

Economic Consequences of the War for Business in Ukraine: Analysis, Challenges, and Perspectives

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Abstract: War is a complex social and economic phenomenon which causes tragedy due to irreparable human losses. Another implication of the war is a great damage to economy, which has its consequences in short-term, medium-term, and long-term perspectives. In order to overcome the war consequences, it is important to estimate, analyze and systematize the key impact for providing a comprehensive understanding of the state of the economy. The article contributes to such a holistic understanding as its purpose is to identify and to systemize the key economic consequences of the war in Ukraine. The authors systematized the key impact of the war for business in Ukraine according to the following spheres: business activity of economic entities, exchange rate, export, logistics, migration. It was defined that due to the scale of consequences and to the ongoing (at the moment of the article preparation) hostilities on the territory of Ukraine the state cannot overcome the damage on its own. This emphasizes the necessity of the international support. The key spheres of international support were examined according to the countries. The Ukraine state support programs were also revised in the article.


1 INTRODUCTION

Ukraine's economy has suffered from a range of issues for quite a long time. Political instability, incompleteness of supply chains, high level of competition, vulnerability to the global crisis tendencies – all these factors form a significant impact on the conditions of Ukrainian economic entities functioning, thus, on the state of the economy as a whole. According to the calculations provided by Yakymchuk et al. (Yakymchuk et al., 2021) the level of economic security of Ukraine during 2009–2019 can be defined as crisis level. While fluctuating from year to year the corresponding level of economic security indicator has never reached a secure level. The following – 2020 – year has also brought severe shocks to the country's economy due to the COVID-19 outbreak. The year of 2021 was marked by some revival of business activity, but, at the same time, business entities and the economy as a whole did not have time enough to recover from the blow caused by the coronavirus pandemic. After the full-scale invasion of Russia the immediate result was GDP reduction by 40 % in the 2nd quarter

of 2022, and the forecast inflation level is set as 31 % by the end of the year (National Bank of Ukraine, 2022a). Still, the medium-term and long-term consequences remain uncertain, as hostilities continue, the interaction of various factors causes effects of emergence and resonance, complicating the processes of forecasting and prediction. Therefore, we believe it is extremely expedient to provide research in the sphere of the war outcomes estimation in order to map out the ways out of the crisis and determine the key measures for the post-war reconstruction of the country. It should be mentioned that due to the complementary origin of the issue none of the researches can provide holistic understanding and comprehensive answers and solutions, but each research with its specific stressed points will contribute to the final result.

It is worth noting that the importance of study of the Russia-Ukraine war consequences is also determined by the role played by both countries in the world economy. For example, both countries mutually supply up to 25 % of world wheat export, and some of the countries (e.g., Armenia, Georgia, Turkey, etc.) import more than 75 % of the wheat consumed from Russia and Ukraine (World Bank, 2022). In addition to growing food insecurity risks, the war

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in the region has disrupted a lot of logistic channels, making it difficult, impossible and / or expensive to deliver goods internationally. While understanding the immediate consequences of the war, it is also important to analyze and forecast the medium and long-term impact in order to improve the effectiveness of the activities management and the post-war reconstruction of the country.

Thus, taking into account the importance of the outlined issues, as well as the fact that the determination of potential consequences for the economy of Ukraine is an important step on the way to the development of complex programs for overcoming the respective consequences, we believe that this study will contribute to the implementation of a comprehensive approach to the relevant range of problematic issues.

2 LITERATURE REVIEW

The Russia-Ukraine war has become a truly global conflict, as its implications form a great influence on most of the world's countries. Issues of dealing with such influence and overcoming the conflict consequences are of a special importance nowadays, that forms a significant scientific interest in the corresponding sphere of researchers all over the world.

The hostilities on Ukraine's territory have started in 2014, however, they didn't impact severely on the world's economy. Therefore, at that time, an insignificant number of publications were devoted to the consideration of issues related to the identification of the war's impact on economic relations. In particular, Garzon Gordon and Hierro Recio (Garzon Gordon and Hierro Recio, 2019) analyzed the impact of the war in Ukraine on global oil prices, taking into account the fact that Russia is a powerful player in the oil market. The study is devoted to determining the relationship between events in Ukraine and the price of oil. Bluszcz and Valente (Bluszcz and Valente, 2022) analyzed the costs of the hybrid war in Ukraine, considering the period of 1995–2017. The scientists defined that not only Ukraine, but also the neighboring countries suffer from the war consequences. The main indicator which is analyzed in the research is GDP per capita, and the authors state that Ukraine has lost about 15.1 % of GDP per capita due to the war in 2013–2017.

