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## ABROAD EXPERIENCE OF MONETARY POLICY OF CENTRAL BANKS DURING THE WAR

## ЗАКОРДОННИЙ ДОСВІД ПРОВЕДЕННЯ МОНЕТАРНОЇ ПОЛІТИКИ ЦЕНТРОБАНКІВ ПІД ЧАС ВІЙНИ

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The article examines the experience of conducting monetary policy of central banks during the war in different countries of the world, depending on the monetary management system. Solving the problems of the functioning of the state's economy during military operations and in the period of post-war reconstruction is an urgent scientific and practical task. The main lever for ensuring the sustainable development of the economy is the flexible monetary policy of the state. The ability of the state to mobilize financial resources, maintain its own currency and continue to lend to the economy are among the main factors of victory and subsequent post-war recovery. It has been established that in the vast majority of countries, the main principle of modern monetary policy is to ensure price stability. Price stability, aggregate demand, credit and investment activity, economic growth, and therefore the readiness of the economy to resist external aggression depend on the effectiveness of monetary policy. It is outlined that one of the main prerequisites for the successful application of the chosen monetary policy of the state is to take into account the current economic situation in the country and to develop such instruments of monetary influence on economic processes that would maximally take into account national specificities and neutralize the influence of negative factors on the transmission channels of monetary regulation.

**Keywords:** monetary policy, war, National Bank of Ukraine, inflation, discount rate, price stability, post-war recovery.

У статті досліджено закордонний досвід проведення монетарної політики центробанками різних країн світу під час війни та окреслено певні рекомендації щодо подальших дій для нашого національного банку. Вирішення проблем функціонування економіки держави під час воєнних дій та у період післявоєнного відновлення є актуальним науковим та практичним завданням. Наша держава перебуває у стані воєнного конфлікту вже майже 10 років, а також вона єдина держава в Європі, на території якої проходить повномасштабна континентальна війна, тому актуальним для вивчення є питання міжнародного досвіду проведення монетарної політики, вибір тих інструментів впливу на економіку, які б найкраще відповідали нашим умовам. Наукові розвідки у цьому напрямку актуальні вже зараз, оскільки належне використання цих інструментів закладе фундамент для швидкого та якісного відновлення економіки та повернення частини населення. Методологічною основою є загальні та спеціальні методи наукового дослідження, у тому числі методи теоретичного узагальнення, синтезу та аналізу, порівняння та інші. Основним важелем забезпечення сталого розвитку економіки є гнучка монетарна політика держави. Здатність держави мобілізувати фінансові ресурси, підтримувати власну грошову одиницю та продовжувати кредитувати економіку є одними із головних чинників перемоги та подальшого повоєнного відновлення. Встановлено, що у переважній більшості країн основним принципом сучасної монетарної політики є забезпечення цінової стабільності. Від ефективності проведення монетарної політики залежать стабільність цін, сукупний попит, кредитна та інвестиційна активність, економічне зростання, а отже, готовність економіки протистояти зовнішній агресії. Окреслено, що однією з головних передумов успішності застосування вибраної монетарної політики держави є врахування сучасного економічного стану в країні та розроблення таких інструментів монетарного впливу на економічні процеси, які максимально враховували б національну специфіку та нівелювали вплив негативних чинників на трансмісійні канали грошово-кредитного регулювання.

**Ключові слова:** монетарна політика, війна, Національний банк України, інфляція, облікова ставка, цінова стабільність, повоєнне відновлення.

**Formulation of the problem.** Ensuring the sustainable economic development of the country, the stability of its financial system and the national monetary unit is largely determined by the effectiveness of its monetary policy conducted by the central bank. Therefore, the importance of monetary policy in the economy of the state, the peculiarities of the use of its tools in the direction of ensuring the stability of the national monetary unit, make it necessary to study the foreign experience of conducting monetary policy for the implementation of effective measures and mechanisms aimed at ensuring and strengthening the stability of the national monetary unit.

The issues of the specifics of monetary policy in wartime are not widely reflected in fundamental scientific works. Even in Russia, which was preparing in advance to regulate the economy during the war, monetary policy issues were not given enough attention.

