



# **Ukrainian Economy at War:**

State of Play and Pathways  
Towards Recovery

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# **1. Executive summary**

## Introduction

Despite the heavy human and economic toll of the ongoing Russian military aggression, including numerous casualties, destroyed houses and infrastructure, disrupted production and transportation, forced migration and immense pressure on the budget, Ukraine successfully coped with the first shock after the large-scale invasion started. While the Ukrainian military provided a strong response on the battlefield and the Ukrainian government retained its full functionality, the country's economy switched into a resilience mode to withstand the severe war challenges, avoiding a collapse.

As the war continues, the policy of resistance should extend to organizing the full-fledged everyday functioning and resilience of the economy and society in the conditions of a long-lasting war. Ongoing recovery is also important as an instrument to mitigate the risks of a prolonged war: it helps to solve basic humanitarian problems, maintain the stability of infrastructure and financial systems as the basis for the economy's functioning, and ensure long-term resilience, thus improving the prospects of successful post-war recovery.

In the medium and long run, recovery should be tied to systemic changes bringing the common vision of Ukraine's post-war European future into reality.

**Tackling the unprecedented challenges of post-war recovery requires not only large-scale financial support and investments but also innovative thinking and well-orchestrated efforts of various stakeholders, both within and outside Ukraine. With adequate international support and a strong internal commitment to effective transformation, Ukraine can become a showcase of sustainable recovery, building a modern competitive open and green economy, with a dynamic business environment, highly qualified human capital and vibrant local communities.**

## The economic dimension of recovery

The war has affected all sectors of the Ukrainian economy. Direct losses of the real sector include the destruction of production facilities due to shelling, inaccessible arable land due to hostilities and mining,

and the loss of crops due to fires from explosions. The industries that have suffered the biggest physical damage include metallurgy, oil industry and extracting industry. Energy infrastructure, such as gas and electricity distributing networks and thermal power plants, has been also subjected to regular attacks.

Indirectly, the war resulted in the loss of markets, freezing of investments, fall of purchasing capacity, disruption of supplies, non-performed external contracts, and personnel deficit due to forced migration. Closed sky and blocked ports have paralyzed exports, in particular, of grains.

While the economic toll of the war will continue to rise as the war continues, it is important to consider the key development tracks in different sectors along which the Ukraine's economy will be able to maintain its resilience during the war and succeed in post-war recovery.

## Industry

Relocation has already become a new reality for industrial enterprises. Businesses need to rethink their logistics routes disrupted by the war and introduce more decentralized logistic schemes to diversify the risks of destruction.

Defence needs will continue to matter for the industry as long as Russia continues to be a hostile and aggressive neighbour. The **growing defence sector** will mean new business opportunities, especially for machinery producers, high-tech industry, and IT development.

**Rebuilding of economic and social infrastructure** will drive growth recovery, with the state production order of critical engineering products, farming equipment, and light industry goods.

The European integration of Ukraine requires **industry's compliance with the EU technical standards and environmental and climate-change requirements. Given sufficient investments and state-of-the-art technologies, Ukraine could leapfrog to an innovative low-carbon economy**, making the EU Green Deal vision of a climate-neutral Europe much more realistic.

## Agriculture

Due to pollution, mining and physical damage to arable land in war zones, restoring the high level of crop production in Ukraine will require **large-scale demining efforts**, followed by complex soil remediation measures.

**Food security becomes one of the priorities** for the country's post-war development and long-term resilience of local communities. Ukraine should develop the **production of agro-processing equipment** and maintenance facilities, increase the productivity of small and medium agricultural producers in growing crops and animal husbandry, and **gradually switch from producing grain to more processed products**. The agricultural sector should also actively **participate in improving the energy sustainability** of Ukraine and fighting climate change. **Organic agriculture development** is another promising direction for the recovery period.

## Transport

Restoring export capacity and creating alternative export routes are crucial for Ukrainian agriculture and industry's long-term resilience. Although ports (including Danube river ports) will continue to play an important role in Ukraine's international trade, the focus should be placed on the **development of transshipment capacity (logistics centres) within or outside checkpoints at border crossings with the EU**. The transportation capacity could be also increased through the development of **multimodal transportation** both in freight and passenger transport, with the construction of multimodal stations providing passengers with a comfortable and convenient transfer.

The post-war development of the transport sector should also advance **the principles of sustainable and smart mobility, prioritizing railway and municipal transport development**.

## Energy

Ukraine has a powerful energy sector, able to withstand the current warfare challenges due to substantial reserves and interconnectivity. However, it is outdated by its nature, uses mostly fossil fuels and

is subject to damage and destruction. Retaining its capacity to satisfy the ongoing and future short-term energy demand, the **Ukrainian energy sector has to follow the European decarbonization path and become a showcase of the successful introduction of modern technologies**, making a transition towards low-carbon and renewable energy.

**Recovery of the areas most affected by war provides an opportunity to build back green from scratch:** construct energy-efficient buildings, provide modern networks and sustainable energy supply based on decentralized local resources (solar, wind and biomass), and develop low-carbon production.

Ukraine has a massive potential to cover its own energy needs as well as to become an important energy partner for the EU, supplying low-carbon and renewable gaseous, liquid and solid energy. To fulfil this scenario, the **legislative and regulatory framework should be amended in line with the EU Green Deal, while strengthening the rule of law and investment protection. Partners of Ukraine should support it with loans and guarantees, and facilitate private direct investments and technologies transfer in the implementation of joint green projects**.

## Priorities and mechanisms of recovery

### Businesses and markets

The policy of long-term resilience and recovery critically depends on the capacity of businesses to overcome the war-caused losses, resist the risks and obstacles to business activity in wartime, and actively engage into recovery processes in the post-war period. The entrepreneurship potential should be supported by the **institutional framework encouraging effective networking of businesses, creation of integral territorial sectorial systems, and strengthening the capacity of businesses** to use the potential of an open economy. Here, **European partners can help by sharing best practices and consulting central and local authorities and businesses**.

### **Financial mechanisms of resilience and recovery**

Financial stability is crucial but not sufficient for the long-term resilience of the economy in wartime and consistent post-war recovery. The National Bank needs to rethink its vision and extend the scope of its responsibilities. Complementary institutional changes should be undertaken to revive crediting and focus it on the directions crucial for resilience and recovery. **A partnership approach to anti-inflationary policy should unleash the engagement of monetary instruments, stimulating growth recovery and structural changes.** Develop a mechanism to free vulnerable banks from the burden of non-performing loans caused by the war will allow Kyiv to strengthen the capacity of the banking system to provide loans on a standard market basis. **The securitization of financial obligations can reduce the needs of direct budget financing,** involving non-bank instruments of financing recovery.

### **Budget of confidence and recovery**

In prolonged war, the state budget plays an important role in supporting the capacity of the economy to generate enough resources to ensure consumption and military needs, which justifies the significant level of fiscal burden. To ensure proper financing of salaries of budget-sector employees, social transfers and specific wartime humanitarian needs, it is crucial to encourage consumers' demand, which drives business. Budget investments in recovery show a "crowding in" effect, attracting private investments. Yet, **a liberal tax reform should be one of the basic features of postwar recovery,** when fast growth restoration will be accompanied by steady positive expectations and investment climate. For the transitional period of wartime and post-war recovery, a limited number of special transparent, non-exclusive tax preferences should be implemented.

In the conditions when the government is still keeping the relatively high level of fiscal redistribution, **the budget should become a budget of confidence. Transparent and well-grounded budget spending is crucial for tax compliance, establishment of public-private partnerships and continuous financial support from external donors.**

### **The Human Dimension of Recovery**

**The war has had a devastating impact on Ukraine's population.** Tens of thousands of people have been killed and many more have received severe injuries. The lives of millions have been disrupted as people lost their homes and sources of income and fled abroad or to other regions in Ukraine to seek safety. Exposed to violence and life threats, the population of war zones has been suffering from disrupted energy, water and food supplies and the lack of access to healthcare. Poverty has been on a rise across the country. The war has also affected the mental health of Ukrainians. Finally, there is an ongoing education crisis, with numerous schools damaged or destroyed and a large number of children not being able to return to school this year, meaning lower human capital quality in the future.

The phenomenon of brain drain caused by the forced displacement of people and disrupted education processes will, moreover, result in a lack of qualified human capital at precisely the moment it is needed to fulfill Ukraine's to **restore human capital and ensure its further development, joint efforts of the government, civil society, local communities and international partners are needed.** Building social resilience should cohere with the UN Sustainable Development Goals and focus on the establishment of competitive modern educational opportunities, an effective employment system, strong healthcare, adequate social support (protection), developed social infrastructure, mechanisms to influence migration waves, and the empowerment of civil society bolstered by effective self-organization capacities.

The recovery of highly damaged regions, where building of accommodation and infrastructure will start practically from scratch, presents **an opportunity to introduce human-centered approach to urban planning,** with strong involvement of communities into decision-making and attention to such issues as inclusive mobility.

**The core principle of recovery is to create favorable conditions for people's self-fulfillment and well-being,** including high living standards, safety and wide employment and learning opportunities, thus encouraging more people to link their future with Ukraine.

## Cooperation with international aid and foreign partners

Recovery from the war-caused damage to Ukrainian economic and social infrastructure is a widescale task requiring considerable external financing. The institutional capacity of the country and of local communities to ensure proper management of obtained funds will be critical for the stable implementation of prospective aid agreements. For this reason, **aid spending should be managed by an integrated government financial institution – the National Recovery Corporation, under the control of its Supervisory Board** including representatives of the main donor countries.

In the long-term period, the weight of **economic recovery financial support should be shifted from grants to the attraction of foreign direct investments**, which will provide an opportunity of the more comprehensive and productive engagement of local resources. For this reason, it is advisable **to redirect a part of received external financing to create a special fund of insurance of war-caused risks for foreign and Ukrainian investments**.

## Recovery on the EU membership path

**Partnership with donors in ensuring wartime resilience and post-war recovery should combine strong financial support and reform advancement.** The EU integration reforms are critically important for the institutional modernization of Ukraine. New institutional practices should replace those that currently inhibit the progress of reforms.

While implementing its recovery plan, **Ukraine will not be a passive recipient of external aid but an active contributor to the European post-war transformation.** Thus, EU financial support to Ukraine should be considered an investment into the stability, integrity, and economic and environmental sustainability of the common European future.

Heavy destructions of social and economic infrastructure provide Ukraine with an opportunity to introduce modern energy-efficient, low-carbon, envi-

ronment-friendly solutions helping the EU to achieve its Green Deal goals.

With Ukrainians already integrated with the European Community on the human level, further Ukraine-EU cooperation in human capital development is important for the recovery and EU accession. Ukraine can share its best practices of resilience, cohesion, volunteering, networking, and self-organization of local communities, which could prove useful for improving social cooperation within the EU.

**Using proper institutional mechanisms, the fulfillment of recovery tasks can advance Ukraine in the practical integration with EU, thus establishing the complementarity of the national and European identities.**

# **2. Introductory notes**

Ukraine has successfully resisted the shock that came with Russia's unprovoked full-scale invasion beginning February 24th, 2022. The gloomy forecasts of some military experts<sup>1</sup> failed to come to pass despite the immense missile attacks, ruptured logistics, and realistic threat that Kyiv could be seized in the early war period. Russia's aggression also spurred millions of people to flee. Government institutions, the financial and fiscal systems, and transportation and telecommunications infrastructure have, nevertheless, remained fully functional. Ukrainian authorities have further managed to orchestrate an adequate military response to the invasion and switch the economy into resilience mode to withstand the worst of the war.

**The concentration on early resistance to the invasion, however, is not enough.** As Russia's war against Ukraine becomes more and more prolonged, **the policy of resistance should be shifted to a medium- and long-term oriented systemic approach to organizing the full-fledged everyday functioning and resilience of the economy and society facing permanent challenges associated with war.** The democratic global community is resolute in supporting Ukraine in its fair fight until the final victory.<sup>2</sup>

This report presumes the end of the war to be, as officially declared by the President of Ukraine, as the recovery of the territorial integrity and sovereignty of Ukraine to the internationally recognized borders of 1991<sup>3</sup> and the enforcement political guarantees protecting the country from any renewed military attacks in the foreseeable future. **The end of the war will be the trigger that shifts the priority of Ukraine from resilience to recovery.**

In a protracted war, the emphasis should transition from a reactive approach to generally indefinite threats of military attacks to medium- and long-term capacities to maintain the economy and social living standards. Resilience in the medium- and long run should be premised on the continuity of national production – this provides the foundation for a resilient

economy that is capable to ground out a military victory and ensure adequate conditions of life.

**Resilience during the war and the afterwar recovery are interlinked with restoration of areas damaged by the war.** This means that recovery planning should start before the war concludes and be deployed during the conflict period itself too.

In the short run, recovery is an instrument to *adapt to the challenges posed by a prolonged war* taking into account physical destruction and, much more critically, imbalances that emerge endogenously in an economy continuously affected by the perils of war. The short-term solutions should include at least solving essential humanitarian problems including housing and utilities, food supplies, medicine, the energy supply and utilities. And infrastructure and the financial system must be preserved as the basis of a functioning economy.

In mid-spring 2022, Ukraine started preparing a *National recovery and development plan* that maps out a strategy to rebuild and revitalize the economy after the war based on the principles of resilience, recovery and modernization.<sup>4</sup> The plan suggests three stages: the immediate rebuilding of basic infrastructure; the construction of primary social infrastructure (schools and temporary housing); the long-term transformation of the country and its economy.<sup>5</sup> The preliminary cost of the plan is estimated at \$750 billion over 10 years. A total of 15 national programs, which constitute the plan, have been prepared based on the proposals from thousands of participants involved in the process of nationwide deliberations held over several months.

The project is the government's response to the Communication from the EU Commission to the European Parliament, the European Council, the European Economic and Social Committee and the Committee of the Regions titled "Ukraine relief and reconstruction". The EU, in this document dated May

1 <https://www.foxnews.com/us/gen-milley-says-kyiv-could-fall-within-72-hours-if-russia-decides-to-invade-ukraine-sources>

2 <https://qirim.news/en/novosti-en/johnson-great-britain-will-support-ukraine-until-the-final-victory/>; [https://www.unian.ua/politics/yevropa-pidtrimuva-time-ukrajinu-dopoki-vorog-ne-bude-peremozheniy-fon-der-lyaven-novini-ukrajina-11887044.html?utm\\_source=unian&utm\\_medium=read\\_more\\_news&utm\\_campaign=read\\_more\\_news\\_in\\_post](https://www.unian.ua/politics/yevropa-pidtrimuva-time-ukrajinu-dopoki-vorog-ne-bude-peremozheniy-fon-der-lyaven-novini-ukrajina-11887044.html?utm_source=unian&utm_medium=read_more_news&utm_campaign=read_more_news_in_post)

3 <https://fakty.com.ua/ua/ukraine/20220504-metoyu-ukrayiny-ve-vidnovlennya-terytorialnoyi-czilisnosti-vklyuchno-z-krymom-zelenskyi/>

4 [https://uploads-ssl.webflow.com/621f88db25fbf24758792dd8/62c166751fc41105380a733\\_NRC%20Ukraine%27s%20Recovery%20Plan%20blueprint\\_ENG.pdf](https://uploads-ssl.webflow.com/621f88db25fbf24758792dd8/62c166751fc41105380a733_NRC%20Ukraine%27s%20Recovery%20Plan%20blueprint_ENG.pdf)

5 <https://www.ft.com/content/aa657002-2269-433f-a1e3-cbf98b0aec27>

18<sup>th</sup>, declared that the short-term macro-financial relief needs for Ukraine in the immediate period concerning reconstruction efforts on a significant scale could not yet be envisaged. The Commission also affirmed the comprehensive support necessary to rebuild the country after the war carnage and create the foundations for a free and prosperous country anchored in European values and well-integrated into the European and global economy.<sup>6</sup> The Communication envisaged that the reconstruction effort should be framed in a high-level strategic reconstruction plan ('RebuildUkraine') for which Ukrainian authorities have full ownership and which is endorsed by the Union and other international partners.

The plan was presented at the *Ukraine Reform conference* in Lugano in July 2022.<sup>7</sup> The international community recognized the draft of the Recovery and Development Plan as a framework for the recovery process. Meanwhile, it stated that the plan should be further consulted and adapted to reflect changing circumstances.<sup>8</sup>

**Seven principles for Ukraine's recovery process (*Lugano principles*) should guide the preparation and implementation of the final version of Ukraine's Recovery and Development Plan, linked with the broad reform agenda, which now serves as homework for Ukraine and its partners in the future recovery process.**

6 [https://ec.europa.eu/info/sites/default/files/ukraine-relief-reconstruction\\_en.pdf?fbclid=IwAR21sKzrpMBxJ-dln6H2LW9ophAd8trOZ6D6vKy-hlG8sdfxr0ougNDDgMsM](https://ec.europa.eu/info/sites/default/files/ukraine-relief-reconstruction_en.pdf?fbclid=IwAR21sKzrpMBxJ-dln6H2LW9ophAd8trOZ6D6vKy-hlG8sdfxr0ougNDDgMsM)

7 <https://www.eda.admin.ch/eda/en/fdfa/fdfa/aktuell/dossiers/alle-dossiers/urc2022-lugano.html>

8 [https://uploads-ssl.webflow.com/621f88db25fbf24758792dd8/62c68e41bd53305e8d214994\\_URC2022%20Lugano%20Declaration.pdf](https://uploads-ssl.webflow.com/621f88db25fbf24758792dd8/62c68e41bd53305e8d214994_URC2022%20Lugano%20Declaration.pdf)

**Lugano guiding principles for Ukraine’s recovery process**

Lugano Principles	Principles to envisage in National Plan
<b>Partnership</b>	Open policy – open economy Institutional compliance with international partnership Special role of peer-to-peer cooperation
<b>Reform focus</b>	Reform focus of National Plan European integration focus of reforms Reform-oriented approach of international assistance Restoration of infrastructure seen as innovative modernization
<b>Transparency, accountability and rule of law</b>	Transparency and inclusiveness in preparation of the Plan Reforms granting rule of law Corruption-safe mechanisms of financing Implementation of European principles of good governance Common responsibility for recovery: government, business, local communities, individuals
<b>Democratic participation</b>	Decisive role of local self-governance in significant spheres Implementation of economic democracy mechanisms Emphasis on proactive national ownership of recovery program and efforts
<b>Multi-stakeholder engagement</b>	Multilevel management: international – national-local Promotion of collaboration between Ukrainian and European actors (businesses, regions, local communities, civic organizations, etc...) Ukraine’s engagement in European common problem solving
<b>Gender equality and inclusion</b>	Inclusiveness of recovery (maximal involvement of local actors) Priority of recovery within most damaged regions Maximal opportunities for human capital realization New quality of social infrastructure Staying engaged with people who have been forced to leave Ukraine
<b>Sustainability</b>	Overcoming environmental consequences through the recovery strategy European decarbonization and green transition pathway of recovery SDG-2030 Agenda as long-term criteria of recovery performance

A strategic approach to recovery is necessary to ensure the optimal choice of pathways in inevitable recovery dilemmas:

Recovery dilemmas	Strategic solutions
International participation VS national interests	Project-based cooperation of national and foreign actors; engagement of national recovery in EU programs and EU-level solutions
National-wide recovery VS local participation	Broad competences of local communities; local communities' engagement in national-level recovery projects
Needs of business promotion VS social responsibility	Priority of humanitarian needs; inclusive businesses/entrepreneurship/employment promotion (recovery ownership by the people)
Goals of modernization VS need of urgent solutions	Implementation of innovative (digital) technologies to provide fast and modern smart solutions

Over the medium and long term, the recovery should come to be associated with systemic changes that embody the common vision of Ukraine's post-war future. **The vision of *Ukraine of Tomorrow* outlines the goals and specifies the priorities of the post-war recovery.**

**We believe that, post-war, Ukraine should be seen as a strong, dynamic and socially responsible inclusive competitive economy based on market openness and democratic values. Ukraine should further be recognized as a country fully integrated into the European community and capable of resisting all potential threats emanating from a Russian Federation that acts belligerently.**

**Unprecedented challenges require innovative thinking and joint efforts based on the freedom of entrepreneurship. With international support, Ukraine can become a showcase of sustainable recovery by building modern, local and nation-wide communities on the basis of the modern competitive open economy model.**

The war will require special efforts to ensure Ukraine's security over the long term based both on sufficient economic military power (a strong defense industry and resilience of civil industries) and the overcoming of postwar consequences including specific risks

related to war pollution and structural, regional and social imbalances.

The appropriate steps to meet the requirements mentioned above can be taken through collaborative work of efficient central and local governance, based on European principles, and the development of a cohesive network society against a backdrop of unconditioned rule of law, confidence and a reciprocal vision of the future.

**This study, consequently, aims to outline the dimensions of Ukraine's resilience in wartime and post-war recovery period given the risks and challenges posed by the war and delineate the priorities and mechanisms aimed at overcoming these risks and arranging the postwar recovery process supported by a comprehensive international partnership.**

# **3. Economic dimension**

## 3.1. Economic shocks of the war and risks to long-term resilience

### 3.1.1. Macroeconomic impacts of the war

#### First weeks of war counts

The first weeks of the war have brought severe shocks to the Ukrainian economy due to the physical destruction of assets, the disorganization of business processes, and the reactive contraction of businesses from high-risk perceptions and negative expectations.

According to Ukrstat, the decline of GDP reached 15.1% in the first quarter of 2022 and 37.2% in the second quarter compared to the same period in 2021.<sup>9</sup>

During the February-March period, military operations took place on territories responsible for ½ of Ukrainian GDP. The liberation of Kyiv, Sumy, Chernihiv and Kharkiv (partially) regions improved the situation. The recovery, nonetheless, has not been robust due to the massive destruction of assets and infrastructure and the continuing grave risks faced

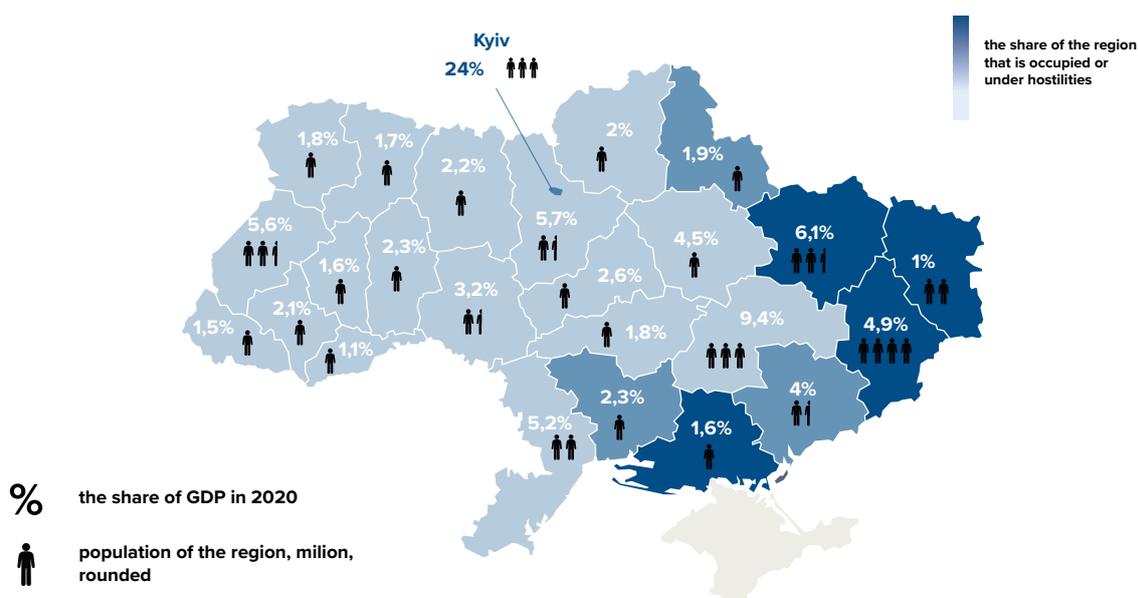
by border territories. In total, by the end of summer 2022, regions that produced about 20% of GDP in 2021 and home to 28% of the population<sup>10</sup> remained mired in active fighting or faced occupation (Figure 1). The most considerable losses occurred in the Kharkiv and Donetsk regions, which previously accounted for 12% of GDP in Ukraine.