Russia's full-scale invasion of Ukraine in February 2022 had a significant economic, geopolitical, and social impact not only on the parties to the conflict, but also on other countries. This led both to the growth and scaling of the war consequences, and to the corresponding attempts to identify and predict the

impact of the war on socio-economic relations. According to Astrov et al. (Astrov et al., 2022) the war has changed the world in many dimensions – military, economic, financial, and geopolitical. The comprehensive study is dedicated to estimating both immediate and medium-term implications of the war from the standpoint of three perspectives: implications for Ukraine, for Russia, and for the rest of Europe (Astrov et al., 2022). Orhan (Orhan, 2022) states that the consequences of the Russia-Ukraine war will affect not only the region, but also the economy on a global scale. The main spheres of impact include financial sanctions, increase of commodity prices, and supply chain disruptions. Glauben et al. (Glauben et al., 2022) analyze the implications of the war from the agricultural trade and food security standpoint. The authors define that Russia and Ukraine are both important market players regarding agricultural products and fertilizers, as their mutual market share was about 28 % for wheat, 15 % for corn, 66 % for sunflower oil, and 16 % for fertilizers. Thus, war consequences resulted in reduction of global supplies of mentioned products forming prerequisites for food security crisis in some countries and regions, especially countries from the MENA region. According to the estimations more than 300 million people are at critical high risk of food insecurity (Glauben et al., 2022).

One of the most discussed issues in current publications is related to migration trends, particularly refugees' flows. Thus, Duszczyk and Kaczmarczyk (Duszczyk and Kaczmarczyk, 2022) state that Poland has faced an unprecedented flow of refugees, which has created a lot of challenges for Poland as for the receiving country.

Prohorovs (Prohorovs, 2022) defines that the further consequences of the war should be examined within the following spheres: shocks of price, supplies, and supply chains; inflation; employment and unemployment rate; the economy growth perspectives; possible consequences of confrontation between the West and Russia. The research provides a comprehensive analysis of the war impact on the outlined spheres with a special stress put on the countries of the European Union. Markus (Markus, 2022) focuses on the business implications of the war for Russia. The implications for global business are also reviewed in the study. The researcher indicates the following consequences of the war: fuel global inflation, commodity shock, long-term fracturing of the global financial system. Korneyev et al. (Korneyev et al., 2022) have provided a detailed study of the war consequences for Ukraine. Particularly, the authors examine business activity reduction (with a focus on specific types of activity) and the governmental sup-

port programs, as well as they define the key challenges faced by Ukrainian business. The key challenges, according to Korneyev et al. (Korneyev et al., 2022) are as follows: supply chain disruption, shipping surcharge, consumer demand, creating stocks of products, the state of uncertainty among business representatives.

Despite the significant amount of research in this field, which makes a valuable contribution to creating a holistic understanding of the consequences of the war both for Ukraine and for the whole world, the outlined problem remains insufficiently covered in view of its complexity and multifacetedness. This determines the relevance of current research and determines its purpose and tasks.

3 OBJECTIVE OF THE RESEARCH

The purpose of the article is to identify and to systematize the key economic consequences of the war in Ukraine. The identification and systematizing of the implications will contribute to performing a holistic approach to the relevant issue, as well as they will serve as a basis for understanding the priority directions of action for overcoming the relevant consequences. The defined objective involves solving the following tasks: to identify key spheres of the war impact on business functioning in Ukraine; to analyze trends of changes in spheres selected for analysis; to systematize the main directions of international support of Ukraine; to consider existing governmental tools for overcoming crisis phenomena caused by the war.

4 METHODOLOGY

The methodological basis of the study is a system approach based on the understanding of socio-economic relations as a whole and, at the same time, structured system, which is subject to the catastrophic impact of military actions. During the research, the following methods were also used: monographic – when studying available publications and reports on assessing the consequences of the war; analysis and synthesis – to identify the key spheres of influence of the war consequences on the economy of Ukraine; generalization – for formulating research conclusions; ranking method – to determine the positions of individual countries in the overall ranking of aid to Ukraine; the deduction method – to determine the priority directions for

the development of measures to overcome the consequences of the war; graphical and tabular – to visualize the obtained research results.

5 RESULTS OF THE RESEARCH

War is a complex socio-economic phenomenon that definitely affects all spheres of life, both in the countries participating in the conflict, and in the region or even the world. In addition to irreparable human losses, military actions also have a devastating effect on the economy, endangering the functioning of society. Wars can affect economic growth, the provision of production factors, the production structure, the public budget, and public debt (Garzon Gordon and Hierro Recio, 2019). Studying the consequences of war is an important component of developing programs for overcoming the respective consequences, because for the formation of adequate support programs, a clear understanding of the mechanisms of the impact of war on various spheres and aspects of the country's economic life is necessary. S. Mariotti states that the war is, on one hand, a result of growing global imbalances and instability and, on the other hand, is a cause of further growth of such instability (Mariotti, 2022). The globalization processes have led to a situation when regional conflicts (the Russia-Ukraine war particularly) affect a significant number of the world's countries, creating a negative impact on economic, social, and geopolitical spheres.

The war in Ukraine will have immediate consequences, as well as medium and long-term impact. Moreover, this impact will affect not only the counterparties of the war, but almost all countries of the world. The EU countries will suffer from inflation, price and supply chains shock, and likely will have to face recession or even stagflation (Prohorovs, 2022). The USA are not so vulnerable to the war consequences but will also fall under the impact of destructive tendencies created by the war (Prohorovs, 2022).

