International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Analysing the Economic Impact of the War with Russia on Ukraine's Economy Challenges and Path Forward

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Abstract

The ongoing conflict in Ukraine has wrought devastation on the nation's economy, presenting a unique challenge for its recovery and long-term development. Years of warfare have left a trail of destruction, from decimated infrastructure and shuttered industries to the displacement of millions of citizens. The conflict has not only strained Ukraine's financial systems but has also undermined investor confidence, eroded institutional capacity, and disrupted the economic lifeline of its people. As the nation looks toward a post-conflict future, rebuilding the economy is a monumental task that requires addressing a spectrum of interrelated challenges, ranging from immediate humanitarian needs to long-term structural reforms. This research paper delves into the intricate and multifaceted process of rebuilding Ukraine's economy, exploring both the immediate and strategic interventions necessary to secure sustainable growth.

Beyond the horrible loss of life, the battle has a significant economic cost. For a nation already facing pre-existing economic vulnerabilities, the problems have been made worse by the loss of industrial output, disruptions in commerce, and the depletion of human capital. Furthermore, the presence of systemic corruption and political instability creates serious obstacles to the efficient mobilisation of resources and the execution of changes. Ukraine is at a turning point in its history, with the chance to change its economic structure through calculated foreign investments and alliances. The international world has promised significant support for Ukraine's rehabilitation, acknowledging its geopolitical and humanitarian importance.

This paper seeks to provide a comprehensive analysis of Ukraine's economic recovery process, focusing on the key objectives that drive post-conflict reconstruction efforts. This study intends to offer workable solutions for sustainable growth by assessing the degree of economic harm, identifying significant recovery barriers, and assessing the contribution of foreign assistance. With a focus on green energy, technology, and agricultural innovation, the post-conflict era offers Ukraine a unique chance to modernise its economy and build a strong, inclusive economic base. As a result, this study offers policymakers, investors, and other foreign stakeholders who are dedicated to reviving Ukraine's economy after the war both analytical and prescriptive guidance.

Research Objectives

1. Analyse the Economic Impact of the Conflict.

To assess the extent of economic damage caused by the conflict, including infrastructure destruction, loss of industries, and displacement of human capital.

2. Identify Key Challenges to Economic Recovery

To examine obstacles such as financial constraints, political instability, corruption, and the need for institutional reforms in post-conflict Ukraine.

3. Propose Strategic Opportunities for Sustainable Growth

To identify sectors with high potential for recovery and development, such as green energy, technology, and agriculture, and recommend policies to ensure sustainable economic growth.

Research methodology

In this research, a secondary research methodology has been employed to analyse past and current events and facts. A variety of secondary sources provided the data for this study. Peer-reviewed publications, online papers, and official reports that provided in-depth studies of post-conflict recovery, international aid, policy initiatives, and the social aspects of rebuilding efforts were the sources of qualitative data. Official statistics, datasets from governments and non-governmental organisations (NGOs), as well as international organisations like the United Nations, World Bank, and International Monetary Fund (IMF), were used to collect quantitative data. These statistics helped measure the extent of the damage and the state of Ukraine's economic recovery by offering trade information, economic indicators, and recovery projections.

A variety of techniques were used to analyse the data that was gathered. Key themes, patterns, and trends were identified through qualitative research. These included the economic effects of the conflict on vital industries including infrastructure, energy, and agriculture, as well as the part played by foreign aid and reconstruction investments. In order to evaluate the state of Ukraine's economic recovery and spot patterns in important economic indicators, quantitative analysis included statistical analysis of economic data, including GDP growth, inflation rates, and employment statistics. A comprehensive examination of the various opportunities and problems facing Ukraine's economy was made possible by the combination of qualitative and quantitative methodologies.

Ethical considerations were strictly adhered to throughout the study. All sources used were publicly accessible, and appropriate citation practices were followed to respect intellectual property and maintain research integrity.

INTRODUCTION

The ongoing conflict in Ukraine has wrought devastation on the nation’s economy, presenting a unique challenge for its recovery and long-term development. Years of warfare have left a trail of destruction, from decimated infrastructure and shuttered industries to the displacement of millions of citizens. The conflict has not only strained Ukraine’s financial systems but has also undermined investor confidence, eroded institutional capacity, and disrupted the economic lifeline of its people. As the nation looks toward a post-conflict future, rebuilding the economy is a monumental task that requires addressing a spectrum of interrelated challenges, ranging from immediate humanitarian needs to long-term structural reforms. This research paper delves into the intricate and multifaceted process of rebuilding Ukraine’s economy, exploring both the immediate and strategic interventions necessary to secure sustainable growth.

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This paper seeks to provide a comprehensive analysis of Ukraine's economic recovery process, focusing on the key objectives that drive post-conflict reconstruction efforts. This study intends to offer workable solutions for sustainable growth by assessing the degree of economic harm, identifying significant recovery barriers, and assessing the contribution of foreign assistance. With a focus on green energy, technology, and agricultural innovation, the post-conflict era offers Ukraine a unique chance to modernise its economy and build a strong, inclusive economic base. As a result, this study offers policymakers, investors, and other foreign stakeholders who are dedicated to reviving Ukraine's economy after the war both analytical and prescriptive guidance.

Chapter 1

Analysing the pre war economy of Ukraine

The economy of Ukraine would be characterised as a developing, upper-middle income, mixed economy. During the Soviet era it was deeply integrated into the broader Soviet planned economy, Ukraine was a key republic of the USSR socio-culturally and economically.

However, during this era the Ukraine was largely dependent on Russia, which would go on to cause massive problems for Ukraine in 1991 when they declared independence from the USSR as Ukraine's industries, agriculture, and energy sectors were largely structured to meet the needs of the Soviet system. Ukraine's heavy industries, including manufacturing, coal mining, and steel production, were largely reliant on equipment, technology, and raw materials from other Soviet states. For instance, Ukraine's electricity infrastructure was included into the wider Soviet network, and its industrial facilities depended on Russian resources such as gas, oil, and metal products[1].

Traditionally, Ukraine was an agrarian country—the breadbasket of the Russian empire, but when 1991 struck around the manufacturers and farmers did not have many people to supply to as traditional Russian supply and demand chains had been massively altered by the fall of the soviet system and the struggling Russian economy.