#### Losses still accumulating

The specific estimates of economic losses due to the war differ significantly depending on the methodology used to make the calculations. *Direct* losses caused by the physical destruction of enterprises, houses, and infrastructure were estimated, in June, at around \$100 billion by the National Bank of Ukraine.<sup>11</sup>

In cooperation with several key ministries, the Kyiv School of Economics (KSE) has conducted its own assessment. As of August 22<sup>nd</sup>, 2022, its experts es-

Figure 1 – Shares of occupied regions in GDP and total population



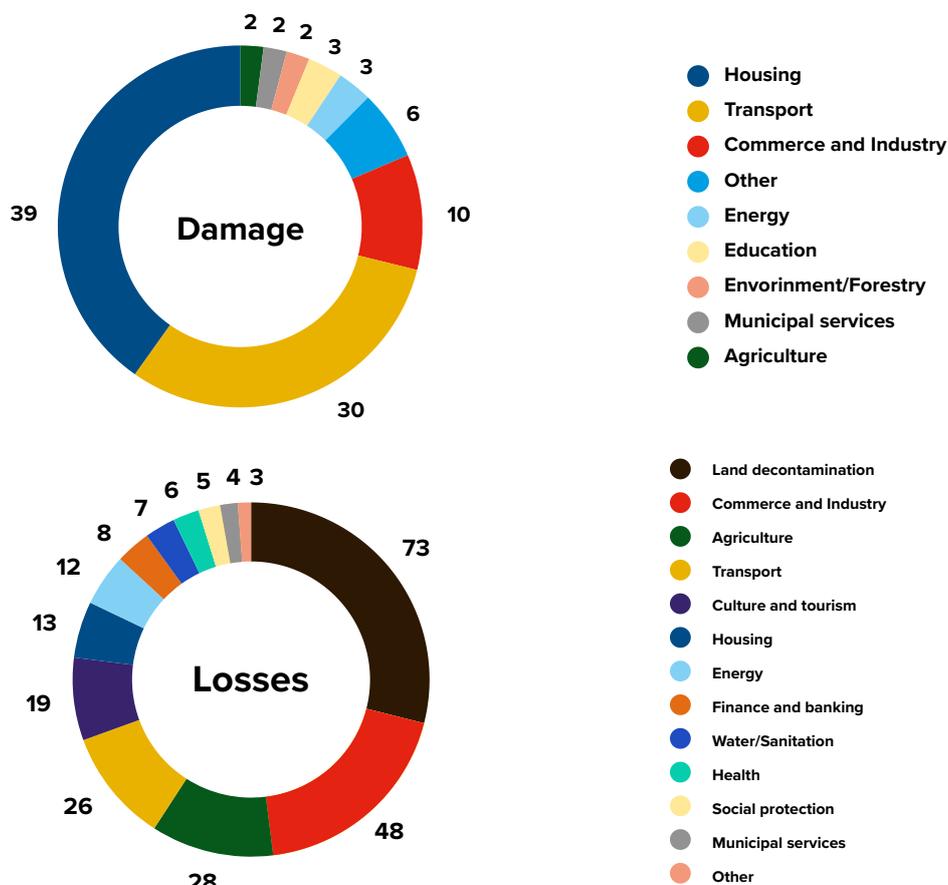
Source: State Statistics Service of Ukraine, Ministry of Reintegration of Temporarily Occupied Territories

9 <https://ukrstat.gov.ua/>

10 <https://ces.org.ua/en/ukrainian-economy-in-war-times-stars-from-the-bottom-of-a-well-july-2022/>

11 [https://bank.gov.ua/admin\\_uploads/article/FSR\\_2022-H1.pdf?v=4](https://bank.gov.ua/admin_uploads/article/FSR_2022-H1.pdf?v=4)

Figure 2 – Total damages and losses as of June 1, 2022, USD bln



Source: World Bank

timated direct losses at \$113.5 billion. Of this figure, \$35.1 billion was associated with infrastructure losses. Russian attacks have resulted in losses (destroyed or captured through occupation) of around 15,300 apartments, 115,900 private homes, 388 enterprises, 798 kindergartens, 934 medical facilities, 715 cultural institutions, etc...<sup>12</sup> It should be mentioned that the losses are estimated as the cost of lost assets. Meanwhile, recovery costs should consider the need for basic modernization and the restoration of liquid assets. KSE, therefore, assesses the need for recovery on lost assets at \$197 billion. Moreover, \$70 billion will be needed for demining efforts.

Meanwhile, indirect losses accounted for \$129.7 billion in damage. The figure includes \$29.9 billion lost

by industry, \$23.4 billion by the agricultural sector, and \$18.2 billion in damage to transport infrastructure.<sup>13</sup>

Broader economic losses are considerably higher. At the end of March, general losses, including the negative systemic effects of the war, as calculated by the Ministry of Economy, stood at \$565 billion. This includes \$112 billion of underproduced GDP, \$65 billion non-received FDI, and \$41 billion in non-received budgetary revenues.<sup>14</sup>

At the beginning of September, the World Bank published the findings of a comprehensive study of damage and noted both losses and recovery needs. However, the assessment had only collected data as of June 1. The authors also recognized that the fig-

12 <https://kse.ua/ua/about-the-school/news/zagalna-suma-pryamih-zadokumentovanih-zbitkiv-infrastrukturi-skladaye-110-4-mlrd-minimalni-potrebi-u-vidnovlenni-zruynovanih-aktiviv-zrosli-do-188-mlrd/>

13 <https://kse.ua/ua/about-the-school/news/damage-caused-to-ukraine-s-infrastructure-during-the-war-increased-to-113-5-blnd-minimum-recovery-needs-for-destroyed-assets-is-almost-200-blnd/>

14 <https://business.rayon.in.ua/news/500975-ukraina-vtrabila-ponad-560-milyardiv-dolariv-cherez-viynu>

**37.2%**  
**decline on GDP**  
**in Q2 of 2022**

**The “soft” shocks of the war on business behavior have proven less permanent, with a considerable part of the business community quickly adapting to the war landscape.**

ures for temporarily occupied territories could be underestimated. The total direct damage has been estimated by WB experts to stand at \$97 billion, with the most afflicted sectors including housing (40% of total) and transportation (31%). Aggregate losses amount to \$252 billion and are dominated by land decontamination (29%), commerce and industry (19%), agriculture (11%), and transport (10%). (Fig. 2). The total reconstruction and recovery needs are estimated at about \$349 billion. The sectors with the highest estimated needs are transport (21%), land decontamination (21%) and housing (20%).<sup>15</sup>

As the war wages on, the losses will continue to mount.

### **Efforts to adapt already underway**

The “soft” shocks including the impact of the war on business behavior have proven less permanent, with a considerable part of the business community quickly adapting to the war landscape. Opinion polls that surveyed members of the European Business Association found that at the beginning of June (100 days into the war), 47% of companies had returned to full-scale operations. Another 37% operated in limited geographies, 17% worked online, and 16% were forced to close their offices partially. A total of 63% of surveyed companies paid wages to employees in full; of these, 25% even provided additional payments.<sup>16</sup>

In the Monthly Enterprises Survey, “Ukrainian business in wartime,” conducted by the Institute for Economic Research and Policy Consulting (IER), respondents further reported on the issue of adaptation to the macroeconomic situation. **The share of companies, stopped or working at less than 50% of their capacity reduced from 42,6% in May to 30,8% in July and 23,4 % in August.**<sup>17</sup> And it should be further acknowledged that the survey was only conducted among companies still available after four months into the aggression.

The similar positive trend witnesses the poll, hold by Advanter Group with Diia Business, Center for Innovations Development and Office for Support of Entrepreneurship and Export. While in early May 49,1%

15 <https://documents.worldbank.org/curated/en/099445209072239810/pdf/P17884304837910630b9c6040ac12428d5c.pdf>

16 <https://eba.com.ua/majzhe-polovyna-kompanij-eva-vidnovlyly-povnotsinnu-robotu/>

17 <http://www.ier.com.ua/en/institute/news?pid=6994>

of respondents reported their businesses stopped or nearly stopped, in the mid-September this share reduced to 33,8%. 14,6% of responding companies in May and 15,2% in September did not change or increased the turnover.<sup>18</sup>

### 3.1.2. Real sector facing direct and indirect impacts of war

The war has created severe challenges for the real sector of Ukraine leading to both direct and indirect shocks.

**The direct shocks include the destruction of production facilities due to shelling, arable land due to hostilities and the use of landmines, and crops due to fires from explosions. The indirect shocks include: the loss of markets, a fall in purchasing capacity, a lack of supplies, non-performed external contracts, personnel deficits, etc...**

#### Industry shocked by combating, logistics and fleeing of workers

The war significantly affected Ukrainian industry – the area fully occupied or under combat produced around 30% of Ukrainian industrial output before the war. The most considerable losses occurred in the Kharkiv and Donetsk regions, which accounted for 17% of output.<sup>19</sup>

Estimated damages to corporate assets of industry and business services as of August 22 stand at \$8.8 billion. Furthermore, \$29.8 billion were forfeited due to lost revenues. Now \$18.3 billion in additional funds will be needed for assets renewal and the resumption of activities.<sup>20</sup>

The most significant destruction has occurred in the metallurgical industry where Ukraine lost its most prominent plants – Azovstal and the Metallurgical Plant Illich in Mariupol in the East of Ukraine. The two plants produced 40% of the entire Ukrainian metallurgy industrial output in 2021. The total value of

**Massive outflow of the workforce abroad poses risks to the demand for and supply of products in the country.**

their combined assets is estimated at \$3.3 billion.<sup>21</sup> The remaining producers in Kryviy Rih, Zaporizhia, and Dnipro continue working at a significantly reduced capacity. At the Arcelor Mittal Kryviy Rih plant, iron ore capacities have been offline since August without plans to restore production for at least three months. The steel production over an 8-month period in 2022 declined 64.5% from the previous year<sup>22</sup>. Although the sector endured a heavy blow with the destruction of plants in Mariupol, the decision to decrease production at the remaining plants was steered by low global steel prices and the high costs of transportation. The sector, consequently, still boasts the technical capacity to rapidly restore itself to some extent. Steel production in Zaporizhstal plummeted by 54% year-over-year in the first half of 2022 and 73% year-over-year in August.

The Azovstal and Illich plants were the only metallurgical plants in Ukraine that produced thick-rolled products used in construction, heavy engineering, and military equipment.<sup>23</sup> Azovstal produced up to 5,000 tons of steel per year for military equipment. And Azovstal was also the only enterprise in Ukraine

18 [advanter.ua](http://advanter.ua)

19 This, however, does not mean that all the output has been stopped.

20 <https://kse.ua/about-the-school/news/damage-caused-to-ukraine-s-infrastructure-during-the-war-increased-to-113-5-bln-minimum-recovery-needs-for-destroyed-assets-is-almost-200-bln/>

21 [https://razumkov.org.ua/uploads/article/2022\\_Gum.pdf](https://razumkov.org.ua/uploads/article/2022_Gum.pdf)

22 <https://www.ukrmetprom.org/rezultati-diyalnosti-metallurgijnoi-7/>

23 <https://forbes.ua/company/zanadto-velikiy-shchob-upasti-chi-zmozhe-rinat-akhmetov-vidbuduvati-metallurgijnu-imperiyu-01092022-8008>

that manufactured railway tracks. These products will, therefore, be in short supply when reconstruction of the country begins.

Another critical loss concerns the oil industry - Russian aggressors destroyed the Kremenchuk Oil Refinery and large oil reserves during several direct air assaults. In 2021, the market share of the refinery accounted for around 40% of gasoline, 15% of diesel, and nearly 60% of aviation kerosene in the country<sup>24</sup>. The destruction has made Ukraine wholly dependent on the import of oil products entirely across the western border given that Belarusian and Russian imports have been suspended. To solve the crisis, Ukraine removed caps on oil products and used market instruments to restore balance (for the most part).

The production of nitrogen fertilizers was reduced by a magnitude of five due to the destruction or halting of key enterprises within the sector.<sup>25</sup> The situation partly improved in August following the restart of Rivneazot. The sale of construction materials decreased by more than 70%.<sup>26</sup> The production of ce-

ment, meanwhile, dropped by 50% in the first half of 2022 compared to the previous year.<sup>27</sup> The sale of construction materials, for its part, decreased by more than 70%.<sup>28</sup>

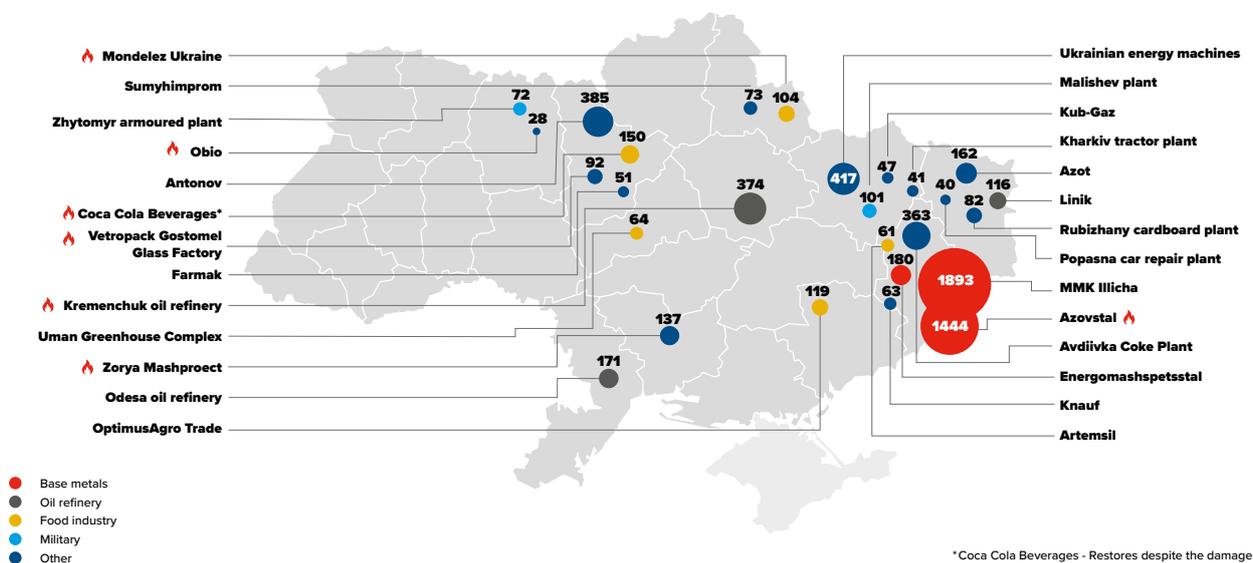
**In the extraction industry, the decrease in production is estimated at 42% compared to 2021 levels.**

Iron ore mines, meanwhile, were forced to halt extraction due to low prices on the global market for steel products and logistics issues. In the processing industry, output decreased by 52% compared to 2021. The main problems facing the industry remain lower demand and more expensive and longer delivery.

According to the estimates of the Ukrainian League of Industrialists and Entrepreneurs, one third of Ukrainian industry has halted work due to the war and the destruction of production facilities.<sup>29</sup>

Figure 3 presents 25 industrial facilities most affected by the Russian invasion. Some of those facilities, like the Coca-Cola plant, have been since repaired and restored production.

**Figure 3 – 25 largest industrial facilities most affected by Russia’s invasion (assets, \$ mln)**



Source: Center for Economic Strategy

24 <https://mind.ua/news/20232369-ukrtatnafta-zbilshila-virobnictvo-naftoproduktiv-na-8>  
 25 [https://bank.gov.ua/admin\\_uploads/article/MM\\_2022-07.pdf?v=4](https://bank.gov.ua/admin_uploads/article/MM_2022-07.pdf?v=4)  
 26 <https://interfax.com.ua/news/economic/854691.html>  
 27 <https://interfax.com.ua/news/economic/856165.html>  
 28 <https://interfax.com.ua/news/economic/854691.html>  
 29 <https://uspp.ua/news/ostanni-novyny/2019/tretna-promyslovoho-potentsialu-v-ukraini-ne-zadiiana-cherez-vysoki-ryzky>

An increase in the cost of energy, rent, transport, and intermediary services (and an increase in production costs in general) can accentuate deficits and lead to the closure and bankruptcy of many individual entrepreneurs and small and medium enterprises. These companies saw their partners, suppliers, traders, and production facilities all vanish.

**The war also disrupted logistics, thereby preventing companies from receiving supplies and raw materials and exporting finished products.** The blockade of seaports had the most significant impact since Ukraine transported 65% of its international commodity trade by sea before the war. Transportation routes by land are less developed and have lower capacity. In the medium term, the inability to fulfil contracts will make exporters lose their positions in markets and witness producers from other countries take their place. In August 2022, the value of exports stood at \$ 3.4 billion, which is 44% less than January 2022. The value of imports, meanwhile, totalled \$4.4 billion, a 29% drop from January 2022 figures.<sup>30</sup>

With fewer exports, the country will receive less foreign currency to pay for its imports. The government and the National Bank, therefore, has been compelled to impose foreign exchange controls forcing companies to cut back on imports including those deployed for production purposes.

**The massive outflow of the workforce (especially women) abroad also poses the risk that a significant segment of the population will not return to Ukraine - the demand for and supply of products will, therefore, be detrimentally impacted.** And many previously active workers joined the military. Dramatic changes in the regional distribution of workers were further steered by the movement of people to safer western regions and away from the east and south. Companies near the active war zone particularly face personnel deficits as employees leave these locales in fear of their lives. People who have relocated in western and central regions, however, may face difficulties finding work especially special-

ists from the metallurgy and machine-building industries - the sector is primarily situated in the country's eastern regions.

**Heavy war risks scare off investors and ongoing investment projects are frozen, postponed, or cancelled.**

Difficulties with logistics also mean that imported products become more expensive and impact domestic prices. Ukraine produces some products, like fuels, in only minimal amounts - rising costs will consequently affect the prices of almost all goods in the country. Over a 5-month period of full-scale war, prices for fuel and lubricants increased by 54.1%.<sup>31</sup>

Steep energy prices also equate to increases in utility costs. Although the Ukrainian government has sought to keep a lid on these costs for the population,<sup>32</sup> it can burden the budget.

**Agriculture sector loses lands, crop and ability to export**

The war damaged agricultural land through landmine pollution and unexploded ordnance. **As of July 2022, 5% of agricultural land had been damaged and 25% of available cultivated areas were lost.** The losses also included 70% of irrigated land, 25% of berry fields, 20% of orchards, and 30% of livestock.<sup>33</sup>

**The estimated damage to Ukraine's agriculture tallies to \$4.3 billion or nearly 15% of its capital stock.**<sup>34</sup> This figure is augmented by accrued losses covering all costs of the war on Ukrainian agriculture (Figure 4).

All farmlands located in the warzone require thorough inspection and demining. To overcome the risks, farmers will need to cooperate with military specialists and special companies for demining the fields and providing protective armor for personnel and machinery as many arable lands are/were in the war zone. An estimated \$436 million was already needed in early June to inspect the ground and demine the

30 <https://www.me.gov.ua/News/Detail?lang=uk-UA&id=5cc16c78-3db9-409e-87aa-f0d1461e2031&title=USerpniUkrainskiiEksportZrisNa25-SeredLiderivSoniashnikovaOliialKukurudza-infografika>

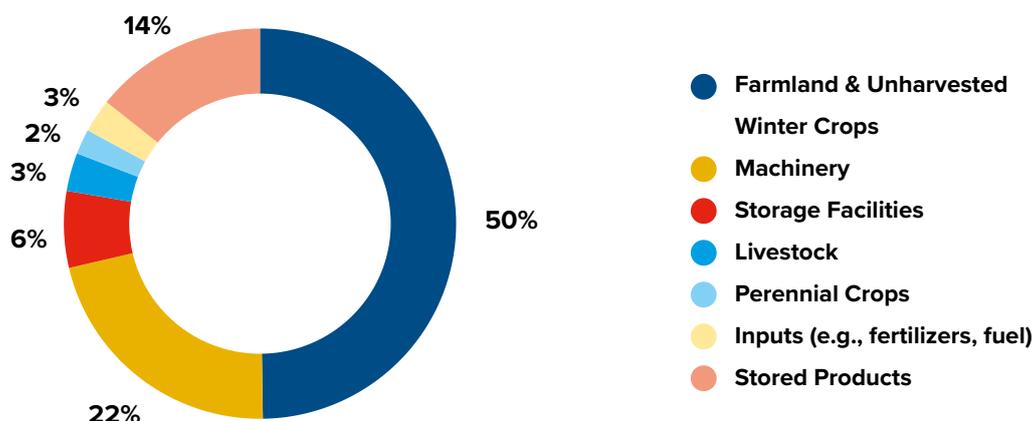
31 Calculated from [https://ukrstat.gov.ua/operativ/operativ2022/ct/is\\_c/isc2022qr\\_ue.xls](https://ukrstat.gov.ua/operativ/operativ2022/ct/is_c/isc2022qr_ue.xls)

32 <https://www.epravda.com.ua/news/2022/08/19/690593/>

33 <https://www.kmu.gov.ua/storage/app/sites/1/recoveryrada/eng/new-agrarian-policy-eng.pdf>

34 [https://kse.ua/wp-content/uploads/2022/06/Losses\\_report\\_issue1.pdf](https://kse.ua/wp-content/uploads/2022/06/Losses_report_issue1.pdf)

Figure 4 – Agricultural Damages Structure by Category



Source: Agricultural war Damages Review. Ukraine. Rapid Damage Assessment. 8th of June, 2022. KSE

affected areas.<sup>35</sup> Since then, the territories and density of mine pollution have increased dramatically.

Furthermore, **even after demining operations, significant parts of war-affected arable lands will not be suitable for immediate agricultural activities because of chemicals pollution and physical damage to the soil caused by shelling, explosions, and the movement of heavy vehicles. There is indeed a significant risk of further land degradation if the soil is not properly remediated or conserved.** The negative impact of war-provoked land degradation on agriculture is exacerbated by the already high level of soil erosion in Ukraine due to unsustainable farming practices such as intense tillage, droughts and other extreme weather events caused by climate change. Thus, **restoring the high level of crop production will require complex and tailored soil remediation measures and the promotion of climate-smart and sustainable agricultural practices.**

In 2022, the expected crop of cereals, legume and oilseeds amounts to 69.4 million tonnes (34.5% less than 2021).<sup>36</sup> The export figures will correspondingly fall to 31.5 million tonnes compared to 48.5 million tonnes in the previous season.<sup>37</sup> As of September 9<sup>th</sup>,

25.9 million tonnes had been threshed from 60% of total sowing areas.<sup>38</sup>

Severe risks for the agricultural sector emerged due to Russia’s blockade of Ukrainian ports that made it impossible to export grains. As a result, storage facilities were loaded with the previous year’s harvest. These actions, in turn, have created obstacles for storage of the new harvest. According to estimates, the lack of space for storing grain could cause the loss of about 22 million tonnes from the new harvest.<sup>39</sup> Lower export volumes and more expensive transportation triggered the fall of corn prices in the domestic market. There are now significant risks to the financial sustainability of farms, especially small ones. The loss of Ukrainian agricultural exports has also created risks for European vegetable oil and livestock feed markets and could spark a global food shortage.<sup>40</sup>

International agreements, that said, have since opened transport corridors for grain exports and softened the severity of the problem. The first month following the signing of the agreement (as of August 31), 1.6 million tonnes of grain were shipped from Ukraine by sea and total cereals shipping in August reached

35 [Agricultural war Damages Review. Ukraine. Rapid Damage Assessment. 8th of June, 2022. KSE](#)

36 <https://www.railinsider.com.ua/v-ukrayini-zibraly-rekordnyj-vrozhaj-zernovyh-zernobobovyh-ta-olijnyh-kultur/>

37 <https://kurkul.com/news/30858-za-pidsumkami-sezonu-2021-22-eksport-zernovih-sklav-485-mln-t>

38 <https://minagro.gov.ua/news/zhniva-2022-namolocheno-259-mln-tonn-zerna>

39 [https://niss.gov.ua/sites/default/files/2022-05/zernovi\\_riziki-az\\_05052022.pdf](https://niss.gov.ua/sites/default/files/2022-05/zernovi_riziki-az_05052022.pdf)

40 <https://www.rferl.org/a/war-ukraine-global-food-shortage/31872861.html>

4.5 million tonnes (or 1.1 million tonnes less than the year before).<sup>41</sup> Yet as exports cannot be fully restored any time soon, Ukraine also acquired temporary storage equipment.