However, the biggest and worst impact will be on Ukraine. Since 2014 when the hostilities started at the Eastern Ukraine, the country has suffered from a considerable decline of economy (Bluszcz and Valente, 2022). The full-scaled invasion has led to much greater negative impact. The post-war reconstruction of Ukraine will require not only significant financial resources, but also a clear plan of action, like the Marshall Plan. In turn, the implementation of a comprehensive approach to the formation of an appropriate reconstruction plan requires a clear understanding of the main spheres of the war consequences.

The study of scientific literature, reports of

Ukrainian institutions and international organizations, as well as our own experience provided an opportunity to determine the key, in our opinion, spheres of the formation of the war negative impact on the economy of Ukraine. We consider it expedient to provide a description of the identified spheres.

5.1 Business Activity of Economic Entities

Full-scale military operations on the territory of Ukraine dealt an almost devastating blow to business, which has not yet fully recovered from the coronavirus crisis. Business entities faced a significant number of problems, starting from the physical threat to existence and the destruction of capacities in the areas of active hostilities and ending with the destruction of logistic channels and the reduction of solvent demand. Even if not situated in the active hostilities zone business entities experience all the consequences of the war: destabilization of the economy, disruption of supply chains, decrease in solvent demand, increase of inflation, etc. (Korneyev et al., 2022). It is worth noting that the extent to which business entities are affected can vary significantly depending on their field of activity. According to Korneyev et al. (Korneyev et al., 2022), the most vulnerable are the following spheres: agriculture, metallurgy, logistics, insurance. In particular, the NGO “The Institute for Economic Research and Policy Consulting” conducted a survey of representatives of domestic business in May-July to identify expectations and to assess the current situation. In July, 449 enterprises took part in the survey. Among them are mainly industrial enterprises located in 21 of the 27 regions of Ukraine, in particular in Vinnytsia, Volyn, Dnipropetrovsk, Zhytomyr, Zakarpattia, Zaporizhzhia, Ivano-Frankivsk, Kyiv, Kirovohrad, Lviv, Mykolaiv, Odesa, Poltava, Rivne, Sumy, Ternopil, Khmelnytskyi, Cherkasy, Chernivtsi and Chernihiv regions, and in the city of Kyiv (Kuziakiv et al., 2022). According to the results of the survey in July 2022, 31.9 % of respondents characterized the current financial and economic situation at the enterprise as bad, and the share of those who assess the situation positively was only 10.3 % (Kuziakiv et al., 2022). It is worth noting that such a share indicates the presence of significant crisis tendencies in the activities of enterprises, which, in turn, negatively affects the dynamics of general economic development indicators. According to the State Statistics Service of Ukraine, real GDP in the II quarter of 2022 decreased compared to the previous quarter by 19.1 % (taking into account the seasonal factor) and compared to the II

quarter of 2021 – by 37.2 % (State Statistics Service of Ukraine, 2022). The key factors that create risks and threats to the existence of Ukrainian business entities include physical threats, exchange rate fluctuations, rising production costs, including due to rising fuel costs, disruption of logistic channels, problems with resource provision, including due to the emigration of the population, a decrease in solvent demand, etc.

5.2 Exchange Rate

One of the most significant spheres that has suffered a devastating impact as a result of military operations on the territory of Ukraine is the situation on the foreign exchange market. Significant shocks always have a negative impact on the exchange rate, the volatility of which increases significantly due to the uncertainty of the situation. In turn, changes in the exchange rate potentiate a significant number of further consequences related to the solvency of the population, inflation fluctuations, foreign trade policy, etc. Therefore, the exchange rate is one of the key indicators that has the property of emergence, that is, it affects a significant number of socio-economic parameters. It is worth noting that at the beginning of the full-scale war, in order to contain panic fluctuations and speculative risks, the National Bank of Ukraine (the NBU) fixed the official rate at UAH 29.25 per dollar (National Bank of Ukraine, 2022b). This measure was part of the set of actions introduced by the NBU to ensure reliable and stable functioning of the country’s financial system. At the same time, the “retail” rate of the dollar differed significantly from the officially recorded one, which determined the need to use foreign exchange reserves to balance the market situation. According to official NBU data, gross international reserves during this period decreased from USD 29.087 billion equivalent (as of February 1, 2022) to USD 22.387 billion equivalent (as of August 1, 2022), i.e., by almost \$6.7 billion or by 23.03 % (National Bank of Ukraine, 2022b). In order to preserve currency reserves, as well as to prevent the devaluation of the national currency, the NBU was forced to increase the discount rate from 10 % to 25 % in June. At the same time, this measure did not lead to stabilization of the currency market. In order to avoid further rapid reduction of foreign exchange reserves, on July 21, 2022, the NBU adjusted the exchange rate by 25 % to UAH 36.57 per dollar (National Bank of Ukraine, 2022b). It is worth noting that the official rate of the NBU can differ significantly from the market rate of commercial banks. This situation was especially critical in March-May 2022, when there was

a significant increase in the rate of commercial banks with the fixed rate of the NBU. The trend of changes in the exchange rate of the hryvnia to the dollar in commercial banks is shown in figure 1.

So, we can note a gradual, but significant decrease in the cash rate of the hryvnia to the dollar. Such a trend led to a significant number of negative consequences, including: a decrease in the solvency of the population, an increase in production costs, an increase in foreign debt in the hryvnia equivalent, as a result – a deterioration of macroeconomic indicators.

