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## Article

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## The economic consequences of military conflicts: The Ukrainian context

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**Abstract.** Conflict, as a unique form of interaction involving the clash of interests between participants in social relations, serves as a necessary condition for the development of civilisation. Contradictions have accompanied humanity throughout its history, finding reflection in the literature, art, and history of various countries and peoples. The emergence and progression of any conflict have economic consequences, stemming from the objective confrontation between opposing forces. The modern economic landscape is increasingly characterised by deepening disparities and a shrinking gap between crises and conflicts. The purpose of this article is to identify the periods that have impacted Ukraine's economy and to analyse the economic consequences of these periods. The author posits that the military period has had a detrimental effect on Ukraine's economy. To achieve this goal, the research employs methods such as scientific abstraction, generalisation, synthesis, analysis, comparison, as well as graphical and tabular methods for data interpretation. This approach has allowed the identification of three main periods of conflict in Ukraine: the brewing conflict in Eastern Ukraine (2013-2014), the pandemic period (beginning in 2019), and the military period (starting in 2022). For each of these stages, the economic development processes in Ukraine were analysed. It is noted that conflicts are inherently dangerous, posing threats not only to the sovereign governance of territories but also to the economy of Ukraine and the global economy at large. Based on the analysis of Ukraine's economic development scenarios without the state of war, the main factors that would contribute to economic recovery in the following areas were highlighted: GDP, unemployment rate, inflation rate, and the NBU's key interest rate. The practical value of this work lies in the identification of three periods of military conflicts in Ukraine and the analysis of their key consequences. This approach helped to demonstrate that the war in Ukraine not only weakens the Ukrainian economy but also affects the economies of neighboring countries. The main economic losses for Ukraine during these conflicts include the loss of human resources and the resulting regional development disparities

**Keywords:** enterprise; socially responsible business; crisis; losses; relocation of enterprises; social welfare

### Introduction

In the context of a sustainable development economy, factors contributing to the growth and formation of socially responsible businesses are of significant importance. Military conflicts, crises, and pandemics have a detrimental impact on these processes. The military conflict in Ukraine has negative consequences not only for the country's economy but also for the economies of neighboring states and the EU as a whole. Therefore, the problems caused by the military conflict in Ukraine and

the ongoing war are increasingly relevant and require immediate resolution, as they undermine Europe's economic resilience.

The relevance of this research is further underscored by the assertion made in J.M. Keynes (1920) study that prolonged wars impose significant costs on society and the state. The war in Ukraine can be characterised as a hybrid conflict, beginning in 2013 during the Euromaidan and escalating in 2014 during the Revolution of Dignity.

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The research of Yu. Yurkiv (2022) allows for a generalisation that the two world wars serve as examples of “economic rails”. Germany’s defeat in First World War was driven by economic problems rather than military failure. In 1918, a resource deficit negatively impacted the economy, leading to the Revolution and the Compiègne Armistice. During Second World War, Britain, Germany, Italy, Japan, and the former USSR were heavily dependent on the supply of raw materials and finished industrial products. The wartime economy becomes focused on meeting military needs, leading to the depreciation of labour, propaganda efforts, and the mobilisation of the population for military and industrial purposes.

L. Cui *et al.* (2023) noted that the Russian-Ukrainian war has heightened the risk of disruptions in the global energy supply chain. The interruption of trade will significantly impact Ukraine’s economy, causing a 4.18% decline in its real GDP. However, if the United States and the European Union cease importing energy resources from Russia, the latter’s economy will suffer a devastating blow, with a maximum real GDP decline of 5.49%.

The scientists D. Rawtani *et al.* (2022) argue that the Russian-Ukrainian war, extreme weather events, and the COVID-19 pandemic are three catastrophic events currently confronting humanity, and that the war will exacerbate the adverse effects of extreme weather on human society.

W. Bounboua & A. Yatié (2022) analysed the impact of the Russian-Ukrainian war on the stock markets of 94 countries and found that the conflict negatively affected stock markets in both countries bordering Russia and Ukraine and those already affected by previous Russian aggression.

I. Liadze *et al.* (2022) employed the global econometric model (NiGEM) to analyse the potential impact of the Russian-Ukrainian war from various perspectives. They confirmed that the negative effects of the war will not only plunge financial markets into turmoil and cause energy and food prices to rise, but also lead to a 1% decline in global GDP and a 1-2% increase in inflation.

M.A.R. Estrada & E. Koutronas (2022) condemn Russia’s invasion of Ukraine and evaluate the effectiveness of EU sanctions against Russia. These sanctions have led to reduced liquidity in Ukrainian banks, a temporary devaluation of the ruble, a decline in trade due to the suspension of operations by over 750 international companies in Russia, and a sharp decrease in production caused by shortages of raw materials and limited access to spare parts and supplies. The authors propose a model to assess the economic consequences of military aggression by analysing the impact of trade on the structure of international trade and economic development (trade suppression index and reduced investment as a result of war) and the interdependence of trade and investment (agricultural exports, industrial and manufacturing exports, service exports, and foreign direct investment flows).

N. Stukalo & A. Simakhova (2018) noted that the social dimension of the military conflict in Ukraine affects European stability and the geopolitical situation, particularly in relation to Ukrainian migration. The crisis in Ukraine has generated numerous social challenges, such as loss of human lives, mass migration, rising crime rates, unemployment, and negative impacts on civil society and socialisation processes. These problems also affect European countries. That is why the EU is interested in dialogue and seeks to end the war in Ukraine.

According to V. Sehn *et al.* (2022), the economic consequences of global catastrophes vary significantly across countries. J. Federle *et al.* (2022) also found that the effects of global catastrophes are not evenly distributed worldwide. V. Sehn *et al.* (2022) emphasise that these consequences differ substantially between countries, with geographic proximity to the country at war being a critical factor. The closer a country is geographically to Ukraine, the more pronounced the decline in its stock market around the time the war began.