The main prerequisite for the successful application of monetary policy is taking into account the current economic state of the state and the application of such mechanisms of monetary influence on the economy, which will maximally take into account the national specifics and reduce the impact of negative factors on the real and financial sectors. Thus, the study of foreign experience of conducting monetary policy during the war is important for our country and requires further research.

**Analysis of recent research and publications.** Issues of conducting monetary policy during the war are not widely reflected in fundamental scientific works. Moreover, the country's financial policy during the military economy was limited only to budgetary issues. At the same time, problems and features of monetary policy during the war were studied by both domestic and foreign scientists, namely: Brus S., Drobyazko A. [1], Vavra D., Topf B., Ray N. [2], Horodnichenko Yu. [3], Danylyshyn B. [4–5], Zakutna A., Plachinda V. [6], Kozyuk V. [7], Lepushynskiy V. [8], Nikolaychuk S., Dubogryz Yu. [9], Petryk O. [10], Fridman M., Schwartz A. [11] and others. Despite a number of scientific studies, the issue of the influence of monetary instruments on the parameters of the economic development of the state during the war will continue to require further study, especially in terms of ensuring financial and price stability.

**Highlighting previously unresolved parts of the overall problem.** At the same time, taking into account the significant contribution

of the above-mentioned researchers, the issue of studying the foreign experience of conducting monetary policy by central banks requires further study, which determines the relevance of this study.

**Setting objectives.** The purpose of the article is to study the foreign experience of conducting monetary policy by the central banks of different countries of the world during the war and outline certain recommendations for further actions for our central bank.

**Presentation of the main research material.** Monetary and credit policy is of great importance for every country, because by regulating the money supply, it is aimed at ensuring the efficient functioning of the economy, and its key goals are price stability, exchange rate stability, economic intensification, ensuring employment, regulating the balance of payments, increasing the welfare of the population, etc.

Armed aggression by Russia led to a significant reduction in the business activity of enterprises in the real sector of our country's economy. This resulted in significant disparities in the national money market, a significant reduction in the supply of credit resources from the banking system, and an increase in inflation. In addition, there is an objective need to increase the volume of production and stimulate business activity to properly support the Armed Forces. At the same time, it is worth noting that the stability of the monetary and credit sphere of the state allows to ensure the appropriate amount of credit resources for the national economy and contributes to the growth of demand for goods and services, thereby providing prerequisites for economic growth in the future [1].

After studying the American approach of the leaders of the US Fed during the Second World War, it can be concluded that they tried to keep long-term interest rates at a low enough level to allow cheaper financing of the national debt accumulated during the war. In order to prevent the economy from overheating and increasing inflation, the Fed introduces a peg to the Treasury bill rate. However, the Ministry of Finance insisted that the Fed set a minimum price for government debt by determining the upper limit of its profitability. That is, the leadership of the Fed received permission to independently set interest rates, if necessary to achieve economic stability, without reacting to short-term political pressure. Only after the Second World War, higher interest rates were considered a threat to the stability of the banking system [11].

Thus, the US Fed supported the stock market with low interest rates on loans that housed US government war loan bonds. In general, the American approach is to strengthen the influence of government policies to combat inflation, including administrative control over price formation, which was overseen by a special government agency, whose staff exceeded twice the number employees of the Ministry of Finance. We believe that we need to act similarly, because our national currency has a direct link to the dollar, and therefore the introduction of the policy of quantitative easing will ensure our future growth of economic activity.

The experience of the countries of the Middle East (Afghanistan, Iraq, Syria) is not of great value to us, because the nature of their economy is not market-based, with significant restrictions on currency transactions, capital movements, monetary settlements, etc. As for the economic model of Iraq before 2003, it is a command-administrative management system in which the state controlled almost all spheres of the economy. Strict control mechanisms were established over the economy and the prices of goods and services, which caused a decrease in production efficiency and the spread of corruption. This system was highly dependent on oil export revenues, which led to severe economic difficulties during the collapse of oil prices in the 1980s and following the economic blockade imposed by the US and its allies following Iraq's invasion of Kuwait in 1990.