5.3 Export

One of the indicators of the socio-economic development of the country most significantly related to the hryvnia exchange rate is export. It is worth noting that, in general, the devaluation of the hryvnia has a stimulating effect on exports, but the military actions that led to the disruption of logistics chains (first of all, the blocking of ports) caused a significant reduction in exports.

According to the State Statistics Service of Ukraine (State Statistics Service of Ukraine, 2022), the export of goods in June 2022 amounted to 3177.5 million USD, and the value of exports for the corresponding period of 2021 was 5305.8 million USD, i.e., there was a decrease in exports by almost 40 %. The reduction in exports led to the formation of a significant negative foreign trade balance – (–1549.4) million USD. For comparison, the respective indicator for June 2021 was (–258.4) million USD. The following product groups experienced the greatest reduction: grain crops (exports in June 2022 were only 57.2 % of the level of June 2021); ready-made food products (50.9 %); mineral products (36.8 %); products of chemical and related industries (42.2 %); low-value metals and products from them (35.7 %) (State Statistics Service of Ukraine, 2022). One of the most crucial not only for Ukraine, but also for other countries (especially, of the MENA region) export products is wheat. As Glauben et al. (Glauben et al., 2022) state the most vulnerable are Albania, Egypt, Lebanon, Libya, Georgia, Mauritania, Sudan, Tunisia, and Yemen as large parts of their population are already subject to high risk of undernourishment.

The reduction in exports not only negatively affected the economic condition of exporting enterprises, a significant number of which faced serious difficulties with the sale of products and ensuring their existence, but also increased the devaluation of the national currency due to the reduction in the inflow of foreign exchange earnings to Ukraine. At the same time, a positive trend emerged. In June 2022 com-

pared to May 2022 seasonally adjusted exports increased by 18.6 %, and imports by 27.6 %. Seasonally adjusted balance of foreign trade in June 2022 was negative and amounted to 1408.1 million USD. In May 2022, it was also negative – 889.9 million USD (State Statistics Service of Ukraine, 2022).

According to the official information of Ministry of Economy of Ukraine (Ministry of Economy of Ukraine, nd), in August 2022, the volume of Ukrainian exports increased by 25 % and amounted to 7.29 million tons. The increase in exports is connected with the partial unblocking of the ports of Greater Odesa. This made it possible to significantly increase the volume of export of Ukrainian goods. As a result, transportation by sea transport increased by 85 % and amounted to almost 2.9 million tons. Ukraine exported more than 3 million tons of goods by rail, 1.36 million tons by road. At the same time, exporters receive the largest revenue from goods exported by road – \$ 1.48 billion, sea cargo – \$ 995 million, and rail cargo – \$ 788 million.

The leaders in terms of export value in August 2022 were (Ministry of Economy of Ukraine, nd):

- sunflower oil (\$ 443 million). Its export volumes increased by 30 % to 366000 tons. Ukraine began to export less raw materials – sunflower seeds – and more processed products;
- corn (\$ 347 million). Its export increased by 31 % to 1.5 million tons. It was this export segment that benefited the most from the unblocking of the ports from which ships loaded back in February left;
- rapeseed (\$ 305 million). Ukraine has already exported 665000 tons of this crop of the new harvest;
- wheat (\$ 213 million). In August, Ukraine exported 2.3 times more grain than in July, amounting to 880000 tons (Ministry of Economy of Ukraine, nd);
- ore (\$ 172 million). As a result of the occupation and destruction of the south-eastern regions, the volume of exports of metallurgical products is decreasing. In particular, 1.4 million tons of ore were exported in August;
- cable products (\$ 89 million). Despite the decrease in export volumes by 9.8 %, this category of goods remains one of the key ones;
- electricity (\$ 73 million). Revenue from electricity increased by 2 times compared to July. This is the result of the successful integration of the Ukrainian energy industry into ENTSO-E – the energy system of the European Union;

