



Research Report

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The Trade-Offs of Ukraine's Recovery

Fighting for the Future

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About This Report

In making decisions about reconstruction, the Ukrainian people and their government will face trade-offs regarding timelines, prioritization of efforts, leadership, and funding. This report aims to advance the understanding of these trade-offs and their ramifications. This will not only improve the decisionmaking process but also result in outcomes that are easier for the Ukrainian people and the broader international community to understand and accept. We intended to build bridges between ideas circulating in two communities of research and practice—one focusing on disaster risk reduction and the second working on directly developing the strategies and tactics of Ukraine’s reconstruction. We hope both find this report useful.

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Summary

In making decisions about reconstruction, the Ukrainian people and their government will face trade-offs regarding timelines, prioritization of efforts, leadership, and funding:

- The decision of when to start reconstruction brings about a trade-off between the need to respond to public demand while also accounting for the uncertainty of war. The Ukrainian people want the government to restore normal life quickly, but doing so while armed conflict is still active might drain resources with little improvement in people's lives.
- The decision of who and what to prioritize will involve weighing the demand to start reconstruction quickly against the risk of inequitable access to resources and the potential long-term consequences. If the sources of reconstruction funds dry out before frontline regions can be rebuilt, and if there is a clear disparity between these regions and the rest of the country, national unity might crumble.
- The decision of who should direct reconstruction reveals a trade-off between sovereignty, capacity, and the risk of corruption. Sovereignty requires the Ukrainian government to take charge; however, the problem of corruption persists. Local communities enjoy the most trust and the best understanding of needs but lack capacity to handle large projects.
- The decision of who should pay for reconstruction is a trade-off between the speed, sovereignty, and the long-term effects of that reconstruction. Private capital can bring speed at the cost of sovereignty. International institutions bring oversight but operate slowly.

Contents

- About This Report iii
- Summary..... v
- Contentsvi
- Figures and Table vii
- Chapter 1. Introduction..... 1
- Chapter 2. Taking Stock of War Damage4
 - Displacement and Damage to Communities4
 - Economic Damage7
- Chapter 3. Applying Lessons Learned to Ukraine’s Recovery 10
 - When Does Reconstruction Start?.....11
 - How Should Efforts Prioritize People, Locations, and Other Projects?.....14
 - Who Directs Reconstruction?.....18
 - Who Pays for Reconstruction?24
- Chapter 4. Conclusion28
- Abbreviations31
- References32

Figures and Table

Figures

Figure 2.1. Number of Ukrainians Displaced Since the Start of Russia’s Full-Scale Invasion5
Figure 2.1. Export of Agricultural Products from Ukraine, Thousand Tons 8
Figure 2.3. Breakdown of \$113 Billion in Infrastructure Damage.....9
Figure 3.1. Decision Space of Ukraine’s Recovery 10
Figure 3.2. Ukraine’s Score for the Corruption Perception Index21
Figure 3.3. Ukraine’s Score for the Government Effectiveness Index.....22

Table

Table 2.1. Ukraine’s Selected Economic Indicators.....7

Chapter 1. Introduction

Russia's 2022 full-scale invasion of Ukraine was a major escalation of an ongoing low-intensity conflict dating back to 2014. For the past eight years, Ukraine defended itself, reconciling national defense needs with the demand for modernization and reforms in the civilian sector. Now the stakes are higher and the challenges bigger. With its damage to communities, economy, and infrastructure, the resulting armed conflict forced the country to plan its own rebuilding,¹ and the success or failure of recovery efforts will determine how future generations of Ukrainians judge this war and their sacrifices. Put simply, President Volodymyr Zelenskyy said, "Ukraine is fighting for its future" (President of Ukraine, 2022g). Reconstruction could deliver that future not by reconstituting prewar status but by building a modern economy and resilience toward future challenges: climate change, pandemics, and the ever-looming Russian threat. At the same time, Kyiv will face an even more acute trade-off between military and civilian needs. Therefore, choosing the right path to move forward requires careful deliberation. The experience of the past eight years proved useful for those resisting the Russian invasion. First and foremost, Kyiv immediately framed the Russo-Ukrainian War as a fight for the future of the next generations in a modern European state. Zelenskyy made the first mention of the future rebuilding of Ukraine in his speech on February 26, 2022 (President of Ukraine, 2022g), just two days after the start of the full-scale invasion. By mid-March, reconstruction became a prominent theme of the president's speeches, and the first legislation regulating rebuilding efforts was signed into law. In April 2022, Ukraine established the National Recovery Council and, in early May, launched the United24 global initiative with an online platform to raise funds to rebuild Ukraine (Cabinet of Ministers of Ukraine, 2022). In early July 2022, Ukraine presented its preliminary Recovery and Development Plan during the international Ukraine Recovery Conference in Lugano, Switzerland (National Recovery Council, 2022).

Even though the war continues as of early 2023, it is apparent that planning for postconflict recovery efforts is already well underway. Ukraine's postwar recovery has received significant attention from expert communities, policymakers, and academics. Some reports already offer specific recommendations (Ganster et al., 2022). However, there is little discussion about the ramifications of pursuing some recovery options over others. This report aims to address that

¹ For the purposes of this report the terms *rebuilding*, *recovery*, and *reconstruction* are used interchangeably. While we acknowledge that there are meaningful differences, the discussion of these is beyond the scope of this effort, which generally focuses on postconflict and postdisaster processes. Additionally, Ukraine's government has treated them as synonyms. Since we relied on Ukraine's statements and documents for our analysis, we did so as well. However, we recognize the disconnect that creates between our work here and broader disaster-related literature, given the different definitions and, especially, the timeline each of these words represents. For the purposes of this report, we discuss only rebuilding, recovery, or reconstruction efforts that can be explicitly and substantially tied to the Russian invasion of Ukraine in 2022, whether they take place immediately or years into the future.

gap. Consequently, rather than charting a possible path forward, we shifted our attention to the decision space within which those adopting recovery decisions will operate.

Recovery decisions will likely be adopted under uncertain circumstances and with many constraints. Given the scale of war damage to communities and the economy and the threat of future attacks, reconstruction needs will be enormous and the resources limited. Generations of Ukrainians will feel the impact of choices made and not made. There will be winners and losers of each decision. The actors in Ukraine face a decision space in rebuilding efforts that brings with it a set of questions about priorities and trade-offs dealing with matters of who controls and funds recovery, whom it serves, and where efforts are directed first. Many trade-offs and their second- and third-order consequences are hard to anticipate, but existing literature can shed light on some of them. We believe that understanding the trade-offs embedded in recovery choices can improve the decisions themselves and contribute to the process's transparency and integrity. These qualities will be critical to support national unity and trust in the government in wartime.

This report highlights some of the lessons from disaster scholarship and past recovery examples to inform Ukrainian postwar rebuilding, approaching the results of the armed conflict as a nationwide disaster. A comprehensive road map for Ukraine would require working with stakeholders in Ukraine and is thus outside the scope of this research. This report will instead propose a preliminary decision space that the Ukrainian people and their government will face when choosing the future course of action. This disaster scholarship—largely pragmatic, policy-focused research conducted by colleagues at the RAND Corporation and theories and concepts from disaster risk reduction literature—shows that risk and vulnerability develop in similar ways in both armed conflict and natural hazard-related disasters (Peters, 2021).

Although causal pathways are numerous and complex, an approach to recovery efforts that leverages the underlying vulnerability, the root of disaster risk reduction scholarship, can provide decisionmakers with the information needed to make evidence-based policy choices that help Ukraine and Ukrainians not only recover but advance toward a more prosperous and equitable future. Key decisionmakers have already shown themselves willing to engage with this literature and the lessons it provides, notably in the Ukrainian government's use of and focus on the *build back better* concepts of postdisaster recovery. This concept was laid out in a 2006 report on international tsunami recovery and drew on work and statements from years prior (Fernandez Ahmed, 2006). It has since been incorporated into subsequent United Nations (UN) disaster risk reduction frameworks and aims to use recovery efforts to address vulnerabilities a disaster might expose (Fernandez and Ahmed, 2019).