### Transportation system faces closed sky and locked ports

The armed aggression of the Russian Federation severely impacted the Ukrainian transportation system.

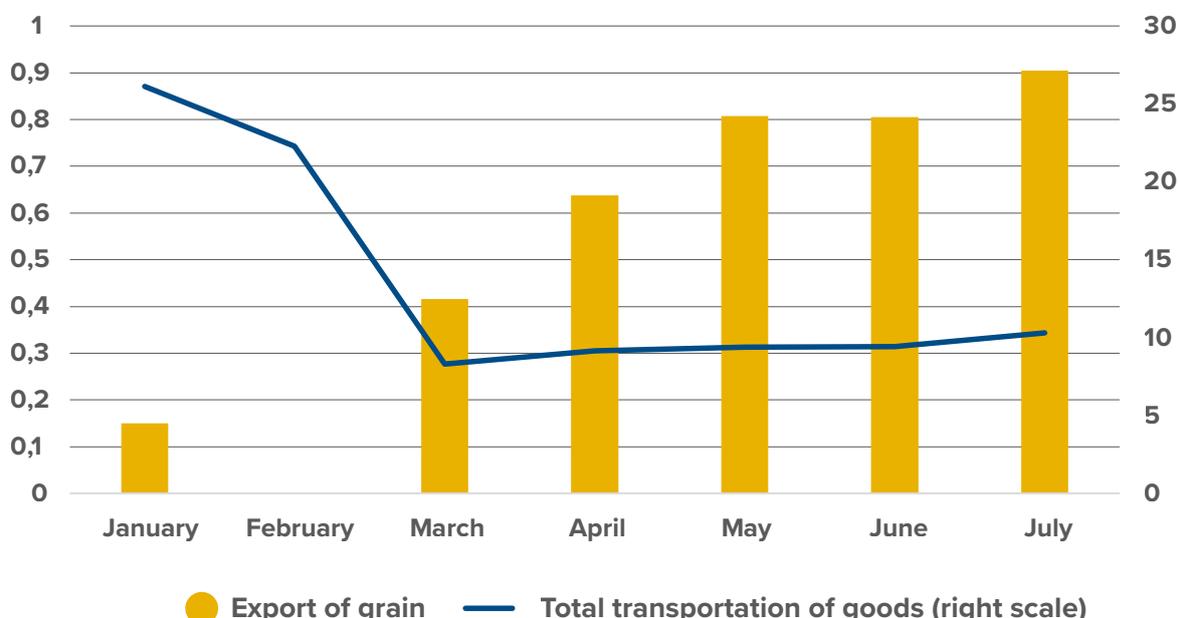
- ▶ The airspace of Ukraine was closed for civil aviation flights due to hostilities and martial law.
- ▶ Russia blocked Ukrainian seaports. Three river ports on the Danube River (Izmail, Reni, and Ust-Dunaisk) are operational; all other ports are either blocked or occupied. On July 22, Ukraine reached an agreement to partially unblock three ports near Odesa for grain exports. The losses to the maritime and inland water transport infrastructure of state ownership stand at about \$622 million.<sup>42</sup>

- ▶ The traffic on the Dnipro River was stopped due to the occupation of the Kherson and part of the Zaporizhzhia region and the seizure of the Kakhovka navigable lock.
- ▶ Some Ukrainian railway stations and their infrastructure and tracks were shelled and damaged. As of May 5, 2022, the total value of losses caused to JSC “Ukrzaliznytsia” due to the destruction of the company’s assets reached UAH 6.8 billion.<sup>43</sup>

As of August 8, 2022, around 24 thousand kilometers of roads were destroyed and 304 bridges and bridge crossings were damaged or destroyed.<sup>44</sup> A total of 19 civilian airports were damaged (airfield complexes were destroyed in 12 airports). The estimated damage to airports and air navigation equipment was about UAH 200 billion.<sup>45</sup>

Due to the blockade and closure of airspace, shippers and carriers have been compelled to direct the export transportation of grain, metals, ore, chemical products, and mineral fertilizers to western border crossings by road and rail. The railway has also be-

Figure 5 – Transportation of goods by railway in 2022, mln tonnes



Source: Ukrainian Railways.

41 <https://www.pravda.com.ua/news/2022/09/2/7365787/>

42 <https://www.kmu.gov.ua/storage/app/sites/1/recoveryrada/eng/recovery-and-development-of-infrastructure-eng.pdf>

43 <https://www.kmu.gov.ua/storage/app/sites/1/recoveryrada/eng/recovery-and-development-of-infrastructure-eng.pdf>

44 <https://kse.ua/russia-will-pay/>

45 <https://www.kmu.gov.ua/storage/app/sites/1/recoveryrada/eng/recovery-and-development-of-infrastructure-eng.pdf>

come crucial for evacuating the population, moving military equipment and humanitarian goods, and re-locating enterprises (Figure 5).

### 3.1.3. Losses and risks to the energy sector

Intensive hostilities in the Kyiv, Chernihiv, Sumy, Kharkiv, Lugansk, Donetsk, Zaporizhzhia, Kherson and Mykolaiv regions resulted in a range of damage to energy infrastructure. **Direct damages reportedly, as of middle of June 2022, amounted to \$1.7 billion while indirect losses in the electricity sector are approaching 342 billion UAH (gas production, transportation and distribution at 61 billion UAH and oil production and refining at 66 billion UAH).**<sup>46</sup>

Regional gas distribution system operators (DSO) reported severe damage to the distribution infrastructure (Kyivoblgas – losses of UAH 3.5 billion, Chernihivgas – UAH 120 million).<sup>47</sup> DSOs in the Lugansk and Donetsk regions were forced to move personnel from the occupied territories and reported a substantial share of infrastructure as completely destroyed or no longer under their control.<sup>48</sup>

Numerous gas suppliers<sup>49</sup> and distribution systems operators<sup>50</sup> failed to ensure sufficient resources to fulfil their obligations with regard to around 8.8 million consumers – the former companies left the retail market and the latter were brought under the operational control of the state-owned company “Naftogaz of Ukraine”.

The electricity sector of Ukraine has endured severe damage though the country has maintained operational control. Some thermal (Lugansk TPP, Vuhlehirsk TPP) and renewable (Zaporizhzhia and Kherson regions) power plants were captured by Russian forces on occupied territories. The most dangerous situation is centred around the Zaporizhzhia nuclear power plant under constant threat from shelling and the belligerent activities of Russian mercenaries towards the site itself and the spent nuclear fuel storage facility. Distribution networks are also broadly destroyed

**Ukraine's electricity exports to European neighbours can contribute to tackling current energy crisis.**

in areas of active warfare, leaving numerous settlements without electricity and other basic utility services.

**Meanwhile, heavy hostilities transpiring across substantial parts of Ukraine have resulted in drastic reductions of energy consumption with limited prospects for a restoration in industrial demand in the coming months.** This decline in demand has somewhat softened the abovementioned losses. Ukraine, therefore, has reported even some surpluses of gas and electricity production capacities despite the destruction of facilities and the capture of several power plants. It could facilitate preparation for the 2022-2023 heating season but the unpredictable nature of the conflict and Russian attacks against civil and critical infrastructure continue to threaten the availability of prepared reserves and the functionality of repaired and maintained energy sector infrastructure. To strengthen energy sector resilience, Ukraine introduced special obligations with regard to the supply of coal and gas to thermal power plants, enabling

46 <https://www.kmu.gov.ua/storage/app/sites/1/recoveryrada/ua/energy-security.pdf>

47 <https://kv.dsoua.com/ua/for-clients/do-uvagi-kljientiv/id/ruslan-pisanko-5-mifiv-pro-gaz-u-vijnu-48302>

48 <https://oblgaz.donetsk.ua/mul-novynny-donetskoblhazu/novynny-donetskoblhazu/1068-povidomlennia-at-donetskoblhaz-pro-prypynennia-rozpodilu-pry-rodnoho-hazu>

49 <https://www.naftogaz.com/en/news/operational-information-june02>

50 <https://en.interfax.com.ua/news/economic/836036.html>

flexible switching between both resources upon request from respective facility owners.<sup>51</sup>

European support to Ukraine includes unprecedented electricity sector integration with ENTSO-E<sup>52</sup> and possibilities for emergency assistance and enhanced commercial cooperation.<sup>53</sup> **Ukraine's electricity exports to European neighbours, conversely, can contribute to mitigating prices and reducing natural gas consumption.**

The renewable energy sector has reportedly suffered significant losses of around 4 GW in physical infrastructure due to its proximity to warfare in the southern and eastern parts of Ukraine.<sup>54</sup> To restore these plants and investor interest, Ukraine should amend regulation and technical capacities to absorb more intermittent renewable electricity production by means of battery storage and fast-starting gas pulse generation. Kyiv should also promote preliminary market instruments for new projects.

**Owners and operators of energy infrastructure in Ukraine have pulled out all the stops to repair and maintain infrastructure in areas of active warfare and areas targeted by Russian missile attacks.**

The success of these efforts requires substantial financial resources and specific technical equipment. Since the start of the full-scale invasion, most of these expenses have been absorbed by entities that share some expectation of assistance from the Ukraine Energy Support Fund set up by the Energy Community Secretariat upon the request of the European Commission and in agreement with the Ministry of Energy of Ukraine.<sup>55</sup> Many European energy companies have provided materials, equipment, and spare parts for Ukrainian enterprises, thereby contributing to the swifter restoration of damaged networks and facilities via direct humanitarian aid.

As energy prices exert a direct impact on the financial stability of all end consumers, Ukraine postponed the liberalization of retail markets. To keep prices for gas and electricity affordable for end consumers, in par-

ticular households, public service obligations were introduced to state-owned energy companies. This energy policy decreases the financial burden on citizens but depletes corporate finances and the ability of state-owned companies to invest in production and maintenance. Though acceptable in the short-term, this approach should be amended with medium and long-term perspectives heeded to bolster the competitiveness of state-owned companies and national energy security.

### 3.1.4. Finances in wartime

**Despite the perils of war faced in these initial months, Ukraine has demonstrated phenomenal financial stability.**

#### **Banks keep stable in realities of wartime**

Commercial banks have played a critically important role as providers of electronic payments, especially at times when the proper supply of cash and cash collection has been limited due to logistical issues. The **prudent regulatory policy of the National Bank of Ukraine (NBU) has ensured that the banking system has remained stable and capable of providing basic banking services.** Key stability measures have been introduced via 100% guarantees of bank deposits of physical persons, the active refinancing of banks, the adoption of regulatory norms on the realities of war, and restrictions on currency markets aimed at avoiding speculation.

For the period of active war (March-July), the resources of commercial banks even increased at the expense of household national currency deposits by 21.9% (UAH 104 billion). In this period, deposits of non-financial corporations declined by 4.7%. However, the structure of deposits significantly shifted in favor of deposits on demand. This means that consumers of banking services prefer using card payments. But the savings placed as term deposits declined by 7.2% over the above period.<sup>56</sup> The ability of banks to en-

51 [http://mpe.kmu.gov.ua/minugol/control/uk/publish/article?art\\_id=245654373&cat\\_id=245396112](http://mpe.kmu.gov.ua/minugol/control/uk/publish/article?art_id=245654373&cat_id=245396112)

52 <https://www.entsoe.eu/news/2022/03/16/continental-europe-successful-synchronisation-with-ukraine-and-moldova-power-systems/>

53 <https://www.entsoe.eu/news/2022/06/28/commercial-exchanges-of-electricity-with-ukraine-moldova-to-start-on-30-june/>

54 <https://ua.interfax.com.ua/news/general/813085.html>

55 <https://www.energy-community.org/regionalinitiatives/Ukraine.html>

56 <https://bank.gov.ua/files/3.2-Deposits.xlsx>

gage in financial planning is, therefore, limited by the shortened time horizon of financial resources.

Bank credits have stagnated both in corporate (increased by UAH 30.8 billion) and in personal (declined by UAH 21.5 billion) segments.<sup>57</sup> Corporate lending is driven largely by subsidized credit programs (“Accessible loans 5-7-9 %”). For the mentioned period, the program banks have provided loans amounting to UAH 43.5 billion.<sup>58</sup>

In this way, banks are encountering abundant liquidity and investing it primarily in short-term deposit certificates of the NBU. Significant shares of money supplied to the economy fails to reach the market and influence economic activity but rather is locked within the banking system.

A prolonged war will witness risks for banks continued to grow foremost due to the worsening solvency situation of debtors. According to statistical data, as of August 1<sup>st</sup>, the share of non-performing loans (NPL) totaled 30% altogether and 45.2% in state-owned banks. These rates have essentially remained the same during the war period due to smoothed credit risk assessment.<sup>59</sup> The real picture of non-performing

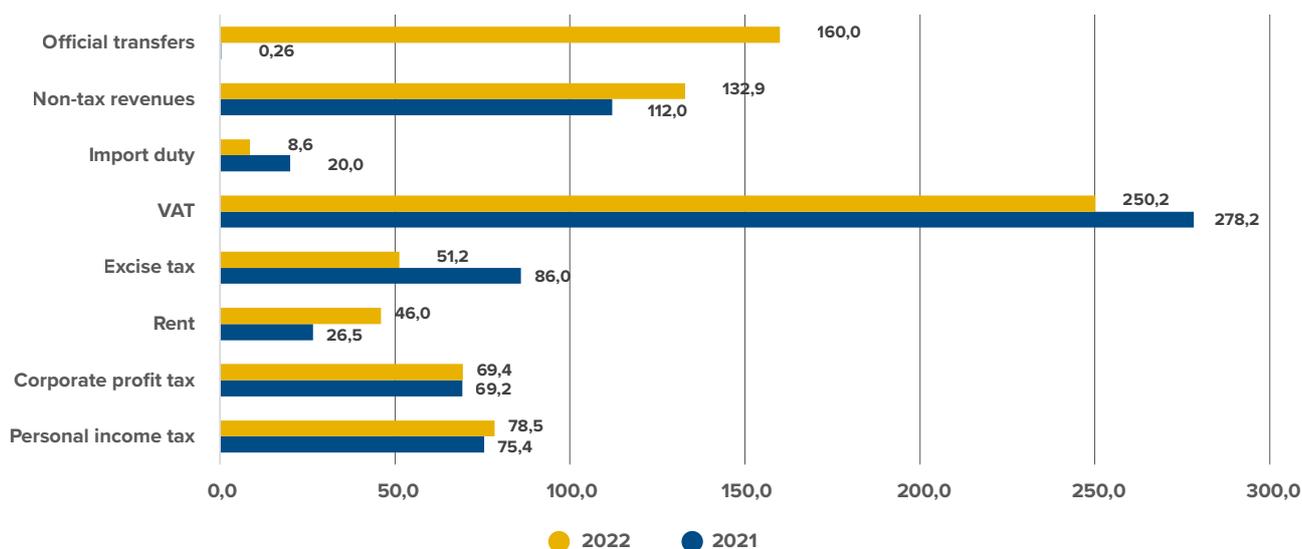
loans will only emerge following the cancellation of credit term reprieves announced for the martial law term.

### Budget system switches to war economy

**The financial shock of the war is fully reflected in the budget.** To support business, the government introduced radical tax liberalization for the war period. The simplified system of taxation covers practically all types and sizes of businesses, with the single tax rate reduced to 2% for small businesses and its payment made voluntary. The tax levy on imports (VAT and duties) was also cancelled. Liberal tax regulations further have dramatically reduced inspections and cancelled penalties for tax law violations.

These measures have supported the resilience of businesses in the initial war period. They also compensated losses occurring due to the institutional capacity constraints of fiscal services caused by communication logistics ruptures. At the same time, the policies reduced the capacity of the fiscal system to supply necessary finances for the war economy needs. Some types of companies carried additional

Figure 6 – Revenues of State Budget (by sources) in January-July of 2021 and 2022, UAH bln



Source: Ministry of Finance

57 <https://bank.gov.ua/files/3.3-Loans.xlsx>

58 <https://psm7.com/uk/money/dostupnye-kredity-5-7-9-skolko-banki-vydali-kreditov-na-proshloj-nedele.html>

59 [https://bank.gov.ua/ua/file/download?file=Data\\_NPLs\\_2022-08-01.xlsx](https://bank.gov.ua/ua/file/download?file=Data_NPLs_2022-08-01.xlsx)

burdens. The preferences for imports, notably, reduced the competitiveness of Ukrainian domestic producers. And the paused VAT registration system and refunds affected Ukrainian exporters. Thus, since July 1, the government restored the system of VAT, cancelled preferences for imports and restored, beginning August 1, the penalties for taxpayers able to pay but failing to do so.

The measures should improve the tax revenue situation. But for the first half of the year, the tax revenues of the state budget declined by 12.3% compared to the previous year (Figure 6). Due to non-tax revenues, the total income of the budget could reach 105.9% of the level for January-June of 2021.<sup>60</sup> The situation somehow improved in the following months - in January-August the tax revenues of the state budget amounted to a 14.9% increase from the year prior.

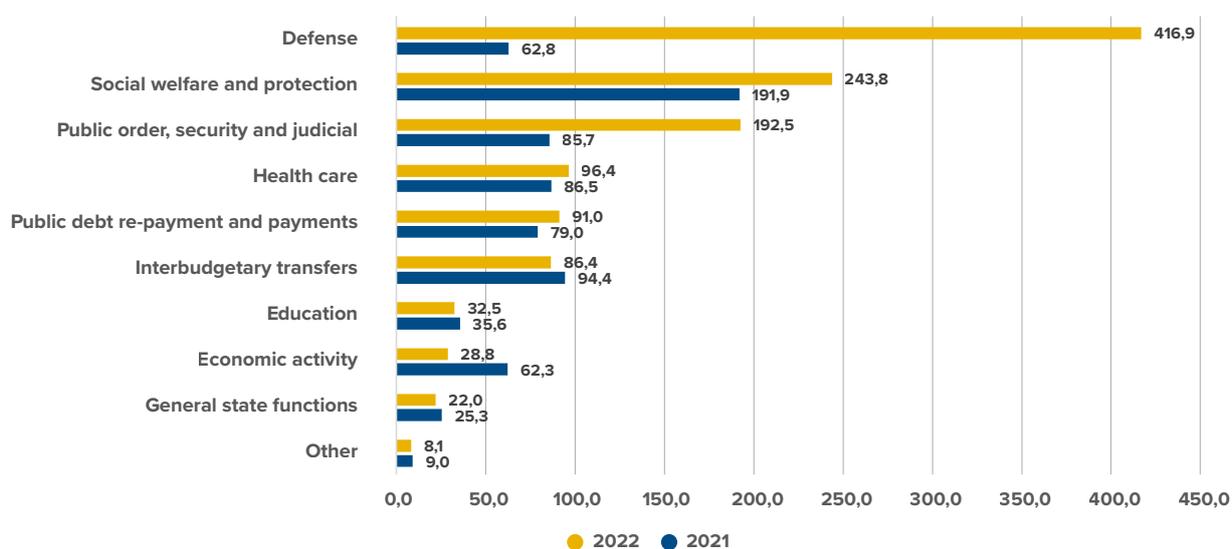
Following numerous parliamentary reviews, state budget expenditures increased by 75.6% compared to the pre-war level. At the same time, the government was authorized to manually redirect spendings through the Reserve Fund without waiting for legislative changes to the budget. In the first half of the year, the Fund's expenditures – mainly for defence

needs - reached UAH 400 billion – up to 40% of total expenditures. The minimization of investments from the state budget (in later months, some financing was restored for recovery needs) strongly reduced the demand for investment goods (primarily in construction materials and services).

**The budget capacity of Ukraine now totals less than the requirements for financing war needs.** For the period of January-August, the expenditures of the state budget had increased by 75% compared to the year before. The main recipients of these budgetary resources include the defense sector and areas concentrated around public order and security and the social sphere.<sup>61</sup> (Figure 7).

**Practically all budgetary spending growth has been accounted for through increases in Ukraine's budget deficit.** According to the latest legislative changes, it is 5.8 times higher than the initial budget for 2022, accounting for 41.5% of total spending. Government officials announced that Ukraine will additionally require further financing to address its budget needs at \$5billion monthly<sup>62</sup>. The IMF expected Ukraine's deficit to reach 17.8% of GDP in 2022<sup>63</sup>. Analysts at Dragon Capital have reached similar con-

Figure 7 – Expenditures of State budget (by sectors) in January-July 2021 and 2022, UAH bln



Source: Ministry of Finance

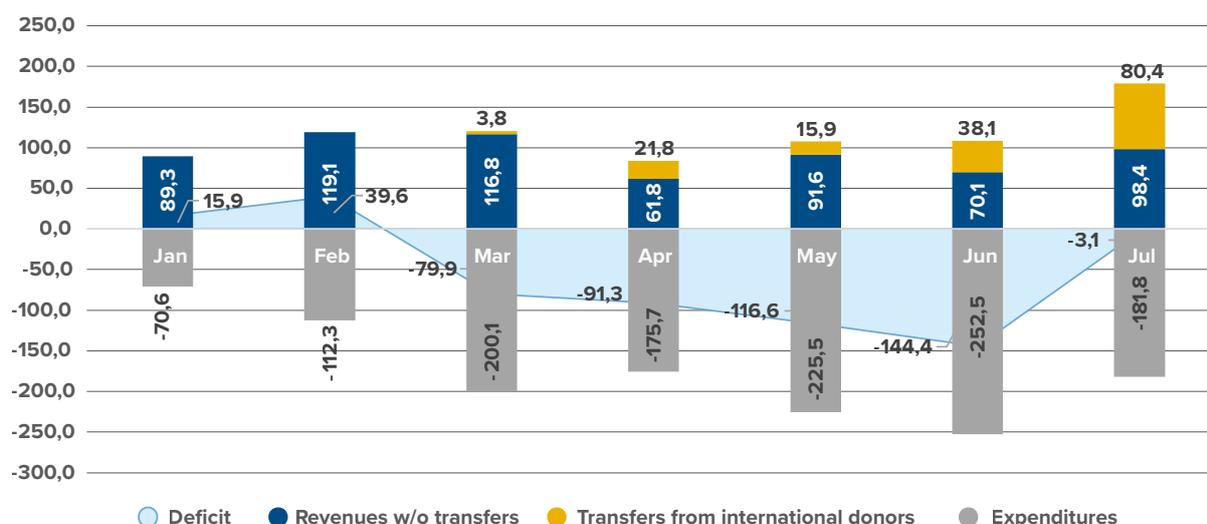
60 [https://www.mof.gov.ua/storage/files/3\\_%D0%94%D0%91\\_%D1%87%D0%B5%D1%80%D0%B2%D0%B5%D0%BD%D1%8C\\_2022\\_%D0%BD%D0%B0\\_%D1%81%D0%B0%D0%B9%D1%82.xlsx](https://www.mof.gov.ua/storage/files/3_%D0%94%D0%91_%D1%87%D0%B5%D1%80%D0%B2%D0%B5%D0%BD%D1%8C_2022_%D0%BD%D0%B0_%D1%81%D0%B0%D0%B9%D1%82.xlsx)

61 [https://www.mof.gov.ua/storage/files/3\\_%D0%94%D0%91\\_%D1%87%D0%B5%D1%80%D0%B2%D0%B5%D0%BD%D1%8C\\_2022\\_%D0%BD%D0%B0\\_%D1%81%D0%B0%D0%B9%D1%82.xlsx](https://www.mof.gov.ua/storage/files/3_%D0%94%D0%91_%D1%87%D0%B5%D1%80%D0%B2%D0%B5%D0%BD%D1%8C_2022_%D0%BD%D0%B0_%D1%81%D0%B0%D0%B9%D1%82.xlsx)

62 <https://whatsnew2day.com/ukraine-calls-for-financial-support-to-ensure-countrys-survival/>

63 <https://ua.interfax.com.ua/news/economic/825718.html>

**Figure 8 - Revenues, expenditures and deficit of State budget and deficit in January—July of 2022, UAH bln**



Source: Ministry of Finance

clusions, with deficits estimated at around 16-26% of GDP depending on different war scenarios.<sup>64</sup> Based on official data, the deficit, in fact, reached this figure only in June (UAH 14.4 billion) and was afterwards reduced to UAH 3.1 billion in July and UAH 5.4 billion in August (Figure 8). The transfers from international donors in July accounted for appr. \$ 2 billions.