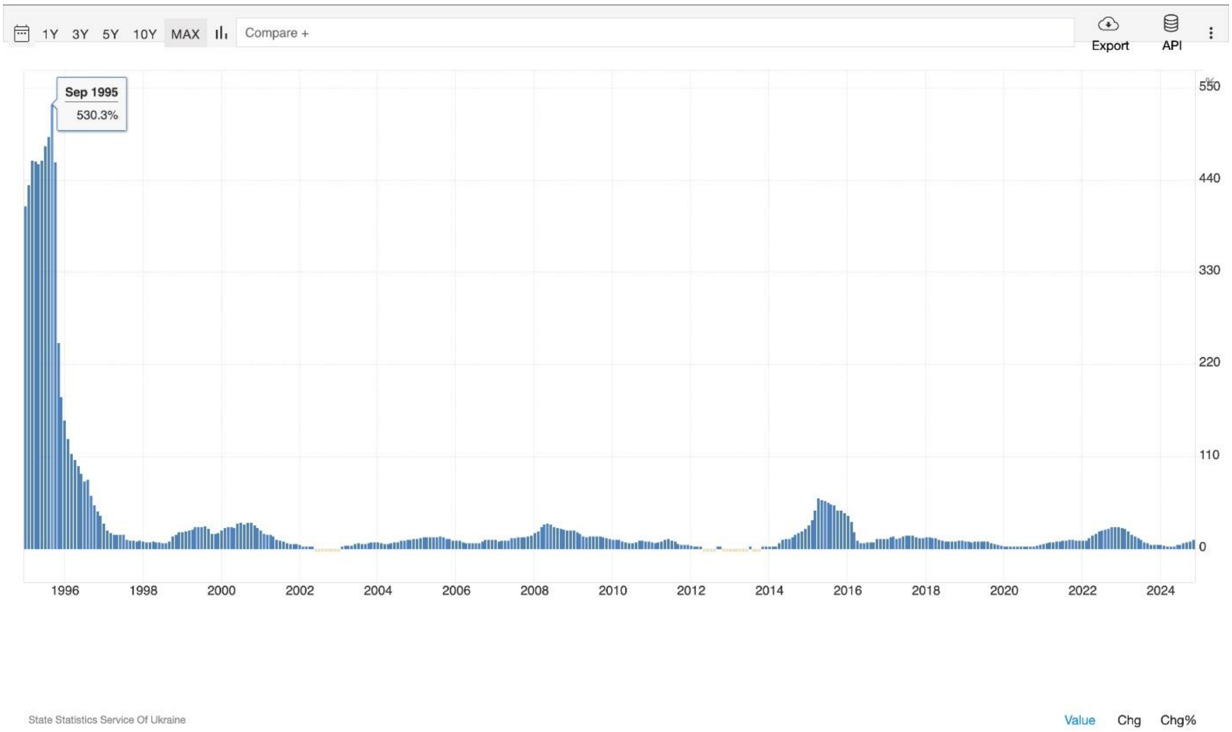
Most of the factories and other industries were run by a central authority ie. The bureaucracy of the USSR, with that gone these systems fell apart[2].

Post 1991 Ukrainian had to effectively start from scratch in most large industrial sectors, to do that the biggest hurdle was to set up proper financial infrastructure and a decent private banking system which Ukraine did not have post the fall of the USSR Source:

from State Statistics Services of Ukraine

[1] https://carnegieendowment.org/research/2012/03/the-underachiever-ukraines-economy-since-1991?lang=en

[2] https://www.scirp.org/journal/paperinformation?paperid=125317#:~:text=After%20the%20disintegration%20of%20the,for%20reconstruction%20and%20economic%20recovery.



Data set of inflation rate expressed in percentage.

Ukraine in the 1990s due to a lack of access to financial markets and a significant monetary expansion to fund government spending, Ukraine experienced hyperinflation in the early 1990s.

However, Ukraine stabilised by the early 2000s, The year 2000 saw the first year of economic growth since Ukraine's independence.

From 2000 to 2007, Ukraine experienced average annual GDP growth rates of around 7%[3], driven by structural reforms, improved global economic conditions, and increasing foreign trade. This period marked Ukraine’s transition from economic stagnation to moderate recovery.

The war’s impact on the economy of Ukraine

Sector-wise breakdown:

Agriculture

Ukraine is one of the world's largest agricultural producers and exporters and is known as the breadbasket of Europe.

The agriculture sector contributes to around 12.5% of Ukraine’s GDP.

Agriculture accounted for $13.98 billion of value added to the economy of Ukraine in 2012 [4],With profit margins ranging from 40 to 60%, Ukraine's agriculture sector was extremely profitable at the start of the twenty-first century[5].

The first hit this sector took was in 2014 with the “first Russian Invasion”, when Russia invaded and exerted its political influence in parts of eastern Ukraine after the Revolution of Dignity

In February 2014 Russia annexed Crimea and in April 2014 Russia started armed conflicts in eastern Ukraine with the help of separatists backed by the Kremlin and ‘volunteer’ militants.

[3] https://www.macrotrends.net/global-metrics/countries/UKR/ukraine/economic-growth-rate

[4] https://www.nationmaster.com/country-info/profiles/Ukraine/Agriculture/All-stats

[5] https://web.archive.org/web/20110225200726/http://www.blackseagrain.net/about-ukragroconsult/news-temp/vessels-loaded-with-grain-began-leaving-ukrainian-ports-1

In 2014, Ukraine's total grain crop was estimated to be at around 64 million metric tons however due to the conflicts in its eastern zones the actual available grain was closer to 60 million metric tons in that year. Since the 2022 invasion by Russia, one of Russia's main military targets of aggression has been Ukrainian agriculture. The amount of agricultural land under Ukrainian control has decreased from 32.7 million hectares to an estimated 26.5 million hectares[6]. The sector employed 14 percent of the labor force, and accounted for 41 percent of total exports[7], To stop grain shipments, Russia has blockaded or captured important Ukrainian Black Sea ports in addition to taking some of Ukraine's most productive land.
As of December 2023 Ukrainian agriculture had sustained US $80 billion in damages and losses, 15% of agricultural capital stock was already damaged within the first three months of the war.
The grain and oilseed production in 2022 fell to 73 million tons, a decrease of 30% compared to the FY 2021 [8]. The lower agricultural production, coupled with rising prices of inputs (particularly fertilisers and diesel), significantly reduced farm incomes. Agricultural exports, which were mostly dependent on Black Sea ports, saw a precipitous decline as a result of the blockade of the Black Sea in the early months of the war.
To add to this, on June 6, 2023, Russia deliberate destruction of the Kakhovka Dam, causing 620 km² of land to flood catastrophically and resulting in significant economic, environmental, and humanitarian losses. According to the joint Ukraine-United Nations Post Disaster Needs Assessment study, the demolition of the dam directly caused agricultural losses and damages of US$406.6 million, mostly as a result of irrigation disruption. Up to 800,000 hectares of irrigation in one of Ukraine's most fertile and sunny regions were supplied by the Kakhovka Dam before to its demolition; over 300,000 of these would now be dependent on unpredictable rain-fed irrigation, which might result in productivity losses of up to 70%. It also caused a threefold increase in damage to the fishery and aquaculture industries

Damage and loss assessment

According to the World Bank Third Rapid Damage and Needs Assessment Report 2023 the damage and losses suffered by Ukrainian agriculture are estimated to amount to US $80.1 billion Damages include stolen, destroyed or damaged assets, totalling US$10.3 billion, with agricultural machinery representing 56.7 % of the value lost. An estimated 18,000 pieces of agricultural equipment have been damaged or destroyed, and 2.8 million tonnes of grain, 1.2 million tonnes of oilseeds, 124,000 tonnes of fertiliser and 11.6 million litres of fuel are considered either lost or stolen. Storage facilities are also a recurring target of Russian attacks. KSE estimates Ukraine has lost nearly 20 % of its storage capacity, not including facilities in the occupied territories
According to KRE’s report on Agricultural War Damages, Losses, and Needs Review administered by the World Bank the estimated breakdown of the damages of the war on agriculture are:

a) Damaged/Stolen inputs and outputs: $1.97 billion
b) Damages to storage facilities: $1.8 billion
c) Damages to perennial crop plantations: $398 million
d) Damages to livestock: $254 million
e) Damages to aquaculture and fishery: $35 million
f) Agricultural machinery: $5.8 billion in damages