The author A.C.C.S.M. Esteves (2023) noted, that Russia managed to avert a financial crisis, avoid significant impacts on the real economy, and find alternative import routes, thereby minimising the effects of sanctions. He suggests that this situation can be addressed through the isolation of Russia, the enhancement of multilateral cooperation, and the more effective application of sanctions by closing loopholes and preventing circumvention.

The purpose of this study was to delineate the periods of conflict situations in Ukraine, during which the economy underwent changes, and to highlight the economic consequences of these periods.

The objectives of the article are achieved by addressing the following tasks:

- 1) differentiating between the concepts of losses and damages resulting from the war;
- 2) assessing the armed conflict in Ukraine in the Donbas region and the war with Russia in 2022;
- 3) identifying the periods of conflict escalation in Ukraine, taking into account their timing and specific characteristics.

## Materials and Methods

To achieve the objectives of this study and address the tasks set forth, the following research methods were employed: scientific abstraction, critical analysis of literature sources, and generalisation. The method of scientific abstraction was used to identify the essence and structure of the war’s consequences, allowing for the development of a methodology to measure them. Generalisation enabled the systematisation of the collected information and the identification of three key periods in the development of Ukraine’s economy. For a more detailed analysis of the hybrid war in Donbas from 2013 to 2021, methods of comparison and analysis were applied. These methods allowed for the characterisation

of changes in Ukraine's key macroeconomic indicators during this period. Specifically, the study examined GDP growth rates from 2021 to 2024, the number of people who left Ukraine, and the extent of damage to civilian infrastructure. By using the data extrapolation method, a linear model of GDP growth in Ukraine for 2021-2024

was constructed, which enabled forecasts for future periods. Critical literature analysis and graphical methods were used to identify the negative economic consequences of the third military period in the development of Ukraine's economy. The literature review involved the use of periodic sources, as presented in Table 1.

**Table 1.** Analysis of literature sources on data analytics

Source	Analytical data used for the study
Just about the economy (based on the Inflation Report for January, 2022) (2022)	Analysis of the number of IDPs who do not plan to return home
Relocation program... (2022)	The programme of enterprise relocation is described
The World Bank estimated the financial loss of Ukraine from the Russian invasion at \$60 billion (2022)	Analysis of Ukraine's financial losses incurred during the war
D. Schwartz (2022)	Performance of relocated companies during business relocation
Yu. Melnytska (2022)	Companies that have started working under the business relocation programme
O. Polinkevych & R. Kamiński (2018)	An effective model of corporate image of business entities

**Source:** developed by the author

The above sources present the opinions on the events in Ukraine that occurred during the war. The graphical method helped to visualise changes in economic indicators, which helped to clearly understand the extent of the war's impact on the country's economy. An attempt was made to cover the entire period of change, but the focus was on 2013-2022. The material for the study was collected from various sources, including official data published by the State Statistics Service of Ukraine, the Ministry of Finance of Ukraine, the National Bank of Ukraine, and the Centre for Economic Strategies. These data provided a solid basis for analysing macroeconomic indicators and the economic impact of the war. Specifically, the following sources were used:

- ▣ Official website of the Ministry of Finance of Ukraine (2021);
- ▣ Official website of the State Statistics Service of Ukraine (2024);
- ▣ Official website of the Centre for Economic Strategy (2024);
- ▣ Official website of the National Bank of Ukraine (2024).

## Results and Discussion

The consequences of war differ significantly from those of natural disasters. They stem from the destructive and other adverse impacts on the economy, politics, and society as a whole. In other words, the consequences of war affect the socio-economic, political, scientific, technological, and other spheres of activity for individuals, society, businesses, and the state. These areas have undergone changes and have been further strained due

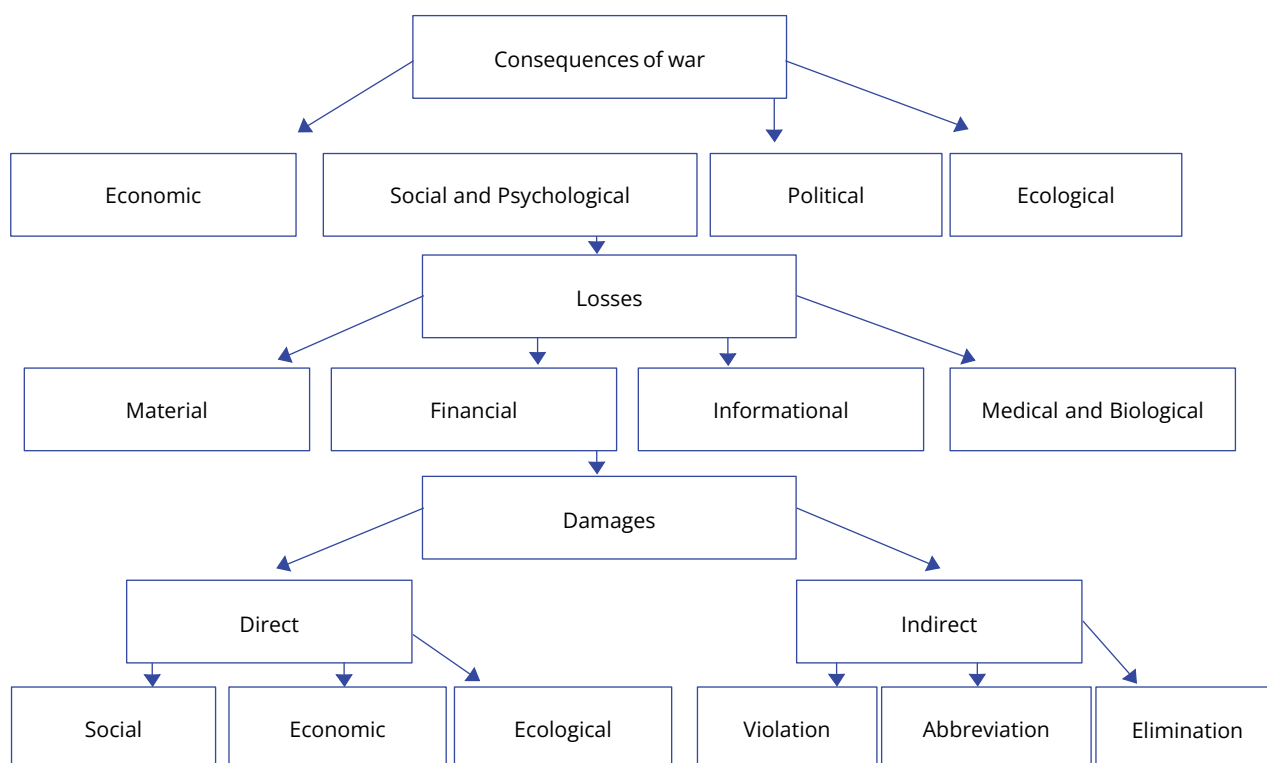
to armed conflicts (wars). The consequences of war are measured in terms of losses and damages. Losses are a portion of the consequences that arise from negative changes in key areas of activity (Ivanov, 2015). This term has a broad meaning, referring to various detrimental effects. In a narrower sense, it relates specifically to war casualties, which can be either medical or irreversible. Damage refers to the result of negative changes due to events, phenomena, or actions that compromise the integrity or degrade the properties of an object. These include (Ivanov, 2015):