We also aim with this report to consolidate RAND's contribution to research in this space. While we cite a wide variety of sources and attempt to place our work in the broader context of disaster and postconflict research, we specifically point out RAND work in the report's text, where warranted.

In this report, we first briefly discuss the 2022 war damage to communities and the economy. Next, we present some of the lessons learned from past reconstruction and recovery efforts

around the world and how they apply to Ukraine's situation. Specifically, we outline some of the best practices, known trade-offs, risks, and shortcomings of existing literature when addressing Ukraine's needs with respect to four questions: When does reconstruction start? How should efforts prioritize people, locations, and other projects? Who should direct reconstruction? Who should fund reconstruction? We conclude by summarizing the trade-offs that Ukraine's government will face in pursuing its recovery efforts.

Chapter 2. Taking Stock of War Damage

While infrastructure damage is often the focus of reconstruction efforts, infrastructure does not exist in a vacuum. It enables economic activity and serves communities' well-being. Its rebuilding requires an effective government that can mobilize and allocate financial resources. Therefore, to understand the scope of recovery needs and Ukraine's capacity to respond, we briefly discuss the situation in Ukraine as affected by Russia's 2022 full-scale assault.

Displacement and Damage to Communities

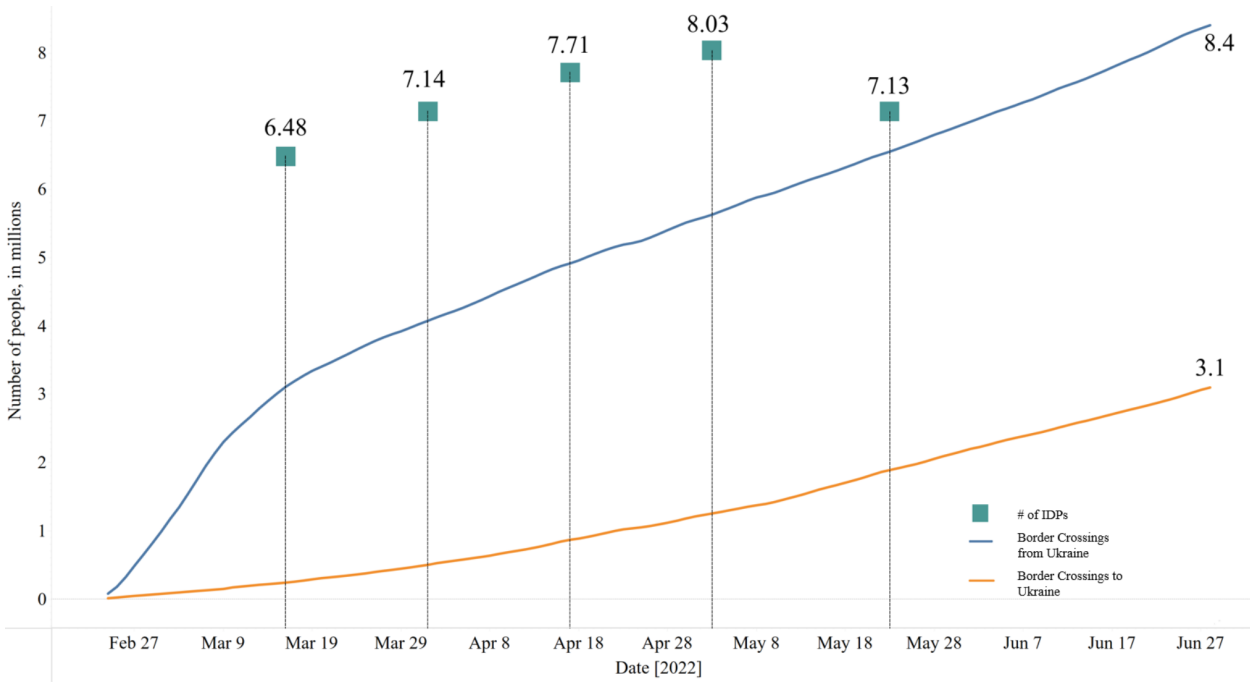
Ukraine is paying an enormous human price for Russia's war. It remains challenging to measure the exact number of individuals who have suffered in one way or another. First, the ongoing war limits opportunities to verify data. The fog of war and the battle of narratives obscure the information coming from both sides. Second, the last census in Ukraine was held in 2001 (the next one was planned for 2023, with preparations to start in 2022), making it difficult to understand the baseline population (State Statistics Service of Ukraine, undated). The UN and other international organizations have attempted to estimate population and economic trends.

This war's most drastic and immediate effect on Ukraine's population is the displacement of millions from their homes and communities. The UN High Commissioner for Refugees (UNHCR) used data on border crossings to estimate the number of those who left Ukraine since the start of the full-scale invasion (UNHCR, undated). Many were welcomed by Poland and other neighboring countries, where they were provided not only aid for immediate needs but also longer-lasting programs established by the neighboring countries that created legal grounds for Ukrainians to live; find employment; attend schools for children; and receive support for vulnerable groups, such as pensioners (European Council and Council of the European Union, undated). These programs were essential for Ukrainians who were forced to flee, leaving everything they had behind. The programs also helped to sustain the morale of those who stayed in Ukraine and either joined the Armed Forces of Ukraine to defend the territory or resisted the invasion militarily, economically, and ideologically.

However, even the most comprehensive support still left many with the strong desire to reunite with relatives who stayed in Ukraine. The most-cited reasons for wishing to return to Ukraine included reuniting with men (who were not allowed to leave the territory) and reuniting with elderly family members (who, according to anecdotal evidence reported by various media outlets, never chose to leave) (De Freytas-Tamura, 2022; UNHCR Regional Bureau for Europe, 2022). While the data on border crossings are likely to include the same individuals traveling multiple times (for instance, the volunteers purchasing supplies abroad and delivering them to

the front line [“Behind the Frontlines, Ukrainians Find World of Ways to Help,” 2022]), the number of those returning to and staying in Ukraine is increasing at a pace similar to exits (see Figure 2.1).

Figure 2.1. Number of Ukrainians Displaced Since the Start of Russia’s Full-Scale Invasion



SOURCE: Data on border crossings from UNHCR, undated; data on internally displaced persons (IDPs) from International Organization for Migration, undated.

The data on internally displaced persons are even less precise. The International Organization for Migration uses periodic surveys to calculate estimates of those who were forced to flee their homes but remained in Ukraine. Regional governments also kept track of those who registered to receive aid, but the population continues to move both internally and across borders. Despite repeated shelling of many territories and the possibility of renewed active combat throughout Ukraine, some people who moved farther west gradually returned to their homes in central, south, or even eastern Ukraine (UNHCR Regional Bureau for Europe, 2022). The number of internally displaced persons varies for different communities. For many, moving out of their community meant losing all or part of their incomes and the support systems they relied on (Cedos, 2022). Many organizations—including businesses, civil organizations, and community groups—that give Ukraine’s vibrant civil society its flavor across the country had to relocate to another region. The number of formally registered nonprofits grew (Centre for Democracy and Rule of Law, 2022), and most extant nonprofits refocused on war-related issues (Polishchuk, 2022). Such disruption of social ties will likely have a long-lasting effect.

