Vol. 10 No. 3, 2024
DOI: https://doi.org/10.30525/2256-0742/2024-10-3-289-294

EFFICIENCY OF MONETARY POLICY IMPLEMENTATION AS A BASIS FOR CENTRAL BANK STABILISATION POLICY UNDER MARTIAL LAW (UKRAINIAN AND ISRAELI PRACTICES)

Maryna Posmitna[1]

Abstract. The *purpose of the paper* is to summarise and present the anti-crisis practices of a central bank during martial law in the country, based on the experience of the National Bank of Ukraine and the Bank of Israel. The *research methodology* is based on an analysis of reports, guidelines, statistical data, scientific articles, legislation bases, and other relevant materials. One of the methodological aspects of this study is a comparison of the knowledge acquired about the regulations implemented by the two central banks after the introduction of martial law in the countries. The objective is to identify potential lessons learned for the banking regulations of Ukraine and the State of Israel. The results of the study show that the practical implementation of stabilisation measures by central banks is crucial for achieving financial stability of the state both during and after wartime, as well as the ability to predict possible deepening of crises and minimise their consequences. The tools and methods used by these central banks differ. In particular, the NBU's main monetary policy instrument was foreign exchange interventions, while the BoI actively used the key policy rate. The proper formation of international currency reserves and the possibility of using them during a war-related crisis is critical for both countries. This fact confirms that crisis management has different types of scenarios. Each anti-crisis scenario is unique. This paper highlights the practical need for interaction between monetary and macroprudential policies of the central bank in wartime. It demonstrates various combinations of methods and instruments of the central bank's monetary policy. This study also shows the interdependence of the economies of these two countries. *Practical implementation.* This analysis provides insight into the anti-crisis activities of central banks during unpredictable periods in a country's life, namely, during martial law. At the present stage, banking systems do not often face the challenges of war. Therefore, studying each case is important for improving theoretical knowledge and deepening practical research. *Value / Originality.* The author of the study collected the experience and practices of stabilisation activities of the central banks of Ukraine and Israel during the war.

Keywords: central bank, monetary policy, macroprudential policy, martial law, crises, foreign exchange interventions, key rate.

JEL Classification: E42, E43, E52, E58

1. Introduction

In the 20th century, central bank anti-crisis regulation scholars and practitioners focused on studying the causes of financial and banking crises, methods of exiting them, and subsequent work on preventing such shocks. In most cases, the causes of such crises were events in the financial sphere (e.g., the global financial crisis of 2007-2009). External shocks not directly related to economic processes can also be the basis for the emergence of sufficiently severe financial crises (for example, the COVID-19 pandemic and the subsequent global crisis). In 2022, however, Ukraine is facing an economic crisis, the impetus for which was a full-scale Russia's invasion of Ukraine. Unfortunately, theoretical and practical developments in this area are insignificant due to the uniqueness of the environment in which Ukraine finds itself. In its anti-crisis policy, the National Bank of Ukraine drew not only on theoretical knowledge in the field of monetary and macroprudential regulation, in part on the experience of colleagues whose countries had experienced deep banking crises, but also on its practice in 2014-2016, when Russia first started its military aggression against Ukraine in Crimea and Donbas.

[1]Odesa National Economic University, Ukraine
E-mail: posmitnam@gmail.com
ORCID: https://orcid.org/0000-0003-0154-5048

In October 2023, the State of Israel declared martial law on its territory following a deadly terrorist attack from the Gaza Strip. On the morning of October 7, Hamas militants invaded Israel from the Gaza Strip, taking control of several villages and towns in the border area and taking hundreds of hostages. In response, Israel launched a counter-terrorist operation that took place both in Israel and in the Gaza Strip.

The aim of the article is to analyse the actions of the central banks of two countries (Ukraine and Israel) to counter the unfolding banking crisis and to examine the impact of the war on the anti-crisis measures of the central banks of the two countries. The author does not consider it correct to compare the wars in Ukraine and Israel. However, the anti-crisis experience of the central bank during the war in one country or the other can be an excellent working example for understanding the subsequent actions.

