Donkohlova Tetiana
PhD student, NaUKMA

EMPIRICAL ANALYSIS OF THE IMPACT OF MONETARY POLICY ON THE LABOR MARKET IN UKRAINE DURING WARTIME

The war in Ukraine caused a humanitarian catastrophe, the consequences of which will determine the vector of labor market development for a long time. The war created risks for citizens staying in Ukraine, especially in the front-line regions, and also caused the appearance of barriers to the free movement of production factors, including labor, leading ineffective functioning of existing labor market institutions. Falling production, contraction of the real sector, combined with significant internal displacements and flows of refugees from the country, lead to large-scale losses in the sphere of employment and real incomes of the population. After all, the military actions caused not only a crisis of supply and demand in the labor market, but directly or indirectly affected all areas of the country's economy.

The macroeconomic shock caused by the full-scale invasion led to a number of forced steps on the part of the Government and the National Bank of Ukraine (NBU). To ensure macroeconomic stability in accordance with the goals of economic growth, central banks implement monetary policy. In order to ensure price stability, the central government influences inflation by regulating the monetary base through interest rates. Lowering rates usually helps to increase inflation. The central bank can also use lower interest rates to stimulate economic growth, which in turn leads to increased real output and, as a result, increased employment. However, the effectiveness of the central bank's policy depends primarily on the adequate functioning of the transmission mechanism. The monetary transmission mechanism is a complex process that includes a number of channels that transmit changes in monetary policy to the real economy. Its main channels include:

- *Interest rate channel*: This channel is one of the most direct ways of transmitting monetary policy. When the central bank changes the key interest rate, it directly affects short-term money market rates. This, in turn, determines the cost of loans for households and companies. Lower interest rates encourage businesses to increase investment and expand operations, which can stimulate job creation. On the other hand, higher interest rates can reduce consumer and investment spending, which can lead to reduced employment;
- *Credit channel (or banking channel)*: A change in the interest rate can affect banks' ability to provide credit. For example, when interest rates are high, loans become more expensive for borrowers and less attractive for banks;

- *Inflation expectations channel*: The central bank can use its communication channels to shape public expectations about future monetary policy and thus influence the behavior of households and companies;
- *Asset channel (or wealth channel):* Changes in monetary policy can affect the prices of assets such as stocks and real estate, thereby changing household wealth. An increase in wealth can in turn contribute to an increase in spending;
- *Exchange rate channel*: For countries with a freely floating exchange rate, changes in monetary policy can affect the exchange rate, which affects the cost of imports and the competitiveness of exports. Decrease cost national currency may do export goods more competitive that helps increase production and employment in export industries economy.

The central bank uses these channels to achieve its main goals: price stability and full employment at the natural level of unemployment. However, during periods of instability, the monetary transmission degrades and the effect of central bank reforms on the real sector weakens.

The war in Ukraine is an unprecedented macroeconomic shock in Europe since World War II. The reaction of the national economy in 2022 to such a scale of destruction is following:

1. Fall in GDP (decrease in real production volumes). According to the estimates of the State Statistics Service, the fall in GDP in 2022 amounted to 29.1% compared to the corresponding period last year;
2. Rising inflation and dollarization of the economy (devaluation of the national currency). The index of consumer prices in Ukraine for 2022 reached 26.6% , and the rate of devaluation of the hryvnia against the US dollar for 2022, even with the exchange rate fixed, was 34%;
3. Rising unemployment. According to the NBU, the unemployment rate at the end of 2022 was 21.1%. (Patskan Y., 2023)

The NBU also reacted to potential threats to the economy by introducing a number of restrictions, in particular, in order to prevent inflation, the regulator set the discount rate at 25% from July 2022, increasing it by 15 points from the pre-war level. Changes have also taken place in the foreign exchange market since the beginning of the war. Despite their anti-market nature, the measures taken by the NBU were able to ensure the stable functioning of the economy and the stability of the banking system in the conditions of a full-scale war.

On the first day of military service invasion, the regulator adopted Resolution No. 18 dated 24.02.2022 (*On the operation of the banking system during the introduction of martial law*, Law of Ukraine), which a number of restrictions were introduced, in particular:

- fixed official exchange rate as of February 24, 2022;
- cash withdrawals are limited;
- issuance of funds in foreign currency is prohibited;
- the operation of the foreign exchange market was stopped, except for the sale of foreign currency;
- prohibited cross-border currency transfers;
- replenishment of electronic wallets with electronic money and distribution of electronic money are suspended.

For deterrence outflow currency from Ukraine, the concept of critical import was introduced. The introduced NBU are temporary norms are not given be able to retell foreign currency abroad for repayment and maintenance Ukrainian borrower enterprises debt obligations to foreign creditors. You can assert that exchange rate fixation was revealed most effective by the decision of the NBU at present realities. After all, despite the installation discount rate at the level of 25% due to the surplus liquidity, which observed in the economy, the mechanism monetary transmission became less effective, and lag from implementation new norms to them effect on the market increased. So, the exchange rate is one of the effective one’s elements monetary transmission also affects the country's trade balance. Through the military actions deficit external trade in goods and services increased almost tenfold, to 25.9 billion dollars. compared to USD 2.7 billion. in 2021. And export goods decreased by 35.2%.