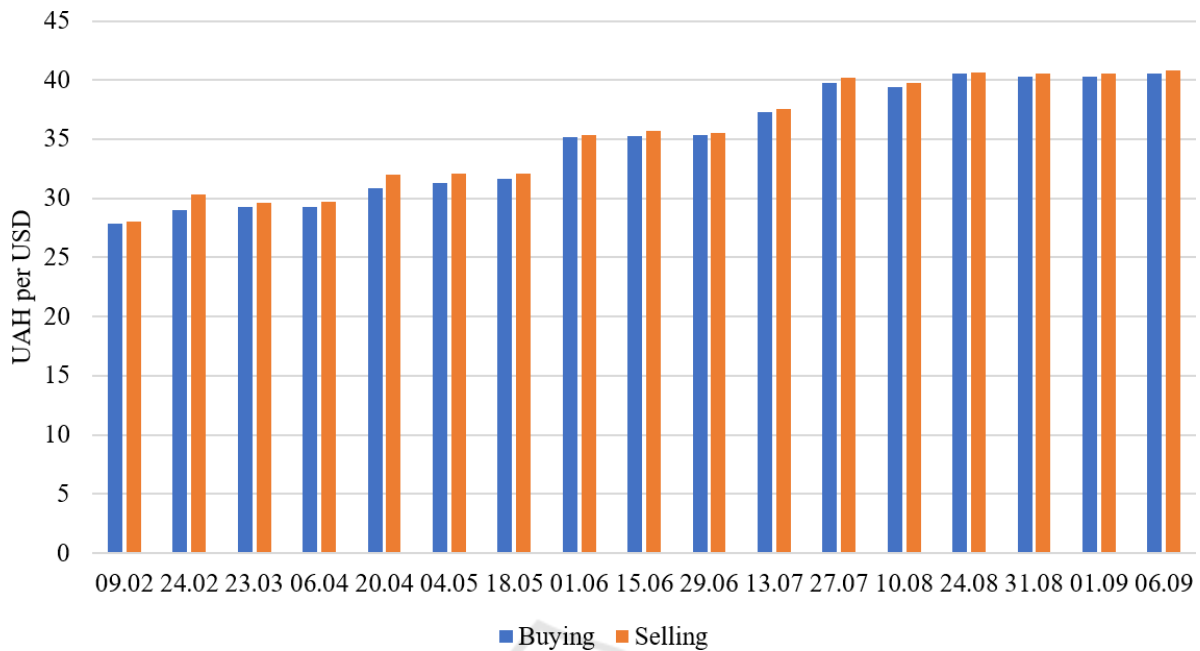


Figure 1: Dynamics of the weighted average exchange rate of the hryvnia to the dollar on the cash currency market of Ukraine (National Bank of Ukraine, 2022b).

- sunflower seeds (\$ 71 million). Gradually, this segment of exports will decrease due to the growth of processing;
- poultry meat (\$ 67 million). The export of products showed a decrease compared to July;
- soybeans (\$ 62 million). In August, its export growth was +30 % to 148000 tons (Ministry of Economy of Ukraine, nd).

It is important that confectionery processing products show stable upward dynamics: bakery +19.4 %, sugar +9.1 %, chocolate +25 % (Ministry of Economy of Ukraine, nd).

We have optimistic prediction from the First Deputy Prime Minister, Minister of Economy of Ukraine Yulia Svyrydenko (Shalal, 2022). She told Reuters that Ukraine’s economy should stabilize over the coming year and expand by as much as 15.5 % in 2023, depending on military actions development in the war against Russia that began on February.

5.4 Logistics

The well-adjusted transport and logistics activities of the country are determined not only by the direct restoration of the national economy but also by the preservation and further development of international relations, which are of key importance for modern economies of developed countries (Ohar et al., 2022).

During the war, the traffic flow increased. Since the beginning of the war, the seaports have remained

virtually blocked, so the main part of trade flows has been taken over by road and rail transport. Today roads and transport points are usually the most damaged and destroyed as strategically important objects for the movement and storage of military equipment and, consequently, as battlefields. As of May 2022, as a result of hostilities on the territory of Ukraine, about 23 % of railway tracks were damaged, including 6.3 thousand km of main tracks. In the first quarter of 2022 exports amounted to 102.9 % compared to the first quarter of 2021, imports – 94.4 % compared to the same period last year. At the same time, foreign trade operations were conducted with partners from 214 countries (Ohar et al., 2022). We must also emphasize the breaking of chains, the destruction of transport routes, the exclusion from operation of key trunk roads that connected the West, Center, and East (the Lviv-Kyiv and Kyiv-Kharkiv route); fuel shortage and high fuel prices; frequent air alarms; highway logistics stopped working at night due to curfews and difficulties at roadblocks.

In general, it is worth noting that the war and its consequences from the point of view of logistics and infrastructure determined the understanding that in the future, when rebuilding the state, localization and the creation of alternative infrastructure are necessary (Markus, 2022).

5.5 Migration

Another painful issue for Ukraine as a whole, and for the economy in particular, is population migration related to hostilities. Orhan (Orhan, 2022) states that the most significant consequence of the war between Russia and Ukraine is the lives lost and the humanitarian crisis associated with the large number of people besieged and displaced. A great number of people left the country (this trend was especially significant at the beginning of the war), in addition, many people were forced to move within the country (internal displacement). Such a situation has significant negative consequences for the business activity of economic entities, because the decrease in the number of the population located on the territory of Ukraine has led to both a reduction in demand (due to a decrease in the number of potential consumers) and to problems with staffing of economic entities. Approximately 2.75 million refugees from Ukraine are of working age, of whom 1.2 million worked before the start of the war in Ukraine and, accordingly, could enter the EU labor market (Prohorovs, 2022). This situation results in the absence of the respective human resources in Ukraine and complicates business entities functioning. This was especially clearly visible in February-March, when enterprises and organizations could not always adjust their work due to the lack of employees (for example, pharmacies belonging to critical infrastructure suffered from the lack of pharmacists who could work, which, in turn, determined reduction of pharmacy networks even in relatively “calm” regions).