After the overthrow of Saddam Hussein's regime in 2003, the country's development was carried out in the direction of market reforms led by the US-led coalition. The US government provided financial and technical support to small and medium-sized enterprises in Iraq to ensure their development and increase their competitiveness. After the war, inflation in Iraq rose to the level of 30-50% per year. Nevertheless, in the first years of recovery (2003–2005), the central bank kept the key rate unchanged at the level of 6-7% per annum. From 2006 to 2008, in response to accelerating inflation, the National Bank of Iraq pursued a policy of increasing interest rates. The key interest rate was set at a level that roughly corresponded to 1/2 of the previous year's inflation. Inflation in Iraq has declined rapidly. Already in 2008, inflation decreased to 2.7% per year, and on average for 2008–2019 it was 1.6% per year. At the same time, the real GDP of Iraq doubled during the first 5 years of recovery, and in 2021 it already exceeded the pre-war level of 2002 by 5 times.

Such growth was achieved, in particular, due to the lifting of sanctions, the unblocking and the restoration of the oil production and oil refining industry of Iraq [5].

The dynamics of the exchange rate also played an important role in the stabilization of prices in Iraq. The exchange rate of the dinar strengthened by 40% in the first 5 years of recovery. This was caused by the opening of foreign markets and the receipt of significant amounts of currency revenue from the sale of energy carriers. The strengthening of the dinar made imports cheaper and supported domestic demand. At the same time, the exchange rate regime mostly remained fixed, but with various variations of the peg to the US dollar. In general, the conclusion for our country is that in conditions of low and limited demand, it is not necessary to keep the interest rate above the inflation level in order to reduce inflationary risks. At the same time, the key factor in stabilizing the economy is the restoration of its domestic demand and investment process, which requires low interest rates.

The experience of Israel's monetary policy during the war of attrition (1967-1970) suggests that investments were supported by government policy and low interest rates. In the first year of the war, investments slightly decreased in the structure of GDP to 16% of GDP, in the following years they averaged 23% of GDP. The budget deficit was significantly expanded in the 1st year of the war (up to 16% of GDP). On average, during the war years, it was 18% of GDP (25% – excluding grants). More than 50% of the fiscal deficit was covered by direct issuance of the central bank. International grants provided about 20% of the final deficit. About 20% accounted for external credit assistance and 10% for bank and other internal loans. The key interest rate remained stable at the level of 6% per annum. Interest rates on government bonds averaged 7.6% per annum. They decreased in the first and second years of the war (up to 6.8% per annum in 1968). Restoration of their pre-war level took place only after the war. The exchange rate remained fixed during the entire period of hostilities. The national currency was devalued by 17% in the first year of the war. It remained unchanged until the end of the war. The next devaluation took place already after the war – by 20%.

In general, the expansion of emission financing of the Government and bank credit financing of businesses during the war years amounted to about 30% of GDP. International grants and

credit assistance averaged 10% of GDP during the war years. Grants and loans were about 50/50. The government actively supported the economy, and low interest rates stimulated business to invest. The government annually allocated about 10% of expenditures for the expansion of credit support programs for the economy. At the same time, despite the gigantic volumes of money and credit issuance, annual inflation remained within 10%, on average – 3.1% per year. The deficit of the foreign trade balance increased significantly and amounted to an average of 10% of GDP annually.

During the war, the physical volumes of industrial production increased by 60%, in the first year of the war, industrial production fell by 3%, in the following years it increased by an average of 20% per year. The growth of real GDP did not stop during the war, in the first year of the war it was +2.5%, then on average +12% growth per year. In general during the war: +44% [4].

Therefore, we can conclude that Israel won the war of attrition. During the war, the Central Bank of Israel concentrated not on inflationary risks, but on supporting the economy. Directing the additional money supply into production facilities and workplaces made it possible to create fundamental foundations for the long-term stability of the economic system. Therefore, recipes of specific world practice can be more useful for us than standard recommendations of actions, which are oriented mainly to peacetime conditions. Because we see that the war in Ukraine is becoming a war of attrition. To win such a war requires full mobilization of production and labor resources of the economy. To this end, Israel maintained a stimulative monetary and fiscal policy throughout the war. Fixing the exchange rate was a key element in stabilizing the Israeli economy. Therefore, Ukraine should not prematurely switch to flexible exchange rates. Moreover, the interest rates of state borrowings should be relevant to GDP rates and have an adequate relationship with business lending rates. In Israel, government loan rates in 1986–1989 were 2.5% per annum, while real GDP grew by an average of 3.7% per year. This allowed the Government to effectively carry out reforms, create growth points for business, provide preferential loans in strategically important sectors of the economy, and at the same time maintain the debt stability of state finances.