Application of the fixed exchange rate regime in the conditions of military operations justified itself. The stability of the foreign exchange market reduces the risk for exporters. Under such conditions, exporters can plan their activities without fearing sharp fluctuations in exchange rates. Taking into account the fact that about 17% of the employed work in the field of agriculture (see Fig. 1), which is one of the largest export sectors of the economy, the minimization of currency risks has become one of the priority tasks of the NBU.

According to NBU forecasts, provided there are no new significant shocks, the recovery of the labor market will continue in 2023–2025 against the background of economic growth and a fairly soft fiscal policy. The unemployment rate will gradually decrease: in 2023 – to 18.3%, in 2024 – to 16.5%, and in 2025 – to 14.7%. However, it will exceed the pre-war level, particularly given the likely persistence of significant qualification and regional disparities in the labor market. Real wages will return to growth, which will however be moderate in 2023 (3.7%) due to still double-digit inflation. After the reduction of security risks and the full opening of borders, a significant part of businesses will have to compete for workers, including with foreign employers, which will be a significant factor for the further growth of wages and the likely reduction of unemployment. (National Bank of Ukraine, 2023)

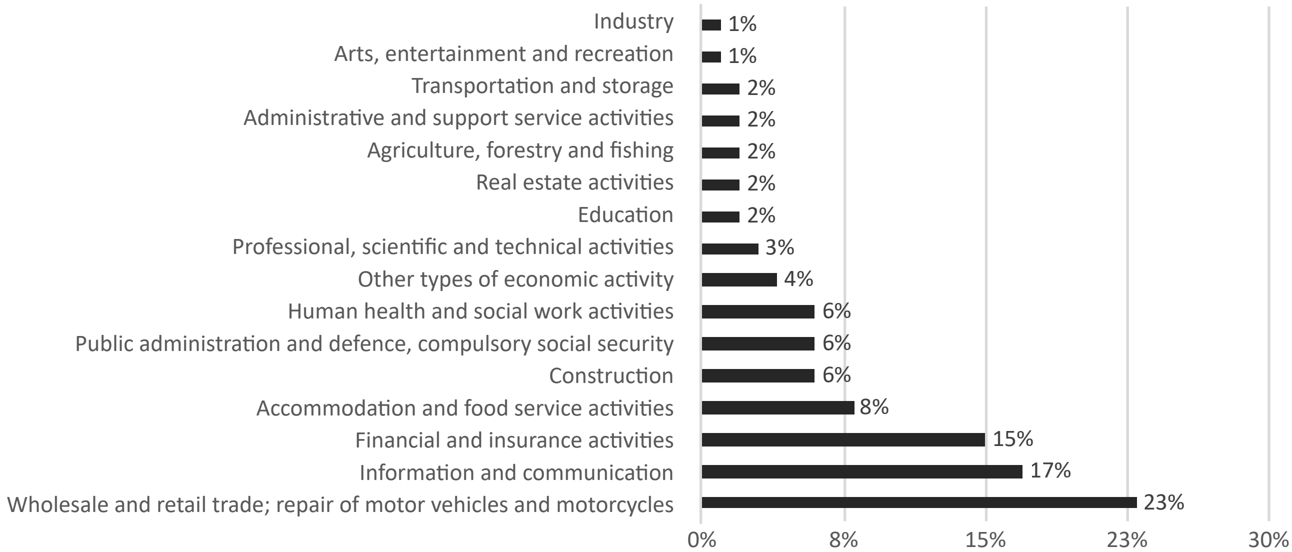

Figure 1. Employment rate by industry economy in 2021, %
Source: Compiled by the author based on data State statistics service

According to data published in the UN report on displaced persons as of May 2023, about 8.24 million refugees from Ukraine are currently in Europe. Poland and Germany are the largest recipient countries in terms of the number of Ukrainian citizens granted asylum. (UNHCR, 2023) Moreover, according to experts' estimates, the population of Ukraine at the beginning of 2023 is 36.7 million people, which is 15.5 % less than at the end of 2021 before the full-scale invasion. Such a sharp reduction is primarily caused by a high level of emigration, which negatively affects not only the number of economically active population, but also the structure of employment. Even despite significant emigration, according to alternative estimates of experts, the unemployment rate still remains high and reaches about 21.1% as of the end of the second quarter of 2023.

It is important to analyze the dynamics of private income from abroad. According to the statistics of the World Bank, it can be seen that significant emigration did not increase the rate of remittances in 2022 compared to 2021 (see Figure 2). The volume of private remittances increased by only $361 million, which is an increase of 2% compared to the pre-war year.