According to the Office of the United Nations High Commissioner for Refugees (UNHCR, 2022), as of September 7, 2022, 7.16 million refugees from Ukraine were registered in Europe. The largest number of refugees is registered in Poland (1.37 million people), Germany (1 million people), and the Czech Republic (0.43 million people). In total, since the beginning of the war, according to the UNCHR, 11.9 million people crossed the borders with European countries towards Europe and 5.3 million people moved towards Ukraine. In addition, according to the estimation, almost 7 million people are internally displaced within Ukraine. These trends cause problems with providing shelter for a significant number of displaced persons (UNHCR, 2022). The closest countries – Poland and Romania – faced a situation of unpreparedness for such a large number of refugees, a similar situation is observed in Ukraine in the western regions. As Astrov et al. (Astrov et al., 2022) define “For example, the population of Lviv – the largest city in western Ukraine – is only about a quarter of the size of Kyiv.... It is a logistical nightmare to find ac-

commodation for half of Kyiv’s population (or about 1.5 m people)”. However, Poland is playing the most important role in providing sanctuary for Ukrainian refugees. This phenomenon is caused by several reasons. First of all, Poland is a bordering country which is situated in the west, this creates a more or less safe route for fleeing. Secondly, there is a long-lasting tradition of labor migration from Ukraine to Poland, which started long before the full-scale war started (Duszczuk and Kaczmarczyk, 2022). Such tradition made it easier to find shelter, to build logistics, etc.

5.6 Measures for Overcoming Negative Consequences

The spheres of the negative consequences of the war discussed above are not exclusive and exhaustive, because the large-scale military actions on the territory of Ukraine had an extremely negative impact on all spheres of socio-economic life. Destruction of infrastructure, reduction of business activity, decline in GDP, significant increase in inflation, population migration are just some of the challenges that Ukraine has faced. Overcoming the consequences of such challenges requires significant efforts, coordination and, first of all, financial resources. Suffering from military operations, Ukraine is currently unable to independently overcome existing and projected problems, that actualizes the need and determines the importance of international assistance. In the next section of the article, we find it expedient to consider the specifics of providing international aid to Ukraine as well as governmental aid to business.

5.7 International Support

Under the war conditions, when the situation changes every day, it is quite difficult to predict the consequences of Russia’s aggression both for Ukraine and for the world. Faced with the incredible desire of Ukrainians to protect the country’s sovereignty and fight back against the enemy, foreign partners provide comprehensive assistance to Ukraine. Starting from February 24, partner countries are helping Ukraine in various ways.

We analyzed the amount of aid from foreign partners and summarized the open sources of two platforms – Ukrainian FORBES (Landa, 2022) and The Kiel Institute for the World Economy (Antezza et al., 2022b). Poland, Estonia, Latvia, United States, and Lithuania took the first places in the updated rating of “Friends of Ukraine” from FORBES. In general, the authors have presented a rating for twenty countries, including sixteen European countries. In the “Friends

of Ukraine” rating (7) the authors have considered the following indicators (Landa, 2022):

- voting at the United Nations General Assembly for the withdrawal of Russian troops, the introduction of sanctions against Russia and the closure of its airspace, participation in the conference to support Ukraine on the basis of “Ramstein Air Base”, the inclusion of Russia in the list of hostile countries I(1),
- the recognition of the genocide of Russia/USSR against Ukraine I(2),
- the expulsion of Russian diplomats I(3),
- the amount of aid to Ukraine, according to the Kiel Institute, in monetary terms, € billion I(4) and as % of GDP I(5),
- visits of high-ranking officials to Ukraine I(6).

In table 1 we have described the TOP-10 countries in the “Friends of Ukraine” rating.

Forbes has determined the financial component of the “Friends of Ukraine” rating based on the information from The Kiel Institute for the World Economy. The Kiel Institute for the World Economy focuses only on government-to-government transfers to Ukraine (Antezza et al., 2022b). The Ukraine Support Tracker lists and quantifies military, financial, and humanitarian aid promised by governments to Ukraine between January 24, 2022, and currently through August 3, 2022. It covers 40 countries, specifically the EU member states, other members of the G7, as well as Australia, South Korea, Turkey, Norway, New Zealand, Switzerland, China, Taiwan, and India.

We have summarized the data of the Institute’s report (Antezza et al., 2022a) of various types of assistance to Ukraine. Some institutions are closed, and it is very difficult to find reporting information on them (such as the United Nations or the Red Cross). Support from major international organizations includes:

1. IMF programs: On March 9, the International Monetary Fund announced and disbursed an emergency assistance loan of \$ 1.4 billion to Ukraine under the umbrella of its Rapid Financing Instrument.
2. The World Bank: According to the data provided by the Ministry of Finance of Ukraine, out of the \$ 2.467 billion \$ 929 million have been disbursed so far, a share of 37.66 %.
3. The European Bank for Reconstruction and Development (EBRD): On March 9 an international organization half-owned by European countries, announced a support package for Ukraine and neighboring countries totaling \$ 2 billion.

Total aid to Ukraine is €84.2 billion (from European Union and 40 countries from January 24, 2022, until August 3, 2022). In table 2 we compare the type of government support to Ukraine by type of aid: military, humanitarian, and financial directions (TOP-10 countries in billion Euros).

Table 2 shows that The United States government alone (€44.5 billion) committed almost four times as much to Ukraine than all the individual EU country governments combined (€16.22 billion). However, the large commitments by the EU institutions bring the total European support to a level closer to the US. The United States clearly remains the largest donor to Ukraine.