This work is of great importance because it analyses the macroeconomic processes that are currently taking place. In addition, the economic literature has paid little attention to the study of monetary and macroprudential policies of central banks during wartime because war was an unusual phenomenon for the Western world.

The example of these two countries provides an opportunity for a practical analysis of the introduction of monetary practices and their effectiveness and necessity in wartime. It is also crucial to coordinate these two central bank policies, since the central bank creates the main tools for stabilising the banking system.

2. Theoretical Aspects of the Ukrainian and Israeli Banking Systems

The architecture of the banking systems of Ukraine and Israel is similar. They are two-tier systems with a central bank as the regulator (in Ukraine, the National Bank of Ukraine, in Israel, the Bank of Israel) and commercial banks on the second tier.

In 2022, there were ten commercial banks and six foreign banks in Israel. The Israeli banking sector is dominated by five large banking groups. In the same year, the first electronic bank was established (The Bank of Israel Data, 2022). As of January 1, 2023, 67 commercial banks were registered in the country, including 30 with foreign capital and 22 with 100% foreign capital (Website of the National Bank of Ukraine, 2023).

A comparative analysis of the principal legislative acts of Ukraine and Israel reveals a striking similarity in their overarching monetary policy objectives, namely the maintenance of price stability. This policy is implemented through a key policy rate during peacetime, and both countries have a monetary policy committee, an independent body within the central bank's structure, for policy implementation.

Both the National Bank of Ukraine and the Bank of Israel have adopted an inflation-targeting regime for their monetary policy. The aforementioned regime was in place in Ukraine until February 2022, with a medium-term inflation target of 5% and a permissible deviation of ±1 percentage point. In Israel, the target range is set between 1% and 3%. However, due to the ongoing armed conflict and prevailing uncertainty, Ukraine is currently unable to implement its monetary policy in the traditional format of inflation targeting (Bank of Israel Law of 2010; The Law of Ukraine "On the National Bank of Ukraine").

3. Implementation of Monetary Policy – the Example of the Bank of Israel

To understand the impact of the hostilities on the Israeli economy, consider the inflation rate and monetary policy from the beginning of 2022 until now. Military operations in Israel began on October 7, 2023, following a mass terrorist attack by Hamas militants and the seizure of certain areas in the south of the country. But for reference, consider also the impact of the Ukrainian-Russian war on the Israeli economy since February 2022, as the State of Israel has strong economic ties with both Ukraine and Russia.

The figure shows the growth of the inflation rate and the BoI interest rate of the Bank of Israel since February 2022. It is worth noting that the Ukrainian-Russian war had a more significant impact on the growth of the inflation rate in the State of Israel than the Black Sabbath and the subsequent Iron Swords military campaign. Although the financial stress index in October 2023 was twice as high as in February 2022 (Financial Stability Report, BoI, 2024). It is worth noting that the increase in the inflation rate started already in 2021 and was caused by the impact of supply constraints, including problems in global supply chains caused by the COVID-19 crisis. Inflation was also driven by strong domestic demand, given the recovery from the COVID-19 crisis and the accommodative monetary and fiscal policies adopted during the crisis. In 2022, the existing problems were compounded by supply disruptions in the energy and food markets due to the full-scale invasion of Ukraine by the Russian Federation. The outbreak of the Ukraine-Russia war saw a significant decline in agricultural and food exports from the two countries, as well as a rise in prices due to Russia's targeted reduction in natural gas exports and a global initiative to reduce dependence on Russian gas and switch to alternatives such as coal and oil. It is, however, important to acknowledge that Israel has achieved a degree of conditional energy independence, which has contributed to the relative stability of energy