In addition, an increase in interest rates effectively reduces inflationary processes only

in the conditions of an overheated economy, as it allows redirecting "excessive" incomes of the economy from the purposes of consumption and investment to the purposes of savings. In the conditions of the Ukrainian economy, which is operating well below its potential, "excessive" incomes (salaries, profits) are simply not formed, and therefore the increase in interest rates does not find its addressee, the transmission does not work, the anti-inflationary effect does not occur [4].

As for the experience of the Soviet Union during the Afghan war of 1980-1989, it was characterized by a significant increase in budget expenditures, which ultimately led first to galloping inflation, and then to hyperinflation and the collapse of the USSR.

Croatia managed to successfully overcome the negative consequences of hostilities (in 1991–1993), money emission and large-scale central bank refinancing of priority industries. The reduction of the economy by a third and strong inflation in the country, which reached 1,890% in September 1993, pushed the government to implement a stabilization program in October 1993. The exchange rate was defined as the anchor of price stability, the foreign exchange market was reformed and liberalized, monetary policy was strengthened, and lending to the government by the central bank was limited (up to 5% of budget revenues, with the exception of so-called transitional loans during the fiscal year). Considerable attention was paid to fiscal consolidation and structural reforms.

These coordinated and comprehensive measures of the government and the central bank made it possible to significantly reduce inflation and stabilize inflation and exchange rate expectations. If at the beginning of the implementation of the stabilization program, in October 1993, inflation was 1839%, then a year later, in October 1994, it slowed down to 4%. Macroeconomic stability formed the basis for the country's economic growth – the average increase in real GDP in 1994–1997 was already 6.3% [6].

One cannot ignore the measures of the monetary policy of Russia, which, in particular, took care in advance to increase the share of gold in the total gold and foreign exchange reserves and decrease the dollar portion due to the increase of reserves in Chinese yuan. Since the beginning of the war with Ukraine, Russia's financial policy consisted in significantly limiting capital transactions, introducing the mandatory



sale of 80% of foreign exchange 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 (up to 10 thousand dollars). That is, "the ruble actually ceased to be a freely convertible currency and its exchange rate became manipulative" [10]. To maintain such an artificial exchange rate, Russia spent almost 40 billion dollars on currency interventions. It is obvious that after the lifting of administrative bans, the ruble exchange rate will inevitably collapse, burying under it the hopes of its transformation into an alternative world currency (along with the Chinese yuan).

On the other hand, in Ukraine, market approaches to monetary policy were preserved as much as possible. The leadership abandoned the inflation targeting regime, introduced certain administrative restrictions, in particular, it concerned the fixed exchange rate of the hryvnia [7]. However, such forced restrictions will be gradually abolished after the end of the war. At the same time, the national bank does not think at all about economic growth, and it is impossible to stabilize prices without economic growth, as these are interrelated processes. Also, the NBU does not take into account the fact that the stability of modern money depends not only on monetary factors, but also on non-monetary factors, such as monopoly, fluctuations in the national currency, etc. 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 on price stabilization. Such an anti-inflationary policy can lead to an economic recession and crisis.

During the war, Ukraine received international aid for more than 38 billion dollars, at the end of February 2023, the amount of international aid to Ukraine exceeded 38 billion dollars, as well as 3.1 billion dollars due to the placement of currency bonds [8]. All this currency made it possible to largely finance the deficit of the state budget, as well as compensate for a significant part of the NBU's currency interventions to balance the foreign exchange market and, accordingly, support the fixed exchange rate of the hryvnia. Of course, such a regime is not sustainable and effective in the long term. Therefore, we are sure that with the improvement of the security and macroeconomic situation, the NBU will definitely return to market levers of influence on the economy.

**Conclusions.** Thus, summing up the conducted research, we can draw the following conclusions: firstly, the analysis of the experience of conducting monetary policy during the war proves the absence of any specific standard of how to act, and therefore, in such conditions, it is necessary to introduce one's own or individual monetary policy, which would be suitable for a specific economic situation in a particular country; secondly, the experience of these countries proved that even during the war it is necessary to think about post-war reconstruction; third, it is critical to recovery that economic growth and job creation be driven primarily by private sector leadership, not by public spending.

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