Individuals in the most vulnerable population (those who relied on social services provided by the government, nonprofit organizations, or both) were forced to stay or, if they could move to safety, tended to go to places where they would be the most likely to receive those same social services (Cedos, 2022). Given that some employees providing these services also moved abroad or farther west, these entities, already overstretched and underfunded before the war, felt additional pressure to meet demands during such a period of armed conflict (Lomonosova and Babych, 2022). As the conflict continues, local communities in Ukraine have become—on average—older, more reliant on the social safety net, and deprived of most sources of funding (Cedos, 2022). There is a growing fear that this might not change, as many who fled the war with a firm intent to return might find opportunities elsewhere. According to one estimate, as many as 30 percent of those who left since the invasion have already found a job in Poland (Samayeva, 2022). On October 10, 2022, the European Commission announced that it would prolong the protection and benefits offered by the Temporary Protection Directive, which provides for legal residency and work permits in the European Union (EU) during an emergency, until at least March 2024 (European Commission, 2022a). The longer Ukrainian refugees remain temporarily relocated, the more reasons they might find to postpone their return. The government needs to either move quickly or provide incentives that would convince refugees to return to Ukraine. Any efforts, though, would be against long-standing tides, as identified in academic literature and analysis of displacement—more than three-quarters of those meeting the UNHCR’s definition of *refugee* wind up in situations of prolonged displacement, with more than one-fourth remaining displaced for longer than 20 years (Zetter, 2021). Oftentimes, prolonged displacement is because of a lack of improvement in conditions in the home country, making safe return impossible.

Ukraine’s military successes and liberation of previously occupied territories raise new questions around the reintegration of territory that fell under Russian control. The people who could not or chose not to evacuate continued to live their lives. Doctors, bus drivers, firefighters, street cleaners, and others were often forced to operate under pressure from the Russian occupiers (Naumova, 2022). The issue is even more sensitive regarding teachers who had to instruct in Russian and use Russia-approved school curricula and views on the war (Bondarchuk, 2022). Local council members and leadership left, removing the opportunity for those who stayed to hold meetings or quorums to make decisions on occupation-related matters. Those who remain are not able to operate and manage day-to-day problems within towns or villages (Naumova, 2022). This creates an additional layer of issues that must be considered to balance temporary support measures and longer-term planning of rebuilding efforts. The reintegration of these territories is a critical issue that can determine the pace and focus of development for years to come.

Economic Damage

The full extent of the economic losses caused by the Russian invasion remains uncertain as the war drags on. The forecast of Ukraine’s gross domestic product (GDP) in 2022 varies from a decline of 35 percent (International Monetary Fund, 2022) to 45.1 percent (World Bank, 2022). The World Bank’s projection is predicated on trade disruptions stemming from the destruction of transit infrastructure and a collapse in household spending, reflecting the outflow of refugees and loss of jobs and incomes (see Table 2.1). These estimates account for the effect of war destruction on the national income but not the value of the destroyed infrastructure itself, which will be discussed below.

The World Bank expects the economy to rebound once reconstruction efforts start. Nevertheless, by 2025, GDP is expected to be two-thirds of the 2021 level (World Bank, 2022). Neither of the two forecasts provides an explicit discussion regarding the economic effects of the possibly prolonged occupation of eastern Ukraine. However, the regions that are directly affected by invasion have been generating approximately 40 percent of Ukraine’s GDP (Centre of Economic Recovery, 2022). Particularly concerning is the fact that the war drastically limited maritime trade, which accounted for 90 percent of Ukraine’s grain trade and half of total trade (World Bank, 2022). The export of agricultural products itself accounts for approximately 40 percent of total Ukrainian exports (World Trade Organization, 2013).

Table 2.1. Ukraine’s Selected Economic Indicators

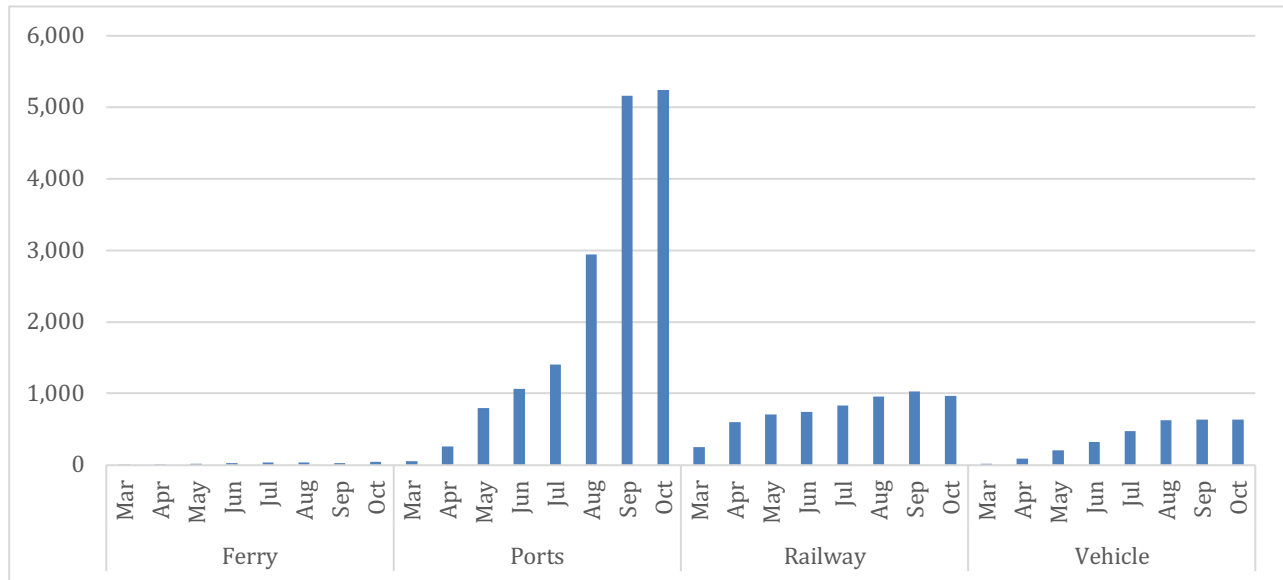
	2020	2021 Estimate	2022 Forecast
Real GDP growth %	−3.8	3.4	−45.1
Exports, goods and services (annual % change)	−8.8	28.0	−78.5
Imports, goods and services (annual % change)	−19.8	35.0	−66.1
Private consumption (annual % change)	1.7	7.7	−50.0
Fiscal balance (% of GDP)	−5.6	−4.0	−17.5
External debt, total (% of GDP)	80.8	64.0	112.5
Upper-middle income poverty rate (%)	2.5	1.8	19.8

SOURCE: Features data from World Bank, 2022.

According to the International Chamber of Shipping, as of late April 2022, 109 vessels were stranded in Ukrainian ports in the Black Sea and the Sea of Azov with 500 seafarers onboard (International Chamber of Shipping, 2022). Consequently, in the first five months of the war (March–July 2022), export of agricultural products dropped by 59 percent, to 8 million tons, out of which only 3.5 million tons (43 percent) were exported through ports (Ministry of Agrarian Policy and Food of Ukraine, 2022). In late July 2022, Ukraine and Russia signed agreements with the UN and Türkiye to enable grain and fertilizer exports under the supervision of a joint coordination center in Istanbul (Sezer and Coskun, 2022). But the safety of the shipment is far from guaranteed—12 hours after the agreement was reached, Russia fired cruise missiles on Ukraine’s largest port in Odesa (Sezer and Coskun, 2022). Ukraine undertook efforts to increase

rail, road, and Danube ferry export, but these transport modes are less cost-effective and have limited capacity (Figure 2.2; Sneidermane, 2022).