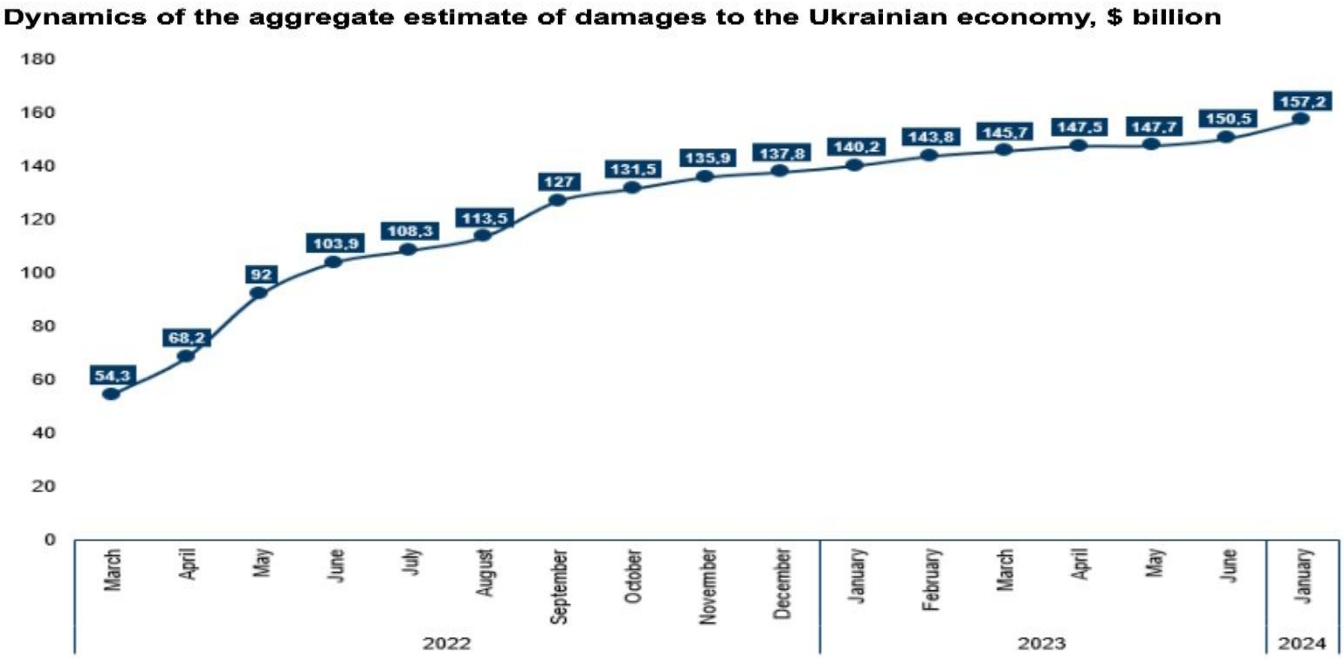
[6] https://www.europarl.europa.eu/RegData/etudes/BRIE/2024/760432/EPRS_BRI(2024)760432_EN.pdf
[7] Data from State Statistics Service of Ukraine, State Employment Center.
[8] https://fas.usda.gov/sites/default/files/2022-04/Ukraine-Factsheet-April2022.pdf

g) Losses due to lower production, annual crops: $34.3 billion
h) Losses due to lower production, livestock: $5.6 billion
i) Losses resulting from lower domestic prices due to export disruptions: $24.1 billion
j) Losses due to the increase in production costs: $4.4 billion[9].

According to the KSE, the reconstruction and recovery requirements for Ukrainian agriculture will come to US$56.1 billion. The anticipated US$32 billion cost of demining and removing unexploded devices is not included in these figures. In order to replace the lost assets required to restart industry, the reconstruction cost is estimated to be US$9.4 billion. In order to restore agricultural output to pre-war levels, recovery expenses are projected to total US$46.7 billion over a ten-year period[10]. These actions include bolstering public agricultural institutions, providing financial assistance to small producers, and encouraging more resilient and sustainable agriculture with greater added value.

Infrastructure sectors

Since the beginning of the full-scale Russian military invasion, the total amount of **damages** to residential and non-residential real estate and other infrastructure has amounted to more than **$157 billion** (at replacement cost).



Source: Kyiv School of Economics

The greater part of the damages, 37.5% or $58.9 billion, were to residential buildings, while 23.4% or $36.8 billion were to infrastructure. At least $13.1 billion worth of manufacturing, construction, and service assets were damaged, and the sum is still growing. Damages from the full-scale conflict in the agricultural sector amounted to an additional $10.3 billion. Damages to the energy sector, which already total $9.0 billion, are also increasing dramatically.

[9] Ministry of Agrarian Policy and Food of Ukraine, Effect of war on the profitability of agribusiness, https://minagro.gov.ua/storage/app/sites/1/uploaded-files/viyni-napributkovist-silskogospodarskogo-virobnitstvavipusk-2.pdf

[10] https://www.cesifo.org/en/publications/2023/article-journal/rebuilding-ukraine-agricultural-perspective

About $13.7 billion was lost or damaged as a result of the destruction of public sector infrastructures, including administrative buildings, cultural facilities, sports facilities, educational, scientific, and healthcare facilities, and social amenities and institutions.

Total estimate of infrastructure damages as of January 2024

Property type	Assessment of damages, $ billion	Share of damages by property type, % of total sum
Residential buildings	58.9	37.5%
Infrastructure	36.8	23.4%
Assets of enterprises, industry	13.1	8.3%
Agriculture and land resources	10.3	6.5%
Energy sector	9.0	5.7%
Education	6.8	4.3%
Forest fund	4.5	2.9%
Communal services and utilities	4.5	2.9%
Transport vehicles	3.1	2.0%
Healthcare	3.1	2.0%
Culture, tourism, sports	3.1	2.0%
Trade	2.6	1.6%
Administrative buildings	0.5	0.3%
Digital infrastructure	0.5	0.3%
Social sector	0.2	0.1%
Financial sector	0.04	0.01%
Total	**157,2**	**100%**

Source: Kyiv School of Economics

Housing in cities and towns, particularly those close to the front line, is severely destroyed as a result of Russia's active shelling of cities with rockets and artillery. The wars in the Russian Federation have caused damage or destruction to over 50% of the housing stock in many cities and towns as of January 2024.

According to preliminary data from the regional military administrations, as of January 2024, the total number of destroyed or damaged housing facilities is **about 250 thousand buildings**, of which 222.6 thousand are private (individual) buildings, 27 thousand are multi-storey buildings, 0.53 thousand are dormitories.

88.9 million square meters, or 8.6% of Ukraine's entire housing stock, are made up of facilities that have been damaged or destroyed by shelling. Based on initial estimates, **16.9 thousand residential buildings** totalling 15.6 million square meters suffered partial damage (less than 10% destruction); 84.5 thousand residential buildings totalling 48.12 million square meters suffered moderate damage (more than 10% or less than 40% destruction); and 65.8 thousand residential buildings totalling 25.24 million square meters suffered complete destruction (more than 40% destruction)[11].

According to the **Third Rapid Damage Assessment Report by The World Bank**, The largest share of damage is in the **power sector**:

US$7.5 billion (versus US$6.5 billion in RDNA2). Within the power sector, the largest contributor to damage is the generation segment at US$4.9 billion (versus US$3.9 billion in RDNA2), followed by the transmission segment (US$2.15 billion versus about US$1.9 billion in RDNA2). Damage to the power

[11] https://kse.ua/wp-content/uploads/2024/05/Eng_01.01.24_Damages_Report.pdf

distribution sector is estimated at about US$430 million (versus about US$404 million in RDNA2), though this does not include assets in territories temporarily not under GoU control. Estimates of damage to the gas sector are at US$1.3 billion (versus US$1.2 billion estimated in RDNA2). Damage to the oil sector, including oil refinery facilities, fuel depots, and fuel stations, is estimated at around US$1.7 billion (the same level as for RDNA2). Damage to the coal and mining sector could not be newly estimated because there is a lack of information from the mines located in territories temporarily not under GoU control; RDNA1 figures are used for this sector.

Estimated war-related revenue losses in the power, gas production, gas transit, coal mining, and fuel oil sectors exceed US$54 billion[12]

Among the high-profile destructions are the significant damage to the Antonivsky Bridge in Kherson, which is a vital entry point to southern Ukraine. To stop advancing forces from crossing, several smaller bridges over rivers in eastern Ukraine, like the Seversky Donets, have been demolished.