Table 3 shows the amount of aid provided to Ukraine by other countries compared to the GDP indicator. Considering the GDP indicator provides an opportunity to determine the contribution of each country taking into account the level of economic development of the respective state.

Table 3 shows that Eastern European countries stand out as particularly generous when considering the size of their economy, with Estonia, Latvia, Poland, and Lithuania ranging among the top ten donors. The United States (being the largest donor in absolute terms) comes in 10th, with assistance worth around 0.22 percent of its GDP. Also, Eastern European countries show even higher commitments relative to GDP if one were to account for support by hosting Ukrainian refugees.

5.8 Ukrainian State Support for Business During the War

Supporting Ukrainian businesses is an important task to ensure the economic capacity of Ukraine to meet the challenges of war. Revitalization of the entrepreneurial activity is a key factor to enhance the country’s stability and to overcome the consequences of the war (Korneyev et al., 2022). The state is taking affordable steps to support companies that find themselves in difficult conditions. In table 4 we have summarized the main state initiatives to support business in wartime, presented on the “Diia. Business” government services portal.

The effectiveness of government initiatives is varying. For example, according to the information from The Ministry of Economy of Ukraine (Ministry of Economy of Ukraine, nd), at the end of August, 725 enterprises moved from the regions of active hostilities to safer ones, of which 528 have already resumed their activities at the new location. Another 284 companies are currently searching for a suitable location or method of transportation. Among the relo-

Table 1: Top-10 countries in the “Friends of Ukraine” rating (Landa, 2022).

Country	Indicators						Rating (7)
	I(1)	I(2)	I(3)	I(4)	I(5)	I(6)	
Poland	Yes	Yes	45	5.1	0.88	President, Prime minister	100
Estonia	Yes	Yes	17	0.3	1.13	President	96
Latvia	Yes	Yes	16	0.3	1.03	President	96
United States	Yes	Yes	12	44.5	0.22	House speaker, Secretary of State	93
Lithuania	Yes	Yes	5	0.3	0.55	President	90
Portugal	Yes	Yes	10	0.5	0.24	Prime minister	90
United Kingdom	Yes	Partly	23	6.6	0.25	Prime minister	89
Italy	Yes	Partly	30	2.8	0.15	Prime minister	89
Spain	Yes	Partly	25	2.3	0.19	Prime minister	88
Slovakia	Yes	Partly	38	0.4	0.43	President, Prime minister	88

Table 2: Government support to Ukraine: type of aid, € billion (Antezza et al., 2022b).

Country	Type of aid, € billion			Total, € billion
	military	financial	humanitarian	
United States	25.0	9.2	10.3	44.5
EU Institutions	2.5	1.42	12.3	16.22
United Kingdom	4.0	0.38	2.10	6.48
Germany	1.2	0.75	1.15	3.1
Canada	0.96	0.26	1.82	3.04
Poland	1.80	0.10	0.99	2.89
France	0.23	0.12	0.80	1.15
Norway	0.21	0	1.03	1.24
Japan	0	0	0.59	0.59
Italy	0.15	0	0.31	0.46

Table 3: Government support to Ukraine: by donor GDP, incl. refugee costs (Antezza et al., 2022b).

Country	Bilateral aid (percent of GDP)	Refugee costs (percent of GDP, rough baseline estimate)
Estonia	0.8	0.4
Latvia	0.8	0.3
Poland	0.5	0.5
Czech Republic	0.2	0.4
Lithuania	0.3	0.3
Slovakia	0.2	0.2
Norway	0.4	0.02
Bulgaria	0.01	0.31
United Kingdom	0.2	0.01
United States	0.22	0.00

cated enterprises that have already resumed their activities in the new place, the largest part is formed up by enterprises operating in the sphere of wholesale and retail trade – more than 40 % (of the total number of relocated enterprises) and enterprises in the sphere of processing industry – 30 %. Also, among displaced companies, almost 7 % are active

in the sphere of information and telecommunications, 6 % – in professional, scientific and technical activities, and 4 % – in the sphere of construction. The most significant number of enterprises were relocated to Lviv (29 % of relocated enterprises), Zakarpattia (18 %), Chernivtsi (13 %), Ternopil (8 %) and Khmelnytskyi (7.6 %) regions. Among the large companies that were relocated are LLC “Pozh-mashina”, LLC “CORUM Druzhkovka Machine-Building Plant”, LLC “Staleks”, PJSC “Kramatorsk Heavy Duty Machine Tool Building Plant” (Ministry of Economy of Ukraine, nd).

Another important direction of state support for business is preferential taxation, which made it possible to reduce the tax burden for enterprises and thus mobilize additional reserves to ensure the survival of business entities.

Based on open sources, we have summarized the tax innovations information proposed by the government:

- 1) individual entrepreneurs of the I and II groups (simplified tax system) during the martial law and within a year after its completion will be exempted from paying a single social contribution;

Table 4: Spheres of state support for business during wartime (Diia.Business, 2022).