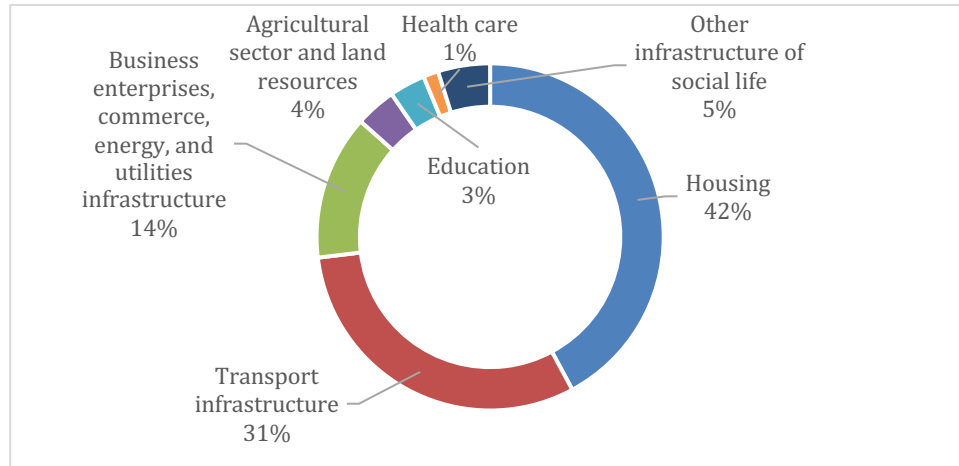
Figure 2.2. Export of Agricultural Products from Ukraine, Thousand Tons



SOURCE: Features data from Litvinov, undated.

The infrastructure damage is also significant. The Kyiv School of Economics, the Office of the President of Ukraine, and the Ministry of Economy launched the project Russia Will Pay to crowdsource data collection on the infrastructure damaged and destroyed during the war (National Council for the Recovery of Ukraine from the Consequences of the War, 2022). As of August 22, 2022, the direct documented damage to infrastructure amounted to approximately \$113 billion (Kyiv School of Economics, 2022a). This damage surpasses the damage caused by Hurricane Maria in Puerto Rico (National Centers for Environmental Information, 2023). One-half of the damaged infrastructure can be categorized as community life infrastructure—housing (131,000 units), health care (934 facilities), education (2,290 facilities), and other facilities of social life (such as administrative, social services, culture, religion, sport, and tourism facilities). The value of damaged transport infrastructure is \$35 billion (including 25,000 kilometers of roads), and damage to the business enterprise and agricultural sectors accounts for another \$20 billion (Figure 2.3; Kyiv School of Economics, 2022a).

Figure 2.3. Breakdown of \$113 Billion in Infrastructure Damage



SOURCE: Features data from Kyiv School of Economics, 2022b.

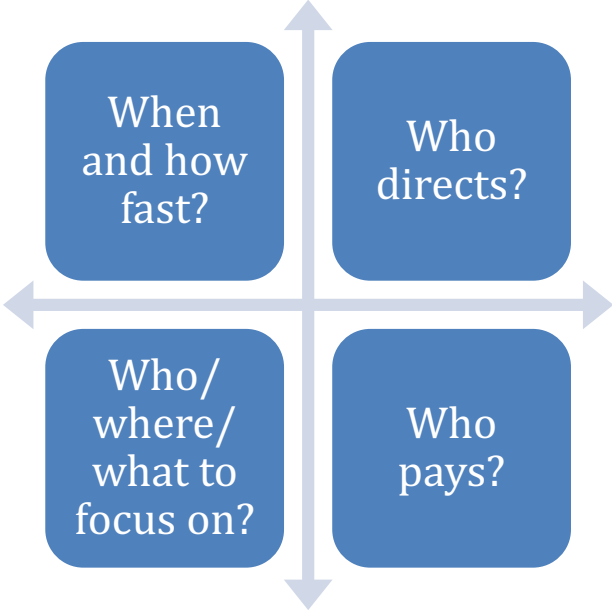
The Kyiv School of Economics also estimates that “the reconstruction of destroyed objects according to the Build Back Better principle, taking into account modernization and the additional need for liquidity for the restoration of enterprises,” amounts to \$197 billion (excluding demining) (Kyiv School of Economics, 2022a). This is still only one-quarter of the \$750 billion that the Ukrainian government estimated will be necessary over the next ten years to ensure that Ukraine becomes a modern European country (National Recovery Council, 2022).

Chapter 3. Applying Lessons Learned to Ukraine’s Recovery

Given the magnitude of the damage to communities, hard infrastructure, and the economy, recovery in Ukraine is a monumental challenge. The call for \$750 billion of recovery funds—almost four times Ukraine’s GDP in 2021 (\$200 billion) and five times the value of the Marshall Plan adjusted for inflation (\$150 billion)—is unlikely to be a realistic expectation. Therefore, prioritization and good governance will be necessary.

This chapter focuses on the trade-offs that Ukraine’s government will face in its reconstruction efforts. Four questions that help highlight and structure these trade-offs are shown in Figure 3.1. The following discussion focuses on each question separately, presenting lessons learned from prior research on reconstruction and the potential application of those lessons in the context of Ukraine’s reconstruction. This framework is our adaptation of existing methods of critiquing resilience (Cutter, 2016), largely drawn from disciplines, such as human geography (Cretney, 2014), that focus on showing the ways “planning trade-offs and decisions affect outcomes over space and time, often with significant implications for equity” (Meerow and Newell, 2016).

Figure 3.1. Decision Space of Ukraine’s Recovery



When Does Reconstruction Start?

As stated above, Ukrainians will need to answer a few key, overarching questions as they recover from and rebuild after the war, all of which revolve around community vulnerability, territorial control, and the concepts of temporality or the timelines along which risk and a disaster progress. Risk production and disasters belong to long timelines, a temporality that scholars such as Scott Knowles call *slow disaster* (Knowles, 2020). Under such a conception of risk, a disaster is not a punctuated episode that happens the instant a community and its people are exposed to hazard. In a natural hazard event, such exposure can be as easy to identify as the hazard presenting itself—a rainstorm leads to a flood that households are either protected from or left open to because of long-running societal choices around infrastructure development and housing construction. Exposure to the hazard of armed conflict can present itself in less apparent, although equally slow, ways: Unexploded ordinance can injure civilians long after peace is negotiated, or families can be split across once-open, now-militarized borders.

When does the disaster end and recovery begin? Under the elongated timeline that accompanies a conceptualization of disaster as beginning with the production of long-standing vulnerabilities, a disaster can continue long after a storm ends, a fire is extinguished, or an armed conflict reaches armistice. Certain timelines, such as meeting the immediate needs of shelter and access to water, must be shortened to the greatest extent possible. However, rebuilding access to immediate needs is far from the only form of recovery that must take place. Healing and recovery also involve the long, hard work of processing trauma and rebuilding communities on both a personal and societal scale. Recognition of this nonlinear, unevenly paced process “of re-making and making lives livable,” as disaster scholarship shows, means acceptance of the importance of the slower forms of recovery as essential (Mika and Kelman, 2020).

Governments and community actors alike often demand that preparedness and recovery decisions be focused on much faster timelines but still with care and holistic recognition of a recovering society’s needs. There exists, then, inherent tension between speed and deliberation, with careful actions taken immediately in the context of long timelines. In such a situation, actors under stress must be especially cognizant of the causal pathways behind risk. Disaster scholarship points to examples of particularly slow and deliberate recovery in places such as Japan, speed-focused recovery in places such as Türkiye, and an effective balance between the two in places such as Chile (Platt and So, 2017). As that scholarship shows, there is no universally *right* answer to the question of pace, with the needs and perspectives of recovering communities pointing toward the best path.