In terms of the quantity of infrastructural facilities lost, damaged, and destroyed during the conflict, the education sector is among the most severely impacted. The war caused damage to over 3,800 educational establishments overall. Damages to educational institutions amounted to $6.8 billion [13].

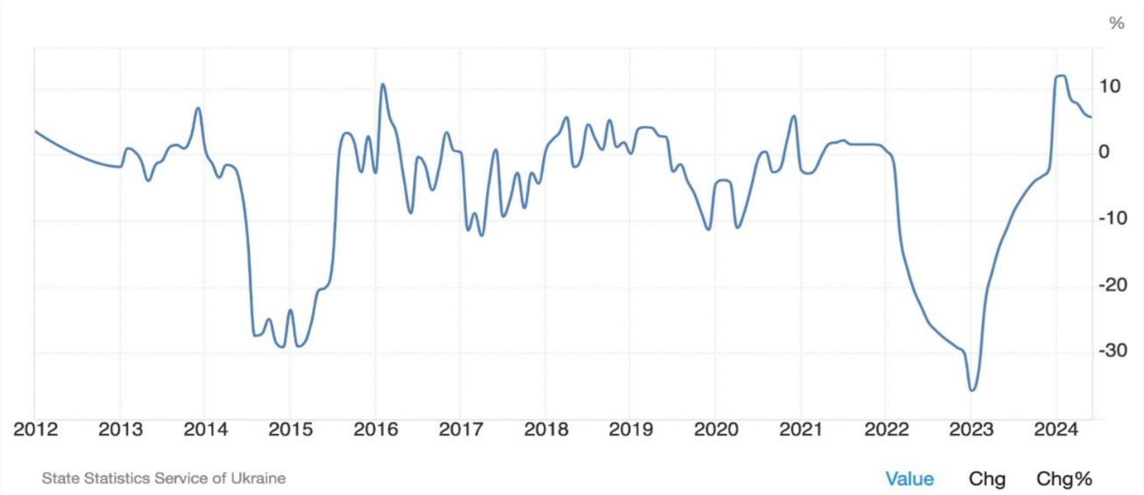
As of January 2024, direct damage to the Ukrainian energy infrastructure was estimated at $9.0 billion

Industry, business services and construction

The Total damage to the commerce and industry facilities between February 2022 and December 31, 2023, is estimated at US$15.6 billion , a 43 percent increase above the estimate of US$10.9 billion reported in RDNA2 as of February 24, 2023 14.

According to pre war estimates Given the scope and magnitude of its mineral deposits, Ukraine is among the most significant mineral-producing nations in the world. Almost 8,000 distinct deposits exist.

Coal reserves in Ukraine amount to 47.1 billion tons. The annual domestic demand for coal as fuel is about 100 million tons, of which 85 per cent can be satisfied by domestic production. However after the start of the war most of the eastern mining lands are either under the occupation of Russian forces or are in active war zones thus inaccessible to be exploited.



[12] https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099021324115085807/p1801741bea12c012189ca16d95d8c2556a
[13] https://kse.ua/wp-content/uploads/2024/05/Eng_01.01.24_Damages_Report.pdf
[14] Data for damage and losses were primarily provided by the Kyiv School of Economics

As we can see in the table above there was a massive drop in mining activity in Ukraine however in rapidly increased by the end of 2023 due to the conscious efforts by the government to meet requirements for the war effort

According to the report on the third rapid damage assessment by The World Bank, about half of the damage (56.0 percent) occurred to large and medium-size enterprises, both public and private (US$8.8 billion). Roughly half of the damage estimate for those firms (US$4.2 billion) was due to the destruction of two steel plants in Donetska oblast, the Azov Steel Plant and the Ilyich Iron and Steel Works in Mariupol. According to a recent survey,[231] 21 percent of firms in commerce and industry have reported war-related damage, and there has been an average 53 percent drop in sales across firms of all sizes. Almost half of firms in eastern Ukraine and slightly less than a third in southern Ukraine reported war damage; these firms also experienced the largest drop in sales (70 percent in the east and 63 percent in the south). By contrast, the west saw only a 39 percent drop. The largest shares of damage were reported in Donetska, Kharkivska, and Kyivska oblasts, where there is military activity and a high concentration of manufacturing firms.

Since the full-scale battle began, tens of thousands of tiny private businesses, state-owned businesses, and at least 426 large and medium-sized private businesses have all been damaged or destroyed. Since not all businesses, particularly those in the temporarily occupied territory, are reported, the actual number is probably greater.

Here there are two categories of enterprises. The first were those that were accidentally destroyed or "along" with the shelling of villages and military installations. During targeted strategic missile strikes, the second was purposefully destroyed. These are mostly military and dual-use production facilities, in addition to the transportation and energy infrastructure facilities discussed in the pertinent sections. The second group is dispersed equally over Ukraine, in contrast to the first group, which is concentrated in the frontline areas.

Damages include:

- Damage of fixed assets (the original valuation is used since it is not possible to purchase an asset at its carrying amount in most cases);
- Damage of capital investments in progress;
- Damage to inventories of finished goods and intermediate materials (in most cases, the inventories were located close to the main production facilities).

According to the Report on damages to infrastructure by Kyiv School of Economics in May 2024 The main conclusions regarding the damage enterprises are as follows:

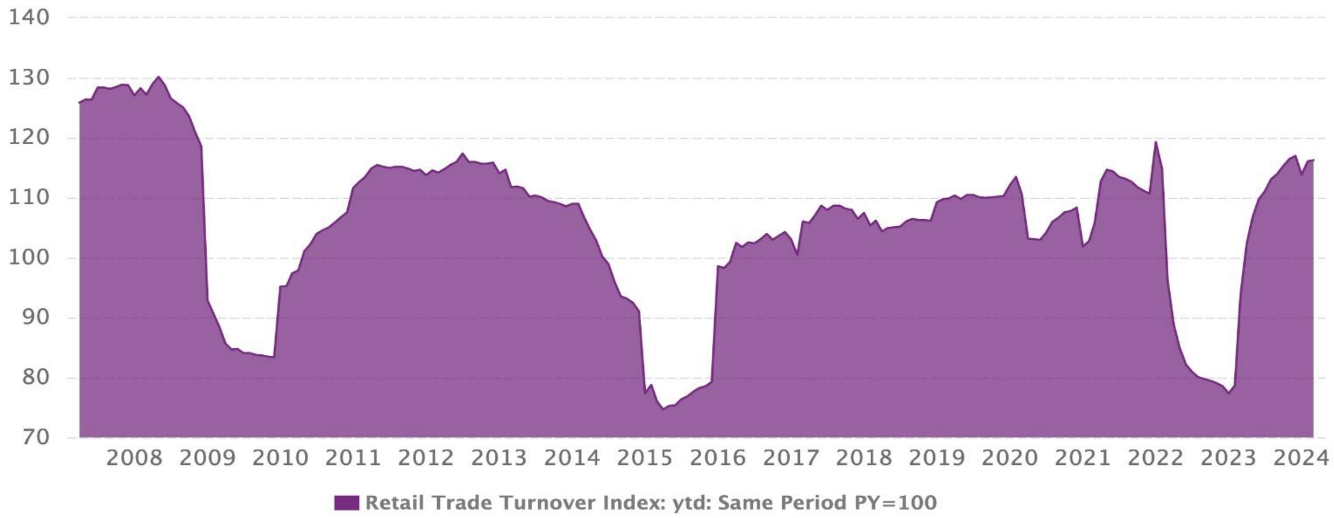
- Business assets are the third largest item of infrastructure damage. It accounts for almost 8.4% of total damages.
- In terms of industries, metallurgy suffered the most. In particular, two of the largest enterprises on the list of damaged/destroyed were destroyed — Azovstal and Illich Iron and Steel Works (both in Mariupol, see the list in Annex 6).
- In terms of regions, the Donetsk region suffered the most, accounting for almost half of the total damages incurred by the enterprises. Significant damage was also caused in the Kharkiv, Luhansk, and Kyiv regions.