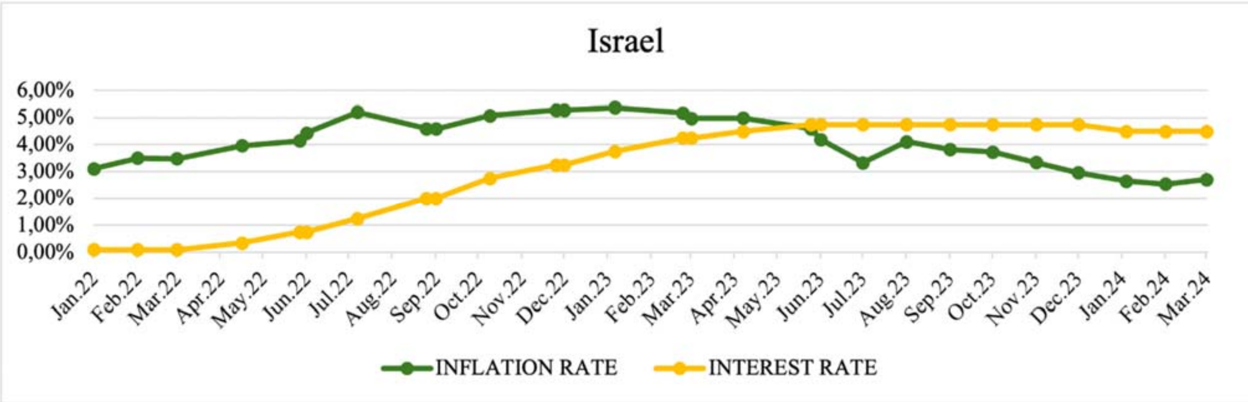

Figure 1. Dynamics of the BoI policy rate and the inflation rate in Israel during 2022-2024
Source: compiled by the author based on data from the Bank of Israel

prices (Annual Report 2022, BoI, 2023). From 2022 to 2024, the inflation rate exceeded the target level that had been set. In response to the prevailing circumstances, the Bank of Israel opted to raise the interest rate from 0.1% to 3.25% during the course of 2022.

Prior to the outbreak of hostilities between Israel and Hamas in 2023, the former's economy was characterised by a certain degree of stability. The actions of the central bank in previous periods contributed to a reduction in the inflation rate, which occurred over the course of nine months in 2023. There was a positive growth in GDP. Consequently, the figure for 2022 was 1,756 billion NIS, rising to 1,868 billion NIS in 2023. By October 7, 2023, Israel's international reserves constituted 40% of its gross domestic product (GDP), amounting to 194 billion USD (Annual Report 2023, BoI, 2024; Website of the Bank of Israel, 2024).

After the attack by the Hamas terrorist group, its consequences were immediately felt in the labour and real estate markets. Compared to other security incidents in previous years, a large number of reservists were mobilised, and there was a significant evacuation of the population from the frontline (the South of the country and partly the North due to a possible escalation from Lebanon). A significant impact on the foreign exchange market was a significant devaluation of the shekel due to its sale by foreign investors and non-residents. On October 9, the first trading day on the foreign exchange market, the Bank of Israel announced a programme to sell foreign currency worth up to 30 billion USD to mitigate exchange rate fluctuations (foreign exchange interventions) and a 15 billion USD SWAP programme. Thus, under these programmes, in October and November, the Bank of Israel sold currencies worth 8.2 billion USD and 340 million USD, respectively. In December, the Bank of Israel ceased foreign exchange interventions due to the relative stabilisation of the foreign exchange market. The Bank also announced a programme of REPO loans to institutional investors and investment funds for government and corporate bonds, in order to ensure local currency liquidity and moderate market volatility. As a result, the depreciation of the shekel slowed and the financial markets were relatively stable, but volatility in the foreign exchange market was high (Annual Report 2023, BoI, 2024).

In the first three months of 2023, a decline in inflation was observed, which led to discussions about a possible reduction in the BOI rate. As a result, it was reduced by 0.25 percentage points to 4.5% in January 2024 (Annual Report 2023, BoI, 2024). Also, the CPI for October was slightly (0.1 percentage point) higher than expected, but the index readings for November and December were 0.4 percentage points lower than expected. These developments are in line with empirical findings for the Israeli economy, according to which military confrontations have a deflationary effect on the economy in the short run, due to a dominant fall in demand and a significant fall in activity due to supply-side effects (Annual Report 2023, BoI, 2024).