Trade-Offs of Waiting for a Full Peace or Starting Now

The situation in Ukraine is precarious, as recovery is taking place while the disaster (the war) is still underway. The armed conflict has affected all parts of the country, yet its impacts are

particularly focused on areas currently or formerly under Russian occupation. Unlike a storm, which must end before rebuilding can begin, efforts to address damage are already underway in liberated regions, the western areas of Ukraine, and cities such as Kyiv that face air strikes or artillery bombardment without the presence of Russian occupying forces. Future generations will assess the effectiveness of every decision Ukraine's government makes. However, the present generations of Ukrainians and all friendly and adversarial nations are already judging every step as contributing to winning or losing. Hostilities are ongoing, and new damages add up daily. Russia's objectives also remain unclear. Russia's leadership modified these objectives several times, repeatedly returning to the idea of the so-called demilitarization of the entirety of Ukraine despite Russia's military failures (Ivanova, 2022) and committing acts that directly conflict with stated objectives (such as the attack on Ukraine's ports hours after the so-called grain deal, an agreement that facilitated Ukraine's export of grain via the Black Sea, was signed in the summer of 2022 ["Explainer," 2022]). This balancing act among urgency, concerns over how to rebuild what can be destroyed again or recaptured and used by the enemy, and the long-term effects that the rebuilding will have on Ukraine's future is delicate.

Zelenskyy's February 26, 2022, speech emphasized that Ukraine would need its brightest not only to fight the war but to rebuild afterward (President of Ukraine, 2022g). From mid-March 2022 onward, Zelenskyy's speeches featured a more systematic narrative and consistent theme on the mechanics of reconstruction. Addressing the foreign public (e.g., in his talks to parliaments), Zelenskyy emphasized the importance of support from the West. In addition to finding resources, the West can share the experience of other countries and provide the expert knowledge that would lead to rebuilding a better and more sustainable Ukraine (President of Ukraine, 2022d; President of Ukraine, 2022f). Talking to Ukrainians, Zelenskyy pledged that the government will restore everything destroyed by the Russians and do it as quickly as possible (President of Ukraine, 2022e).

The president's words were promptly followed by steps to implement these ideas. In early March 2022, the Cabinet of Ministers of Ukraine created four foundations, each with a specific focus: the restoration of destroyed property and infrastructure, economic recovery and transformation, a public debt repayment fund, and small and medium-business support (President of Ukraine, 2022b). In mid-March, legislation regulating the rebuilding efforts was adopted and promptly signed by the president (Benedysyuk, 2022).

The Kyiv School of Economics Institute think tank, in partnership with the government, launched a comprehensive effort to collect and assess all damages (Rosiya Zaplatyt, undated) and has since been working on diversifying the ways to report needs and simplify the process. The Diia e-governance app launched a service to file damages for individual properties ("U 'Diyi' vzhe mozhna podaty zayavky na vidshkoduvannya mayna, vtrachenoho pid chas viyny - Zelens'kyy," 2022), and media outlets published detailed instructions on how to document those damages (Semenova, 2022).

All these efforts were made in response to the growing demand from Ukrainians to rebuild and restore cities quickly. While the desire to reunite with loved ones could be the motivating force for some, others returned because they found the opportunities lacking abroad (UNHCR Regional Bureau for Europe, 2022). Despite the care and support they received, many Ukrainians could not find jobs beyond temporary, low-paying positions. They did not believe they could sustain themselves under such circumstances for long because they lacked the skills and understanding of local education, health care, and welfare systems (Tamilina, 2022). Many considered less regular shelling of their hometowns a good enough cue to return (Lovett, 2022). Understanding that those who returned and those who chose or were forced to stay would assess success based on the ability to provide normalcy, the government responded to the demand by acknowledging the need to rebuild better, but quickly.

As the war rages on, disruptions in education and health care are no longer perceived as temporary, and the perception of what is immediate has shifted. The education ministry developed and disseminated recommendations on how schools should be equipped to operate in wartime and how to accommodate lesson content to reflect realities and individual experiences (Ministry of Education and Science of Ukraine, 2022a). Shelters in schools were fortified and equipped to ensure that children whose families prefer in-person education would face minimized threats (Ministry of Education and Science of Ukraine, 2022b). Efforts like this, in addition to physical rebuilding or restoration of the most-needed facilities and infrastructure, require resources and thus need to be balanced with a longer-term vision for “building back better” (Government of Ukraine, 2022).

The immediate positive changes that Ukrainians have experienced are especially important given the war of narratives with Russia. Although Russia’s stated objectives for its war on Ukraine have changed, the intent to destroy Ukraine as a sovereign entity has been stated multiple times (Ivanova, 2022). Thus, a successful rebuilding is ideologically very important to Ukraine (President of Ukraine, 2022c). Any chaos or delays would be perceived as a *zrada*, a commonly used Ukrainian term to denote any intentional activities contrary to Ukraine’s national interests. Despite assurances that the West would not abandon Ukraine and that help would come for as long as necessary (Erlanger et al., 2022), Ukrainians fear that attention and support might wane. Domestic issues, such as inflation, high gas prices, and uncertainty about energy supplies, keep piling up in most Western countries (Francis and Timsit, 2022). Securing long-term commitments from partners is among Ukraine leadership’s top priorities. Zelenskyy’s team, including the president, became even more active in building support. In early September, Zelenskyy published a commentary in the *Wall Street Journal*, promoting investment in Ukraine as a “hub for information technology” (Zelensky, 2022). He personally presented the rebuilding strategy at the Yalta European Strategy forum on September 11, 2022 (Bohuslavets, 2022). Two days later, top officials from the president’s office, Andriy Yermak and Kyrylo Tymoshenko, met virtually with more than 80 foreign diplomats to present the Ukraine Recovery Fund (President of Ukraine, 2022a). Active diplomatic engagement continued through the fall of 2022

and into 2023, including at the October 2022 recovery conference in Berlin (“Germany Plans International Conference on Ukraine Reconstruction—Source,” 2022).

At the same time, Russian propaganda and war conduct have attempted to sway support of both Ukrainians and supporters abroad. State-sponsored media continue to emphasize that the so-called special military operation was needed to bring normalcy to people (in Donbas) who had suffered before. Russian media reports on statements and events devoted to rebuilding emphasize that while the Ukrainian government is only promising and asking for money, Russia has already started to restore life in the occupied cities (SMI, 2022). The media claim that Russia’s businesses and citizens voluntarily participate in the rebuilding efforts (Lamova, 2022) and that different Russian regions support “liberated” territories (Svetov, 2022). Russian media also highlight Ukraine’s corruption, which would hinder effective participation with foreign experts and companies (SMI, 2022).

Russia has been quick to impose its rules and ways of life on the territories it controls. The population there might attempt to avoid any contact with the occupiers. However, the longer the territories are under occupation, the less sustainable this strategy is (Klyuzhev and Bondarchuk, 2022). Many of those who stayed were in a vulnerable position or could not leave a close one in a similarly vulnerable position, meaning some might have been forced to cooperate with the installed administration. When these territories return to Ukraine, a quick return to relative normalcy will be crucial for reintegration.

From this perspective, the question of rebuilding became part of the war of narratives. Since Ukraine’s existence as a state, its culture, and its way of life have been targeted, restoring what has been damaged is essential for Ukraine’s morale. While Ukrainians demonstrated resilience to withstand physical difficulties, rapid recovery is an integral part of victory in the war on Ukraine’s existence and way of life. The government walks a very thin line trying to balance the long- and short-term interests of all stakeholders. Its ability to navigate them efficiently might be a key factor for success.

How Should Efforts Prioritize People, Locations, and Other Projects?

Another key portion of the decision space focuses on questions of whom recovery serves and in what ways. Someone’s home will be rebuilt first. Some regions of the country will host the most displaced people. Some amount of industrial activity will permanently relocate. Even the largest of recovery efforts must make choices about who gets assistance and how much; payment schemes or recovery plans might inherently benefit certain people more than others. The public demand for a speedy recovery can lead to reconstruction on a first-come-first-served basis. In turn, bringing in private investors could lead to rebuilding focused only on the most economically profitable areas. However, disaster literature suggests that without an eye for the most vulnerable, the long-term effects of reconstruction might be unsatisfactory.