**The deficit is covered by rapidly growing public debt.** Over the January-July period, the government borrowed UAH 613.8 billion (approximately \$20.8 billion). On February 25<sup>th</sup>, the first issue of war bonds was announced on the domestic market - the bonds were made available for purchase by different agents, including physical persons. By the end of July, bonds valued at UAH 344.5 billion were sold, with 74% of these acquired by the NBU. Foreign sovereign and market borrowing in January-July was equivalent to about \$7 billion.<sup>65</sup> For March-August, Ukraine received external support in the form of loans and grants at \$17.3 billion of which \$8.3 billion included grants<sup>66</sup> (Figure 9).

As forecasted by the IMF, the total public debt of Ukraine could reach 86.2% of GDP<sup>67</sup> by the end of 2022 (compared to 49% in 2021) leading to steep debt servicing burdens. The situation has improved

following an agreement with the country's main public debt holders to postpone payments and servicing of all foreign bonds, Eurobonds and derivatives for a two-year period.<sup>68</sup>

**75 % more**  
than year before have been  
the expenditures of the state  
budget January-August.

**\$17.3 billion**  
of external support Ukraine  
received in March-August in  
the form of loans and grants.

64 <https://dragon-capital.com/ua/media/press-releases/defitsit-byudzhetu-ukraini-mozhe-syagnuti-rekordnikh-16-26-vvp-u-2022-rotsi/>

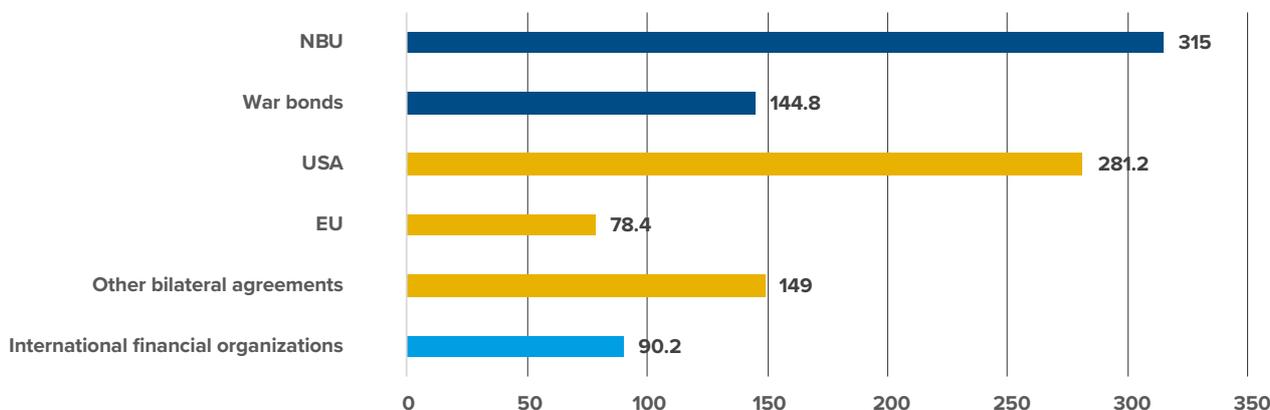
65 <https://niss.gov.ua/news/komentari-ekspertiv/ohlyad-instrumentiv-pidtrymky-finansovoyi-stiykosti-v-umovakh-voyennoho-3>

66 [https://bank.gov.ua/admin\\_uploads/article/MM-2022-09.pdf?v=4](https://bank.gov.ua/admin_uploads/article/MM-2022-09.pdf?v=4)

67 <https://www.imf.org/en/Publications/WEO/Issues/2022/04/19/world-economic-outlook-april-2022>

68 [https://mof.gov.ua/uk/news/investors\\_supported\\_consent\\_solicitation\\_transactions\\_initiated\\_by\\_ukraine-3557](https://mof.gov.ua/uk/news/investors_supported_consent_solicitation_transactions_initiated_by_ukraine-3557)

Figure 9 – Main sources of state budget deficit financing in February 24 – September 6, 2022, UAH bln.



Source: Ministry of Finance.<sup>69</sup>

### Hryvnia shows the controlled descent

**Ukraine in wartime experienced a significant acceleration of inflationary trends.** While total CPI is fairly moderate considering the scale of challenges and losses – 23.8 % August 2022/August 2021 (Figure 10.) - some groups of commodities have seen considerably faster price rises. For the reference period, the price for bread and cereals increased by 37.9%, vegetables at 112.4 %, and fuels and lubricants at 68.1%.<sup>70</sup> To a large extent, inflation is cost-driven – wholesale and retail prices have soared due to more expensive logistics (also taking into account higher prices for fuel) and higher prices for imported consumer goods and production components. Local issues have also contributed to the problem including, for example, lost production from occupied or attacked territories, unfavorable inflationary expectations, and speculative market consumer behavior for some “iconic” goods (like buckwheat, etc...).

**The high monetization of the budget deficit, mentioned above, creates monetary prerequisites for realization of the described factors of inflation, which do not have a monetary nature.** On the oth-

er hand, this trend is partially counterweighed by a significant decline in personal incomes and payable consumer demand. **The government’s decision to pause the rise of regulated prices for utilities impeded this segment of inflation but released some money to feed potentially excess consumer demand.**

For a long time, the role of the powerful anti-inflationary anchor has been played by the fixation of the hryvnia’s exchange rate at the level of February 23. The recovery of economic activity since April, however, has led to the acceleration of imports and rapidly exhausted currency reserves. “Hot” money also pressed on the cash currency market. By balancing the currency market with a fixed exchange rate, the NBU lost \$4.8 billion of international reserves during a four month war period or 17% of its size at the end of February (the NBU sold \$11.4 billion in total<sup>71</sup>). This has forced the NBU to devalue the hryvnia by 25% since July 21<sup>st</sup> (Figure 11).

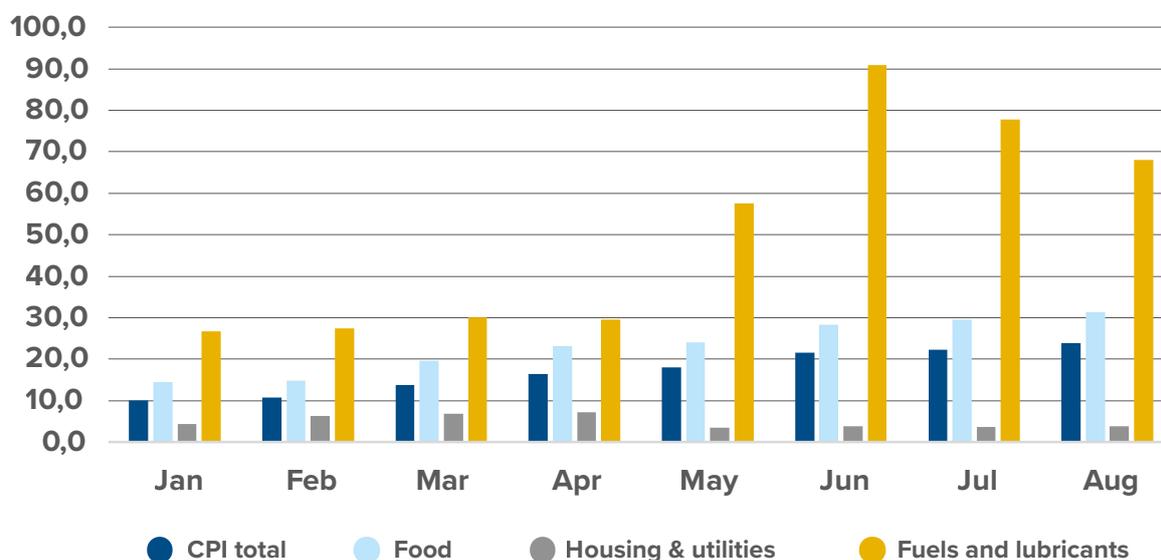
This devaluation will probably play a role as an inflationary accelerator. Meanwhile, it has decisively unloaded the fixed exchange rate maintenance, as

69 [https://mof.gov.ua/uk/news/ukraines\\_state\\_budget\\_financing\\_since\\_the\\_beginning\\_of\\_the\\_full-scale\\_war-3435](https://mof.gov.ua/uk/news/ukraines_state_budget_financing_since_the_beginning_of_the_full-scale_war-3435)

70 [https://ukrstat.gov.ua/operativ/operativ2022/ct/is\\_c/isc2022mpr\\_ue.xls](https://ukrstat.gov.ua/operativ/operativ2022/ct/is_c/isc2022mpr_ue.xls)

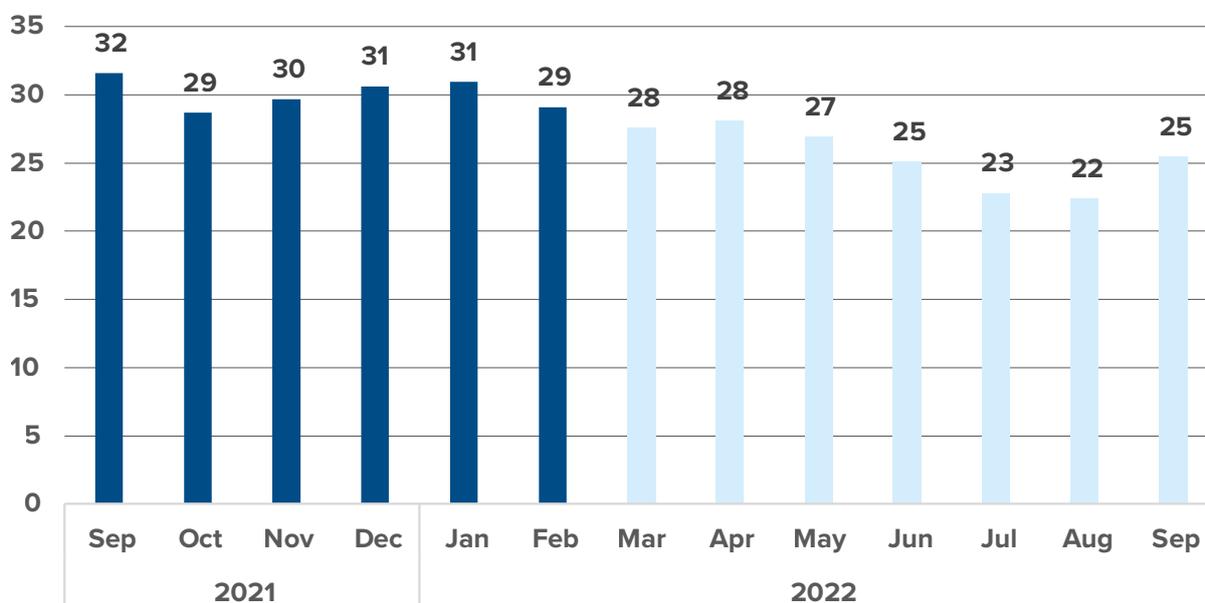
71 <https://biz.censor.net/n3357892>

Figure 10 – CPI in 2022, percentage compared to the corresponding month of the previous year



Source: State statistics committee

Figure 11 – International reserves on the NBU in 2021-2022 (start of the period), USD bln.



Source: NBU

already reflected in August's international reserves figures. The state budget, however, will benefit from import taxation. International aid provided to Ukraine will also be much more significant in hryvnia (if spent on the domestic market). Exporters have gained an opportunity to improve their financial status - national producers should enjoy less pressure from imports too.

**In seeking to cope with high inflation, the National Bank has pursued a tight monetary policy.** This was evidenced most recently by its June decision to sharply increase the discount rate from 10 to 25%. Analysts,<sup>72</sup> however, doubt the capacity of conventional measures of inflationary targeting to address cost- and institutionally-driven inflation, especially – facing heavy fiscal domination.

As a conclusion, **the current financial model of Ukraine seems efficient in assuring resilience against primary war risks. Yet if the war turns into a prolonged conflict, it should be transformed into a model that promotes the long-term resilience of the economy and its main stakeholders over the short run and in the medium term heeding the prospects for a post-war recovery.**

### 3.1.5. Macroeconomic perspective

**The scale of economic damage and challenges posed by the war conditions the pessimistic economic outlook of both national governing institutions and international organizations. Declines are estimated in the 30-50% range based on 2021 GDP as a baseline at a cost \$55-90 billion.**

The NBU in its recent financial stability report expected a contraction of GDP in 2022 by 33.4%.<sup>73</sup> The forecast is premised on an expected decline of real wages (means, consumer demand) by 12.3% and exports (in current prices) by 35.0%.

The most pessimistic scenario has been forecasted by the World Bank – it suggests a slump of 35% and, in its worst scenario, a 45% drop. The World Bank

**Companies reached the limits of their endogenous adapting capacity and now need exogenous impulses modifying their systemic characteristics to fit the conditions and challenges of the war economy.**

predicated “massive declines in imports and exports given trade disruptions, a collapse in public and private investments and a large drop in household spending reflecting the large displacements of people, loss of incomes and livelihoods”.<sup>74</sup>

The IMF forecast expects Ukrainian GDP to decline by 35% in 2022. The Fund further believes that “even if the war were to end soon, the loss of life, destruction of physical capital, and flight of citizens will severely impede economic activity for many years to

72 <https://www.epravda.com.ua/columns/2022/06/21/688389/>

73 [https://bank.gov.ua/admin\\_uploads/article/Macroeconomic\\_Forecast\\_table\\_2022\\_07.xlsx?v=4](https://bank.gov.ua/admin_uploads/article/Macroeconomic_Forecast_table_2022_07.xlsx?v=4)

74 War in the Region. Europe and Central Asia Economic Update (Spring). Washington, DC: World Bank, 2022. <https://openknowledge.worldbank.org/bitstream/handle/10986/37268/9781464818660.pdf>

come".<sup>75</sup> EBRD's estimations are similar to those of the IMF, anticipating a 30% of GDP decline in 2022.<sup>76</sup>

**It should be noted, however, that the forecasts above were prepared in the first month of the war and failed to take into account recent war developments or the economy's adaptivity. The methodology, moreover, was borrowed from similar cases of other countries.** As an example, the IMF, in its report, acknowledges that its forecast is based on evidence from a 2021 study.<sup>77</sup>

**By adapting the Ukrainian economy, the country, nevertheless, can potentially surpass the gloomy forecasts.** Recent history gives little evidence of short- and medium term reactions to massive military attacks on institutionally complicated open economies like Ukraine. The latter (institutional) factor can create both additional vulnerabilities and additional sources of sustainability of the economy. As mentioned above, the first month of the war revealed a Ukraine demonstrating much stronger resilience than expected by many experts. **The next developments will depend on whether the fighting continues and its intensity and the ability of government and economic actors to transit to long-term resilience in both policy and market behaviour.**

While the war continues, the depth of economic decline depends on the adaptivity of businesses and the state of the main economic drivers, primarily domestic demand and exports. **In the medium term, the recovery process itself, when started, will provide a robust source of economic growth based on active output growth in construction and the production of materials and equipment necessary for the recovery process.** As an example, the mentioned EBRD report states that GDP growth in Ukraine potentially can bounce back to 25% in 2023 *"but this assumes that substantial reconstruction work is by then already underway"*.<sup>78</sup>

**For the time being, sociological polls show that the adaptation of companies to war risks is not accompanied by an improvement in expectations concerning the future.** The poll, conducted by the Institute for Economic Research and Political Consultations, shows that despite a general improvement in the current position, the percentage of companies expecting an improvement in the overall economic environment over the next 6 months decreased in July from 46.1% to 34.2%. The trust in government policy is still low too. Only 10% of businesses rated it positively (19% in May and 16% in June).<sup>79</sup>

According to the evidence of the study presented by Diiia Business and the Advanter Group in early June, the main obstacles for entrepreneurs include the price hikes of raw materials and supplies (62%), difficulties with the transportation of goods through Ukraine (47%), and a decrease in demand for products and services (36%). In June, 33.4% of respondents already had planned a strategy for the future, 50.5% were operating in a regime of intuitive management, and 11.1% had given up on adopting a business strategy.<sup>80</sup>

This means that **companies reached the limits of their endogenous adapting capacity and now need exogenous impulses by improving their sustainability and, in particular, modifying their systemic characteristics to fit the conditions and challenges of the war economy.**

75 World Economic Outlook: War Sets Back the Global Recovery (April 2022). Washington, DC, 2022. URL: <https://www.imf.org/-/media/Files/Publications/WEO/2022/April/English/text.ashx>

76 Regional Economic Prospects (May 2022). The return of runaway prices: Dealing with expensive food and energy. London: EBRD, 2022. URL: <https://www.ebrd.com/rep-0522.pdf>

77 <https://doi.org/10.1016/j.jmacro.2021.103286>.

78 <https://www.ebrd.com/rep-0522.pdf>

79 <http://www.ier.com.ua/en/institute/news?pid=6973>

80 <https://business.diiia.gov.ua/cases/novini/stan-ta-potrebi-biznesu-v-umovah-vijni-rezultati-opituvanna>

## 3.2. Priorities and mechanisms of recovery

### 3.2.1. Recovery of industry

#### Relocation – a new reality of industry

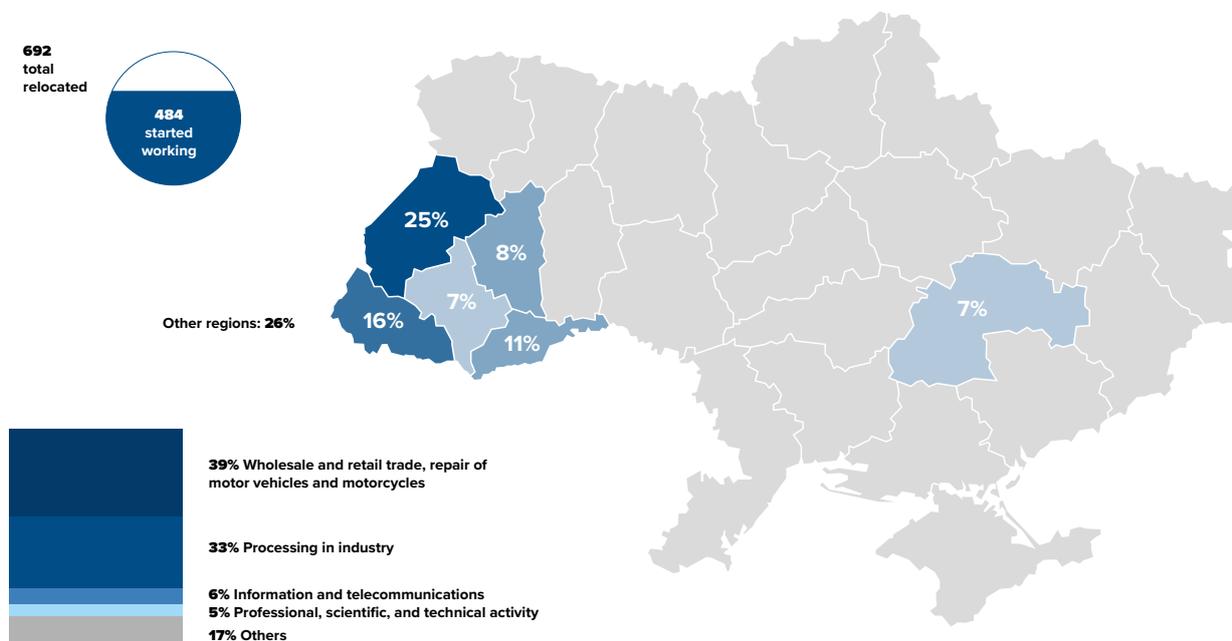
To manage the risks of further destruction, the Ukrainian government launched a relocation program for enterprises that aid businesses in relocating production facilities to safer regions of Ukraine.

The program helps with finding new locations and moving and accommodating workers. It also provides assistance in searching for new personnel, restoring logistics, purchasing inputs, and finding new markets<sup>81</sup>. The program helped (as of the beginning of August 2022) to relocate 692 businesses of 1769 applicants - 484 have already resumed activities.<sup>82</sup> Among the relocated business, 39% pertain to trade and automobile repairs, 33% concern manufacturing, 6% are in telecommunications and IT companies, and 5% provide professional, scientific, and technical services (Figure 12).

Businesses must rethink their logistics routes that were disrupted by the war. The blockade of seaports means that the companies relying on maritime transportation to deliver their inputs or outputs must switch, at least partially, to railways or automotive deliveries and absorb the inevitable increase in transportation costs and terms of delivery. **The companies also implement more decentralized logistics schemes, with several small warehouses instead of a big one and an increased number of smaller suppliers instead of one or two general ones to hedge against possible war-related destruction.**

At the same time, the producers will have to adapt to the new challenges of post-war Ukraine.

Figure 12 – Movement of businesses to the western regions of Ukraine.



Source: Ministry of Economy of Ukraine.

81 <https://me.gov.ua/Documents/Detail?lang=uk-UA&id=3e766cf9-f3ca-4121-8679-e4853640a99a&title=ProgramaRelokatsiiPidprimstv>

82 <https://www.rada.gov.ua/news/razom/226586.html>

## Defense needs will matter for industry

**The constant threat from Russia means that security concerns will gain importance.** To ensure the safety of investments and personnel, the new projects will need to comply with safety and protection requirements tailored to zones facing high risks of attacks (e.g., building bomb shelters for employees and ensuring alternative energy sources, electricity generators, distributed storage capacities, etc...). It is crucial that firms organize distributed production capacities instead of concentrating major facilities of certain sectors in one place.

**The growing defense sector will also provide new business opportunities, especially for machinery producers.** More companies will be able to participate in the production of military equipment and procurement at the Ministry of Defense and potentially become competitive on the global weapons market. The Ministry already reports an increased share of private companies in defense procurement.<sup>83</sup>

**The robust military sector will also boost Ukraine's high-tech industry and IT development.** Experts predict the rapid development of military tech.<sup>84</sup> The first signs of these developments are already visible – the government announced a hackathon on drone technologies.<sup>85</sup> Some spillovers to the consumer market can be expected; some innovations developed for the military will be adopted for public use.