It is worth noting that the events of October 7 and the subsequent hostilities did not cause a financial or banking crisis in the State of Israel. However, in view of the high probability of a crisis developing, the Central Bank focused on stabilising the financial markets and maintaining the key interest rate at the same level. Other instruments were also used to ensure a targeted response to credit needs. However, the BoI interest rate remained a primary instrument of the Bank of Israel's monetary policy (Annual Report 2023, BoI, 2024).

In addition, the Bank of Israel conducted a programme to support lending to small and microbusinesses affected by the war. The programme lasted for three months, and 10 billion NIS was spent on it (Annual Report 2023, BoI, 2024).

4. Implementation of Monetary Policy – the Example of the National Bank

From February 24, 2022, onwards, Ukraine witnessed a notable surge in inflationary pressures, which can be attributed directly to the ongoing conflict. The annual inflation rate in 2022 was 26.6% (National Bank of Ukraine, 2024). In light of prior research on crisis phenomena and Ukrainian practices, particularly during the banking crisis of 2014-2016, the central bank recognized the infeasibility of utilizing the key policy rate as the primary instrument. Consequently, during the period of martial law, the NBU defined currency interventions as the principal monetary policy instrument, with the key policy rate serving an auxiliary function of influencing changes in the country's price index level. Additionally, it serves a partially informative function. Concurrently, the fixed exchange rate became a conditional anchor for expectations and an anti-inflationary tool.

The NBU's key policy rate remained unchanged from February to June 2022, and only on June 3, 2022, did the NBU raise it to 25%. Figure 2 shows inflation and the key policy rate in Ukraine since the beginning of 2022.

From the first day of the full-scale war, the NBU has been at the forefront, working diligently to address this unprecedented challenge. On the morning of February 24, 2024, NBU Resolution No. 18, a key regulatory act governing the operation of banking institutions under martial law, came into force. This resolution introduced significant changes to the foreign exchange market of Ukraine, recognising the foreign exchange channel as the main channel of monetary transmission in wartime. Thus, with the outbreak of a full-scale war, the NBU began to take decisive action:

– To suspend the foreign exchange market of Ukraine, except for transactions on the sale of foreign currency to clients;

– to fix the official exchange rate as of February 24, 2022 (author's note: at 29.25 UAH per USD);

– to prohibit cash withdrawals from clients' accounts in foreign currency, except for enterprises and institutions that ensure the implementation of mobilisation plans (tasks), government and individual permits of the NBU;

– to introduce a moratorium on cross-border currency payments (except for enterprises and institutions that ensure the implementation of mobilisation plans (tasks) and the Government, with separate permits from the NBU) (The Resolution of the National Bank of Ukraine "On the Operation of the Banking System during the Period of Martial Law" of 24.02.2022 No. 18).

With the beginning of the full-scale invasion of the Russian Federation in Ukraine and the use of currency interventions by the NBU as the primary monetary policy instrument, the qualitative formation and replenishment of international reserves became even more critical. Thus, as of February 1, 2022, their amount was 29,087 million USD (website of the National Bank of Ukraine, 2024). International reserves are a resource for conducting currency interventions to maintain exchange rate stability and the country's debt payments in foreign currency. During martial law, the main sources of funds are grants and assistance from international partners, funds from placement of domestic state currency bonds, loan funds, etc.

In July 2023 currency restrictions were relaxed. In August 2023, for the first time since the beginning of the full-scale invasion of the Russian Federation, the population was allowed to buy currency online within the limit of 50,000 UAH per month in one bank. The limit for purchasing non-cash currency with subsequent placement on a 3-month deposit was also doubled (from 100,000 UAH to 200,000 UAH) (Website of the National Bank of Ukraine, 2023).