Any disaster, or the risk it might occur, is the result of the interactions between a hazard and preexisting vulnerabilities (Wisner et al., 2004). Disaster scholarship recognizes that, though certain hazards (such as war or severe weather) might be unpreventable or unpredictable, it is only in combination with vulnerability—the crucial second ingredient of risk—that a hazard becomes a disaster. To understand, respond to, and recover from a disaster requires more than withstanding a war or a storm; it requires understanding the vulnerabilities behind that disaster. To understand those vulnerabilities, one must instead examine a lengthy process that flows backward and forward along a community’s timeline on either side of a hazard incidence. The questions around how efforts should prioritize people, locations, and other projects are fundamentally about the underlying vulnerabilities in a society and its desires to address or perpetuate them.

Predisaster vulnerabilities exist in any country or community and are created by policy choices, development patterns, and community factors that span decades of history. Therefore, the history of the next disaster in Ukraine has already begun, and recovery and rebuilding decisions around the current war should be made with an eye toward reducing vulnerability to the next hazard event—be it armed conflict, disease, or weather.

As people facing a changed and changing world after a disaster rebuild their communities, they will also need to ask themselves what challenges lie ahead: For what future hazards must they prepare? What disaster might have already begun? This is not just a long-term concern; with recovery already underway, haphazard or delayed choices might leave the scores already suffering vulnerable to shorter, repeating disaster timelines. In much of disaster literature, this dark chain of *disaster cascade* (Pescaroli and Alexander, 2015) would point to a disaster and to ineffective postdisaster recovery as the first domino of new suffering under hazards already faced—such as cholera (Usmani et al., 2022); HIV (Colborne, 2017); the coronavirus disease 2019 pandemic (COVID-19) (Chumachenko and Chumachenko, 2022); severe weather (World Bank, Climate Change Knowledge Portal, undated); and technical accidents (Shen and Hwang, 2017), in the case of Ukraine. However, literature that takes a longer-term approach to disaster causality—recognizing that disasters are not natural, episodic events but long processes stemming from existing vulnerabilities—shows disasters are not unexpected, unprecedented, or unpredictable phenomena (Kelman, 2018). A just and equitable postwar recovery must address the vulnerabilities that existed before the disaster while also taking into consideration future risk scenarios to prevent a cascade. Hazards people have long faced will need even more prevention attention alongside new risks, such as the leftover remnants of armed conflict and vulnerabilities that make that hazard exposure harmful. RAND work on disaster cascades, such as the analysis of 2021 Texas blackouts within the context of the ongoing COVID-19 pandemic, can provide real-world insight into the value of examining risk from a perspective that is aware of the potential of cascades. Such examination in Texas showed potential avenues for resilience investments cognizant of the electrical system’s place in the broader sociotechnical landscape (Clark-Ginsberg, DeSmet, et al., 2021).

Additionally, following large-scale disasters and mass displacement, people are much more likely to end up in cities than refugee camps (Park, 2016). This is largely because internal displacement happens in much larger numbers than displacement across international borders, with those from rural areas flocking to the perceived safety and opportunity of urban zones (Grayson and Cotroneo, 2018). Processes that accelerate urbanization trends and increase the risk that vulnerable people are left on the margins of large cities in informal settlements or economic arrangements also decrease a community's labor resources and tax base in the face of intensive and costly recovery efforts. Such conditions leave the displaced and urban residents alike vulnerable to a variety of problems, driving haphazard urbanization trends that can themselves constitute sources of disaster risk (Madden, 2021). RAND's analysis of post-Hurricane Maria recovery and the ways it compounded long-standing trends around population displacement offers valuable insight into these dynamics, including how decades of outflow migration and declining birth rates both contributed to vulnerability and accelerated after the storm (Fischbach et al., 2020).

Finally, those working on Ukrainian recovery should look to other examples showing pitfalls they can avoid. Lessons learned in RAND research—including peer-reviewed scholarship illustrating the role inequities in U.S. Federal Emergency Management Agency recovery efforts play in driving disaster risk in the United States (Clark-Ginsberg, Easton-Calabria, et al., 2021)—show, for example, how well-meaning recovery plans often come with deep equity concerns, giving hints of pitfalls Ukraine might avoid when it sets up its own recovery policies. In some ways, concerns such as these can be addressed by strategies that focus primarily on people, their needs, and their capabilities rather than just on roads or buildings and an *if you build it, they will come* infrastructure-based mentality. Research shows that such community-based efforts in natural hazard contexts (Peters et al., 2022) and armed conflict-affected settings provide sustainable ways to reach vulnerability-reduction goals through direct partnership and coproduction with vulnerable populations themselves (Patel et al., 2021; Peters et al., 2022).

Trade-Offs of Bringing Life Back Under Uncertainty?

All the above discussed decisions—what, where, and how to rebuild first—carry significant uncertainty about the duration of the war and its outcomes. As of fall 2022, between the Russians pushing forward on Kyiv and the Ukrainians pushing Russia back to its border with no peace settlement on the horizon, there was a variety of scenarios that change the calculus of needs and risks of reconstruction.

Consequently, the most significant source of potentially inequitable distribution of resources stems from the geography of war damage. The biggest damage is in eastern Ukraine, in frontline regions where active combat continues or the threat thereof persists (Centre of Economic Recovery, 2022). The demand to start reconstruction quickly means that the initial wave of recovery funding will go disproportionately to already liberated northern regions, which also sustained significant losses (Tymoshenko, 2022). Although the proximity of these regions to

Russia and Belarus puts them at constant risk of a renewed invasion (regardless of whether Russia has the capability to do so), they remain a safer area to allocate resources than the southeastern regions.

The northeastern liberated regions might also have more bureaucratic and political capacity to compete for funding and bring investment, especially given the preexisting geography of political preferences in Ukraine. In the past, the population of southeastern Ukraine supported pro-Russian opposition parties (“Monitoryng Miscevyh Vyboriv 2020: Pidsumky,” 2020). Now, the sentiments seem to have changed, both among the population of these regions and their representatives (Vorobiov, 2022). Polls suggest that Ukrainian identification is stronger than ever, people in the south and in the east have started to speak Ukrainian more often, and the country is unified in the choice of the Western path (“Simnadtsyate Zahal’nonatsional’ne Opytuvannya,” 2022; “Opytuvannya IRI,” 2022). Still, the prewar political representation of the frontline regions likely has less political leeway in Kyiv than in the northern liberated regions (Velyke Budivnytstvo, 2022).²

The National Recovery Plan calls for the distribution of part of the funding between local communities on a competitive basis (Centre of Economic Recovery, 2022). This rule would be a continuation of the decentralization reform aimed at the empowerment of communities. In principle, the competitive mechanism of fund distribution is supposed to make it more efficient and transparent—in and of themselves important qualities. However, a lack of a deliberate effort to secure and set aside resources for the recovery of southeastern Ukraine when the time is right can, over time, lead to a reemergence of resentment between the east and the west and undermine the national unity built during the war.

Drilling down on the question of what should be rebuilt first, the government will have to decide how to address community needs while rebuilding the economy. Residential buildings, utility infrastructure, health care, and educational facilities are necessary to bring people back and avoid a disaster cascade. Most internally displaced people claim that they are willing to eventually return to their homes (“Opytuvannya IRI,” 2022). That means that they will also need economic opportunities, the availability of which will depend on Ukraine’s prospects for stability. The government will have to decide when and to what extent to encourage the return of refugees and internally displaced persons.

In 2020, Ukraine adopted the State Regional Development Strategy 2021–2027, which introduced the Smart Specialisation approach—an EU place-based approach to innovative economic development, where regions identify and select priority industries based on their local strengths and comparative advantages (European Commission, undated; Cabinet of Ministers of Ukraine, 2020). Some of the specialization areas of the frontline and liberated areas can, in

² We have not found evidence that the eastern regions were discriminated against in the Great Construction Program. However, in 2022, Dnipropetrovsk Oblast, Zelenskyy’s stronghold, was supposed to host the highest number of projects financed from the program. See: Velyke Budivnytstvo, 2022. It might reflect disproportionately high needs but could also indicate that the project selection process is not completely apolitical.

principle, be relocated relatively easily (specifically, the information technology sector and some creative industries). Others, however, are either costly (e.g., mechanical engineering, production of equipment, machinery) or impossible to fully relocate (tourism, agriculture) (Centre of Economic Recovery, 2022).