Sphere	Explanation
Compensation for employment of internally displaced persons (IDP) or 6,500 hryvnias within eSupport	Compensation to the employer for labour costs for each internally displaced person. The source is the state budget reserve fund. Ukrainians will be able to receive UAH 6500 within the eSupport program in the areas where the most active hostilities are taking place. These funds can be used to pay for any expenses without restricting the type of business. Hired employees and individual entrepreneurs of all groups will be able to receive assistance.
The Government program of the enterprises evacuation from the combat zone	The government has presented the program for the evacuation of enterprises from the war zone to the west of Ukraine. Businesses will be provided with appropriate conditions for work in the new place and employment opportunities for people. Enterprises will be provided with assistance in selecting locations for their production facilities, transportation and resettlement of personnel, and search for new employees. The program is aimed at preserving the production and labour potential of Ukraine and is aimed at all enterprises that wish to move production to the territory of the western regions of Ukraine.
The Government program “eWork”	Any Ukrainian who does not work at other enterprises can take part. To receive money, you need to submit an application through “Diia” or in the branches of the OshchadBank together with the attached business plan. Money can be received by anyone who has the desire, skills and plan to start their own business or expand their business. For the grant, it will be possible to purchase equipment, buy raw materials or pay for the rent of the premises. For example: – Grant for own business: up to UAH 250000 – Gardening grant: up to UAH 400000 – Greenhouse grant: up to UAH 7 million – Grant for a processing enterprise: up to UAH 8 million.
State support “Credit program for exporters”	Credit program for companies that, due to the aggression of the Russian Federation, need additional financing for the implementation of export contracts. The affordable financing program for exporters during the war “Loans for the implementation of foreign economic contracts under a simplified procedure” will help Ukrainian manufacturers enter new markets and become competitive.
Support of Ukrainian entrepreneurs under conditions of war to preserve business and jobs	The tool from the UA Anti-crisis initiative will help to gather information about resources, build a strategy and take specific steps to start a business with the aim of faster recovery of the Ukrainian economy.

- 2) enterprises and individual entrepreneurs of the III group (simplified tax system) will be exempted from paying a single social contribution for employees who joined the armed forces and other armed groups (including territorial defense). The fee will be paid by the state;
 - 3) payment of taxes for all enterprises that are unable to pay them is postponed;
 - 4) the introduction of cash registers for all individual entrepreneurs is postponed;
 - 5) all measures of the market and consumer surveillance in all matters, except for price regulation and control over pricing, will be abolished. A moratorium on inspections of all types for business has already been established.
- Tax innovations also involve the following mea-

sure: VAT and income tax have been replaced during the wartime by a 2 % turnover tax (the transition to this taxation system is voluntary). The taxation of fuel is also diminished in order to constrain the prices (Astrov et al., 2022).

Summarizing the above mentioned, we can conclude that currently a significant number of measures to overcome the consequences of the war in Ukraine are already being implemented by both foreign governments and the government of Ukraine. However, we should note that most of these measures are aimed at ensuring business survival and ongoing support for Ukraine, while spheres related to the post-war reconstruction of the state are also important. We see the prospects for further research in the formation of a complex system of measures for overcoming the negative consequences of the war in Ukraine.

6 CONCLUSIONS

War in Ukraine is a powerful trigger, significantly increasing the level of inflation and exacerbating the existing issues of economies. Companies and countries have needed to adapt their activities to the consequences of the Russian war in Ukraine. The consequences of the war for Ukraine are especially significant (for objective reasons), because currently Ukraine suffers not only from direct military actions, but also from the economic consequences associated with them. Therefore, it is extremely important to understand the consequences of the war both in the short-term and in the medium-term perspective. The article identified the key directions of the formation of the negative impact of the war on socio-economic relations in Ukraine. It is worth noting that business in Ukraine faced unprecedented challenges related to both the threat to existence (physical) and the destruction of economic ties, the loss of sales markets, the increase in costs, and the decrease in the efficiency of functioning. Based on the results of the research, the main risks and threats were systematized in the following spheres: business activity of economic entities, exchange rate, export, logistics, population migration (refugees). The researched list of directions of the formation of the war negative impact on socio-economic relations in Ukraine is not exhaustive, but it provides an opportunity to contribute to the formation of a holistic understanding of the state and prospects for the development of the situation in Ukraine. In turn, such a comprehensive understanding will serve as a basis for developing complex programs to overcome the negative consequences of the war in Ukraine. Based on the analysis of the scale of negative consequences, it was determined that, given the current situation, Ukraine is unable to independently overcome the existing problems, which determines the importance of international support. Currently international support should be analyzed in two directions: diplomatic and financial (in terms of military, humanitarian, and purely financial). The largest contribution to total aid in absolute terms was made by the USA, however, if the analysis is carried out in comparison with the GDP of the respective country, then the countries of Eastern Europe (Estonia, Latvia, and Poland) take the first places in terms of aid. At the same time, the government of Ukraine implements measures aimed at supporting both business and the population, which is extremely important from the point of view of preserving the country's potential. We see the prospects for further research in the formation of a complex system of measures aimed at overcoming the consequences of the war in Ukraine, which will be based on the data of the econometric

model for assessing the impact of individual factors on the resulting indicator (for example, GDP).

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