- 1) deviation in a person's health from the average level, which can lead to illness or even death;
- 2) disruption of normal business operations;
- 3) loss of various types of property or other values, which may be material, cultural, historical, or natural;
- 4) negative impact on the natural environment or residential areas of people.

The most common definition of damage (harm) is the result of changes in the state of objects that compromise their integrity or deteriorate other properties, leading to actual or anticipated economic and social losses due to military events. Damages can be classified as direct, which are measured in monetary or physical terms, or indirect. Indirect damages include:

- ▣ disruption of the normal functioning of the country's economic system and businesses;
- ▣ withdrawal of resources from circulation;
- ▣ reduction in the ability to meet public needs;
- ▣ creation of threats to the livelihood of the population.

Figure 1 illustrates the relationship between the concepts of "consequences", "losses", and "damages". These terms are characteristic of war.



**Figure 1.** Correlation between consequences, losses and damages from war

**Source:** summarised by the author according to the research S.V. Ivanov (2015)

Globally, there is a concerning trend of increasing frequency and severity of armed conflicts, which negatively impact economic efficiency and national security. Direct damage includes losses and harm to all sectors of the national economy within the affected area, leading to irreversible losses of fixed assets and the depletion of natural resources. Consequently, businesses face reduced profits, and the state suffers from lower tax revenues, insurance payouts, and other financial shortfalls.

Damage can be categorised as social, economic, and environmental, and it can be either direct or indirect. Direct economic damage refers to losses that are documented and verifiable. Direct social damage is measured by the number of casualties, injuries, and people affected by the war, and it also has a psychological dimension, linked to the loss of public trust in the government's ability to ensure protection and address social conflicts. Direct environmental damage involves both actual and potential losses that can be quantified and include the costs associated with mitigating the impact on humans, animals, plants, ecosystems, and natural complexes. These negative effects arise from violations of environmental quality standards due to military actions.

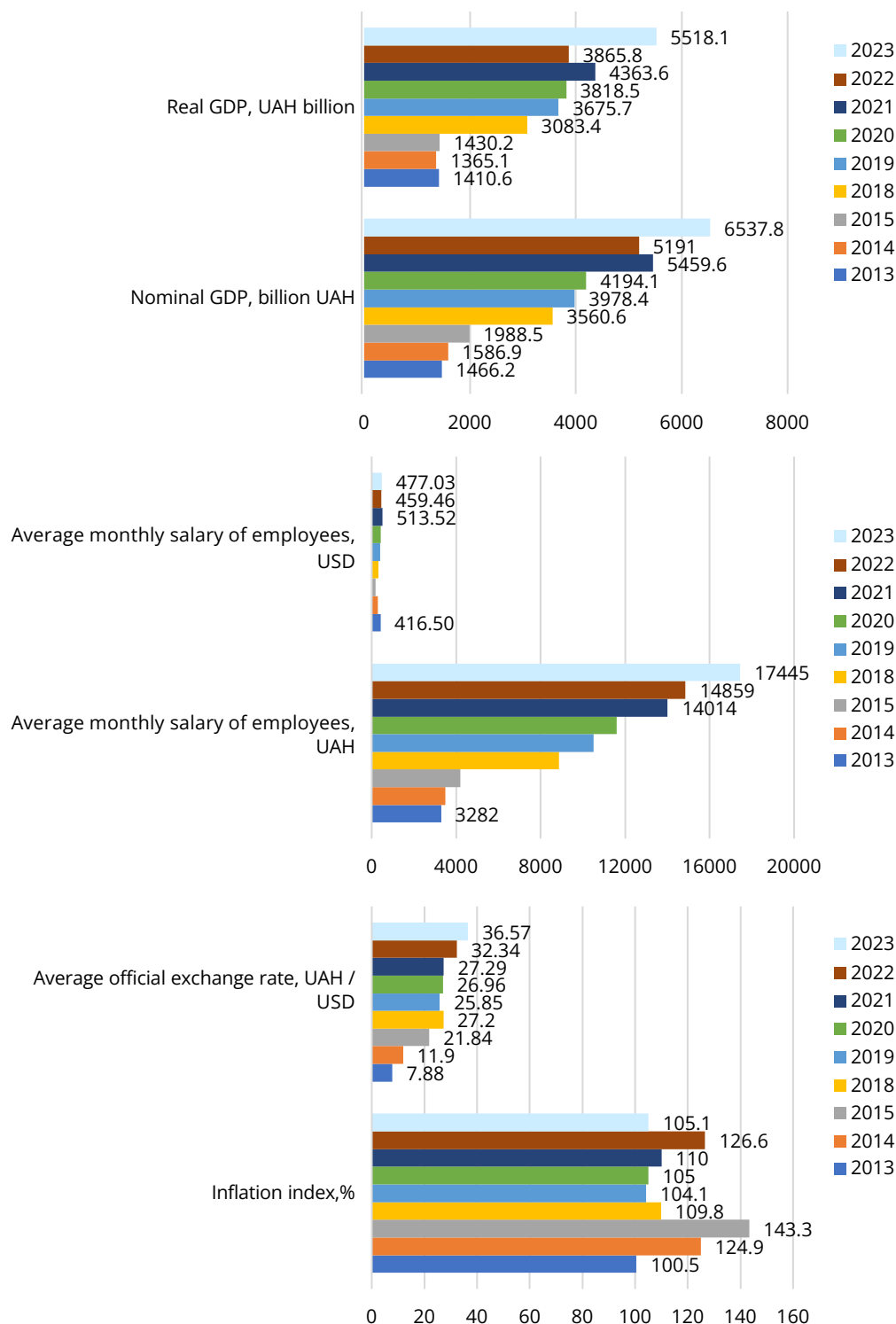
Indirect environmental damage refers to the pollution caused by the destruction of enterprises, leading to the release of materials hazardous to public welfare. Indirect damages are the additional costs incurred to compensate for these losses. These expenses arise from