So far, many of Ukraine's factories are moving west to continue economic activity in a safer environment. According to *New York Times* reporting, as of August 15, 2022, more than 200 businesses moved from the eastern to western part of Ukraine because of the war, and another 800 applied to the government relocation program. The longer the war lasts, the less likely they are to relocate back. Furthermore, some of the program participants note that they relocated for safety and to keep the Ukrainian economy going, but the move unexpectedly opened new opportunities—proximity to the EU border makes export easier (Alderman and Solomon, 2022). While this is good news on micro and macro levels—for individual companies and the economy as a whole—it might have negative regional consequences for the recovery of liberated areas in the long term. Without recreating economic opportunities in eastern Ukraine, either the east will essentially become depopulated or the income disparity between the east and west might again undermine the national unity.

Another important issue to consider is how much to invest in rebuilding housing and social infrastructure financially. Should Ukraine rebuild its infrastructure as fast and cheaply as possible? Or should it use reconstruction as an opportunity to increase energy efficiency, reduce energy imports, and improve the flexibility and resilience of infrastructure, even if it takes more time and financial resources? The National Recovery Plan calls for the latter while recognizing that there is also a need for temporary housing (National Recovery Council, 2022). The risk in this approach is that the low-quality temporary circumstances could become permanent if the funds for modernized housing and social infrastructure are insufficient.

Who Directs Reconstruction?

It is important to ask who is doing the rebuilding. Disaster management and recovery, just like the war, are about sovereignty and who guides rebuilding plans. Examples in disaster scholarship assert that the modern Western conception of statehood itself is tied to disaster management, beginning with events such as the Plague of Justinian and the 1755 Lisbon earthquake—disasters that stand out in the literature as instrumental moments in the development of modern state responses toward such events. Much more than simply a characteristic, “the nature of modern states . . . is determined by the character of disaster management” (Bandopadhyay, 2022, p. 26). As that conception of statehood evolved into recognizable modern nation-states, it did so through the Peace of Westphalia, which came after decades of armed conflict that made up the Thirty Years' War, further tying the paradigm of statehood to postwar and postdisaster activity. Ukraine's recovery from the disaster of war will define the nation, and the question of who guides that recovery is one of sovereignty over that nation and its people. Is

the recovery directed by external actors, a choice that would cede that sovereignty to Russia or the West? Is it guided by institutional inertia reproducing past vulnerabilities or tied to communities and their needs and desires?

The question of whether recovery driven by central authorities from the top down or guided by community needs from the bottom up is not just an academic one. There are pragmatic concerns at play in making such a choice; RAND research alongside community partners can show the benefits of bottom-up models or the pitfalls of ignoring such partnerships. This work includes reports from RAND focused on developing recovery options for Puerto Rico following Hurricane Maria (Fischbach et al., 2020), deep dives into the post-Hurricane Katrina Gulf Coast (Ringel et al., 2007), and RAND's community resilience work (Towe et al., 2020) stretching back years.

In the foremost example, RAND researchers' recommendations on addressing Puerto Rico's recovery needs following Maria emphasized aspects of community-based planning as key to effective and equitable recovery for the island. This community-based planning included direct engagement with, and in many ways a ceding of key decisionmaking and leadership to, local government and nongovernmental organizations. Such tactics, researchers concluded, could help address long-standing causes of vulnerability in Puerto Rican society, preventing future disaster while recovering from Maria, and also overcoming people's distrust of failed or corrupt institutions (Fischbach et al., 2020).

Such work builds on and borrows from other experience in bolstering community resilience that aims at addressing key aspects of vulnerability through community engagement elevated to the level of partnership, meaning local government and community-based nongovernmental actors share key responsibility for directing action and deciding priorities or tactics. Building effective resilience-focused partnerships is a long process. Toolkits such as the one developed by RAND researchers and the Chinese Academy of Science and Technology for Development for facilitating nongovernmental organization involvement in disaster recovery (Acosta et al., 2016) offer meaningful real-world pathways toward building such partnerships within an atmosphere of ongoing recovery.

Trade-Offs Between Sovereignty, Capacity, and Corruption

The issue of ownership of reconstruction in Ukraine is extremely sensitive. Although the rebuilding is likely to be jointly implemented by three main groups of stakeholders—the West, the government, and the local communities—the role that each of them will play is still a matter of discussion. The question of who should be responsible for making the decisions and, ultimately, who can receive credit and praise for success—or blame and criticism for failure—is political and ideological.

Extensive damage caused by Russia's aggressive actions in Ukraine in the first months of the war and ongoing acts of aggression at the time of this writing in late 2022 have added up to a reconstruction price tag so high that the efforts of many nations, international organizations, and

the private sector are needed to finance it. Given that Ukraine's sovereignty has been a target of this war, the pledges to help and participate come with assurances that the recovery process will be "led and driven by Ukraine" (ReliefWeb, 2022). However, the various blueprints for Ukraine's reconstruction that have emerged since the fall of 2022 provided the West with an important role not only in funding efforts but in setting up benchmarks and standards that would guide the process (Vindman and Bustillos, 2022). Ukraine's civil society also expresses the same expectations (Dumanska, 2022b). The need to meet certain EU or International Monetary Fund (IMF) requirements, especially with clear deadlines and indicators, has thus far been a strong motivator for Ukraine's reforms (Jarábik et al., 2018). Many decisions that helped the country progress toward democracy were passed under these conditions.

The prospect of EU membership might well be a powerful "anchor" (Hall and Fleming, 2022) in this case. Given the consensus that EU accession can be the ultimate goal of Ukraine's recovery efforts, the European Commission is the most likely institution to lead this process. In May 2022, the European Commission announced a plan to establish a "Ukraine reconstruction platform" co-led by the commission and the Ukrainian government (European Commission, 2022c). In her Lugano conference speech at the beginning of July 2022, European Commission President Ursula von der Leyen reiterated this intention (European Commission, 2022b). Other ideas include a more direct role of the Group of Seven (G7) that would provide a better balance between the efforts of the EU, United States (Ganster et al., 2022), and other countries, as well as the acknowledgment that the need to navigate different interests that donors have might ultimately lead to the creation of multiple platforms (Organisation for Economic Co-Operation and Development, 2022).