After assessing the damage to retailers by analysing data and reports from The Ukrainian Council of Shopping Centers, the total loss suffered in just the first 4 months of the war amounts to around 9.8 billion

US dollars. Direct losses of shopping centres, calculated as the replacement cost, amount to 402 million dollars. Just in the beginning of November 2022, 29 shopping centres in Ukraine suffered significant damage. The largest share is in the East, where 14 shopping centres were damaged for $290 million. Shopping centres (6) in Kyiv and the region suffered $68 million in damage. In the South, the losses amounted to approximately 32 million (7 shopping centres)[15].

The retail sectors indirect losses are anticipated to be $22.6 billion. The population's declining purchasing power, store destruction, and emigration all contribute to the decline in retail turnover.

According to the Kyiv School of Economics the retail sector would need a cash injection of 3.9 billion dollars to reconstruct.



Source: State Statistic Series of Ukraine

As we can see however there has been a recovery since late 2023 when due to government efforts, foreign aid and the panic of the war dimming there is a sharp recovery to per war levels.

Foxtrot and Comfy, two major retail chains in Ukraine, have suffered the most in this case. Thus, 11 stores totalling 15,000 square meters were damaged in Foxtrot. The Comfy chain has 10,730 square meters and 12 stores that are damaged. The two players also lost a significant amount of money due to merchandise in warehouses: UAH 70 million (Comfy) and UAH 542 million (Foxtrot).

Collectively, the remaining retail sectors had a 63% decrease in turnover. In the non-food retail market, EVA and Aurora chains attract notice, having a vast network (1119 outlets and 863, respectively) and thus experienced considerable damage to 162 and 124 stores, respectively. EVA turnover, for instance, decreased by just 10% due to the rise in demand for necessities. Aurora is 25% less

Energy sector

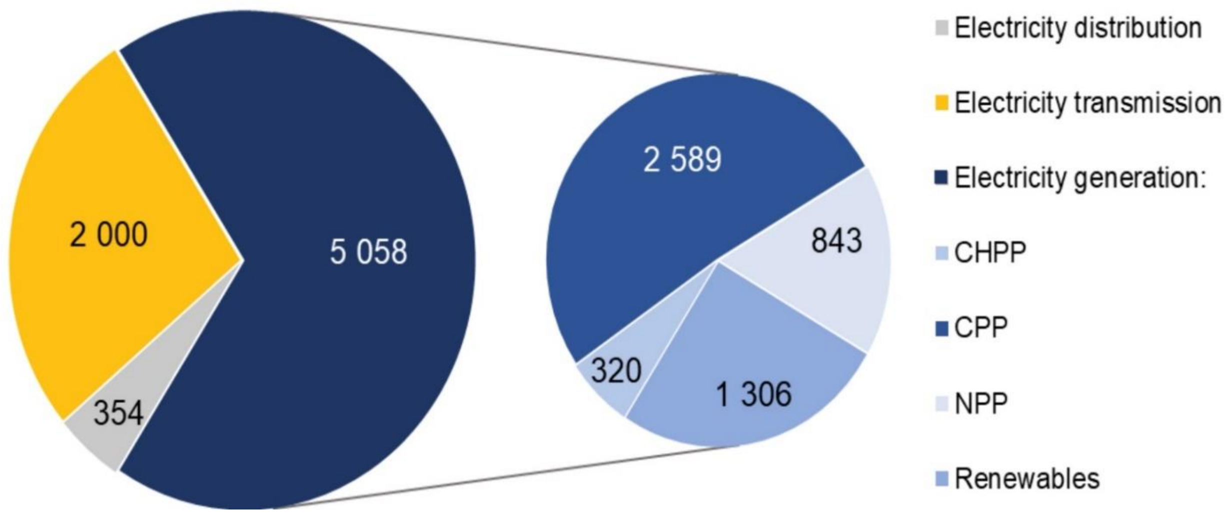
According to the Kyiv School of Economics Ukraine Infrastructure Damage Report 2024, as of January 2024, direct damage to the Ukrainian energy infrastructure was estimated at US $9.0 billion.

The electricity generation and transmission sector has suffered the most from Russian aggression in the energy sector. Large-scale, targeted attacks against infrastructure that supports the generation, transmission, and distribution of electricity are still being carried out by the Russian Federation. Over $7.4

[15] https://www.ucsc.org.ua/ukrainian-retail-real-estate-market-in-2022-the-impact-of-war/

billion is the initial estimate of the entire damage to these installations. Since the start of the full-scale invasion, all coal-fired power plants (CPPs), hydroelectric power plants (HPPs), and 13 combined heat and power plants (CHPPs) that are under Ukrainian control have been impacted, according to public statements made by the Prime Minister of Ukraine, the Ministry of Infrastructure, and the Ministry of Community and Territorial Development (now the Ministry of Reconstruction).

Direct infrastructure damage to electricity facilities, $ million



Source: Kyiv School of Economics based on data from the Ministry of Energy of Ukraine, energy companies, open data

Overall, the Project team estimates the damages to thermal power generation at $2.6 billion for TPSs and $333 million for CHPPs. Damages to hydroelectric power plants and pumped storage power plants (PSPPs) are currently estimated at $1.1 billion [16].

The Kakhovka dam, including the hydroelectric power facility, was blown up and totally destroyed by the Russian Federation in early June. Its destruction was estimated to have cost $586 million in damages. A new hydroelectric power plant with the same capacity would cost roughly $1 billion to build.

Furthermore, the Russian military still occupies Zaporizhzhia NPP, the largest nuclear power plant in Europe (its capacity accounted for over 10% of the Ukrainian power system's total capacity prior to the Russian full-scale invasion), which is still partially controlled by SE NNEC Energoatom. Electricity is not supplied by the occupied nuclear power station; instead, it gets its internal needs from the Ukrainian power system and, in an emergency, from diesel generators.

Finance and Banking

The Ukrainian financial sector has been significantly impacted by the war. As of 2023 the Third Rapid Damage and Needs Assessment Report December 2023 by the World Bank states that The losses in the banking sector are estimated to be US $5.7 billion, Credit losses were estimated at 25 percent of the prewar net loan portfolio, which is the midpoint of the upper and lower range estimates outlined in NBU’s Financial Stability Report (FSR) for the second half of 2022. The estimate was lowered by 5 percentage

[16] https://kse.ua/wp-content/uploads/2024/05/Eng_01.01.24_Damages_Report.pdf

points compared to RDNA2 based on the results of NBU's 2023 resilience assessment, which showed that most banks adequately assessed potential credit losses and provisioned accordingly.
At the same time, additional provisions may be needed as regulatory forbearance measures are phased out and (once conditions allow) the independent asset quality review (AQR) is conducted. About 40 percent of credit losses are attributed to SOBs, and 45 percent of losses are attributed to the Kyiv city region, a third of credit losses were caused by direct destruction of borrowers 'assets.
Total recovery and reconstruction needs (US$ million) as of December 31, 2023

Category	Types of activities/investments	Total needs (2024–2033)
Reconstruction needs	Stated-owned banks	15.6
	Private banks (domestic and foreign banks)	12.4
Service delivery restoration needs	Stated-owned banks	825.5
	Private banks (domestic and foreign banks)	1,427.2
Total		**2,280.8**

Source: World Bank assessment team[17]
In conflict zones, especially in eastern and southern Ukraine, many bank branches have been closed, destroyed, or rendered inoperable.
The war triggered a "run on banks" in the early stages, with individuals and businesses withdrawing large sums of money due to fear of financial instability. This has placed immense pressure on the liquidity of banks. In the first few months of the war an immense about of capital Feld the courtyard as the wealthy class transferred there money and other financial assets out of the country.