## Rebuilding will drive growth recovery

**The rebuilding process, which will start after the war's conclusion, will boost Ukrainian industry.** We expect high demand for construction goods and services, metallurgy, chemical industry, and machine building. Local authorities and regional distribution system operators are already ordering construction and repair services for electricity networks, roads, shelters, etc...<sup>86</sup> After the war, this demand will increase and include a broader range of goods and services.

The National Recovery Plan, presented by the Ukrainian government, envisages establishing a state production order of critical engineering products (construction equipment, agricultural, transport engineering, school buses, etc...) and light industry goods to meet the needs of the Armed Forces of Ukraine.<sup>87</sup>

Severing economic ties with Russia will necessitate that Ukraine replace imported components from the Russian Federation with domestic production or imports from other countries. **The National Recovery Plan suggests that Ukraine should launch a state-funded program to support machine building companies** (railcar, ship and car building, instrument engineering, etc...). The recovery of the agricultural sector on a new, more industrialized basis and with a larger share of small and individual farms will create **increased demand for machinery and equipment for farming**, especially from small-sized entities.

**In the short and medium term, Ukraine could witness a boost in demand for consumer goods due to the broad need to restore war losses and because of postponed demand.** Over the long-term, however, Ukraine will need to cope with its population loss caused directly by war casualties and by refugee flows (some migrants will decide not to return to Ukraine). The need for consumer goods, food, and electronics, for example, may consequently drop compared to pre-war levels.

## European integration requires industry compliance

During the recovery process, companies will be faced with abiding by the requirements of the Ukraine-EU Association Agreement and Ukraine's candidacy status in the EU. These may include energy efficiency, energy savings obligations, environmental protection and sustainability standards, etc... **In particular, industrial producers must comply with European technical standards.** Conformity with European product directives allows producers to affix the 'CE' marking to the product and freely circulate it within

83 <https://www.kmu.gov.ua/news/perekhid-na-reiky-viiskovoi-ekonomiky-vidbuvsia-lehshe-zavdiaky-pryvatnomu-biznesu-oleksii-reznikov>

84 <https://www.kmu.gov.ua/storage/app/sites/1/recoveryrada/eng/economic-recovery-and-development-eng.pdf>

85 <https://itc.ua/ua/novini/mintsifri-spilno-z-ukroboronprom-organizovuye-pershij-mizhnarodnij-hakaton-zi-stvorenniya-tehnologii-dlya-droniv-zavavki-pri-jmatimut-do-23-serpnya/>

86 [https://lb.ua/blog/iaroslav\\_pylypenko/525866\\_shcho\\_derzhava\\_buduie\\_pid\\_chas\\_viyini.html](https://lb.ua/blog/iaroslav_pylypenko/525866_shcho_derzhava_buduie_pid_chas_viyini.html)

87 <https://www.kmu.gov.ua/storage/app/sites/1/recoveryrada/eng/economic-recovery-and-development-eng.pdf>

the European market.<sup>88</sup> There are also general safety requirements for any product on the market. Apart from general directives, sector-specific requirements (27 directives) also apply and cover a wide range of products from machinery and lifts to the safety of toys and medical devices. **The Association Agreement requires Ukraine to adopt 5,000 harmonized and 24,000 European standards. Ukraine has, in fact, already made significant progress in adopting these standards.**

Before the active war started, Ukraine was engaged in active negotiations on concluding an Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA) with the EU. By signing an ACAA, the parties agree that industrial products listed in the annexes may be placed on the market of

**With sufficient investments and state-of-the-art technologies, Ukraine can leapfrog to an innovative low-carbon economy, helping to fulfil the EU Green Deal vision.**

another party without additional testing and conformity assessment procedures. Ukraine received several assessment missions and had hoped to sign an ACAA soon. Though the war postponed the process, it has not cancelled it. Industrial producers, therefore, must ensure that their products comply with European standards and directives when planning to reconstruct their facilities.

### **Towards green industry**

**As in other economic sectors, the post-war industrial recovery should consider environmental and climate-change rules that** Ukraine must implement as part of its obligations under the AA and its EU accession candidacy. This path indeed calls for a considerably more ambitious transformation of the country. Considering that the war has caused particularly significant damage to industrial activity in heavily polluted areas of eastern and south-eastern Ukraine where many production facilities now lie in ruins and must rebuild from scratch, the economic recovery of this area could become a turning point in the country's sluggish, as of now, green transition.

**Given sufficient investments and state-of-the-art technologies, Ukraine could leapfrog to become an innovative low-carbon economy, making the EU Green Deal vision of a climate-neutral Europe much more realistic.** By building its economy anew based on sustainability and climate neutrality principles, Ukraine could become a major supplier of green goods and raw materials (e.g., green steel) to the EU and elsewhere, thus facilitating global decarbonization. Energy-efficient and circular economy technologies would also greatly enhance the Ukrainian economy's resilience in case of persistent security threats, making it resistant to supply disruptions. Though costly and requiring forward-looking leadership, this development direction faces no practical alternatives.

88 <https://3dcftas.eu/publications/deepening-eu-ukrainian-relations-updating-and-upgrading-in-the-shadow-of-covid-19-third-edition>

### 3.2.2. Recovery of agriculture sector

After the end of active military operations and the start of the recovery process, agricultural companies will need to rebuild and restore their production facilities too. During the recovery process, **the requirements of the Ukraine-EU Association Agreement and Ukraine's candidacy status in the EU regarding energy efficiency, energy saving, environment protection, sustainability, etc... should be considered.**

#### Food security is the principal priority

**At the national level, long-term resilience will require ensuring that the capacity of the agricultural sector provides a sufficient level of food security.**

Technical capacities for the distributed storage of food reserves should be constructed including the preliminary processing of farm products for extended storage (sublimation, freezing, initial processing such as wheat to flour). Legislative mechanisms and managerial solutions to filling reserves and permanent renewal should consequently be implemented.

**The structure of sown areas should likely be rearranged to adapt the production to the new absorption capacity of the domestic market and its limited export capacity (at least until port infrastructure is restored).** The necessary changes can be promoted through the establishment of forward procurement,<sup>89</sup> information support of producers by the market and weather forecasting.

#### Better productivity of agro-producers

**Food production will play a significant role in strengthening the long-term resilience of local communities.** They can be involved in the processing of corn (to flour and compound feed), oilseeds (oil), vegetables (preserves), fruits (drying, preserves), meat (salting, smoking, conserving), etc... Even if of small capacity, production can serve one or a couple of neighbouring communities. Imports and foreign aid will substantially contribute to covering the growing demand for equipment from local manufacturing plants in the short term. **The constant need for local agro-processing, however, will require developing**

**equipment production and maintenance facilities in Ukraine.**

The AA states that Ukraine should improve its competitiveness, adopt best practices, and promote modern and sustainable agricultural production.<sup>90</sup> The AA also sets rules for the protection of geographical indications, organic production, biodiversity, and technical standards for marketing specific commodities.

Directly related to the task of local food sustainability concerns **improvement in the productivity of small and medium agricultural producers in crop production and animal husbandry.** These changes require supplies of agro machinery including tech designed for small farms/households, agrochemicals, sowing and breeding material, temporary storage capacities, etc... Resilience against the present backdrop of war entails the diffuse storage of materials (including fuels) and appropriate farming equipment.

**Investments in agro-production and processing development should, therefore, be supported by both government programs and international aid projects.**

#### Restoring export capacity is crucial for agrosector long-term resilience

The Russian aggression and blockade of seaports disrupted logistics and forced exporters to look for alternative routes. The end of the war will resolve this issue only partially. The military risk may remain high for some time - agricultural producers will need, therefore, to diversify their delivery chains using railway and roads for exports. **The creation of alternative agricultural export routes remains a critical challenge.**

To protect and strengthen its exporter status, Ukraine needs to establish a system "from farm to fork" similar to the one existing in the EU that will allow Ukraine to sustain its food exports to the EU. Implementation of the system will also increase other countries' confidence in the Ukrainian oversight system and enable Ukraine to expand the range of products it can export.

89 <https://niss.gov.ua/doslidzhennya/ekonomika/osoblyvosti-funktsionuvannya-ahrarnoho-sektora-ekonomiky-ukrayiny-v-umovakh>

90 Articles 403-404 of the Association Agreement.

**Ukraine should gradually switch from producing grain to more processed products.** Grain takes up a significant volume and costs less than more refined foods. Ukraine annually loses \$50-\$250 per ton of raw materials sold due to a lack of extension of the value-added chain to processing.<sup>91</sup> Ukraine can produce starch, lecithin, special fats, protein concentration, isolates, etc... Logistical constraints and possible bottlenecks at border crossings, however, suggest that agricultural exporters should aim for less volume and higher cost products and seek out buyers of processed food. The latter could create new opportunities for joint ventures and facilitate entry into European markets.

### **Agrosector recovery should take into account climate change impacts**

Climate change impacts are projected to impact agriculture in the country in a varied manner, with yields of some crops forecasted to grow and others to decline and large regional differences expected.<sup>92</sup> The unforeseen losses from natural disasters could be a factor too. Sustainable agricultural growth indisputably requires innovative measures to tackle the climate challenges.

Ensuring the resilience, recovery, and further growth of Ukrainian agriculture during the war and the post-war period in many respects will require the same measures as those necessary for the green transformation of the sector in accordance with Ukraine's EU membership prospective path and earlier commitments to contribute to the EU Green Deal. Shorter supply chains (local production and consumption) are both climate-friendly and safer in times of war. Sustainable farming practices are good for the environment, produce more value-added, and are more economically viable when healthy soil becomes limited. Developing organic agriculture becomes particularly feasible as it contributes to climate change mitigation and serves the high external demand for such products. In 2020, organic comprised only 1.1% of Ukraine's arable land yet the country was the 4<sup>th</sup>

**The capacity of the agricultural sector should provide a sufficient level of food security, which will require developing equipment production and maintenance facilities in Ukraine.**

biggest exporter of organic products to the EU (down from the 2<sup>nd</sup> position in 2019) with a share of 8%.<sup>93</sup>

**Energy efficiency is an essential component of sustainable production.** In the agricultural sector, it can be improved through the development of bioenergy production. Corn hay, straw, waste, and humus can become raw materials for biomethane production. Commercial biomethane production will strengthen energy independence and absorb the extra output of crops and hay, providing the market with domestically produced low-carbon resource. Ukraine can even market biomethane to EU countries and help the EU achieve its goal of biomethane production.

91 [Draft Ukraine Recovery Plan](#). Materials of the "New agrarian policy" working group.

92 For more detailed discussion of climate change impacts, see [World Bank \(2021\). Ukraine: Building Climate Resilience in Agriculture and Forestry. World Bank, Washington, DC.](#)

93 [https://agriculture.ec.europa.eu/news/eu-imported-slightly-fewer-organic-agri-food-products-2020-2021-06-09\\_en#more](https://agriculture.ec.europa.eu/news/eu-imported-slightly-fewer-organic-agri-food-products-2020-2021-06-09_en#more).

**Given the above measures, the agricultural sector will continue to fully cover domestic needs in food and serve as a significant driver of exports from the Ukrainian economy.**

### 3.2.3. Recovery of transport

**To overcome the wartime challenges, the transport system in Ukraine must be flexible and able to withstand possible damages.** All destruction must be quickly repaired and bottlenecks (like the railway bridge connecting the river port of Izmail to the rest of Ukraine) should be resolved through alternative routes.

Ukraine aspires to become an EU member; thus, it must comply with European standards when rebuilding and modernizing its infrastructure. For example, it must ensure access for persons with disabilities and other low mobility groups to passenger infra-

**The focus should be placed on the development of transshipment capacity (logistics centres) within or outside checkpoints at border crossings with the EU.**

structure, comply with environmental and sanitary safety requirements when dismantling debris and reconstructing buildings and engineering structures, produce freight cars compatible with EU dimension requirements, and consider a transition to alternative energy sources.

#### **Optimization of transport sector through multimodality**

**In the post-war recovery, Ukraine should develop multimodal transportation so that goods can be quickly reloaded from one mode of transportation to another** (e.g., in containers). This development will require the construction of multimodal terminals in the western and southern regions of Ukraine with the functions of integrated transport and logistics centers and customs services. Such terminals should include connection “railway – water transport” to stimulate inland waterways development and reorient part of the freight flow from roads to water transport. **Multimodal transportation should also be offered in passenger transport, with the construction of multimodal stations which will provide passengers with a comfortable and convenient transfer.** Reconstruction of the railway infrastructure should include electrification for high-speed connections.

#### **Rethinking transport networks**

**Restoration of the destroyed railway transport infrastructure should consider possible changes in the location of large industrial enterprises and the places of origin of freight flows.**

After the war, the seaports will continue to play an important role in Ukrainian foreign trade. Thus, they will require significant investments in demining, trawling, dredging, repair, and modernization of port infrastructure. To increase the versatility of seaports and strengthen Ukraine’s energy independence, the ports should invest in LNG terminals. The Izmail port should also be connected to the port of Reni by railway. The capacity of checkpoints and infrastructure at the Danube ports needs to be increased.

Even if Ukrainian seaports are unblocked, Ukraine should rethink its plans for developing the transport network, paying more attention to western land

routes. Before the war, the most developed railway and road networks were in the direction of sea-ports. **Although ports (including river ports on the Danube) will continue to play an important role in Ukraine's international trade, the focus should be put on the development of trans-shipment capacity (logistics centers) within or outside the state border checkpoints at border crossings with the EU,** taking into account the requirements of interoperability and the efficient use of railway infrastructure of 1435 mm and 1520 mm gauge systems.

### Extending cooperation with neighbours

**Ukraine must continue developing cooperation and coordination in the transport sphere with neighbouring countries, in particular with Poland, Hungary, Romania, and Slovakia,** on the joint border and customs control, unification of information system for ordering freight and paperless technologies, establishing working hours 24/7, and the modernization and increase of the railway capacity of the respective countries to ensure the ability to accept all cargo offered by Ukraine. From a long-term perspective, Ukraine should also consider constructing European gauge (1435 mm) railways to Ukrainian major cities.

In the post-war period, air passenger transportation will become especially important, considering the Common Aviation Area (CAA) Agreement with the EU and the large distances for travel in Ukraine. **It will, therefore, be necessary to restore the operation of airports, resume air navigation services in Ukrainian airspace, and continue the adaptation of national legislation to the EU acquis according to the CAA Agreement.**

### Ensuring environmental sustainability of transport sector

Last but not least, **the post-war development of the transport sector should advance the principles of sustainable and smart mobility.** Building a post-war system of mobility, Ukraine should reassess it systematically heeding its interests in a future-oriented econ-

omy that services both people and environment in accordance with the EU Green Deal objectives.

Before the war, the transport sector accounted for approximately 11% of Ukraine's GHG emissions (37.7 million tons of CO<sub>2eq</sub> in 2019), with 70% of those emissions attributed to road transport.<sup>94</sup> The sector was also responsible for 77% of the country's use of oil products (2019)<sup>95</sup> and 39% of air pollutants released (2020).<sup>96</sup> The post-war transformation impetus should also lead to changes in the transport sector that aim to substantially cut GHG emissions, reduce air pollution, increase road safety, and raise transportation efficiency. This should be achieved, among other ways, by shifting freight from road to rail, prioritizing public transport development, creating conditions for greater use of low- and zero-emission vehicles, promoting alternative/renewable fuels such as biofuels and hydrogen, developing green urban mobility, including electric transport and cycling, and applying innovative solutions and digitalization in the smart management of the sector.

### 3.2.4. Energy sector recovery

**Ukraine must accelerate energy sector modernization because of security concerns, damage to a significant part of energy enterprises by the war, and its aspiring prospects for EU membership.** Measures must include efforts at the level of legal and regulatory amendments, improvement of security conditions for operations, and future energy facilities. Ukraine must also pursue a comprehensive approach with consumers to change behavioural preferences and spur energy efficiency and savings.

Ukraine's energy sector operates within the framework of the third energy package following obligations under the Association Agreement and Energy Community Treaty as well as roadmaps of the Energy Strategy of Ukraine until 2035. To proceed with its EU candidacy path, Ukraine must step up its efforts in accordance with the EU Green Deal and 2050 decarbonization roadmap and start developing the respective legal and regulatory framework.

94 [https://mepr.gov.ua/files/docs/Zmina\\_klimaty/Kadastr\\_2021/Ukraine\\_NIR\\_2021\\_draft.pdf](https://mepr.gov.ua/files/docs/Zmina_klimaty/Kadastr_2021/Ukraine_NIR_2021_draft.pdf)

95 <https://www.iea.org/reports/harnessing-energy-demand-restraint-in-ukraine-a-roadmap>

96 [https://ukrstat.gov.ua/operativ/operativ2021/ns/xl/vuk\\_per\\_20ue.xlsx](https://ukrstat.gov.ua/operativ/operativ2021/ns/xl/vuk_per_20ue.xlsx)

**With support from partner countries, Ukraine can become a showcase of green transformation in line with European Green Deal**

### **European requirements for energy sector recovery**

**Despite the war, Ukraine has proven its ability to ensure the stable functioning of the electricity sector. The country was also accepted as a part of the European electricity market in March 2022.**

Commercial relations with European partners provide sufficient incentives for owners of production facilities and investors to enter new projects if the adoption of a strategy for the sustainable economic development of Ukraine, the rule of law, equal rights and transparent conditions, security of investments, long-term energy strategy and protection against destruction due to war hostilities will be ensured.

Ukraine must build up numerous industries from scratch, taking into account recent European requirements for the energy efficiency of buildings and processes, decarbonization, and sustainable production circles. To ensure long-term resilience, legislative and executive authorities need to start with a strategy heeding Ukraine's current situation, its access to primary resources (raw materials, water), the potential of renewable energy, and the qualifications of the labour force. At the same time, reconstruction should

balance the long-term benefits of utilizing land, forest, water, and waste on the entire territory of Ukraine as well as include reasonable export volumes that can enable the country to contribute to European energy security and the affordability of resources without harming Ukraine's environment.

**Given its EU candidate status, Ukraine can already start amending its legal and regulatory framework in accordance with the European Green Deal baselines, provided guarantees of comprehensive support from the EU and other partners and reliable timelines for switching from available to more sustainable energy resources.**

Ukrainian gas and electricity transmission system operators have already signed most of the agreements for the trans-border exchange of energy and taken further efforts to expand cooperation via measures to pump biomethane and hydrogen and bolster the reconstruction of electricity networks.

### **Distributed and renewable energy capacities are the priority for resilience**

Heavy hostilities in the eastern and southern parts of Ukraine have made evident that **energy security and stable energy supplies in the future must be ensured primarily by more distributed small and medium production capacities with flexible connections and the potential for recovery from black-outs.**

**In prioritizing long-term resilience, the development of decentralized renewable capacities should be emphasized and developed as a property of energy communities and associations of prosumers.** Those capacities have to be projected and constructed to utilize local sustainable energy sources. At the same time, transmission and distribution system operators should ensure sufficient connectivity of decentralized renewable capacities with reserve and balancing facilities in their network development plans to ensure the resilience and flexibility of the entire system.

## Supporting energy efficiency and responsible consumption

**Energy efficiency measures on household and commercial levels should become a core priority for state support in the future consumer protection policy.** The state should gradually waive regulated or subsidized energy prices and switch to targeted support for vulnerable consumers. The public, in turn, will need to learn to cope with the scope and conditions related to living spaces, amount of energy, and active engagement in energy efficiency and income measures.

While market prices are proficient motives for energy savings, (social) media campaigns supported by the state are needed to spur behavioural change towards a more responsible and sustainable lifestyle among citizens.

**Therefore, the future energy sector landscape across the country should be based on:**

- ▶ consideration of risks related to potential destruction due to hostilities and the respective reserves of capacities and networks to restore energy supply in affected areas and maintain energy security at an acceptable level;
- ▶ evaluation of local energy resources potential and timeframes for the realization of respective projects given the necessary time for the development of energy and climate action plans within local communities, the needed investments, options for private-public partnerships, and the reconstruction of national grids to enable connections and market integration;
- ▶ long-term development strategy for United Energy System of Ukraine extending beyond the regular ten-year network development plan of Ukrenergo given the decarbonization path the country will embark on and the gradual exchange of existing generation capacities and infrastructure;

- ▶ integration of municipal conglomerations and industrial clusters into a comprehensive system of energy supply, in particular, through the utilization of waste for the production of heat, electricity, and biomethane.

## 3.2.5. Business adaptivity and market recovery

**The policy of long-term resilience and recovery and the realization of selected sectoral priorities critically depend on the adaptivity of business and its capacity to overcome the losses caused by the war, resist risks and obstacles to business activity in wartime, and integrate itself into recovery processes in the post-war period.**

The networking model of business resilience will likely prove to be the most effective approach – this perspective is based on active horizontal communication, the realized potential of entrepreneurial initiative, and a high level of internationalization.<sup>97</sup> The same idea is supported by an international group of distinguished researchers, arguing that *“Ukrainian circumstances call for more market-based allocation mechanisms to ensure cost-effective solutions that do not overburden the state capacity, exacerbate existing problems (such as corruption), or encourage (untaxed) black market activities”*<sup>98</sup>. **The first weeks of the war have already proven that entrepreneurship and decentralization were the anchors of Ukraine’s resilience to aggression.**

### Promoting long-term resilience of business

Entrepreneurship potential itself is not sufficient to address a protracted war situation. It should be complemented by an appropriate institutional framework that favours the effective networking of businesses and the creation of integral territorial and sectoral systems.

97 <https://niss.gov.ua/news/komentari-ekspertiv/pidgruntya-peremohy-ukrayiny-u-viyni-ekonomichnykh-modeley>

98 <https://cepr.org/voxeu/columns/macroeconomic-policies-wartime-ukraine>

**Strengthening the institutional capacity of business can benefit much from proper communication with European partners that can share best practices and consult decision-making processes at central and local levels.**

Thus, the policies promoting the long-term resilience of business in wartime should represent:

- ▶ Clearly determined, transparent, and time-specific policy of compensation for losses incurred because of the war – from rapid assessment of losses to criteria of eligibility and methods of compensation. From our viewpoint, compensation should be strictly tied with investments in business recovery.

- ▶ New regulatory system based on digital registration, indirect oversight, and a servicing model of control institutions.
- ▶ Provision of access to markets (retail networks) and the latter's enlargement, supporting domestic demand for needs of consumers, creating reserves, military needs, and basic recovery projects.
- ▶ Policy of fair competition, prevention of monopolization, and other anti-competitive behaviour. The aid provided to restore businesses should not distort markets or endanger small entrepreneurs.
- ▶ Full-scale supply of infrastructure services: transport, wholesale warehouses, retail markets, etc... These can be provided by private companies or public (including municipal) providers; the proportion can change as business activity recovers.
- ▶ Better access of businesses to financial resources (this will be discussed in the next section).
- ▶ Steady supply of centrally provided services (electricity and gas, banking, telecommunications);
- ▶ Proper labour supply that accounts for internal and external migration and the current military mobilization of a segment of the active workforce.
- ▶ Local communities' involvement in support of businesses: promotion of local resource processing, business projects to solve acute problems of communities, involvement of IDPs in provision of locally demanded services, "last mile" support.
- ▶ Optimizing protection of businesses from security risks including the possibility of doing business in zones of high risk (e.g., at the territories near the border with Russia).

