal in monetary regulation – the fight against inflation. As a justification for this approach, references are often made to the legally defined goals of the NBU: in the Constitution (Article 99), its main function is to ensure the stability of the monetary unit (hryvnia). At the same time, the explanation of what is meant by such stability is provided only in the Law on the National Bank. Article 6 of the Law specifies:

*«When performing its main function, the National Bank must prioritize achieving and maintaining price stability in the state. The National Bank, within the limits of its powers, promotes financial stability, including the stability of the banking system, provided that this does not prevent the achievement of the goal defined in part two of this article. The National Bank also promotes the maintenance of sustainable rates of economic growth and supports the economic policy*

*of the Cabinet of Ministers of Ukraine, provided that this does not prevent the achievement of the goals defined in parts two and three of this article».*

Referring to these provisions, the National Bank believes that promoting economic growth is actually not within their competence, since they have not yet achieved the first goal (price stability), not considering that (a) full price stability is unlikely to be achieved in modern economy, (b) significant inhibition of inflation, and even more so, deflation negatively affect economic processes, and most importantly (c) price stabilization is impossible without economic growth (i.e., these are interrelated processes).

The National Bank of Ukraine does not take into account another obvious thing: modern money is of such a nature that its stability is determined not only by monetary factors, not only by the amount of money issued into circulation, but also by conditions that directly determine commodity prices, bypassing the influence on the money supply. Such conditions include, for example, monopolism and fluctuations in the exchange rate of the national currency. And if inflation is growing as a result of these factors, then extinguishing it by compressing the money supply, which the National Bank constantly does, means inevitably slowing down economic growth, without any effect in terms of price stabilization. Such an anti-inflationary policy can lead to an economic recession and crisis.

Meanwhile, in the conditions of martial law, the situation is fundamentally changing and the National Bank must adjust its approaches to ensuring the stability of the national currency. The task of keeping inflation within the established limits should remain a priority. The stability of the exchange rate in wartime conditions can be ensured by means of a quasi-fixed rate, that is, by keeping it from sharp fluctuations through currency interventions, as well as by introducing tighter control over currency transactions and certain restrictions on export-import operations by the government. It should be taken into account that the goal of ensuring economic growth in the wartime period loses its traditional relevance due to at least two factors. First, industrial structure shifts in the direction of strengthening defence industries and, second, migration of the labour force (refugees abroad and internally displaced persons, the number of which has already reached 3 and 4 million people in the third week of the war, respectively) is significantly high (Libanova, 2022). This is not to mention the direct draft of able-bodied men to the Armed Forces and territorial defence units.

In this regard, the import of vital products (critical imports) becomes especially important. This is why, the government first approved the List of Critically Imported Goods (Cabinet of Ministers Resolution No. 153 of February 24, 2022) and then updated it (CMU Resolution No. 266 of March 13, 2022), adding a number of products, in particular bottled water (mineral and carbonated), fermented or soured milk products, salt, tobacco raw materials, raw materials for the production of goods of light industry and medicine. The list also includes goods necessary for industry and construction, such as polymers, means for soldering and welding metals, glass, metal structures, etc. Clearly, in the future this

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list will be supplemented with other goods, including those of industrial importance. Alas, in order to ensure critical imports, the National Bank of Ukraine must increase its currency reserves.

Notably, the IMF changed the format of negotiations with Ukraine from «reforms» to «crisis management» (Georgieva, 2022) and has already taken certain steps to support the National Bank of Ukraine's ability to implement an effective monetary policy. In particular, the Fund transferred \$1.4 billion to Ukraine under the Rapid Financing Instrument (International Monetary Fund, 2022), which, according to experts, may be enough for the first month of support for the NBU's monetary policy to counter the devaluation of the hryvnia. In the future, assistance in the amount of approximately 15 billion USD is expected. It is also possible for Western partners to transfer to Ukraine part of the SDRs that they received as a result of the last distribution of 600 billion previously issued SDRs. This practice has already been implemented in relation to the poorest countries, and now it would be logical to include Ukraine in this programme.

This, of course, requires some diplomatic effort. Economic diplomacy could also try to resolve the issue of writing off (or at least deferring) Ukraine's debts to the IMF. As an option, it would be possible to propose replacing the previous agreement on receipt of IMF funds by the National Bank with a swap-type agreement (i.e. transfer to the Fund of the corresponding equivalent amount in hryvnias). At the same time, it is necessary to emphasize that such a device should refer only to the funds that were included in the reserves of the National Bank, and not to the budget of Ukraine (so that foreign investors do not even suspect the possibility of a sovereign default of Ukraine, which would lead to a significant worsening in conditions for attracting funds on the Eurobond market).

Meanwhile, the Ukrainian government has continued to raise funds through the placement of war bonds. In particular, at the last auction held on March 15, 2022, the Ministry of Finance placed 1-year bonds in the amount of 4.85 billion hryvnias, as well as foreign currency bonds in the amount of almost 12 million US dollars. This increased the total amount of government borrowing on the market under this instrument to almost 20 billion hryvnias. In addition, the National Bank purchased 20-billion-hryvnia worth of military bonds.