disruptions and changes in economic connections and infrastructure, losses associated with mitigating negative events, and environmental losses. Global changes play a central role in indirect damage across all areas of functioning, which cannot be monetarily quantified for the current generation.

Total damage is the sum of direct and indirect damage, including the costs of mitigating the consequences of war. This damage is calculated at a specific point in time and is not identical to overall damage, which is assessed quantitatively for the future. Damage can be estimated by following these steps (Ivanov, 2015):

- ▣ determining current prices for goods, work, and services;
- ▣ reviewing judicial precedents;
- ▣ considering insurance experience (both personal and property), which has a subjective assessment basis and varied statistics.

Thus, conflicts lead to economic damage and losses. A complex form of warfare is the armed conflict that began in the Donbas region in March 2014 and continues to this day. However, neither side in the conflict has officially declared a state of war. Such conflicts arise from regional struggles with governments and external players. They are dangerous as they pose a threat to sovereign control over territories. Let's examine how the main macroeconomic indicators in Ukraine have changed since the onset of the hybrid war in Donbas and the annexation of Crimea (Fig. 2).



**Figure 2.** Changes in the main macroeconomic indicators

in Ukraine in 2013-2023 since the beginning of the armed conflict in Donbas

**Source:** compiled by the author based on the data Official website of the Ministry of Finance of Ukraine (2021); Official website of the State Statistics Service of Ukraine (2024)

Analysis of the information in Figure 2 suggests that in 2023, compared to 2013, the following indicators increased:

- 1) nominal GDP by 345%;
- 2) inflation index by 4.6%;

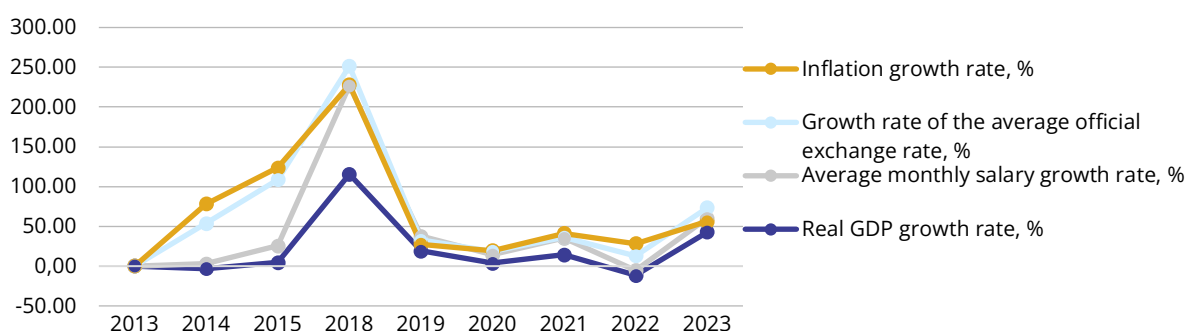
- 3) average monthly wages of workers by 14.53%;
- 4) exchange rate by 364%.

Since the beginning of the military conflict in the East, real GDP has increased by 4107.5 billion UAH, the inflation index has risen by 4.6%, the average exchange



rate has grown to 28.69 UAH/USD, and the wage level has increased by USD 60.

Figure 3 shows the growth rates of inflation, the average official exchange rate, the average monthly salary, and real GDP.



**Figure 3.** Growth rates of inflation, Official exchange rate, Real GDP, and average monthly salary

in Ukraine from 2013 to 2023 since the onset of the armed conflict in Donbas, as a percentage of the previous year

**Source:** compiled by the author based on the data Official website of the Ministry of Finance of Ukraine (2021); Official website of the State Statistics Service of Ukraine (2024)

A similar trend was observed following the onset of the COVID-19 pandemic in 2023 compared to 2019:

1) the growth rate of real GDP in 2020 was 3.88%, increased to 14.28% in 2021, slowed down by 11.41% in 2022, and then surged by 42.74% in 2023;

2) the growth rate of the average exchange rate was 4.29% in 2020, 1.22% in 2021, 18.5% in 2022, and 13.08% in 2023;

3) the average monthly wage increased by 10.42% in 2020 compared to 2019, by 20.9% in 2021, by 6.03% in 2022, and by 17.4% in 2023;

4) the inflation rate began to rise sharply, with its growth rate at 0.86% in 2020 compared to 2019, 4.76% in 2021, 15.09% in 2022, and then slowed down by 16.98% in 2023.