In October 2023, the NBU switched to the managed exchange rate flexibility regime and gradually eased

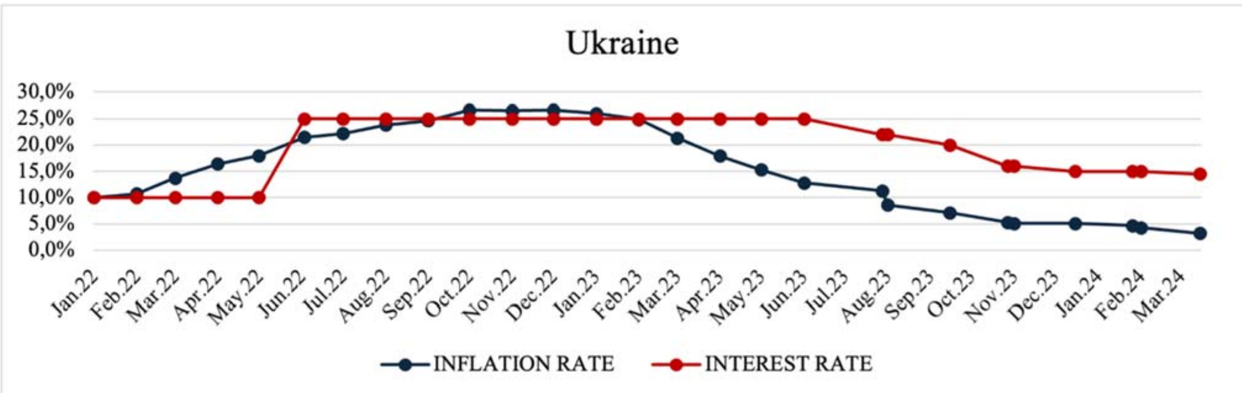

Figure 2. Dynamics of the NBU policy rate and the inflation rate in Ukraine during 2022-2024
Source: compiled by the author based on data from the National bank of Ukraine

currency restrictions. Due to changes in the economy caused by the war (limited export opportunities, outflow of foreign investment, etc.), there is a permanent foreign currency deficit. Under this regime, the NBU can cover this structural currency deficit on the market. As a result, the exchange rate can weaken as well as strengthen. In such a situation, the NBU will be motivated to maintain exchange rate stability, and high interest rates on hryvnia deposits will provide some protection for savings from inflationary depreciation. It is expected that this regime will allow the Ukrainian economy and the FX market to better adapt to various external and internal shocks (NBU Eases FX Restrictions on Cashless FX Sales to Individuals to Minimize Multiplicity of Exchange Rates, 2023).

The regime of managed flexibility of the exchange rate is a transitional stage from fixed to floating. This transition should take place in accordance with the Strategy for Easing Currency Restrictions, which provides for three stages of easing currency restrictions. The implementation of specific planned measures will be possible only on the basis of the state of the Ukrainian economy and banking system. The final stage involves the reduction of currency restrictions to pre-war levels and a return to inflation targeting with a floating exchange rate. After all, it is the application of inflation targeting with a floating exchange rate that is fundamental to long-term price and financial stability and economic growth. In other words, the plan is to move from a monetary regime of "supporting the exchange rate differential" to a regime of "inflation targeting" via a regime of "mitigated inflation targeting".

4. Conclusions

Having examined the specifics of monetary policy implementation during martial law in Ukraine and Israel, certain similarities and differences in the central banks' decisions were observed. A summary of the analysis by critical areas is shown in Table 1. It is important to note that the full-scale invasion of Ukraine by the Russian Federation triggered a banking crisis that has been going on in Ukraine for 26 months. At the same time, Israel's active military actions did not lead to a banking crisis in the country.

The pre-war monetary policy of the State of Israel was aimed at curbing inflation, with the BoI interest rate being the main operational instrument. With the launch of Operation Iron Swords, the central bank's monetary committee, in addition to ensuring price stability, also focused its policy on stabilising markets and reducing uncertainty to prevent financial instability that could have deteriorated economic activity and led to a sharp rise in inflation.

In Ukraine, the full-scale war caused a sharp rise in inflation, which required an immediate response from the central bank to minimise the consequences of this banking crisis.