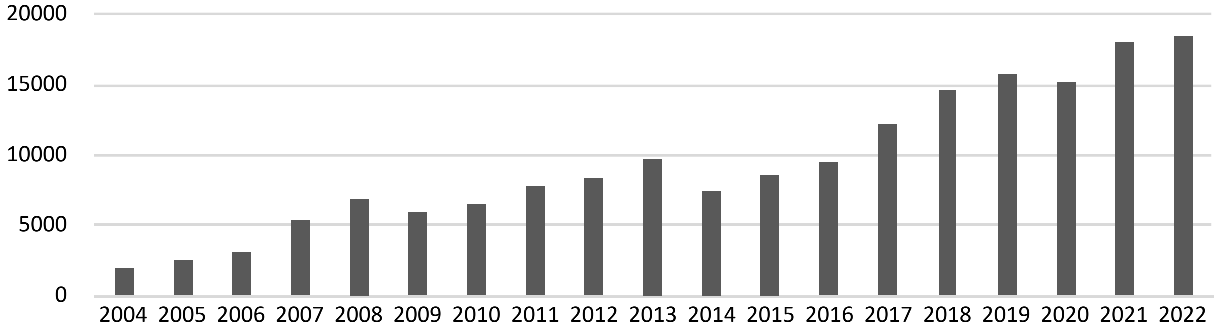

Figure 2. Dynamics of private remittances and payments for wages to Ukraine from abroad from 2004 to 2022, million dollars

Source: Compiled by the author based on data of the World Bank

Conducted in-depth statistical analysis allows do conclusion that _ majority refugees earned money or money received under the program support temporarily displaced persons spend abroad, and massively forced resettlement did not create additional private currency of income to Ukraine. However, according to the NBU, it is clean influx currency to Ukraine is stored thanks to essential volumes international help.

Nevertheless, with the high level of uncertainty caused by the war, by the second quarter of 2023, about 6 million refugees, which is more than 1% of the population of the European Union, still remain abroad on a permanent basis, and therefore, even with the condition of working remotely, Ukrainian business costs consumption is carried out in the host country. According to NBU estimates, in 2022 Ukrainian migrants will spend about 22 billion dollars abroad.

The integration of Ukrainian migrants will have an impact on the indicators of the labor market of the recipient countries. Ukraine's geographical and cultural proximity to Europe, the presence of the diaspora, and the status of temporary protection will contribute to increasing the participation of forced migrants in the labor force. In particular, the European Central Bank expects the labor force participation rate of Ukrainian migrants of working age to range from 25% to 55% in the medium term. It is worth noting that according to the UN survey, 70% of Ukrainian refugees have a higher education, that is, they are a qualified workforce. At the same time, the EU labor force will grow by 0.2–0.8%, or by 0.3–1.3 million people. Although migrants create additional challenges for public finances in the short term, the additional costs of healthcare, education and financial support for temporarily displaced persons, if they remain in their host countries for more than a few years and become active participants in the labor market, for these countries the impact on the budget and economic growth will most likely be positive. Of course, the impact on the GDP of the recipient countries will depend on the integration policy, but for example, according to Deloitte's estimates , the integration of Ukrainian refugees into the Polish labor market can give an impetus to the additional growth of Poland's GDP by 0.2–3.5% annually in the first five years. (National Bank of Ukraine, 2022b).

During the period of martial law in Ukraine, the labor market faced macroeconomic challenges of an unprecedented scale. The war became a catalyst for the mass exodus of the population: according to estimates, from February 24, between 9 and 14 million citizens left the country. Despite a noticeable decrease in the active labor force, the unemployment rate in Ukraine is still 21.1%, which reflects a significant decrease in production and structural changes in employment as a result of the war. The NBU, as the main regulator, tried to stabilize the economic situation by conducting an active monetary policy from the first days of the full-scale invasion. In particular, this included increasing the discount rate to 25%, fixing the hryvnia exchange rate, and introducing currency restrictions to counter the dollarization of the economy and capital outflow. However, these actions also had undesirable consequences

References

1. On the work of the banking system during the introduction of martial law (Resolution of the Board of the National Bank of Ukraine). No. 18. (2022). Retrieved from https://zakon.rada.gov.ua/laws/show/v0018500-22#Text
2. State Statistics Service of Ukraine. (2021). Statistical information. http://www.ukrstat.gov.ua
3. National Bank of Ukraine. (2023). Inflation report, May 2023. Retrieved from https://bank.gov.ua/ua/news/all/natsionalniy-bank-prognozuye-znachne-znijennya-inflyatsiyi-ta-povernennya-ekonomiki-do-vidnovlennya-v-tsomu-rotsi--inflyatsiyniy-zvit
4. UNHCR. (2023). Ukraine situation Flash Update №47. https://data2.unhcr.org/en/documents/details/100793
5. World Bank (2022). Statistical information. https://www.worldbank.org/en/country/ukraine
6. National Bank of Ukraine. (2022b). Impact of Ukrainian migrants on recipient countries' economies. Retrieved from https://bank.gov.ua/admin_uploads/article/Migration_impact_2022-12-15.pdf?fbclid=I