## Institutional promotion of adaptive businesses

Emergence or development of special business institutions should be supported, improving organizational performance and promoting network communications:

- ▶ Newly created associations of relocated enterprises acting in close contact with existing central and local business associations – this eases the recovery of supply and sales at new locations.
- ▶ Cooperative models of possession/use of important equipment otherwise unavailable to small entities including, for example, agricultural machines and large building machinery.
- ▶ Conventional business promotion institutions (technoparks, industrial parks, business incubators) involved in the relocation of businesses.
- ▶ Public-private partnerships, including the participation of local communities and the establishment of long-term contracts with businesses to serve local needs. Communities can participate in these partnerships through existing municipal production capacities, premises, and logistics capacities.
- ▶ Implementation of smart-specialization projects with an emphasis on the most war-torn territories taking into account the new realities born by war.
- ▶ Establishment of regular consultancy of businesses in specific features of resilience in the wartime economy:
  - ▶ building diversified supply chains, spatial positioning of production;
  - ▶ assessing and forecasting demand;
  - ▶ physical security of production and personnel;
  - ▶ digital instruments of recovery and resilience.

## Internationalization of business promotion

**As openness of the economy is considered one of the pillars underpinning Ukraine's resilience to wartime risks - a transfer to long-term resilience mode will require improving the capacity of business to use its potential.**

Internationalization of business in wartime needs to be promoted through specific steps:

- ▶ Reaching special agreements which improve the positions of Ukrainian companies in foreign markets.
  - ▶ extend agreements with primary trade partners and security guarantors in the Black Sea region aimed at recovering commercial cargo shipping from sea ports, to commodity groups, wider than grain export;
  - ▶ further develop alternative routes for the export/import of goods through the western border of Ukraine through both vehicle and rail traffic based on agreements with bordering countries concerning the optimization of custom proceedings, the construction of new border crossings, improvement of transit capacity of existing ones, and building export logistical infrastructure (warehouses, trans-shipment terminals, etc...). For war period - t the territories of EU countries close to the border with Ukraine;
  - ▶ finalize the Agreements on Conformity Assessment and Acceptance of Industrial Goods (ACAA);
  - ▶ introduce simplified mechanisms of customs control for SMEs on the principle of "one-stop-shop";
  - ▶ expand the dialogue on the roadmap of implementation in Ukraine of the Carbon Border Adjustment Mechanism, including transition periods necessary for the post-war recovery and implementation of measures for energy independence.<sup>99</sup>

99 <https://niss.gov.ua/doslidzhennya/ekonomika/ohlyad-yevrointehratsiynykh-reform-u-promyslovosti-ukrayiny>

- ▶ Strengthening the competitiveness of Ukrainian companies by promoting their compliance with technical, legal, and managerial requirements of main export markets:
  - ▶ support the adaptation of producers to technical requirements of export markets by, for example, providing consultancy services, equipment for quality control facilities, promotion of appropriate technologies and equipment, and the sharing of best practices;
  - ▶ promote the organization (methodology and legislation) of export consortia of SMEs, facilitating export logistics and conquering shares of export markets;
  - ▶ provide information support in export opportunities in partnership with business associations and chambers of commerce.
- ▶ Providing financial support for companies – exporters according to the experience of trade partners:
  - ▶ initiate the work of the Export-credit agency (ECA), capitalize it partially with the involvement of foreign aid; it is important to operate in accordance with international practice particularly– spreading the activity of ECA to commodity credits;
  - ▶ integrate credit lines for exporters and export guarantees into international support and recovery programmes;
  - ▶ fully restore automatic VAT refund to exporters.

### Strengthening communications with European partners

**Strengthening the institutional capacity of business can benefit much from proper communication with European partners** that can share best practices and consult decision-making processes at central and local levels and of businesses.

Recommendations include the following:

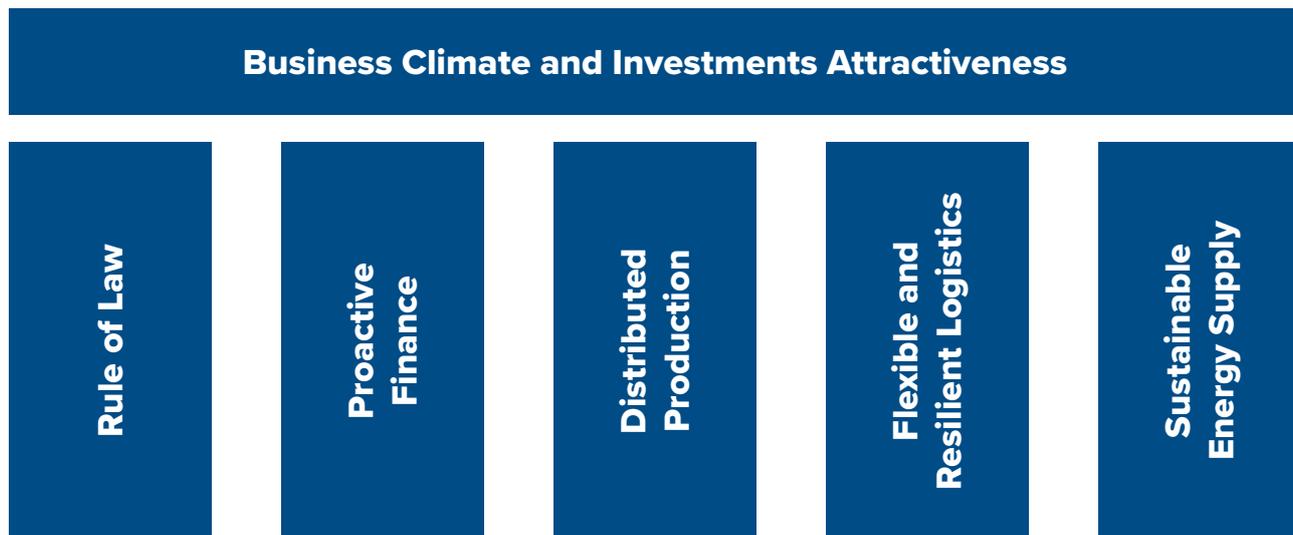
- ▶ harmonization of recovery projects with the headlines of European industrial policy including particularly digitalization, energy efficiency, the circular economy, and sustainable development;
- ▶ sharing the experience of Instrument for Pre-Accession Assistance implementation;
- ▶ diffusion of Industry 4.0<sup>100</sup> to traditional sectors;
- ▶ emphasis on food security, at least in the area of wider Europe, including both the EU and Ukraine;
- ▶ adaptation to climate change, primarily, but not exclusively, in agriculture;
- ▶ implementation of the Green Deal in the core sectors of the economy;
- ▶ preparation of the national strategy on the circular economy on a prospective basis for the involvement of centralized and decentralized (FDIs) financing;
- ▶ implementation of modern smart-specialization principles in the post-war recovery of settlements and regions based on the instruments of the European smart-specialization (S3) Platform;<sup>101</sup>
- ▶ extension of cross-border cooperation and participation in euroregional initiatives as an engine for the development of local communities and steps to Ukraine's EU membership.

As a conclusion, the study allowed for the specification of the primary macroeconomic “pillars” of long-term resilience central to fostering a positive business climate and promoting investment attractiveness at the core of the economy's stability and progress. Strengthening these pillars should bolster the recovery.

100 <https://www.unido.org/unido-industry-40>

101 <https://s3platform.jrc.ec.europa.eu/>

Figure 13 – Macroeconomic pillars of long-term resilience



### 3.3. Financial mechanisms of resilience and recovery

**Financial stability is crucial for the resilience of the economy in wartime and its consistent post-war recovery.** However, stability itself is not sufficient for success in building long-term resilience. To a large extent, the methods of reaching stability strongly matter. Therefore, **strengthening financial stability in the short run should not interfere with the goals of resilience and recovery in the medium and long term.**

A lack of predictability in the war period risks make the achievement of stability a very difficult task. Conventional policies based on changing quantitative indicators, such as the discount rate, exchange rate, size of refinancing, or the sterilization of the money supply, based on the assumption of an institutionally stable economy are irrelevant when a community is put through an institutional storm. Thus, **stability goals require systemic institutional changes as part of the financial policy – this involves modifying the motivations of the main economic players.**

#### 3.3.1. Bringing long-term instruments of macroeconomic stability

##### **Fight with inflation needs complementary measures**

**Keeping inflation under control and getting it to sustainable levels will be fundamental to securing economic stability.** The NBU's attempts to continue the policy of inflationary targeting (IT) established in previous years have proven the limited effectiveness of policy during the war where inflation, to a large extent, has not been determined by quantitative monetary indicators. The discount rate as the main instrument of IT does not work properly in an economy with heavy fiscal domination and high dependence on foreign currency exchange rate.<sup>102</sup> It is worth mentioning that in the practice of the European Central bank, the

IT regime refers to the *strategy of monetary policy* seeing the result of coordinated actions of the central bank and executive power taking into account gross output, the demand of the labor market, fiscal policy, external factors, etc...<sup>103</sup>

Meanwhile, excessively strict monetary policy (the NBU declares keeping the discount rate at the level of 25% until mid-2024 despite forecasted inflation of 9.4 % in 2024<sup>104</sup>) is not consistent with the goal of supporting economic activity in the short run and active investments in recovery in the medium and long terms. Researchers further argue that monetary restrictions impede institutional development and institutional changes.<sup>105</sup>

Thus, **the emphasis should be shifted to complementary measures that influence the factors of inflation primarily through the reduction of costs and improvements to the influence of market instruments:**<sup>106</sup>

- ▶ support of wholesale logistics and retail development, reducing the costs of traders and removing the obstacles of turnover of commodities to avoid local deficits;
- ▶ ensuring the unlimited turnover of marketing information in order to achieve markets transparency as the basis of fair competition;
- ▶ improvement of the policy of competition through the capacity to reveal anti-competitive behaviour based on systemic monitoring and partnerships with business associations;
- ▶ oversight over the validity of tariffs of monopolized sectors (public utilities, transport, telecommunications, etc...);
- ▶ implementation of competition mechanisms in cost-defining sectors (utilities, fuel supply, transportation);

102 <https://www.imf.org/external/pubs/ft/issues/issues15/>

103 <https://www.ecb.europa.eu/mopo/strategy/html/index.en.html>

104 <https://bank.gov.ua/ua/news/all/natsionalniy-bank-ukrayini-zberig-oblikovu-stavku-na-rivni-25>

105 <https://cyberleninka.ru/article/n/teoriya-institutsionalnyh-i-ekonomicheskikh-disfunktsiy-rossiyskoy-shkoly-retrospektiva-i-perspektiva>

106 <https://niss.gov.ua/doslidzhennya/ekonomika/shchodo-napryamiv-antynflyatsiynoyi-polityky-v-umovakh-posyleniya>

- ▶ promotion of investments in energy efficiency improvement, including energy-steered modernization of buildings, modernization of energy and heat generation, involvement of alternative/local sources, “smart” networks, etc...;
- ▶ when necessary, commodity interventions to prevent price hikes.

The monetary authorities, overextended by anti-inflationary measures, have limited capacity to apply monetary regulations and introduce stimuli. The introduction **of complementary actions by primary stakeholders will provide an opportunity to expand the available tools to stimulate the economy** (primarily – increase of crediting).

**The emphasis should be shifted to complementary measures that influence the factors of inflation primarily through the reduction of costs and improvements to the influence of market instruments.**

### **Complementarity requires anti-inflationary partnership**

**A complementary approach presumes a common anti-inflationary goal and distributed tasks of main stakeholders:**

**NBU** – provides tight monetary policy, weighted with progress in overcoming inflation-generating factors, differentiated depending on real pro-inflationary impact. It coordinates policy with government in balancing fiscal and monetary actions.

**CMU and ministries** – involve market instruments of competition, guaranteeing fair competition, reducing costs, and applying direct price regulations for a limited time in extreme cases.

**Business** – complies with the requirements of competition policy and supplies equipment and technologies that are crucial to reducing costs and improving market logistics.

**Local authorities** – reducing costs and improving market turnover at the grassroots level.

**Civic institutions and business associations** – involved in competition oversight.

**In the medium-term, this partnership should be converted into a constantly acting early warning system concerning financial imbalances.** For this reason, the experience of the “European semester”<sup>107</sup> can be borrowed and adapted to the Ukrainian situation.

### **Exchange rate fixation is crucial for anchoring inflation**

**Keeping the exchange rate as an anti-inflationary anchor can be convenient for a limited period of time and further should be substituted by returning to a floating rate.** A permanent fixed rate is distortive for budget revenues and incomes of exporters and enables arbitrary operations (currency speculation).

107 <https://www.ecb.europa.eu/mopo/strategy/html/index.en.html>

**In the short term, a fixed exchange rate regime can be supported by offloading the pressure of “hot money” on the currency market.** For this reason, it is necessary to:

- ▶ increase the market supply of financial instruments for private investments – “military” government bills, insurance programs, local loans, etc...;
- ▶ expand the sector of term currency deposits;
- ▶ develop instruments of exchange rate hedging, with special attention to its accessibility for small and micro enterprises;
- ▶ increase the segment of cashless turnover.

To avoid the influence of US dollar inflation on the Ukrainian market, the exchange rate could be fixed to a currency basket, including the US dollar, the Euro, the British pound, and the Chinese yuan.

**Gradual improvements to currency inflows due to the evolution of recovery projects will enable the unfixing of the exchange rate.** The policy components that can bring the reliberalization of the currency market closer to reality encompass the following:

- ▶ export promotion;
- ▶ import substitution;
- ▶ temporary increase of taxation of non-critical imports as allowed by WTO regulations addressing the possible protection of domestic market in case of a threat to balance of payments;
- ▶ promotion of inflows of FDI.

### 3.3.2. Banks in financing recovery

#### **NBU needs to rethink the vision of his responsibilities**

**Resilience over a persistent war can be understood as a structural adaptation to new challenges and stands inseparable from efforts to restore the capacity of the economy to generate and consolidate financial resources and redirect them to the needs of structural changes and recovery.**

To this end, banks’ stability should be converted into their capacity to finance the recovery. The National Bank and banking system more broadly, like monetary policy, cannot be indifferent to the goals of the country’s long-term resilience and recovery.

**It is tremendously important to preserve the independence of the National Bank during this period of enormous financial risks, particularly fiscal deficits,** as a safeguard from different sources of political pressure stemming from urgent needs. **However, the NBU itself needs to rethink its vision and prolong the horizon of its responsibilities** likely through appropriate legislative changes in its regulatory documents. The extended functionality of central banks as systemic regulators has been stated as one of the lessons of the financial crisis of 2008-2009<sup>108</sup> and, further, in the COVID crisis.<sup>109</sup>

#### **Institutional sophistication of banking system enables to revive crediting**

A high discount rate policy, enforced by the NBU based on anti-inflationary considerations, will certainly play an inhibitory role on bank lending. As spotlighted above, however, for now, it should not be blamed as the main reason for this shortcoming. Complementary institutional changes should rather be undertaken to revive credit and concentrate it on areas crucial to resilience and recovery. Researchers of emerging economies argue that the proper quality of institutes allows central banks to minimize the recessionary risks of inflationary targeting.<sup>110</sup>

108 <https://www.nber.org/books-and-chapters/nber-macroeconomics-annual-2009-volume-24/financial-crisis-and-federal-reserve>

109 <https://www.rba.gov.au/publications/bulletin/2021/mar/pdf/the-response-by-central-banks-in-emerging-market-economies-to-covid-19.pdf>

110 Schmidt-Hebbel K., Carrasco M. (2016). The Past and Future of Inflation Targeting. Central Bank of Brazil Seminars, April 2016.

## The banking system cannot be indifferent to the goals of the country's long-term resilience and recovery.

A prospective opportunity in this field concerns the implementation of differentiated rate practices for refinancing depending on the structure of the credit folders of banks – the longer the credits, the cheaper the refinancing. The European Central Bank could be emulated here in the form of its Targeted Longer Term Refinancing Operations (TLTROs).<sup>111</sup>

**The specialization of banks provides the opportunity to tailor regulatory frameworks taking into account the specific features of the lending objective.** If the possible additional costs and risks of such credits are covered by international aid funds, then considerably greater leverage can be secured than through direct project financing.

Possible specialized banks, or specialized pools of credits, can be as follows:

- ▶ **export** – taking into consideration specific risks – political, infrastructure-related, currency. The risks can be covered by the Export Credit Agency;
- ▶ **innovative** – with special emphasis on the expertise of financed projects, compensation of the higher risks of venture projects;

- ▶ **small businesses** – emphasis on small-sized credits and startups, with technical support for preparing project proposals;
- ▶ **mortgage** – affected by prolonged terms of credit in conditions of high uncertainty, volatility of the market price of pledges, and uncertain long-term solvency of lenders;
- ▶ **agricultural** – with season-dependent capital turnover and increased climate risks. Additionally, technical support in the preparation of projects and small-sized credits are needed;
- ▶ **municipal** – taking into account the small scale and localization of such banks at the same time – high potential role in local infrastructure recovery that can be addressed through public-private partnerships.

**The subsidized credits programs should be extended, especially in the first stages, while the abovementioned institutional changes await their results.** The policy should be oriented towards sequentially diminishing the share of loans for operational needs and concentrating, to a large extent, on financing investment projects centred around recovery and structural changes. It is recommended to specify the priority spheres for subsidized credits including particularly the restoration of destroyed business assets, the rearrangement of relocated enterprises, the creation of employment opportunities in labour-excessive areas, etc...

A critical task will lie in ensuring physical access to banking services – branches of key banks involved in programs of subsidized credits should be restored in the centre of each hromada (Ukrainian administrative division) and electronic banking services for users should be bolstered through promotional activities and technical support and be made available across the entire country.

### **Recovery of loans at standard market basis improves the resilience of banking system**

**The long-term resilience of the banking system strongly depends on rebuilding its capacity to pro-**

111 <https://www.ecb.europa.eu/mopo/implement/omo/tltro/html/index.en.html>

**vide loans at a standard market basis.** If attained, the system will gain the opportunity to concentrate subsidized crediting primarily towards recovery tasks and restoring the proper system of monetary transmissions enabling the NBU, over the long-term, to return to a productive IT regime and eliminate the self-supporting scheme of excess liquidity sterilization with precious deposit certificates.

The main obstacle to be overcome includes an enormously high level of NPL caused by the war. It is recommended to undertake the systemic measures to unload banks from the burden of NPL:

- ▶ implement differentiated programs of restructuring for debtors that suffered no war damage;
- ▶ redeem the NPL of the debtors affected by damages to business assets, which are focused on recovering businesses;
- ▶ determine the regimes of compensation of credits lost by banks to debtors that cancelled their activities;
- ▶ create a special agency of bad assets management to manage the redeemed loans.

**State-owned banks, which now constitute the foundation of national banking systems, can serve as leaders in rearranging the provision of banking services in wartime.** This touches upon: support from networks of branches and bank terminals; implementation of the proper methodology of client solvency assessment; supply of competitive deposit rates and programmes; the processing of war-induced NPL, credits to the priority sectors, and goals of recovery, etc... The pilot projects of banking services adapting to wartime challenges approved at state-owned banks can be shared with the entire banking system of Ukraine. State-owned banks, consequently, require special management provided by the Ministry of Finance. The policy concerning state-owned banks should be one of the subjects of international support for the recovery process.

**An important part of restoring bank crediting pertains to providing personal loans that cover the needs of rebuilding destroyed dwellings, compensating lost property, and improving the energy effi-**

**ciency of houses.** These personal loans should garner support from national budget programmes and international aid in the forms of credit guarantees, subsidized interest payments, and reimbursement of loans (or partial sums).

### **Involvement of non-bank financing multiplies financial capacity**

**The financing of the recovery by banks should be supplemented by financing through non-bank instruments.** The success story of public donations for military and humanitarian needs underscores the tremendous prospects for crowdfunding recovery projects. The funding can go, also by the emission of municipal loans targeted for specific recovery projects or to different types of partner financing and public budgeting. The extension of online financing and banking inclusion to a wider audience will create a favourable background for crowdfunding.

One aim should be oriented towards the securitization of some financial obligations. This includes redeemed NPL, compensation for dwellings and valued property, and business assets. The market circulation of these derivatives can, in time, reduce and alter the need for direct budget financing and even multiply financial resources due to its capitalization.

### **3.3.3. Budget of confidence and recovery**

#### **Budget spending – the driver of the economy and starting point of recovery**

Against a backdrop of deep institutional crisis and uncertainty stemming from the war, the allocative functions of market institutions, to a considerable extent, are failing. The budgetary system should, therefore, be aimed not only at redirecting rapidly growing funds for security and defence needs. **In the case of a protracted war, the resilience of the country will depend on the capacity of the economy to generate enough resources to ensure societal and military needs.** Due to collapsing investment activity, *consumption* is considered the most important driver steering economic activity. As the government is the largest employer in Ukraine, supporting proper financing of employees in the budget-financed sec-

tor (public management, education, health care, culture, etc...) is crucial to promoting consumer demand underpinning businesses. Military spending is now also a powerful driver of consumer demand - the total monthly wages of the military are reported at more than UAH 70 billion.

Budgetary expenditures should also be considered as the starting point of the recovery. In **financing pressing recovery processes at a time of war, government and local authorities can restore the basis of a functioning economy, solve important humanitarian issues and, at the same time, support economic activities, jobs, and demand for domestically produced goods and services.** In this regard, budget investments produce a “*crowding in*” effect,<sup>12</sup> attracting private investments. Its financing including through the sale of government bonds to commercial banks for a certain time is justified.

**Transparent and well-grounded budget spending is crucial for tax compliance, the establishment of public-private partnerships, and sustained financial support from external donors.**

### **Liberal tax reform better to postpone to postwar recovery**

Through fiscal policy, market failures in allocating resources during wartime necessitates a cautious approach to any tax liberalization. However, **liberal tax reform should be one of the core components of the postwar recovery to restore rapid growth and accompany it with steady positive expectations and a promising investment climate.**

At the same time, the government should refrain from introducing new taxes. The consolidation of budget revenues can be achieved instead by an improvement in tax compliance of businesses and personal taxes. For this reason, the further implementation of digital instruments of tax oversight will prove beneficial.

#### **The goals of tax digitalization are:**

- ▶ automatization of oversight and the reduction of manual audits;
- ▶ emphasis on risk-oriented checks;
- ▶ emphasis on service functions of tax administrations;
- ▶ simplification of tax administration, diminishing time and financial losses of taxpayers;
- ▶ speeding up procedures important primarily for customs controls;
- ▶ creating a framework for tax preferences implementation based on tax credits.

**For the transitional wartime period and the postwar recovery, a limited number of special transparent, non-exclusive tax preferences should be implemented.** The emphasis should be placed on job creation, the provision of adaptation periods for relocated businesses, import substitution, energy efficiency, and business activity in the territories damaged by war or facing high war risks (special tax zones for a definite time period).

For the medium term, a roadmap should be prepared based on consultation with EU authorities to harmonize national tax legislation with EU directives.

## Improvement of budget spending performance under limited resources

The budget policies must seek to optimally improve the performance of budgetary spending under existing strict resource limitations. This requires radical institutional changes in budget mechanisms:

- ▶ implementation of modern instruments of financial oversight (e.g., digital tracking) over budget spending, systemic (quality) criteria of performance assessment, public oversight institutions (public councils);
- ▶ preparation of complementary policies aimed at increasing the effects of budget spending in certain spheres: attracting private investments; establishing public-private partnerships; implementing structural reforms, etc...;
- ▶ creation of a specialized financial institution for financing budget investment programs – a state development and recovery bank acting on the principles of national promotional banks in the EU;<sup>113</sup>
- ▶ creation of a fund for regional and local development – a public institution in charge of selecting, financing, and tracking the projects fostering regional and local development (recovery) financed from the state budget or on a partner basis;
- ▶ modernization of the inter-budgetary transfer system, accounting movements of IDPs, the relocation of businesses, and special recovery needs including changes within the current budget period.