Primary roadblock to progress
Corruption
The Ukrainian economy has suffered greatly as a result of corruption, which has hampered growth, deterred investment, and weakened public confidence in institutions.
Since the fall of the Soviet Union in 1991, corruption has been a major problem in Ukrainian society. Following its declaration of independence from the Soviet Union, Ukraine was confronted by a range of politicians from various political parties, as well as oligarchs and crime leaders who consolidated their control through the corruption of the police, political parties, and business. Despite improvements, corruption remains an obstacle to joining the European Union
bribes are given to ensure that public services are delivered either in time or at all and are a daily part of business in Ukraine
A 2008 sociological survey by Management Systems International (MSI) revealed that the highest levels of corruption were in the following areas: higher education (44%), the courts (49%), the police (54%), health services (54%), and vehicle inspection (58%). Viktor Yanukovych, the president of Ukraine, claimed in 2011 that corruption cost the state budget US$2.5 billion in income per year and that 10% to 15% (US$7.4 billion) of the state budget ended up "in the pockets of officials" as a result of corrupt practices in public procurement.

17 https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099021324115085807/p1801741bea12c012189ca16d95d8c2556a

In a 2006 report, the United States Agency for International Development (USAID) stated that the primary reasons of corruption in Ukraine were a weak civil society, business-political linkages to Russia, an overbearing, opaque government, and a compromised legal system.

Fund Misappropriation: Because of corruption in government agencies, large sums of public funds have been diverted for private gain rather than being utilised for infrastructure, healthcare, and education.

Procurement Fraud: State finances have been depleted by inflated contracts, kickbacks, and favouritism in public procurement procedures, which has decreased the efficiency of government expenditure. In the 2000s during privatisation many United States diplomats claimed the privatisation of several Ukrainian state enterprises was rigged in favour of political friends[18].

Corruption in the Energy Industry: The energy industry, which includes the distribution of gas and electricity, has been a significant source of corruption due to dishonest business practices, exorbitant prices, and theft that denies the government vital funds.

Judicial corruption: The Ukrainian legal system was characterised as "rotten to the core" by Ukrainian politicians and analysts in the early 2010s, who also bemoaned corruption and political pressure on judges. Human rights advocates and independent attorneys said that Ukrainian judges were frequently pressured to render a particular decision. Many people believed that Ukraine's judicial system was dishonest. According to a 2009 survey conducted by the Ukrainian Justice Ministry, just 10% of participants had faith in the country's legal system. Fewer than 30% thought that a fair trial was still achievable thus creating an unfavourable business environment for recants and foreign companies.

In the early 2010s the representative of one United Kingdom-based company claimed non-Ukrainian companies often lost contracts if they did not pay bribes or failed to "out-bribe" their competitors.Ukrainians and business representatives claimed that "Business ventures above a certain level require palm-greasing of some functionary at some level"[19]. Thus corruption has fostered a large shadow economy, with businesses and individuals avoiding taxes through bribery or informal agreements with corrupt officials. This deprives the government of crucial revenues needed for economic development.

in 2021, Ukraine was ranked the second-most corrupt country in the world[20]

Lack of foreign investment

The 2014 protests and revolution and Russian involvement in the country since have dithered investors from entering the Ukrainian market, Ukraine’s political framework has historically been marked by weak institutions susceptible to influence from oligarchs and vested interests. This environment limits transparency and predictability, two key factors investors seek.

A number of systemic issues, such as corruption and a weak legal structure, made it difficult for Ukraine to draw in foreign direct investment (FDI), especially impact investments, even before to the 2022 invasion. Comparing Ukraine to other Eastern European countries, the combined impact of long-standing problems and recent geopolitical tensions has kept it less appealing to foreign investment. Impact investing remains a very minor market in Ukraine. Just 1,000 social impact-generating businesses were active in Ukraine as of 2020.

Ukraine's economy suffered considerably after Russia's full-scale invasion, which stopped foreign direct investment and slowed the market for mergers and acquisitions, resulting in the cancellation of the

[18] https://interfax.com.ua/eng/main/12031/
[19] https://www.kyivpost.com/post/10208
[20]ttps://www.csis.org/blogs/development-dispatch/road-recovery-ukraines-economic-challenges-and-opportunities

majority of 2021 transactions. The exception was the IT industry, which grew in 2022 because of its connections to headquarters in the US and Europe as well as its possibility for relocation. However, all industries, including IT, were squeezed by the migration of competent, working-age Ukrainians. Important sectors like as mining, metallurgy, construction, logistics, retail, agriculture, and processing became less attractive to investors. Limited availability of reasonably priced loans, a lack of equity investments, and a lack of financial knowledge among SME owners all contributed to the economic difficulties.
The Investment potential in Ukraine is significant because of its large consumer market, highly competitive workforce, strategic geographical location, and abundant natural resources Despite the ongoing war, some notable private investments took place from 2022 to 2024, including Unilever's €20 million factory, ArcelorMittal's €40 million manufacturing facility, Kingspan's $280 million project, and Nestl'és $42 million production plant funded by a European Bank for Reconstruction and Development (EBRD) loan.

Despite obstacles, several investors are interested in making investments in Ukraine:
Absence of Bankable Projects: Despite the ability of Project Preparation Facilities (PPFs) to encourage investment, the lack of projects that satisfy investor criteria severely impedes investment, halting advancement and economic recovery.
Legal Barriers: Investors are reluctant to contribute money to Ukrainian projects due to the lack of a strong legal framework for impact investing, which raises risk and uncertainty. It is imperative to provide unambiguous legal norms and protections.
Absence of Financial Instruments: The lack of financial tools, such as blended financing and specialized war insurance, discourages the inflow of funds required for reconstruction, underscoring the necessity of all-encompassing solutions.
Risk Aversion: financial institutions (IFIs) are too risk averse to encourage investment in a war economy, requiring new strategies to lower the cost of risk and secure private investment.

Way Forward
The End of the war can god three ways, first Russian victory where Russia captures Kyiv or most likely a significant amount of territory thus strong arming the establishment into a settlement which would be very favourable for Russia, where the political system in Kyiv is a puppet of Russia and Russia and china funds the recovery process, which as of the end of 2024 seems very unlikely. The second possible end is a 'Ukrainian victory' where the Ukrainian army captures few kilometres of Russian border territory takes back eastern Ukraine and the Donetsk People's Republic, Luhansk People's Republic and Crimea, Ukraine joins NATO. Thirdly, a settlement where the Donetsk People's Republic and Luhansk People's Republic are under Russian control and Ukraine does not join NATO.
Eitherways the already faulty, corrupt and battered economy of Ukraine will need serious help and strong economic planning to help it get onto its feet.
Ukraine had lost 30% of its GDP in one year within the invasion This is however not the first recession that the country has encountered as it previously faced a recession in 2014-15 as a result of the conflict in Donbass, Ukraine then again faced a recession in 2020 due to the COVID-19 pandemic. This feline is further exacerbating the situation is the large-scale emigration of people from Ukraine due to the war. Following the invasion, around six million Ukrainians were compelled to leave to other European nations, and almost 25% of those who did so are still unsure if they would return once the war is over.

Approximately 4.7 million people have applied for temporary protection status, and 77 percent of them have stated that they intend to return; however, the rate of economic recovery will determine when they do so. After the war is over, Ukraine will still have a scarcity of people, particularly skilled ones, even in the best-case scenario.