The foreign exchange market of Ukraine continues to function, albeit under the restrictions introduced for the period of martial law. The National Bank of Ukraine conducts daily operations for the purchase and sale of US dollars with banks. At the same time, the purchase of non-cash US dollars from banks is carried out at the official rate, and its sale to banks – at the official rate increased by 1%. Considering the slight predominance of demand for foreign currency from banks' clients over its supply (taking into account the established restrictions), the balance of the NBU's foreign currency purchase and sale operations for the week of March 7-12, 2022 was negative (-266 million US dollars and – 74 million euros), which partially reduced the positive balance of NBU operations on the foreign exchange market since the start of the war. The official exchange rate of

the hryvnia to the US dollar remains unchanged at 29.25 hryvnias for 1 US dollar (Danulushyn, 2022).

At the same time, the volume of operations on the foreign exchange market of Ukraine at the end of March 2022, compared to the start of the full-scale invasion of Russia, decreased by five times (from 500-700 million dollars per day to 100-200 million dollars). Moreover, 75 percent of the total demand was related to the transactions of individuals with bank cards (mainly – the expenses of refugees abroad), and 25 percent – to payments for critical imports (mainly weapons and fuel) (Ekonomichna Pravda, 2022). Gradually, the National Bank began to record improvements on the foreign exchange market, in particular, reductions in the spread between the official rate and the market rate: if at the beginning of the war the exchange rate at the exchange points reached 40 UAH for 1 dollar, then in a month the market rate stabilized within the range of 31.6–32 UAH. In view of this, the NBU considered the issue of gradually relaxing administrative restrictions (expanding the list of cross-border transfers, reducing payment terms for export-import transactions, etc.). As of April 1, 2022, Ukraine's international reserves amounted to \$28.1 billion, which is 2% more than a month earlier. Reserves increased primarily due to the inflow of funds from international partners, which compensated for the sale of currency by the National Bank and payments for servicing the national debt.

Given this situation, we believe that the National Bank could attract additional foreign currency funds from commercial banks of Ukraine (at the expense of foreign currency deposits of legal entities and individuals, interest rates on which could rise to a level close to the value of sovereign loans of Ukraine on the Eurocredit market). Notably, foreign currency deposits of private citizens (that is, those that can be borrowed without significant damage to the economy) amount (in equivalent) to more than 300 billion hryvnias.

## Conclusions

Echoing C. von Clausewitz's statement that «war is the continuation of policy by other means», we can say that wartime monetary policy is peacetime monetary policy under new conditions.

As the Chairman of the National Bank of Ukraine K. Shevchenko noted, the rapid transition to wartime monetary policy was eased by the experience of using administrative restrictions previously. Then, further stability was ensured by a sound macroeconomic policy: a small budget deficit, reduction of the debt burden, control over inflationary expectations, a floating exchange rate and significant currency reserves (at the beginning of the war they amounted to 31 billion dollars, and at the end of April – 27 billion dollars) (Ellis, 2022).

In general, the analysis of the experience of monetary policy in the conditions of war proves the absence of any certain, generally accepted (and generally suitable) standard. Therefore, in such conditions it is reasonable to discuss the need for the development of one's own, tailor-made for this specific situation, monetary policy, which would take into account the experience of other countries in one way or another (that is, as a positive or negative example).

Finally, it should be noted that the experience of many countries, as well as the theoretical conclusions of well-known researchers, testify that it is necessary to start preparations for the post-war recovery of the economy even during martial law. In particular, the authors of a special report for the American Agency for International Development (USAID), who reviewed many examples of post-war economic revival – from the Marshall Plan to the reconstruction of Iraq, selected the main principles of successful economic recovery. Among them, seven can be highlighted.

First, preparations for the post-war period of development should begin in advance, when the armed conflict is still ongoing, and involve various sponsors, as well as representatives of various national organizations that will be able to play a certain role in the future post-war government. Second, the new post-war government and existing donors must be well integrated and structured so that they can achieve their goals without fuelling political divisions. Third, even in the early stages of a recovery, it is important that economic growth and job creation are driven primarily by private sector leadership, not public spending. Fourth, the first steps of recovery should focus on solving key political and social problems, in particular, creating social assistance programmes for vulnerable population groups and ensuring privileges for war veterans, in order to give them a real opportunity to make a decent living in the new society. Fifth, the modernization policy should include the provision of complete and truthful information, which will ensure confidence on the part of investors and donors. Sixth, recovery priorities and time-consuming activities should be identified at the very beginning of the programme. Seventh, kick-off of the economic revival must be used to implement the necessary political reforms and institutional changes, since their implementation may be significantly complicated or even impossible after this window of opportunity closes (Lewarne & Snelbecker, 2004; Friedman, 2022).

This also applies to the monetary sphere, which is confirmed by the widespread practice of post-war monetary reforms: not only after the First and Second World Wars, but also after the Balkan and Persian Gulf wars. Moreover, in the latter case, the limited and/or delayed nature of the monetary reform can be considered one of the reasons for the depressed state of the post-war economy (Farzin, 1995; Baker, 2002; Inter Crim Press, 2008).

Thus, it can be concluded that the monetary policy of the war and post-war periods should form a single whole, and the victory in the monetary realm is forged simultaneously with the military victory.

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