## The budget should become a budget of confidence

Transparent and well-grounded budget spending is crucial for tax compliance, the establishment of public-private partnerships, and sustained financial support from external donors. **If the government is to maintain a relatively high level of fiscal redistribution, the budget should become one invoking confidence** – representatives of business, ordinary taxpayers, and civic activists should understand the

mechanisms through which central and local budgets are operating and be involved, where possible, in policies related to budgetary spending.

Special institutional mechanisms should be implemented to build confidence in the budgetary sphere:

- ▶ Public-private partnerships involved in the responsibilities of government institutions and local authorities will diversify the providers of important services – this should occur not only with respect to utilities but also, for example, regarding the improvement of local spaces, health care, education, vocational training, and the restoration of damaged infrastructure;
- ▶ Maximal simplification of provision of administrative services, tax procedures, promotion of further implementation of “digital state,” etc...;
- ▶ Widescale adoption of participatory budgeting at the level of central and local budgets, implementation of modern digital instruments for crowdsourcing ideas, construction projects, the attraction of wide social strata to project generation and decision-making processes;
- ▶ Involvement of hromadas in the recovery processes at all stages: assessment of losses and damages, building plans and priorities of recovery, management of recovery projects.

## 3.3.4. International aid and partners

### Recovery needs comprehensive external financing

The scale of war-related damage to Ukraine’s economic and social infrastructure is enormous. The recovery will consequently be a widescale task requiring comprehensive external financing.

**A core task for the international community supporting Ukraine involves determining legal ways the country can be compensated through reparations covered by Russia.** It is highly likely that the end of the war will not create an opportunity to obtain transfers directly from Russia, at least not a radical change of its governors occurs. As an alternative,

113 [https://www.europarl.europa.eu/RegData/etudes/STUD/2016/572687/IPOL\\_STU\(2016\)572687\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2016/572687/IPOL_STU(2016)572687_EN.pdf)

experts could consider the reallocation of Russian funds that have been targeted by sanctions and now lie beyond the jurisdiction of Russia (e.g. Central Bank reserves, funds of persons and companies) – the amount of these is estimated at more than \$350 billion.<sup>114</sup>

Obtaining **reparations, however, could take considerable time and, generally, these funds will not be sufficient to cover all the losses accrued by Ukraine. An emphasis should be placed over the short- and medium terms, therefore, to continue and deepen international cooperation aimed at promoting Ukraine's recovery.**

We see this cooperation developing at the following levels:

- ▶ **Global cooperation with international institutions** such as the IMF, WB, etc... As a rule, the provision of funds must be reforms-dependent and oriented towards macroeconomic goals including macro stability (IMF) and structural reforms (WB);
- ▶ **Bilateral cooperation with partner states** – the goals and conditions of any provisions will be determined by specific agreements;
- ▶ **Macroregional level** – aid provided through euro-regional and cross-border cooperation will include project-specific support primarily at the levels of regions, hromadas, and local institutions;
- ▶ **Corporation level** – foreign investments in specific business projects on the territory of Ukraine;
- ▶ **Level of hromadas and individuals** – peer-to-peer aid provided by volunteers and partners to address specific recovery problems of local communities.

**The institutional capacity of Ukraine and respective communities in ensuring the proper performance management of obtained funds will be crucial to the durable implementation of project aid agreements.**

#### **Institutional capacity to absorb financial aid is crucial**

The institutional capacity of Ukraine and respective communities in ensuring the proper performance management of obtained funds will be crucial to the durable implementation of project aid agreements more generally: optimal spending, the prevention of corruption, and the effective targeting of these measures. For this reason, **aid spending should be organized by an integrated government financial**

114 <https://glavcom.ua/country/politics/reparaciji-z-rosiji-yak-ukrajina-planuje-styaguvati-koshti-858872.html>

**institution – i.e. the National Recovery Corporation under the oversight of the Supervisory Board and comprised of representatives from the main donor countries.** The National Recovery Corporation should ideally act in accordance with the National Recovery Plan adopted at the national level and approved by the donors' conference. The Corporation should further concentrate on projects with insufficient direct commercial effects regarding economic and social infrastructure recovery projects. It should be stressed that this approach differs from proposals of the Ukrainian Government that rather suggest that the National Recovery Agency for National Plan's monitoring and coordination gain no access to fund spending.<sup>115</sup>

Donors, in fact, will be motivated to finance Ukraine's recovery if a stable, transparent, and predictable space for the favourable cooperation of businesses from Ukraine and other European countries can be fostered. This space will include safe communities capable of being active participants in solving problems, important at macroregional/European levels.

**Important complementary support should be included as technical aid to Ukraine aimed at increasing the performance of public management, implementing elements of “smart” local management and digital governance, and improving the quality of civic institutions and public-private communications.**

The creation of regional agencies (offices) of EU integration represents one measure that could feasibly be taken to improve the institutional capacity of different regions in this regard. The agencies should promote changes necessary on the path to EU membership, assume responsibility for the optimization of regional processes due to be implemented, and ensure that opportunities grow out of euro-oriented reforms at the local level.

**The promotion of intermunicipal and interregional cooperation<sup>116</sup> will increase the capacity of regional and local communities to absorb international funds.**

## Future shift from aid to FDI

**Over the long-term, the primary focus of economic recovery will be increasingly shifted towards attracting foreign direct investments,** which will provide the opportunity for a more comprehensive and productive engagement of local resources. For this reason, it is advisable to redirect a proportion of external financing provided to Ukraine to create a special insurance fund for war-related risks for foreign and Ukrainian investments on the territory of Ukraine. This fund could also address the problem in attracting FDI during the scope of the war. The promotion of investment attractiveness of different regions could be spurred by the establishment of investments that develop infrastructure including, for example, industrial parks and logistics centers based on international aid and experience.

The abovementioned comprehensive system of international support should replace the humanitarian aid currently flowing to Ukraine based largely on the crowdfunding model bolstered by Ukraine's supporters throughout the world. **For the transition period, humanitarian aid can be gradually converted into economic aid including the provision of materials and equipment crucial for the recovery of critically important production processes.** It is, therefore, important to collect information on the appropriate needs and communicate this information to potential donors.

115 <https://www.radiosvoboda.org/a/ahentsiya-z-vidnovlennya-ukrayiny-perevahy-ryzyky/31973608.html>

116 <http://www.ucipr.org.ua/en/publications/publication/realizing-the-potential-of-interregional-and-intermunicipal-cooperation-in-the-framework-of-cohesion-policy-analytical-report>

# **4. Human dimension**

## 4.1. Humanitarian impacts and risks of war

The human dimension of resilience during a protracted war is likely the most important and challenging element. **Human capital, as the most important competitive advantage in the global economy, should be the crucial driver of the post-war recovery. Meanwhile, human capital losses due to a prolonged war could impede the capacity to fully engage this driver.** The human dimension also necessitates a recognition that **people will be both resources and “consumers” during the recovery.**

The humanitarian impact and continuing risks posed by the war, together with unprecedented material damage caused by Russia, have emerged as new threats to human capital and potentially social stability in Ukraine.

As a result of Russia’s aggression, the systemic social risks directed at Ukraine have been aggravated: increased unemployment, which leads to lower living standards and increase poverty, elevated migration, insufficient social protection, healthcare deficiencies, etc...

### 4.1.1. Human losses and migration

**The war has caused enormous civilian casualties.**

As of early September, 13,917 people have been officially classified as war victims (including 5,718 fatalities).<sup>117</sup> And notably, data from numerous temporarily occupied localities are not available including Mariupol with its nearly half a million pre-war population. More than 1,100 children, furthermore, have experienced injuries or death (half the figure) as a result of the war.<sup>118</sup> These numbers only continue to rise. At the same time, there has been a significant increase in the orphan population due to children suffering the loss of one or both parents.

According to the UN Refugee Agency (UNHCR),<sup>119</sup> more than 6.7 million Ukrainians are now recorded as refugees residing in different parts of Europe and 7.1 million more are internally displaced according to International Organisation for Migration (IOM).<sup>120</sup>

The sudden dramatic change to the standard of living of this magnitude of people renders the situation a severe humanitarian crisis in Europe.

The war has notably impacted gender equality in the country. Women and children have suffered from difficult household conditions. The war has also witnessed the return of traditional gender roles - **significant self-empowerment opportunities for women have been lost due to the need for women to devote most of their time to household matters.** According to Razumkov Center estimates, the feminization of forced migration is also negatively reflected in the labour market.<sup>121</sup>

The composition and direction of migration flows during the war in Ukraine have been constantly changing. As the war wages on, the evacuation of the civilian population continues too. At the same time, due to the liberation of parts of occupied territories from Russia, some displaced persons have been able to return to their homes.

**7.4**  
**million**  
**Ukrainians are refugees**  
**in European countries**

117 [116487/199908](#)

118 <https://www.gp.gov.ua/>

119 <https://data.unhcr.org/en/situations/ukraine>

120 <https://ukraine.iom.int/crisis-response>

121 [https://razumkov.org.ua/uploads/article/2022\\_Gum.pdf](https://razumkov.org.ua/uploads/article/2022_Gum.pdf)

Though the month of May began witnessed more inflows than outflows of Ukrainians, it is still too early to talk about a full-scale return. Many of those who entered Ukraine, for example, only temporarily returned.

The uncertainty of the prospects for return is also evidenced by the fact that the share of those who arrived in Ukraine with children is significantly smaller than the share of those who left it.

**Forced migration within the country will continue with the obligatory evacuation of people from combat zones in the East and South of Ukraine.** This will increase the pressure on the labour market and social infrastructure of different regions and spark more emigration abroad as people seek out security and economic well-being presuming the war continues.

Ukraine may experience population loss up to 2.4 million people or more – if high unemployment remains after the war, a significant share of men will leave the country too to join their families abroad.

**The realization of Ukraine’s human potential will depend on the ability of the state, local communities, and society to achieve coherence in counteracting the risks that are posed by the difficult conditions they are facing.**

In this vein, unemployment should be considered a core social problem - employment is essential to securing decent living standards, combatting poverty, and bolstering human capital that can, in turn, promote the long-term economic resilience and recovery of the country. Economically active populations also ensure higher living standards for vulnerable populations by providing resources that can be allocated to economic redistribution mechanisms.

**Due to the significant destruction of infrastructure, the disruption of logistics chains, and the decrease in the purchasing power of the population, a large share of enterprises can no longer offer jobs to the able-bodied people.** About 5 million people (or 30% of the working population) have lost their jobs according to International Labor Organization (ILO) estimates.<sup>122</sup> The drop in wages in the private sector averages out at around 25% to 50%.

These developments have contributed to a decrease in the general standard of living for Ukrainians and an increase in the poverty rate. The effects are particularly deleterious to those who lost their homes and property and to refugees.

The war simultaneously has sparked significant increases in everyday expenses faced by Ukrainians - the costs of essential goods, medicine and housing rents have all spiked. The situation is exacerbated for internally displaced people who are also coping with the additional loss of a significant part or all of their disposable incomes.

According to World Bank forecasts, the share of people whose income level will be lower than the subsistence minimum may reach 70% in 2022.

The cumulative long-term effect of both factors – the increased cost of living and the decline in purchasing power – could lead to a drop in the quality of life for both vulnerable groups and the Ukrainian population more broadly.

#### 4.1.2. Social infrastructure damages and capacity

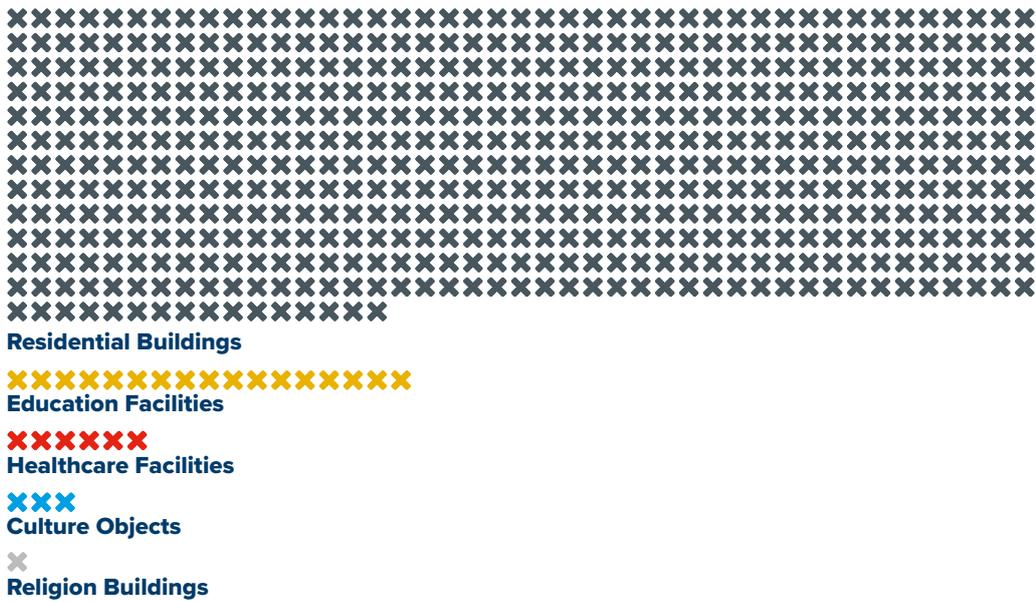
The war has caused unfavourable changes to the housing landscape on account of the complete or partial destruction of housing, social infrastructure (Figure 14) (the facilities of education, healthcare, social services, religion, sports, etc...), disruption of life support systems (gas, heat and water supply, electricity). As of the end of August, at least 15,000 residential buildings and 116,000 private houses, 798 kindergartens, nearly 3,300 schools, 934 health care facilities and 593 pharmacies, 715 cultural buildings, and 205 religion facilities had been damaged, destroyed or captured.

The **total cost to damaged social infrastructure facilities exceeds \$17 billion.** More than 2.7 million people, furthermore, have been left homeless.

The devastation has spurred the depopulation of part of the country, affected opportunities for the development of human capital, and led to negative developments regarding the lowering of living standards.

122 <https://www.ilo.org/budapest/what-we-do/projects/ukraine-crisis/lang-en/index.htm>

Figure 14 – Social infrastructure damage/destruction



A significant problem preventing the proper functioning of social infrastructure concerns the rapid increase in the asymmetry of the population across regions. Approximately 22% of Ukraine’s entire population was forced to change their place of residence.

This problem includes three main dimensions: the overwhelming of infrastructure in regions where the intensity of warfare is low; insufficient staffing (more qualified personnel are needed in “safe” regions and the deficit of personnel fixed in endangered areas); insufficient funding against the backdrop of significant resource outflows to supply the war effort.

According to the UN, as of June 2<sup>nd</sup>, 269 attacks against health care infrastructure have been confirmed, resulting in at least 76 deaths and 59 injuries. A total of 711 medical institutions have been damaged including more than 400 in temporarily occupied territories. And 123 institutions have been completely destroyed.

The war has also directly affected the availability of medicine. Since the beginning of the year, the state enterprise “Medical Procurement of Ukraine” has only been able to carry out purchases of equipment at 53% of their actual need. According to the latest estimations of the Ministry of Economy and the KSE Institute, **direct losses from the destruction or dam-**

**The devastation has spurred the depopulation of part of the country, affected opportunities for the development of human capital, and led to lowering of living standards.**

age to health care facilities amounted to about \$1.6 billion. The total indirect losses to the health-care system included \$2.7 billion.

The overall health condition of Ukrainians has significantly deteriorated due to the absence (shortage) of medicine in the pharmacy network, a significant exacerbation of chronic diseases under the influence of stress and/or change of residence, the impossibility (difficulty) of obtaining qualified medical care (due to the complete or partial destruction of medical infrastructure, lack of medical equipment, medicines, and qualified medical personnel), and the spread of post-war syndrome not only among military personnel but also among the civilian population that has witnessed warfare.

Moreover, the war in Ukraine has seen every factor associated with premature death come to pass – traumas, poverty, poor sanitation, lack of access to healthcare, and environmental degradation. **Ultimately, these developments increase the burden on the health care system and may lead to a substantial narrowing of the list of medical services that the state can guarantee.**

### 4.1.3. Strengthening civil society

Support in fulfilling key social functions includes both social networks and institutions. While government can provide an institutional framework for societal resilience and provide necessary resources, **the war has demonstrated the decisive role of civil society in those areas where the state has been unable to continue performing its functions.**

The events of the Russian-Ukrainian war have underlined that civil society is an important component to national stability in wartime. The post-war recovery consequently will too require the involvement and participation of both state agencies and individual people stepping up to help each other.

**Volunteer activities have reached a nationwide scale in Ukraine and spotlighted the high level of civic consciousness of Ukrainians and their ability to effectively self-organize.**



As of August 17<sup>th</sup> 2022, 887 Ukrainian charitable NGOs providing social services have been registered. Apart from the largest cities (Kyiv, Kharkiv, Lviv, Odesa), there are 20-25 such organizations active in each region. According to the results of the recent survey of the Ilko Kucheriv Democratic Initiatives Foundation, 57% of Ukrainians from the central and western regions have participated in volunteering or charity activities and a further 11% are also planning to join such activities.<sup>123</sup> More than four hundred thousand Ukrainians are involved in volunteer activities aimed to respond to the consequences of the war.<sup>124</sup> Volunteering, additionally, contributes to the involvement of ever wider segments of the community in self-organization at the local and national levels.

In this respect, different volunteer initiatives play the role of a civil society self-organization model response to the crisis. In addition, **volunteering plays an important role in the cohesion of Ukrainian society** and serves as an effective tool for the social protection of the population.

123 <https://dif.org.ua/en/article/samopochuttya-ukraintsv-pid-chas-vijni-emotsii-ochikuvannya-osobistiy-dosvid-opituvannya-u-zakhidnikh-ta-tsentralnikh-regionakh>

124 <https://www.unicef.org/ukraine/press-releases/volunteer-hub-helps-400000-ukrainians-make-difference>

## 4.2. Priorities of social sphere resilience

### 4.2.1. Counteracting social risks at wartime

Social resilience can be defined as the ability of a social system to preserve its core functionality under different stress circumstances (such as war, natural or man-made disasters, pandemics, or the ordinary lack of resources) and the ability of society to adapt and transform itself.

**Ensuring the stability of society is impossible in conflict situations without government taking an active role - both urgent measures and those which are reasonable to implement following the end of warfare are necessary (however, work on them should be started now)** (Table).

**Table. Measures to be taken to reduce social risks**

Urgent measures	Measures to increase the resilience in post-war recovery
<ul style="list-style-type: none"> <li>▶ recording of facts of military crimes against citizens and destruction of infrastructure;</li> <li>▶ ensuring the employment of IDPs (and solving the problem of staff shortage);</li> <li>▶ establishing logistics chains and ensuring the operation of a network of key institutions of social infrastructure;</li> <li>▶ urgent social support measures for vulnerable population groups;</li> </ul>	<ul style="list-style-type: none"> <li>▶ promotion of labour mobility of the population and the development of alternative employment models;</li> <li>▶ review of vulnerable categories of people, taking into account the consequences of war, implementation of appropriate mechanisms of social assistance;</li> <li>▶ institutional optimization of the social sphere;</li> <li>▶ implementation of changes in the view of European integration (bringing labour regulations up to European standards, adaptation of social standards, introduction of modern financing mechanisms of the social sphere);</li> <li>▶ promoting the return of migrants from abroad;</li> <li>▶ reorientation of medical care to the primary treatment of “war traumas”;</li> <li>▶ rehabilitation of people who took part in warfare.</li> </ul>

In light of this information, it is reasonable to place emphasis on “pillars” of long-term social resilience (sustainability). Traditionally the latter is defined as a combination of equity, empowerment, accessibility, participation, sharing, cultural identity, and institution stability.<sup>125</sup>

**In our view, the practical “pillars” underpinning social resilience include proper employment, a robust health system, social support (protection) system, social infrastructure, mechanisms to influence migration waves, as well as a civil society component displaying high self-organizational ability** (Figure 15).

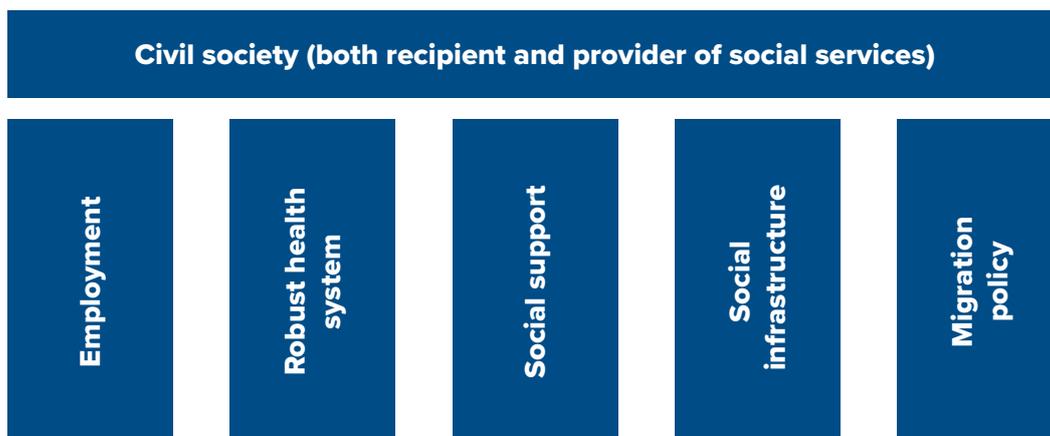
### 4.2.2. Crucial steps to social resilience

**The priorities of social protection should be reflected in optimizing the standard of living by ensuring different categories of people can partake in equal social opportunities, share prospects for horizontal and vertical mobility, and enjoy conditions for self-development within society.** Such standards should be established on the principles of social partnership, democracy, economic efficiency, and social expediency.

To reduce the negative effects of war on the labour force, it is also necessary to create opportunities for the effective implementation of experience, knowledge, qualifications, and the labour potential of citizens.

125 [https://www.europarl.europa.eu/RegData/etudes/STUD/2020/648782/IPOL\\_STU\(2020\)648782\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/648782/IPOL_STU(2020)648782_EN.pdf)

Figure 15 – “Pillars” of long-term social resilience



The recovery process will place additional demands on labour associated with overcoming the consequences of the destruction and reconstruction of the economy, territories, production, and housing – these developments will require the sectoral and intersectoral mobility of the workforce.

There is a certain duality inherent in wartime migration waves regarding their impact on resilience. It is critically important that Ukraine seek the maximum plausible return of its population to Ukraine and to their places of residence to strengthen the country and its further recovery trajectory. At the same time, the unpreparedness of the economy (particularly the labour market and social infrastructure) for the return of Ukrainian citizens from abroad should be considered a potential challenge that needs to be addressed.

In ensuring the long-term resilience of human capital, a special role will be played by optimized and restored **infrastructure of social services** for all categories of the population. There is a growing need for infrastructure that boasts the following features:

- ▶ maximum availability (including mobility and deployment speed);
- ▶ efficiency;
- ▶ compliance with the number and structure of the population of a specific territory;
- ▶ compliance with inclusiveness criteria

The problem of the destruction of infrastructure will be especially acute in the autumn-winter period, which requires urgent solutions.

Moreover, in this regard **there is a need for support of communities that have received a large number of IDPs**, primarily in terms of strengthening the capacity of medical and education institutions and the supply of food, medicine, fuel, etc...

The prospects of a protracted war, limited resources, and a lack of institutional capacity of the state demands the search continue for new effective mechanisms for targeted support to vulnerable categories of people. In this regard, the need for volunteers will remain significant.

Such activities need some coordination to avoid the duplication of tasks or the emergence of gaps in the performance of tasks. A further significant issue to overcome concerns the conservatism of state institutions that prevents the full use of the potential of volunteering organizations including, in particular, the establishment of stable partnerships.