Thus, it can be concluded that prior to 2019, there was a gradual and consistent increase in real GDP and average monthly wages, a slowdown in the inflation rate, but a rise in the average exchange rate. The year 2019 resulted in a slowdown in the growth rate of real GDP to 19.21%, in average monthly wages to 18.41%, in the inflation growth rate by 5.19%, and in the average exchange rate by 4.96%. Overall, the study identifies three periods:

Period 1 (2013-2014) – the build-up of conflict in Eastern Ukraine. In 2014, Ukraine faced an economic crisis that deepened and necessitated the reform of key state institutions. The war in the East and problems in Crimea hindered these reform processes. Addressing these challenges required additional resources and renewal of the labour force. The contribution of the Donetsk and Luhansk regions, as well as Crimea, was significant. These territories accounted for 13.5% of Ukraine's total area in 2013 and contributed 18% of the country's GDP. Their importance was further underscored by the fact that they accounted for 25% of industrial production and formed 25% of Ukraine's exports (Ivanov, 2015). Since 2014, the economic significance of Crimea in Ukraine's

GDP has not been reported by the State Statistics Service of Ukraine (Official website of the State Statistics Service of Ukraine, 2024). Donetsk region produced 5.4% of the country's GDP in 2018, 5.15% in 2019, 4.89% in 2020, and 5.19% in 2021. Luhansk region contributed 1% to the country's GDP from 2018 to 2021 (Official website of the State Statistics Service of Ukraine, 2024).

Period 2 (from 2019) – the pandemic period began with the onset of COVID-19, which disrupted the trajectory of development at both the macro and micro levels and established new foundations for changes in society's way of life. These changes affected communication, work, education, and more. Quarantine restrictions in most countries, including Ukraine, led to an unprecedented transformation in the behaviour of economic entities at both the consumption and production levels. Caution became the dominant principle of motivation amid ongoing uncertainty.

Period 3 (from 2022) – the war period, which intensified the negative trends caused by the coronavirus pandemic and the ongoing war across Ukraine. This period saw the rapid destruction of infrastructure, driven by the relocation of businesses from the East to the West. In response, on March 17, 2022, the government developed a business relocation program (Order No. 246-r..., 2022). This program aims to restore the economy by providing assistance to businesses relocating from conflict zones to safer areas in Western Ukraine. Applications are reviewed within 1 to 5 days. The state offers support in selecting relocation sites, transporting and housing employees, finding new staff, providing logistical support, and identifying new markets and suppliers. At the end of March, the total amount of damage inflicted on Ukraine due to Russian aggression exceeded USD 560 billion. The majority of the losses were sustained by Ukrainian infrastructure, accounting for approximately USD 120 billion, while the losses to businesses and organisations

amounted to an additional USD 80 billion. Ukraine launched a zero-interest loan program for businesses during the war, but the loan resources were limited to a sum of UAH 60 million. Currently, an increase in loan interest rates to 5% is anticipated once the military actions cease. A simplified taxation system was introduced for businesses with a turnover of up to UAH 10 billion, applicable to the third group of individual entrepreneurs. The only tax they are required to pay is 2% of their turnover. Additionally, during martial law in Ukraine, business inspections by regulatory authorities have been limited or suspended. From April 1, 2022, businesses received UAH 6500 from the state budget for each employed internally displaced person (Schwartz, 2022). As of March 2, 2023, 800 businesses had been relocated. It is noteworthy that 683 of these have resumed operations in their new locations. The most popular regions for business relocation, where the highest concentrations of relocated businesses are found, include Ternopil (6.3%), Khmelnytskyi (7.3%), Ivano-Frankivsk (8.3%), Chernivtsi (9.8%), Zakarpattia (14.5%), and Lviv (24%) regions (Berezhna, 2023). As of April 13, 2022, the Ministry of Economy had received 1500 applications for the relocation of businesses from combat zones to safer regions, with 300 businesses already relocated, of which 121 were operational (Melnytska, 2022; Relocation program..., 2022). According

to World Bank forecasts, Ukraine will spend more than USD 600 billion on reconstruction and recovery (The World Bank estimated the financial loss of Ukraine from the Russian invasion at USD 60 billion, 2022).

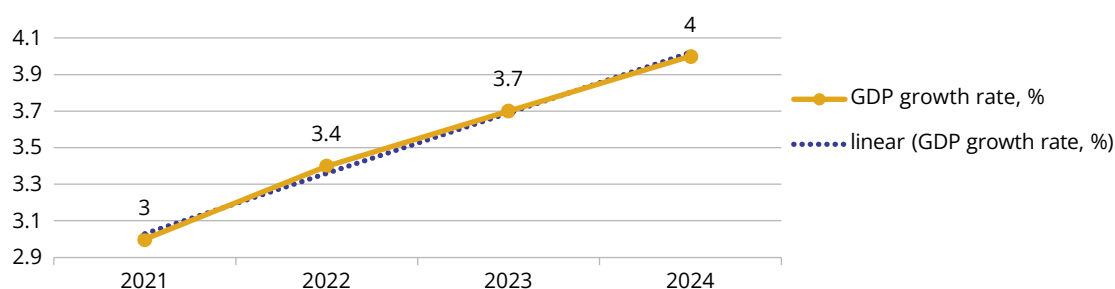
In 2023, the Ukrainian economy grew by 5.5%, despite a significant decline of 28.8% in 2022. In 2021, the economy experienced a 3% growth, whereas in 2020, there was a contraction of 3.8% (Samoilyuk & Levchenko, 2024). The economic recovery in 2023 was supported by several factors:

- ▣ rising consumer demand: this was driven by an increase in household purchasing power and the necessity to spend savings on goods;

- ▣ business activity: Ukrainian businesses adapted to the pandemic-related restrictions and ramped up production;

- ▣ high agricultural yields in 2021.

The recovery in 2021-2023 could have been more faster, but it was hindered by the rapid increase in energy costs due to shortages, the high cost of raw materials, and the emergence of new virus strains that caused the pandemic. These challenges restricted production and disrupted logistics (Just about the economy (based on the Inflation Report for January 2022, 2022). According to the NBU, GDP growth rates were expected to gradually accelerate to 4% (Fig. 4).