Yet there is still hope as the Ukrainian economy has demonstrated to be just as resilient as its people. Despite the continued fighting, the country's economy has started to stabilise. A large reason for this positive development is the government's policy to reduce income taxes as well as VATs on imports and taxes on fuels, slowing down inflation and supporting Ukrainian businesses while active fighting continued.

The Ukrainian government has been able to help resolve some bureaucratic issues and reduce corruption by digitising major services in the country. The government should be financially in charge of receiving and utilising funds solely for postwar development under the framework Kyiv should establish.

Ukraine still struggles with the Soviet heritage that permeates most of its sectors, rebuilding the country also entails modernising it. Due to outdated technology, high energy intensity, and a lack of funding for their development, the majority of Ukraine's significant businesses or sectors that have suffered from the war have lost their competitiveness, further exacerbating the difficulties in modernisation and reconstruction. Therefore, both modernisation and reconstruction will be necessary for Ukraine's economic revival. The steel sector in Ukraine, which lost two of its largest mills in Mariupol, is one example of this. Ukrainian enterprises would need to invest $6.6 billion to implement the modernisation of this industry.

Furthermore, it would take time for Ukrainian businesses to adopt the long-standing technologies in the EU. Generally speaking, Ukraine's modernisation would start the country's re-industrialisation and enable greater economic growth in addition to repairing and enabling enterprises to reach contemporary standards, which would increase their competitiveness in international markets.

Recovery is expected to take at least a decade, if not more, and the total cost is estimated to be between $411 billion and $1.1 billion[21]. This number is larger than the Marshall Plan, which helped rebuild multiple European nations after World War II. Despite the cost of postwar recovery (both financially and in time), there is some hope for the rapid development of Ukraine's economy. Several countries have also considered using frozen Russian assets to cover losses from the aggression. The EU has frozen more than $300 billion in assets belonging to the Central Bank of Russia and $30 billion connected to oligarchs with close ties to Vladimir Putin. Efficient use of these funds would help compensate for Ukraine's losses and help restructure the Ukrainian economy after the war.

Foreign aid

Since the start of Russia's war of aggression, the EU and its Member States and the European financial institutions, in a Team Europe approach, are making available almost €124 billion in financial, humanitarian, emergency, budget and military support:

- €60 billion to support its overall economic, social and financial resilience.
- €45.5 billion in military assistance
- up to €17 billion made available to Member States to cater for the needs of people fleeing the war

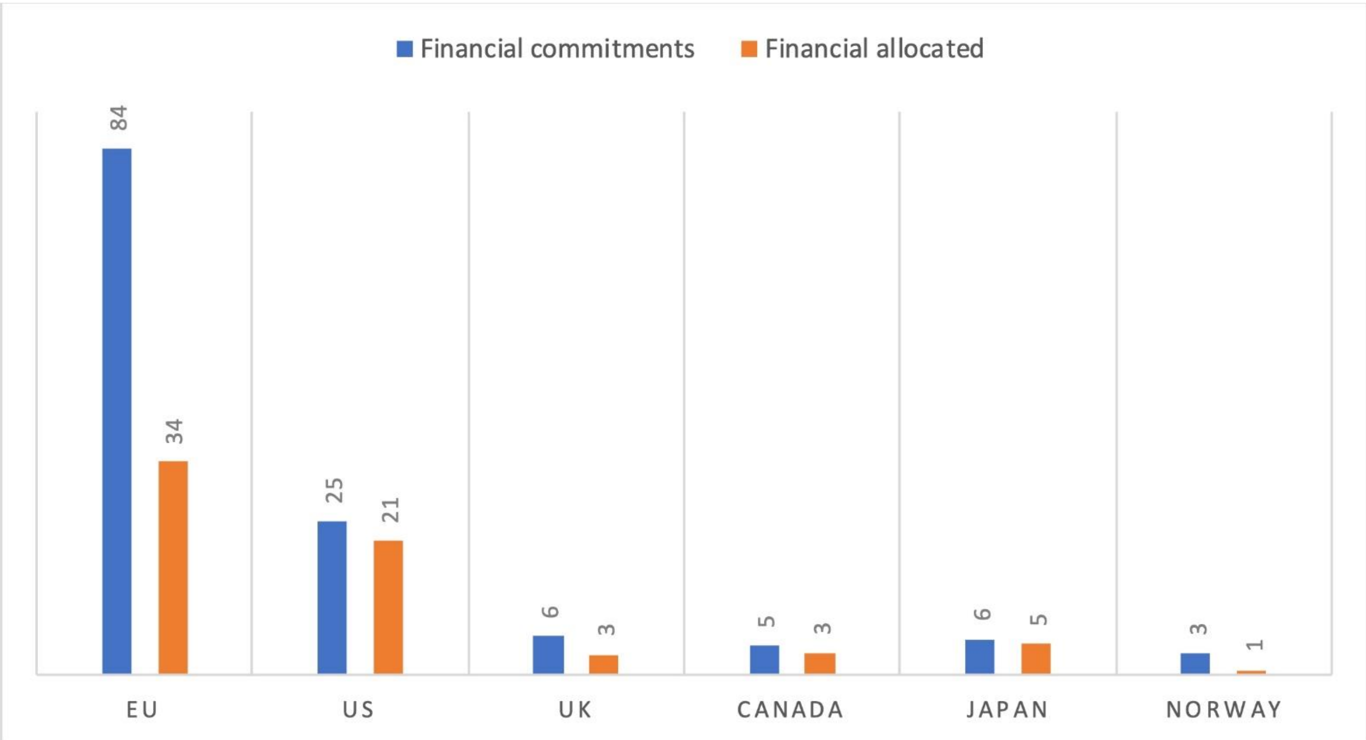
[21]ttps://www.csis.org/blogs/development-dispatch/road-recovery-ukraines-economic-challenges-and-opportunities

- €1.5 billion from the proceeds of Russian immobilised assets[22].

In December 2022, G7 leaders agreed to set up the Multi-Donor Coordination Platform for Ukraine. This brings together Ukraine, the EU, the G7 countries and international financial institutions to coordinate support for Ukraine's immediate and long-term recovery and reconstruction. The Platform is governed by a Steering Committee on a consensus basis and is co-chaired by senior officials from the US, the EU and Ukraine. The Platform and its Steering Committee is supported by a Secretariat hosted by the European Commission in Brussels and the GoU in Kyiv. The Platform launched in January 2023 with the goal to mitigate overlap and maximise the impact of every financial contribution that Ukraine receives from its donors and international partners. Thus far, international support has mainly addressed Ukraine's immediate short term needs for recovery but the Platform is expected to take a more proactive and strategic approach, not only for Ukraine's immediate recovery but also for laying the groundwork for its long-term reconstruction.

According to the Ukraine Support Tracker from the Kiel Institute for the World Economy (April 2024 edition), the EU provides the most financial support to Ukraine, having committed EUR 84 billion. This includes the Ukraine Facility, established to streamline the EU's financial support for Ukraine's recovery alongside its European integration.

Committed and allocated financial Support to Ukraine, by the end of February 2024, in billion EUR.



Source: https://www.ifw-kiel.de/topics/war-against-ukraine/ukraine-support-tracker/

An additional avenue for potential funding arises from the Russian Central Bank's (RCB) frozen international reserves in the G7 countries and the EU, estimated to be approximately USD 300 billion

[22] https://commission.europa.eu/topics/eu-solidarity-ukraine/eu-assistance-ukraine/recovery-and-reconstruction-ukraine_en#:~:text=At%20the%20Ukraine%20Recovery%20Conference%202023%20in%20London%2C%20the%20European,investment%20for%20the%20recovery%20and

(around EUR 280.5 billion). There are, however, legal complications over confiscating the RCB's assets arising from the principle of immunity under international law, namely immunity from jurisdiction and immunity from enforcement. There are some exceptions, however, as explained in a recent study which concludes that the most legally feasible options for confiscating assets should be either (i) giving RCB assets as a loan to Ukraine, which should be repayable in principle if and when Russia complies with its obligation to pay full reparations; or (ii) RCB assets could be confiscated based on an exception to immunity for enforcing international judgments that demand damages to be paid.