**In the medium and long term, the potential of situation-specific volunteering should evolve into stable institutions characterized by charities and endowments, public-private partnerships, social entrepreneurship, participative economic instruments, etc...** For this reason, a **special strategic program for volunteering development is needed.**

## 4.3. Recovery tools and mechanisms

### 4.3.1. Recovery organization and planning

Ukraine's post-war recovery tools and mechanisms consist of measures aimed at human capital development and its proliferation at different levels: personal (individual human capital), micro- (human capital in organizations); meso- (human capital of regions and branches of the economy) and macro-level (overall human capital). This research is concentrated mostly on meso- and macro-levels; these should, in turn, create the conditions for self-development at the individual and microlevels.

**In ensuring the long-term resilience of human capital, a special role will be played by optimized and restored infrastructure of social services for all categories of the population.**

#### Careful planning is necessary for efficient funds allocation

To agree on the common direction of restoring and mutually strengthening the social sphere's long-term resilience, all recovery processes should conform with the UN Sustainable Development Goals and an appropriate strategic cooperation framework should be developed.

It is necessary to conduct regular monitoring and analysis of events affecting humanitarian responses including reporting, advocacy, needs, and response analysis.<sup>126</sup>

**Due to a lack of resources, the recovery should be supported by the periodic assessment of social support to ensure it is efficient.**

Although the eventual restriction of social expenditures may be inevitable (from the point of view of macroeconomic balances), the government should prudently identify the acceptable limits of these restrictions and carefully determine the socio-economic effects of any austerity measures. All proposed and planned measures must undergo public scrutiny.

It is also important to elaborate interregional cooperation mechanism that will provide an opportunity to develop interregional projects with the involvement of internal and external economic, labour, information and social resources.

#### Partnership in recovery multiplies resource capacity

**As much as Ukraine lacks sufficient capacities and resources to rebuild after the war, cooperation between the government, civil society, and international institutions should be established.** This collaboration must be close to public-private partnerships (PPPs) to achieve joint development goals and improve aid effectiveness in an innovative way – this can be accomplished by combining and strengthening the knowledge, capacities, and resources of one another.<sup>127</sup>

126 [https://razumkov.org.ua/uploads/article/2022\\_Gum.pdf](https://razumkov.org.ua/uploads/article/2022_Gum.pdf)

127 [https://www.europarl.europa.eu/RegData/etudes/STUD/2020/648782/IPOL\\_STU\(2020\)648782\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/648782/IPOL_STU(2020)648782_EN.pdf)

**The recovery should be supported by the periodic verification of social support to ensure it is efficient.**

The cooperation should not be limited only to the PPP model but can also be established in the form of long- and short-term partnerships with foreign civil society organizations and techno parks (mainly in healthcare and education).

**As a core principle of recovery mechanisms, the solution to the vast majority of social problems should take place primarily at the expense of stimulating self-employment, including the reduction of the tax burden on labour and the introduction of effective mechanisms of public works.** This will create the prerequisites for the growth of citizen income, a decline in the unemployment rate, and employment growth in legal sectors thereby making it possible to obtain considerably greater levels of social guarantees than in informal shadow economy.

#### **4.3.2. Employment promotion**

##### **Providing jobs – a key to human capital growth**

The main principles and components of the updated employment policy for the war and post-war economy include:

- ▶ emergency provision of employment under stabilized security conditions for groups of persons affected by the war;
- ▶ formation of labour force mobility, including professional mobility, which will require flexible forms of employment and the implementation of new alternative employment models and greater sophistication of the vocational training system, etc...;
- ▶ creation and development of workplaces based on the principles of the concept of decent work, development of the institutional capacity of the labour market and social dialogue;
- ▶ promotion of the development of entrepreneurship and support for self-employment;
- ▶ the formation of social values in the economic sphere based on the freedom of economic activity, the independence of economic institutions, and formal economic relations that prevent the spread of paternalism in society.

**A key to employment promotion is education, which must take into account the principles of “lifelong learning” and inclusiveness**

### Ukraine needs educated people

The development of professional education will cultivate not only qualified personnel in the coming years but promises to lead to job creation now. It is important, therefore, to counter the devaluation of national higher education and ensure its compliance with the real demands of the national and European economy. Reconstruction and further reform of the education system must take into account the principles of “lifelong learning” and inclusiveness:

- ▶ return to traditional forms of education (offline) with inclusive component and based on the fulfilment of security requirements by education institutions;
- ▶ implementation of the model of effective education funding aimed at training for priority demand professions in the labour market;
- ▶ adaptation of research to contribute to recovery goals
- ▶ development of non-formal education and creation of mechanisms for recognition of its results in the system of formal education;
- ▶ active involvement of non-governmental organizations in postgraduate education programmes and projects;
- ▶ simplification of mutual recognition of diplomas of Ukraine and its partners

### 4.3.3. Social sphere reloading

#### Social security is on the agenda

Though the main tool for countering poverty and raising social standards is the comprehensive development of the labour market, its implementation will take time. Meanwhile, vulnerable population categories that rely on government support will only further grow. The social security policy of the restoration period should, consequently, be concentrated on:

- ▶ Building a fair and financially sustainable system of social security (including pension insurance);

- ▶ comprehensive involvement of civil society organizations, and the development of participatory democracy tools;
- ▶ implementation of new effective mechanisms for targeted support of vulnerable categories of the population;
- ▶ implementation of PPP best practices in social support.

### Infrastructure to support human potential realization

The development of measures to ensure the stability of human capital during war requires the adaptation of social infrastructure to a situation of long-term warfare. At the same time, the development and territorial organization of the functioning of social infrastructure can feature its own peculiarities that should heed the structure of the population of a region, their distance from the area of active warfare, etc....

**The development of measures to ensure the stability of human capital during war requires the adaptation of social infrastructure to a situation of long-term warfare.**

**The modernization of social infrastructure must also start now and include:**

- ▶ implementation of projects to increase the energy efficiency of residential buildings, construction of new buildings, and the repair of damaged buildings;
- ▶ modernization of social facilities in accordance with the principles of energy efficiency and accessibility, restoration of destroyed facilities, and construction of industrial parks;
- ▶ rebuilding secondary and high education facilities;
- ▶ updating of digitalization programs for leading higher educational institutions, strengthening research centers in universities, “New Ukrainian School” reform;
- ▶ launch of a national program to support the mental health of people affected by the war,
- ▶ development of a network of specialized health care facilities, creation of digital (including distant) services;
- ▶ restoration of destroyed cultural institutions, museums, memorials, and cultural centers;
- ▶ implementation of a program providing access to housing - the introduction of a programme aimed at the integration of veterans.

**Healthcare – an important component of restoring and rising social standards**

The prolonged war has resulted in the unprecedented destruction of medical infrastructure and equipment and significant migration flows leading to shortages in qualified medical personnel. The problem is compounded by constant gaps in logistical supply chains of medicine and equipment. These issues have considerably reduced the capacity of the health care system to perform its functions.

**The solution to these problems should be facilitated by the development of a programme for the recovery of infrastructure and relocation of specialized health care facilities.** The measures within this program should include:

- ▶ the conversion of existing facilities for the urgent need of health services;
- ▶ the formation of a list of priority diseases or medical conditions caused by the war with further prioritization of their funding;
- ▶ a concept and plan for strategic stocking in case of future shocks to healthcare;
- ▶ elaboration on alternative supply chains for critical medicine and materials;
- ▶ comprehensive implementation of the concept of mobility within the health services;
- ▶ psychological and social rehabilitation of children and youth;

**4.3.4. Safe return to displaced people**

The state should actively seek to intervene to prevent further “brain drain” and attract those who forcedly left Ukraine because of the war. Measures are needed to work with war refugees (including displaced people) and the policies must be aimed at ensuring safe conditions for either the return of people to their previous places of residence or support in settling in new towns:

- ▶ non-bureaucratic and simplified system of compensation for lost and damaged property;
- ▶ a state programme aimed at ensuring the safe and sustainable return of IDPs to their places of previous residence, accommodation, and/or integration in different parts of Ukraine if they are unable or unwilling to return to their original settlement;
- ▶ unified online portal advertising housing and job opportunities with special benefits for IDPs;
- ▶ support for local communities that have received a large number of displaced persons;

- ▶ a targeted programme to facilitate the return and reintegration of war refugees to Ukraine; this initiative must involve the host countries and international organizations in its development, implementation, and financial support;
- ▶ appropriate tax and credit policies to promote the revival and creation of small businesses by returnees, in particular, consider the possibility of duty-free importation of their personal property and industrial goods.

**The development of measures to ensure the stability of human capital during war requires the adaptation of social infrastructure to a situation of long-term warfare.** At the same time, the development and territorial organization of the functioning of social infrastructure can feature its own peculiarities that should heed the structure of the population of a region, their distance from the area of active warfare, etc...

**The state should actively prevent further “brain drain” by ensuring safe conditions for either the return of people to their previous places of residence or support in settling in new towns**

# **5. Afterword**

The complementary steps laid out for both the macroeconomic and human dimensions suggested throughout the chapters of this report provide promise in leading Ukraine through the threats of the ongoing war, a systemic post-war recovery, and the European integration path that is to come. The steps should be implemented based on a model of close cooperation between the national government and international supporters of Ukraine (See table in Annex 1) by creating collaborative synergies equally important for both Ukraine and EU countries.

### Partnership in recovery and the promotion of reforms

Partnership in building wartime resilience and fostering the post-war recovery, based on the EC communication of May 2022 and the Lugano declaration of July 2022, is expected to combine financial support and approaches promoting a reform-oriented agenda.

**International financial support is critical for ensuring resilience at a time of ongoing war, supporting a rapid economic recovery, and preventing a humanitarian crisis.**

EU accession-driven reforms are also important for fostering institutional modernization in Ukraine. New institutional practices should crowd-out existing inefficient habits (especially corruption) that now constitute institutional traps that inhibit the progress of reforms. A promotion of reforms approach entails that financial, material and organizational support will be provided to obtain reform results by virtue of the implementation of European practices of governance and civic activities (the reforms are not preconditions offered in exchange for support but rather the results of support).

The war, unleashed by Russia against Ukraine, has already underscored Ukraine's important role on the European continent. The war has also sparked numerous acute problems related to continental security, a humanitarian crisis, food security, etc... As its EU candidate status advances, Ukraine should become an important contributor to long-term resilience and

comprehensive progress within Europe and prove its important prospective role in pragmatically addressing existing and future problems of the United Europe.

**In implementing its own National Recovery Plan, Ukraine will not be a passive recipient of external aid but rather an active participant of a European post-war transformation.** Yet European funds to support Ukraine should be considered as investments into the stability, integrity and long-term economic resilience of its common European future. The inclusion of European business and civic stakeholders in cooperation with Ukraine will contribute to their powerful support as advocates to Ukraine's EU accession to EU. These allies will be able to lobby and press the EU bureaucracy to promote a fast-track accession procedure and provide adequate pre-accession support.

**Ukraine's extensive recovery process will provide a powerful opportunity for the implementation of projects ensuring the country embraces modern (digital) technologies in a wide variety of sectors and regions** achieving a post-industrial synthesis<sup>128</sup> of traditional and modern technologies. The demand for appropriate technical and technological solutions can bring new competitive advantages to companies that contribute to the European economy. And the practical integration of these solutions in joint projects with Ukrainian stakeholders will provide reciprocal interest in these projects.

**Implementation of agriculture and food processing technologies, compliant with European directives and the establishment of a "from farm to fork" system similar to the one operating in the EU will increase confidence in the Ukrainian regulatory system and the safety of its food products.** These measures can decisively promote food security in Europe, including both the EU and Ukraine, and foster EU participation in solving the global food crisis problem.

Joint efforts in agriculture can promote the adaptation of Europe's food system to climate change. As Ukrainian weather conditions often significantly differ from those

128 [http://www.irbis-nbuv.gov.ua/cgi-bin/irbis\\_nbuv/cgiirbis\\_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP\\_meta&C21COM=S&2\\_S21P03=FILA=&2\\_S21STR=ecvd\\_2017\\_1\\_8](http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=ecvd_2017_1_8)

experienced in most European countries, the stability of the food supply of the continent should be enhanced. Adoption of a common policy may also be crucial in curbing climate change and overcoming its possible negative consequences, e.g. – in the Carpathian region.

**The Ukrainian transportation system will become more flexible and more attuned to processing different types of goods.** Multimodal terminals in the western and southern regions of Ukraine deploying integrated transport, logistics centers, customs services, and joint processing functions with transport operators in neighbouring countries will accelerate the transportation of goods and passengers and improve connectivity in the region. Better logistics will further provide an opportunity to establish steady communications channels with partners in the EU. After concluding ACAA, Ukrainian industrial products will be marketed in the EU without additional testing and conformity assessment procedures. And Ukrainian transport infrastructure will become an integral and indispensable part of the TEN-T by linking Europe to Asia through Ukraine and thereby “reloading” the transit status of Ukraine.

**The heavy destruction of social and economic infrastructure, at the same time, will provide opportunities to implement modern energy efficient, low-carbon, and environment-friendly solutions in accordance with the European Green Deal requirements.** Ukraine’s recovery can provide a convenient platform for pilot projects and showcase the Green Deal implementation in the basic sectors of economy and social infrastructure for all Europe to witness – these processes could attract innovators from the world over. It is also a promising opportunity for Ukrainian producers to establish cooperation with European partners in “green” equipment production.

Ukraine boasts vast experience in the implementation of digital administration and public services. On the other hand, integrated solutions, as adopted by smart cities and communities, will require the diffusion of production hardware for smart networks. Ukraine and the EU, consequently, share an interest in jointly realizing integrated smart networks at both the local and common EU levels.

**Ukraine should become an important contributor to long-term resilience and comprehensive progress within Europe and prove its important prospective role in pragmatically addressing existing and future problems of the United Europe**

**As much as Ukrainians have already established tight integration with the European community in people to people contact, the pre-accession period will be crucial to further developing Ukraine-EU cooperation in human capital development.** Joint programs in secondary education, higher education and vocational training, the internationalization of micro-entrepreneurship, the protection of labour rights of migrants, societal cultural development, local co-

hesion, and the decentralization of governance are needed and should especially be targeted towards aiding war refugees. Civil societies and their institutions will assume important roles in this process fostering stronger cohesion within Ukraine and Europe. Kyiv can now also come to represent best practices in resilience building, cohesion, volunteering, networking, and the self-organization of local communities – these lessons and experiences can all be useful in improving models of social cooperation across the EU.

### **“Marshall plan 2.0” for a pragmatic EU integration process**

**By using appropriate institutional mechanisms, the implementation of recovery tasks can move Ukraine step-by-step towards cementing practical integration with the EU and establishing the complementarity of national and European identities.**

Logically these steps look as follows:

- ▶ Creation and implementation of national recovery funds based on European principles and accountability to European donors.
- ▶ National Recovery Plan jointly prepared with European partners to coordinate aid and the recovery.
- ▶ “Marshall Plan 2.0” directed at Ukraine’s reintegration in Europe prepared in coordination with the EU (see below).
- ▶ Roadmap of candidate status – stages involving crucial reforms, access to European facilities and the use of pre-accession funds.
- ▶ Ukraine’s repositioning in a new European strategic economic model.

**References to the post-WWII era “Marshall Plan” suggest that it would be beneficial to prepare a special multinational strategic framework (Marshall Plan 2.0) aimed at defining a common European policy concerning Ukraine and directed institutional renewal within Ukraine premised on European principles during the pre-accession period.**

### **In particular, the Plan should:**

- ▶ Ensure spheres and projects of mutual interest between businesses in Ukraine and EU are pursued by the recovery framework and beyond;
- ▶ Develop a transparent predictable economic area, provide space to partners in Ukraine, and ensure European companies enjoy the prospect of engaging in partnerships on the Ukrainian market;
- ▶ Implement efficient transparent financial mechanisms for banks and channel fiscal aid for recovery purposes;
- ▶ Envision the prospective positioning of Ukraine within the European community including engagement in key strategic problem solving: defense, food security, cohesion, demographic shifts, climate change, digital revolution, and a restart following the loss of access to Russian markets and supplies, etc...;
- ▶ Implement common European policies as part of the Ukrainian strategic and political framework (in particular agricultural, industrial, competitive, cohesion, transport, environmental, energy, etc...);
- ▶ Develop mechanisms of technical aid for government institutions and local self-governance to create an adequate institutional framework for policy and the implementation of European practices;

As part of the implementation of the Plan, numerous practical steps to intensify enforcement of institutional mechanisms embedded within European integration should be envisaged:

- ▶ introduction of mechanisms for Ukraine’s deliberative participation in decision-making at the European Commission and other EU-level governing institutions;
- ▶ creation of joint institutions authorized to distribute and oversee the use of international aid for Ukraine;

- ▶ cooperation with diplomatic institutions of EU countries on systemic support for Ukrainian exporters at European commodity markets;
- ▶ institutional support of international cooperation of small and medium-sized enterprises;
- ▶ solidification of contacts between business associations and private companies of Ukraine and the EU;
- ▶ deepening cross-border cooperation primarily on the basis of euro-regions;
- ▶ widening interpersonal contacts including with people who have fled Ukraine to EU countries.

**The plan should be prepared in close collaboration with Ukraine but based on the guidance of the EU.**

It should further include both Ukrainian and European actors, determine tasks for European institutions, and, finally, re-establish the drivers of economic development across the European continent. The European Recovery Council, acting under the guidance of the EU, should oversee, monitor and, if necessary, amend the tasks of the Plan.

## Annex 1

## Main recovery tasks and prospective stakeholders

Task	Ukrainian state institution	Possible Partner
<b>Macroeconomic dimension</b>		
Compensation mechanisms for destroyed assets	Cabinet of Ministers, Ministry of Economy, Ministry of Agrarian Policy and Food, Ministry of Social Policy	EIB, EBRD, World Bank, European Commission,
Restoration of critical infrastructure in combatted regions	Cabinet of Ministers, Ministry of Economy, Ministry of Infrastructure, Ministry of Finance, Ministry of Agrarian Policy and Food, local authorities	EIB, EBRD, World Bank, European Commission, European business associations and partner regions and communities
Strengthening critical infrastructure in destination regions of relocation	Ministry of Economy, Ministry of Infrastructure, Ministry of Finance, Ministry of Communities and Territories Development, local authorities	EIB, EBRD, World Bank, partner regions,
Special guarantees for war risks for investors	Cabinet of Ministers, Ministry of Economy, Ministry of Finance,	EIB, EBRD, World Bank,
Diversification of critical supplies	Ministry of Economy, Ministry of Infrastructure, Ministry of Energy	EIB, EBRD, European Commission,
Improvement of economic communications of Ukrainian and EU businesses	Ministry of Economy, Ministry of foreign affairs, local business associations	European Commission, European business associations
Support for internationalization of SMEs	Ministry of Economy,	European Commission, European business, associations, WTO
Improvement of transport and border logistics at border crossings with the EU	Ministry of Infrastructure, State Border Guard Service of Ukraine, State Customs Service	Large European Logistics companies, Governments of neighboring countries
Implementation of digital means for the recovery	Ministry of Digital Transformations, Ministry of Economy, Ministry for Communities and Territories Development, Ministry of Agrarian Policy and Food	EIB, EBRD, World Bank, , European business associations, particular businesses and local communities
Implementation of the basics of the circular economy	Ministry of Ecology and Natural Resources, Ministry of Economy	EIB, EBRD, World Bank, , European business associations, particular businesses and local communities
Provision of anti-inflationary partnership	Cabinet of Ministers, National bank of Ukraine, business associations	EIB, EBRD, World Bank,
Promotion of long-term bank investment loans	National bank of Ukraine, Ministry of Finance	EIB, EBRD, World Bank, IMF, ECB
Implementation of industrial compliance with European technical standards	Ministry of Economy, Ministry of Strategic Industries	EIB, EBRD, World Bank, , European business associations, particular businesses
Development and diversification of defence industries	Cabinet of Ministers, Ministry of Strategic Industries, Ministry of Economy, Ministry of Defense	
Promotion of recovery-related production (building materials, metals, building machinery, etc...)	Ministry of Economy	EIB, EBRD, World Bank, , European business associations, particular businesses

Rethinking smart-specialization of regions as part of new start (connected with S3 Platform)	Cabinet of Ministers, Ministry of Communities and Territories Development,	European business associations and local communities
Development of agro products processing for consumption and long-term storage	Ministry of Agrarian Policy and Food, Ministry for Communities and Territories Development, Ministry of Economy	EBRD
Return of agricultural land to economic circulation	Ministry of Agrarian Policy and Food, State Emergency Service	UNICEF, EBRD
Promotion of productivity of individual and small agro producers	Ministry of Agrarian Policy and Food, local authorities	European Commission, European business associations
Development of supply and sales networks for small agro producers	Ministry of Economy, Ministry of Agrarian Policy and Food, local authorities	EIB, EBRD, World Bank, European Commission, particular businesses
Extension of storage capacities of food and agro products	Ministry of Economy, Ministry of Agrarian Policy and Food, local authorities	EIB, EBRD, World Bank, partner countries, particular businesses and local communities
Tailoring transport infrastructure and logistical points to changes in the location of large industrial enterprises and the places of origin of freight flows	Ministry of Infrastructure, Ukrainian Sea Ports Authority, State Aviation Administration	EIB, EBRD, World Bank, European Commission, partner countries, European business associations and particular businesses
Development of multimodal transportation in cargo and passenger traffic	Ministry of Infrastructure	Large European logistics companies, Governments of neighboring countries
Arrangement of new supply and transit routes in Western and Southern directions and resetting the transit status of Ukraine.	Cabinet of Ministers, Ministry of Infrastructure, Ministry of Foreign Affairs, business associations	DG Ener of the European Commission, ENTSOE, large European logistics companies
Development of renewable energy capacities	Ministry of Energy, Cabinet of Ministers of Ukraine, Verkhovna Rada of Ukraine	DG Ener of the European Commission, European associations of renewable energies
Energy efficiency measures at the household and commercial levels	Ministry of Energy, Cabinet of Ministers of Ukraine, Verkhovna Rada of Ukraine	DG Ener of the European Commission, European associations of renewable energies

Human dimension		
Compensation mechanisms for destroyed or damaged dwellings	Ministry of Finances	World Bank, OECD, EBRD
Organization of swift restoration of dwellings	Cabinet of Ministers, Ministry for Communities and Territories Development	European and international architecture companies
Creating a comfortable and safe living space	Cabinet of Ministers	UNPD, EBRD
Support for communities receiving large groups of IDPs;	Cabinet of Ministers, Ministry for Communities and Territories Development	The International Association For Community Development, International Institute for Local Development, EBRD
Rearrangement of social security system in accordance with the risks and challenges of the war;	Ministry of Social Policy, Ministry of Economy, Pension Fund	Large European Insurance companies
Targeting social support based on digitalization;	Ministry of Social Policy	USAID, European Commission
Special policies of IDP reintegration or return and employment;	Cabinet of Ministers, Ministry of Social Policy, Ministry of Economy, Ministry for Communities and Territories Development of Ukraine, State Migration Service, Ministry of Internal Affairs, Ministry of Foreign Affairs	IMO, European Commission, UNPD, European NGOs and local communities
Communications with displaced persons abroad	Ministry for Foreign Affairs	EUDiF, Ukrainian World Congress
Rebuilding of vocational training and retraining providing new and prospective structural requirements;	Cabinet of Ministers, Ministry of Social Policy, Ministry of Economy	ILO
Employment promotion programs;	Cabinet of Ministers, Ministry of Social Policy, Ministry of Economy	ILO, International Organization of Employers
Extension of temporary and flexible employment systems	Cabinet of Ministers, Ministry of Social Policy	ILO, International Trade Union Confederation
Expanding access to proper medical services	Ministry of Health Care	WHO, USAID







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