**Figure 4.** GDP growth rates in Ukraine in 2021-2024, %

**Source:** developed by the author

From Figure 4, it can be concluded that 2022 was expected to mark the beginning of GDP growth, with forecasts based on the linear model  $y = 0.33x + 2.7$  and a high  $R^2$  coefficient of 0.99, indicating a very strong correlation between the independent and dependent variables.

It was also predicted that inflation would gradually slow down to 7.7% in 2022 and further to 5% in 2023. In 2021, inflation reached 10% due to rising global food prices, which impacted internal prices as Ukraine both exports and imports many food products, coupled with increased energy costs. Another factor contributing to high inflation was the rise in income levels among Ukrainians. As wages increased, so did production costs, leading to higher prices for goods and services. The planned deceleration of inflation was attributed to (Just about the economy (based on the Inflation Report for January 2022, 2022):

- 1) a gradual decline in global commodity prices, especially for energy resources and food, starting from their high levels;

- 2) last year's high agricultural yields in Ukraine, which were expected to mitigate the upward pressure on food prices;

- 3) The National Bank of Ukraine's plan to gradually raise the key interest rate to encourage citizens to save rather than spend. There is a direct relationship between the NBU's key interest rate and bank rates, making savings in hryvnia more attractive to the public.

The unemployment rate in Ukraine was 9.8% in 2021, 9.1% in 2022, 18.2% in 2023, and 14.2% in 2024, with plans to reduce it to 10-12% in 2025-2026 (Inflation report of the NBU, 2024). However, a decrease in unemployment will only be possible if the pandemic subsides and the economy recovers.



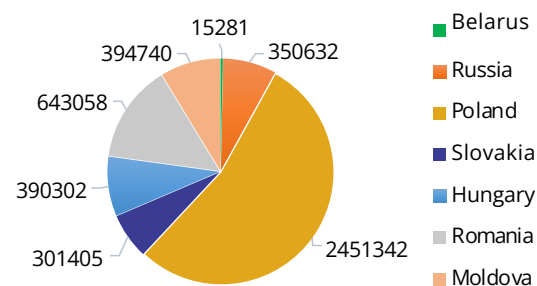
The war in Ukraine has caused a surge in the prices of oil, wheat, and metals, reaching levels higher than during the 2008 financial crisis. This also applies to gas prices in Europe. According to IMF forecasts, economic slowdown in European countries reached 3% by the end of 2022 (compared to an average growth of 5.6-6.7% in 2021) with an inflation rate of 5.5%. The IMF reports that Ukraine's economy contracted by over a third – 35% – in 2022. By April 1, infrastructure damage had amounted to USD 68 billion. The agricultural sector saw a decline in the export of sunflower oil and corn, reaching only 5-10% of last year's volumes (Zanuda, 2022).

The analytical note "Ukraine's wartime economy: An operational assessment, April 2022" (Vyshlinsky *et al.*, 2022) indicates that there will be changes in macroeconomic indicators such as GDP, budget, migration, agriculture, and industry. The regions most affected by the war include Donetsk, Zaporizhzhia, Kyiv, Luhansk, Mykolaiv, Sumy, Kharkiv, Kherson, and Chernihiv, which collectively account for 30% of the national GDP. Overall, it is worth noting that GDP in 2022 decreased by 10%. However, when considering the occupied territories, this figure could reach 35-40%. This can be contrasted with a reduction in energy consumption by approximately 35%, though at least 70% of Ukraine's GDP is produced in safe territories.

As of April 8, 2022, total physical damages amounted to USD 80 billion. The majority of these losses were in the transportation infrastructure, accounting for USD 39 billion, and housing, which suffered USD 29 billion in damages. Ukraine's budget deficit was UAH 166.8 billion in 2021, UAH 911.1 billion in 2022, and UAH 1.33 trillion in 2023 (Ilchenko, 2024). This deficit is expected to increase in the future. Approximately 30% (UAH 32.5 billion) of the revenue in the 2022 general budget came from dividend payments by state-owned enterprises, not including UAH 19 billion from the NBU. This source of revenue is no longer available, and there is a trend of sharply declining revenue for the State Budget.

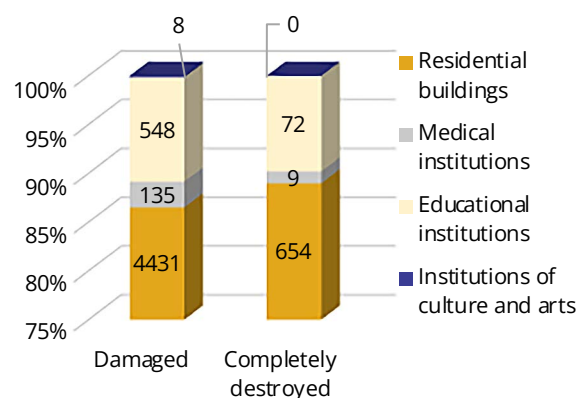
According to UN estimates, as of February 24, 2022, 4.2 million Ukrainians had migrated (Fig. 5). Between February 21 and 23, 2022, 113000 people relocated from the Donetsk and Luhansk regions to Russia. Overall, nearly 6.48 million people have been displaced within Ukraine due to the war. This has led to a significant labor shortage in Ukraine, which will likely slow down the pace of economic recovery in the post-war period. In Ukraine's agriculture sector, arable fields and farms have been the hardest hit by the ongoing war. Approximately 13% of the land has been mined, making it difficult to prepare for spring planting. Due to the prolonged conflict in the Donetsk, Zaporizhzhia, Luhansk, Kharkiv, and Kherson regions, there has been a significant decrease in production: wheat by 23%, corn by 3%, barley by 21%, and sunflower seeds by 20%. Ukraine is a major player in the global market, supplying 44% of

China's wheat flour imports, 55% of its corn, and 59% of its sunflower oil (Vyshlinsky *et al.*, 2022).