According to different estimates, between one-sixth and one-third of Ukraine's reconstruction needs could be financed by the private sector. This implies that up to EUR 150 billion (one-third of the needs estimated by the RDNA3) should come from private finance. The GOU estimated that USD 292 billion (around EUR 273 billion) in investments is needed over the next decade to achieve its strategic goals.

Up to 80 % of expected FDI and other private investments may need to be secured through insurance. However, for war-related insurance, it's difficult to estimate the costs of losses and insurance premiums are likely to be very high. This could further limit potential projects, particularly affecting capital-intensive sectors with long implementation periods, such as energy, processing industries, the extraction of critical materials and green metallurgy.

But to attract new private capital that corresponds with Ukraine's reconstruction needs and to provide large-scale insurance beyond shipments and trade, systemic war insurance needs to be established. Up to now, the World Bank's Multilateral Investment Guarantee Agency (MIGA) has issued USD 195 million to cover political risk insurance guarantees since the start of the invasion.

The colossal task of rebuilding Ukraine means that the country needs to taking ownership of reforms to strengthen social and private governance. Prior to the start of the conflict, foreign investment was already hampered by Ukraine's undeveloped financial and capital market and poor corporate governance. Even though Ukraine is expected to receive a significant amount of investment from the EU and other foreign partners, it is important that the money be allocated properly to match the country's ability to absorb them. Additionally, industries with poor levels of productivity should not get an overwhelming amount of foreign money.

Additionally, securing medium-term, predictable funding commitments from donors is critical for planning and managing complex procurement processes. As pointed out by the RDNA3, it's important to better integrate priority setting and project planning into the medium to long-term budget planning process for the required reforms.

Taking competitive advantages, economic potential, and the conditions of the Green Deal with the EU into account, the National Recovery Plan envisions Ukraine's core economic sectors being transformed. The absence of major structural changes and the general raw material orientation of the national economy present obstacles to reaching this objective. Ukraine's economy was gradually shifting from an industrial to a post-industrial one prior to the conflict. As a result, it will be nearly hard to guarantee a swift shift to a green economy.

International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Dynamics of Volumes and Indices of Agricultural Products in Ukraine in 2010-2023

Years	2010	2015	2016	2017	2018	2019	2020	2021	2022	2023	Deviations, 2010-2023
Agricultural output*, UAH billion											
all categories of farms	881,9	1125,9	1196,9	1170,5	1266,5	1284,3	1154,5	1344,3	1004,2	1115,5	233,6
agricultural enterprises	497,3	709,7	777,6	754,3	844,0	865,8	762,1	931,6	672,1	782,6	285,3
households	384,6	416,3	419,3	416,3	422,6	418,5	392,5	412,7	332,0	332,8	-51,8
Agricultural product indices**, %											
all categories of farms	98,6	95,2	106,3	97,8	108,2	101,4	89,9	116,4	74,7	111,1	12,5
agricultural enterprises	97,5	94,8	109,7	97,0	112,0	102,7	88,0	122,2	72,1	116,4	18,9
households	99,9	95,8	100,9	99,3	101,7	99,1	93,6	105,1	80,5	100,2	0,3

Source: National Bank of Ukraine

The economic recovery strategy should consider both the sectoral structure of the national economy and the external economic structure, which is expressed in exports and imports of goods. The figure above shows the excess of imports over exports, the growth of merchandise trade from 2015 to 2021, and its decline in 2022. Thus, merchandise exports amounted to $68.1 billion in 2021, $44.1 billion in 2021, and $36.2 billion in 2023. Imports of goods significantly exceeded exports in 2021-2023, amounting to USD 72.8 billion in 2021, USD 55.3 billion in 2021, and USD 63.6 billion in 2023. At the same time, since the beginning of the war, the share of exports and imports in foreign trade in goods to the EU has been growing significantly (65% and 51%, respectively, in 2023). The post-war reconstruction practice of European countries demonstrates the importance of trade openness for future growth and, at the same time, the availability of levers to protect the interests of national producers.

According to the **Third Rapid Damage and Needs Assessment 2023 by the World Bank:**

- The total recovery and reconstruction needs in the public sector are estimated at US$56.1 billion over 10 years, including US$435 million in 2024.
- Total recovery and reconstruction needs for the commerce and industry sector are US$67.5 billion, estimated until 2034 Priority recovery and reconstruction needs in 2024 for firms in the industry and commerce sector are estimated at US$5.8 billion
- The losses in the banking sector are estimated to be US $5.7 billion and the reconstruction needs for the sector are estimated to be US $2.2 billion.
- In the Infrastructure sector, the total recovery and reconstruction needs are estimated at US$47.1 billion over 10 years
- In the transport sector the total recovery and reconstruction needs are estimated at US$73.7 billion over 10 years, The losses in this sector are estimated to be US$40.7 billion
- In the telecommunication sector the losses in the sector are estimated to be US$2.3 billion and the total recovery and reconstruction investment priorities for 2024 are estimated at US $399.5 million
- In water supply and sanitation the losses in the sector are estimated to be US$11.6 billion, which is a 53 percent increase (US$4 billion) compared to February 2023, the total recovery and reconstruction

- investment priorities for 2024 are estimated at US$241.9 million[23].

Conclusion

The military invasion led to the need to develop an innovative model of economic growth and modernisation. Reconstruction requires the involvement of stakeholders at the international, national, regional, private and public levels, as well as considering the existing challenges of reconstruction. Rebuilding Ukraine is a colossal task that requires substantial financial resources and coordinated efforts. While international support has primarily focused on military aid, the funds allocated for Ukraine's reconstruction remain limited. The allocated support is mainly being spent on the country's immediate budgetary needs, leaving a wide gap in securing the needed long-term funding for Ukraine's reconstruction and recovery. The EU has been the largest provider of reconstruction funds through the Ukraine Facility but the needs for reconstruction are estimated to be nine times greater than what the EU is currently providing.

Rebuilding Ukraine requires the country to take ownership of the reforms needed to strengthen governance and create a conducive investment environment. Investments from the EU and international partners should be carefully aligned with Ukraine's capacity to effectively absorb these funds. Robust anti-corruption measures, strengthening the independence of the anti-corruption bodies and fostering a culture of accountability are essential to guarantee transparency and build trust among local and international stakeholders. Additionally, reintegrating refugees and veterans into the workforce is critical and needs to be supported by comprehensive rehabilitation and reskilling programmes. Addressing sector-specific human capital needs, particularly in construction, healthcare, education, agriculture, and technology, is vital for a sustainable recovery. International partnerships and aid will play a crucial role in facilitating these efforts.

Scaling up Ukraine's reconstruction efforts should happen now rather than later to mitigate further damage and accelerate the country's recovery. However, this should be coupled with stringent security measures, including the establishment of secure zones and enhanced military defences so that reconstruction efforts are both safe and sustainable.

The slow shift from an industrial to a post-industrial economy, the lack of innovation in industries, social issues, the reorientation of foreign economic activity primarily to the EU, and the problematic demographic situation brought on by the migration shock and internal population displacement are some of the reconstruction challenges. The measures and actions used by different stakeholders to accomplish the goals are not understood by the current strategy for future development. Due to a number of economic, social, and environmental concerns, the study highlights how difficult it is to implement an economic plan for post-war recovery within the framework of sustainable development.

[23] https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099021324115085807/p1801741bea12c012189ca16d95d8c2556a