It is evident from these examples that there is a necessity to utilise monetary transmission mechanisms and to ensure the effective implementation of macroprudential tools. In light of the current stage of development of the banking system, it is evident that a shift is required in the approach to monetary policy. While monetary instruments remain a crucial aspect, it is equally important to prepare for potential shocks in advance through the utilisation of a range

Table 1
Stabilisation activities of the central bank under martial law

Ukraine	Israel
The main objective of monetary policy is to maintain price stability.	The main objective of monetary policy is to protect the value of the national currency – in other words, to maintain price stability.
The main monetary instrument is foreign exchange intervention. The key policy rate is an auxiliary instrument. The exchange rate is the main reference point for market participants.	The main monetary instrument is the central bank interest rate. Other instruments (e.g., foreign exchange interventions) were used temporarily, but eventually became unnecessary.
International reserves at the beginning of 2022 amounted to 30.9 billion USD, which was 15% of GDP (Website of the National Bank of Ukraine, 2022).	International reserves at the beginning of October 2023 – 194 billion USD, which was 40% of GDP (Website of the Bank of Israel, 2023).
Since the beginning of martial law, significant currency restrictions have been imposed on individuals and legal entities.	No new currency restrictions have been imposed since martial law.
A total of 59 billion USD of international reserves were deployed for the purpose of foreign exchange interventions during the period of martial law (during martial law) (Website of the National Bank of Ukraine, 2024).	During the first two months of martial law, 8.5 billion USD of international reserves were used (Website of the Bank of Israel, 2024).
Continuity of the banking system is mandatory: uninterrupted operation of branches, relocation of branches from the occupied territories, availability of cash in ATMs and cash desks of banks, regular payment processing, etc.	Continuity of the banking system is mandatory: uninterrupted operation of branches, relocation of branches from the occupied territories, availability of cash in ATMs and cash desks of banks, regular payment processing, etc.
Combination of the effectiveness of monetary and macroprudential instruments.	Combination of the effectiveness of monetary and macroprudential instruments.

of macroprudential techniques. As this study was conducted during the period of martial law in the countries under consideration and covers only a partial period of the war, the conclusions are not definitive and leave open the prospect of further study in the field of coordination of macroprudential and monetary policies of the central bank and the peculiarities of the implementation of macroprudential policy in wartime.

References:

Annual Report 2022 (2023). *Bank of Israel*. Available at: https://boi.org.il/media/fngnlva0/total_2022.pdf

Annual Report 2023 (2024). *Bank of Israel*. Available at: http://surl.li/tytbv

Article "Foreign Exchange Reserves at the Bank of Israel, February 2024" (2024). *Bank of Israel*. Available at: https://boi.org.il/en/communication-and-publications/press-releases/7-3-2024a/

Article "Number of banks in Ukraine" (2024). Available at: https://index.minfin.com.ua/ua/banks/stat/count/

Article "NBU Eases FX Restrictions on Cashless FX Sales to Individuals to Minimize Multiplicity of Exchange Rates" (2023). *National Bank of Ukraine*. Available at: http://surl.li/tywmv

Bank of Israel Law of 2010, 5770-2010 (2010). *YPFS Resource Library.* Available at: http://surl.li/txspg

Financial Stability Report, Second half of 2023 (2024). *Bank of Israel*. Available at: https://www.boi.org.il/media/qfljp1tk/fsr_2023-h2.pdf

Information about the inflation in Ukraine (2024). *National Bank of Ukraine.* Available at: https://bank.gov.ua/en/statistic/nbustatistic

The Resolution of the National Bank of Ukraine "On the Operation of the Banking System during the Period of Martial Law" of 24.02.2022 No. 18. Available at: https://bank.gov.ua/ua/legislation/Resolution_24022022_18

Website of the Bank of Israel. Available at: https://www.boi.org.il/en/

Website of the National Bank of Ukraine. Available at: https://bank.gov.ua/en/

Strategies for easing currency restrictions, transitioning to greater exchange rate flexibility, and returning to inflation targeting. Available at: http://surl.li/tyxte

The Law of Ukraine "On the National Bank of Ukraine" from May 20, 1999 (amended and supplemented by the edition of 21/03/2024). Available at: http://surl.li/txsoc

Received on: 24th of June, 2024
Accepted on: 28th of August, 2024
Published on: 20th of September, 2024