**Figure 5.** Population left Ukraine as of April 3, 2022, male  
**Source:** summarised by the author for H. Vyshlinsky *et al.* (2022)

Industrial losses in 2022 amounted to USD 6.7 billion. Around 100 industrial enterprises have been damaged or destroyed. The metallurgy sector lost 30% of its assets due to the destruction of major plants such as "Azovstal", "MMK Ilyich", the Avdiivka Coke Plant, "ArcelorMittal Kryvyi Rih", "Zaporizhstal", and "Kametstal", which were among Ukraine's largest metallurgical plants. Ukraine's residential complexes have been damaged similarly to educational institutions and hospitals. As of March 22, 2022, almost all regions have experienced destruction, with the exception of Volyn, Lviv, Zakarpattia, Ivano-Frankivsk, Chernivtsi, Ternopil, and Poltava regions (Fig. 6).



**Figure 6.** The number of destroyed objects of civil infrastructure in Ukraine as of March 22, 2022, units  
**Source:** created by the author based on H. Vyshlinsky *et al.* (2022)

In 2020, research conducted by the International Organization for Migration revealed that 40% of individuals displaced after six years of war, whether relocated to other areas or abroad, did not consider returning to Donbas (Almost 40% of displaced people do not plan to return home after the end of the war – survey, 2020). In April 2022, 10% of Ukrainians who left the country through the Zakarpattia region had no intention of

returning, while 11% were still considering it (Ukrainian refugees: Attitudes and assessments, 2022).

Ukraine faces the challenge of a labour shortage and a slowdown in post-war recovery due to significant human and resource losses. These factors will negatively affect the level of development in both regions of Ukraine, potentially leading to significant deviations in economic growth indicators. According to the 2023 United for Ukraine study "Willingness of Ukrainians to Return Home", 28% of respondents plan to return to Ukraine, while another 62% will return after the war ends (Official website United for Ukraine, 2024).

A survey conducted by the UN Refugee Agency between April and May 2023 showed that around 60% of people expressed a desire to return to Ukraine. By December 2023, more than 6 million internally displaced persons (IDPs) from Ukraine had been registered worldwide (Regional Intent Report No. 4, 2023).

The government is making significant efforts and developing business renovation packages aimed at revitalising the economy. Among them are the following initiatives (Vyshlinsky *et al.*, 2022):

1) the initial increase of the annual income limit for the 3<sup>rd</sup> group of enterprises under the simplified taxation system from 7.5 million to UAH 10 billion. Subsequently, a second assistance package was developed that eliminated income limits;

2) reduction of the single tax rate from 5% to 2%;

3) removal of restrictions on all types of economic activities, with the exception of excisable goods and the gambling business;

4) granting businesses under the general taxation system the choice between a 2% turnover tax and the simultaneous payment of VAT (20%) and profit tax (18%);

5) establishment of preferences for taxpayers in the 1<sup>st</sup> and 2<sup>nd</sup> groups under the simplified taxation system. Specifically, they were exempted from paying taxes, as well as environmental and land taxes on objects located in combat zones, and paid zero excise and 7% VAT on gasoline instead of 20%. They also had the right to declare tax credits on goods based on initial (accounting) documents;

6) expansion of the "5-7-9%" program, allowing Ukrainian businesses to obtain up to UAH 60 million in loans without interest payments. After the war, the interest rate will rise to 5%. Loan terms are up to 5 years for investment needs and up to 3 years for financing working capital;

7) the state partially guarantees loans issued by Ukrainian banks to small and medium-sized enterprises (up to 80% of the total loan amount);

8) small and medium-sized agricultural businesses with an annual turnover of up to EUR 20 million can apply for interest rate compensation on loans (up to UAH 50 million) during the sowing campaign;

9) the Export Credit Agency provides financing to Ukrainian exporters, which helps reduce the cost of financing;

10) The National Bank of Ukraine has introduced unlimited blank refinancing loans to support the liquidity of Ukrainian banks.

All these measures will contribute to the recovery of Ukraine's economy in the near future, especially in regions not experiencing active military conflict. The war has affected not only the nine regions where intense fighting is ongoing but also other Ukrainian regions. The discussed GDP losses are the lowest possible estimates resulting from the war in Ukraine. The economic crisis has been exacerbated by earlier events, specifically the conflict in Eastern Ukraine since 2013 and the pandemic starting in 2019.

The war in Ukraine, which began on February 24, 2022, marks the third asymmetric shock to the EU between 2000 and 2020, following the 2008 financial and economic crisis, the Eurozone crisis, and the COVID-19 pandemic. As B. Fontelles (2021) rightly stated, an asymmetric shock refers to sudden changes in economic conditions that disproportionately affect certain EU countries. The war in Ukraine impacts neighboring countries through a growing refugee crisis and high dependence on Russian natural gas supplies. To prevent the EU from weakening due to this asymmetric shock, it is necessary to strengthen solidarity with the most affected countries.

The conflict between Russia and Ukraine has escalated into a full-scale war, triggering a humanitarian crisis that negatively impacts millions of people. This has led to an economic shock, the duration and scale of which remain uncertain. The conflict has caused significant economic losses and heightened uncertainty, which has been further aggravated by rising inflation and an imbalanced recovery from the pandemic. This perspective is supported by G. Zhyla (2023).

Conflict is an objective social phenomenon. This conclusion was reached based on the analysis of research by P.M. Baltadzy & L.G. Matveeva (2022). It is impossible to avoid contradictions and disputes in social relations, and effective means of resolving them must be found. These means can include both conflict-based and consensus-based (alternative) interactions. Society cannot function without conflicts and contradictions, and it strives to resolve them. One alternative way of resolving political conflicts is through dialogue and international mediation.

Conflicts have been inherent to all countries and periods. The first major military conflict in Europe since Second World War is described in the studies of A. Soliman & E. LeSaout (2024). They were the first to address the issue of the impact of the onset of the Russian-Ukrainian war on the dynamics of idiosyncratic volatility and market risk in Europe. The conflict altered the relationship between idiosyncratic volatility and market portfolio volatility even before it escalated. The connection between aggregate idiosyncratic risk and market risk is being reshaped by the military conflict in Ukraine.

The trade consequences of the Russian-Ukrainian war are primarily seen through adjustments in import

prices. This conclusion is supported by the research of S. Steinbach (2023), who conducted an empirical analysis of the effects of the global trade redistribution caused by the Russian-Ukrainian war, using detailed trade data and empirically grounded models aligned with trade theory to quantify the extent of trade destruction and diversion resulting from Russia's invasion of Ukraine.

## Conclusions

The economic consequences of the war for Ukraine are extremely negative. This is linked to the impact of the COVID-19 pandemic, which had already undermined the country's growth. The military actions have only worsened the negative imbalances in regional development, delaying the process of Ukraine's economic recovery and reconstruction by decades. Without government intervention and global support, Ukraine will not be able to overcome the war's negative consequences. The economic impacts of the conflicts, based on the proposed periodisation, can be divided into three groups:

1) Economic consequences of the armed confrontations in 2013-2014 due to the conflict in Eastern Ukraine: The real GDP of the country declined, inflation rose sharply, and the official exchange rate increased by 4.02 UAH in 2014 and 13.96 UAH in 2015. This situation negatively affected the social well-being of the population, as the average monthly salary of workers plummeted from USD 416.5 in 2013 to USD 292.44 in 2014 and USD 192.08 in 2015. Consequently, nominal GDP dropped from USD 186.07 billion in 2013 to USD 133.35 billion in 2014 and USD 91.05 billion in 2015. Unemployment stood at 7.7% in 2013 but increased to 9.7% in 2014. Research shows that the military conflict in Eastern Ukraine negatively affected not only the economic development of the state but also worsened social welfare and reduced consumer demand.

2) During the pandemic period, the philosophy of business changed: business shifted from offline to online formats. Many establishments were forced to repurpose and establish remote operations, leading

to significant workforce reductions. However, the unemployment rate was 9.1% in 2018 and 8.6% in 2019. The economy reacted more slowly to the pandemic's consequences. By 2020, the unemployment rate had surged to 9.9% and 10.3% in 2021. Meanwhile, average monthly wages increased rapidly: from USD 325.92 in 2018 to USD 406.07 in 2019, USD 429.93 in 2020, and USD 513.52 in 2021. Yet, the growth rate of average monthly wages slowed – from 111.32% in 2018 to 18.41% in 2019 and 10.42% in 2020. A similar trend was observed in real GDP growth: it was 115.59% in 2018, 19.21% in 2019, and 3.88% in 2020. Thus, the pandemic negatively impacted the country's economic development and the social well-being of its citizens.

3) During the wartime period, there was a decline in both nominal and real GDP in 2022, a sharp rise in inflation to 126.6%, an increase in the average official exchange rate by UAH 5.05 per dollar, and a drop in the average monthly salary of workers by USD 54.06. The growth rate of average monthly wages was the lowest in 2022 compared to 2018-2021, standing at just 6.03%, while real GDP fell by 11.41%. However, this period also saw a rise in the average official exchange rate by 18.5% and inflation by 15.09%. In 2023, the situation somewhat stabilised, marked by a 42.74% increase in real GDP, a 17.4% rise in the average monthly salary, and a 16.98% decrease in the inflation index. During this period, the average official exchange rate increased by 13.08%. This situation demonstrates that the war in Ukraine has had the most negative economic consequences of the periods considered.

Further research should focus on developing measures to mitigate the negative economic impacts of conflicts.

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## Conflict of Interest

None.

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## Економічні наслідки військових конфліктів: український контекст

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**Анотація.** Конфлікт, як унікальний вид взаємодії, що полягає в зіткненні інтересів суб'єктів суспільних відносин, становить необхідну умову для розвитку цивілізації. Протиріччя супроводжували людство протягом усієї історії та знаходили відображення у літературі, мистецтві та історії різних країн і народів. На виникнення і розвиток будь-якого конфлікту впливають економічні наслідки, які виникають через об'єктивне протистояння між протилежними силами. Сучасний економічний простір поглиблюється диспропорціями та характеризується зменшенням лагу між кризами та конфліктами. Метою статті було виділення періодів, які впливають на економіку України та аналіз економічних наслідків від них. Автором розроблено тезу про те, що військовий період негативно вплинув на економіку України. Досягненню мети сприяють такі методи дослідження: наукова абстракція, узагальнення, синтез, аналіз, метод порівняння, графічний та табличний методи для інтерпретації даних. Це дозволило виділити три основних періоди виникнення конфліктів в Україні: назрівання конфлікту на Сході України (2013-2014 роки), пандемічний період (з 2019 року), військовий період (з 2022 року). За кожним із цих етапів проведено аналіз процесів розвитку економіки України. Зазначено, що будь-які конфлікти є небезпечними, оскільки несуть загрозу для суверенної влади щодо управління територіями, несуть загрозу не лише економіці України, але й всьому світу. На основі аналізу сценаріїв розвитку економіки України без стану війни виділено основні фактори, які б сприяли відновленню економіки за такими напрямками: ВВП, рівень безробіття, рівень інфляції, облікова ставка НБУ. Практичною цінністю роботи є те, що автором виділено три періоди військових конфліктів в Україні та проаналізовано основні наслідки їх. Такий підхід допоміг довести, що війна в Україні не лише послаблює українську економіку, але й економіку сусідніх держав; головною економічною втратою України в процесі конфліктів є втрата трудових ресурсів та диспропорції у розвитку регіонів

**Ключові слова:** підприємство; соціально-відповідальний бізнес; криза; втрати; релокація підприємств; соціальний добробут