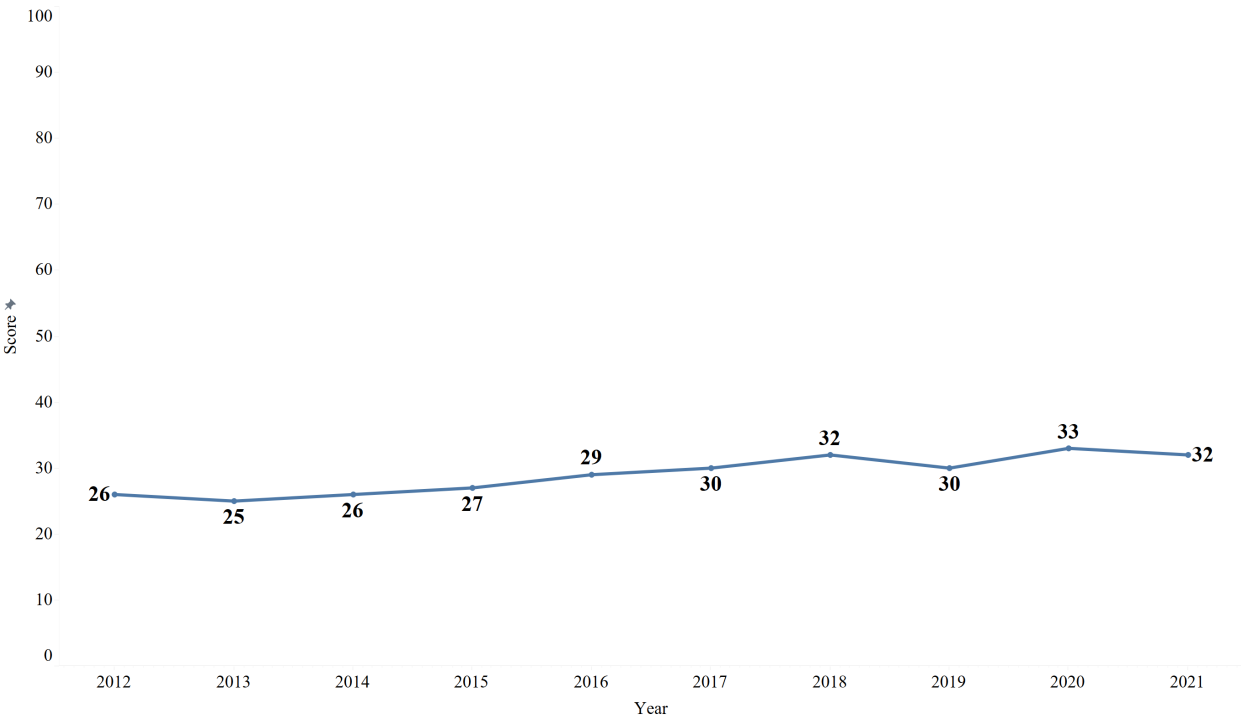
Nevertheless, while acknowledging the financial and expert contributions of the West, the Ukrainian government has assumed a central role in the rebuilding efforts. Despite the concerns, expressed in the West that Ukraine failed to prepare adequately, the government has led the country quite effectively since the war started. Persistent efforts to ensure the continuity of government operations minimized the disruptions of basic services that were quickly adjusted to the war conditions. The government has built an institutional foundation for reconstruction efforts by establishing specialized entities and adopting legislation. The National Recovery Plan presented at the Lugano conference (National Recovery Council, 2022) was developed by a broad network of government, civil society, and international partners. This positive example can be expanded to its refinement and implementation.

The main concern with letting the government take the lead is the history of poor scores over the past decade from Transparency International's measurement of corruption (26 out of a 100 [most clean] in 2012 and 32 in 2021) (Transparency International, undated; see Figure 3.2) and the World Bank's assessment of the government's effectiveness (-0.6 in 2012 and -0.4 in 2021) (World Bank, undated; see Figure 3.3).

The institutions and expert communities developing blueprints for successful reconstruction have highlighted corruption and bureaucratic inefficiency as the main threats to successful

reconstruction (Ganster et al., 2022). Similar concerns have been expressed by activists who fear previous malign practices could return under the guise of rapid reconstruction (Dumanska, 2022a). Since the government has many balls in the air at the moment, it is probable that corruption might happen at some level. A scandal would be extremely harmful to Ukraine.

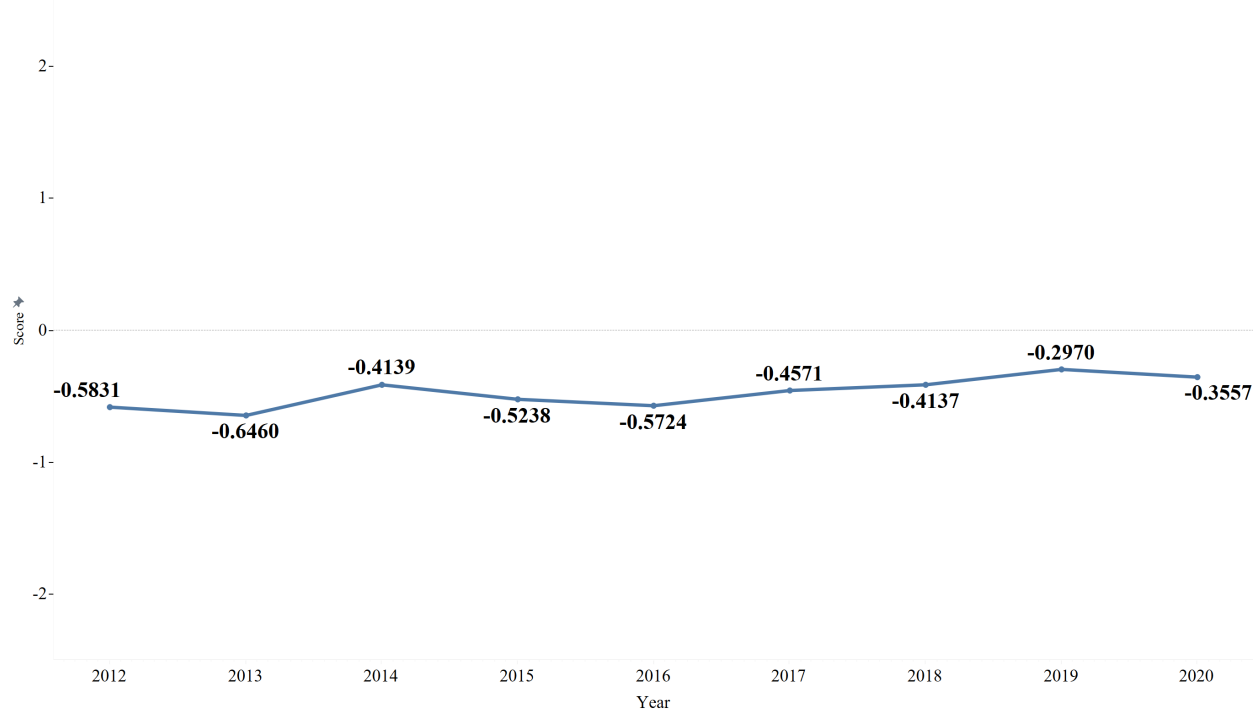
Figure 3.2. Ukraine’s Score for the Corruption Perception Index



SOURCE: Features data from Transparency International, undated.
NOTE: 0 = most corrupt; 100 = most clean (least corrupt).

To prevent this, Ukraine should focus on implementing reforms that would increase government transparency and offer protection to investors through rule of law (Lakhtionov, 2022). Making the availability of recovery funds contingent upon Ukraine’s ability to embed transparency and accountability mechanisms in their distribution might allow mitigation of some of these threats while providing the necessary space for sovereign decisionmaking (Ganster et al., 2022). Civil society also pushes for some oversight. The government needs to embed precautions to minimize the risk of corruption into the decisionmaking pipeline, but it also must do so wisely so as not to affect speed and efficiency.

Figure 3.3. Ukraine's Score for the Government Effectiveness Index



SOURCE: Features data from World Bank, undated.

NOTE: -2.5 = most ineffective; 2.5 = most effective.

Another major threat that can hinder the government's progress is the politicization of rebuilding efforts. The ability to operate on wide public consent is an important factor in Ukraine's reform. Prior to the war, the president and his political party were losing support. After the first few months of unprecedented unity across the political spectrum (with the apparent exception of pro-Russian political parties) and praise for the president's actions, even by his harshest critics, the political rivalry slowly started to reemerge (Berger and Khudov, 2022). Zelenskyy maintains a relatively high level of approval, which fell from 74 percent in April 2022 to 59 percent in June 2022 (International Republican Institute, 2022) but increased again in September–October 2022, when almost 82 percent of Ukrainians said that they trust the president (Razumkov Center, 2022). An ability to claim credit for the massive project of rebuilding can increase one's political capital, which, in turn, leads to a contest for ownership of parts of the project.

Certain decisions have already raised questions about the return of politics that were clearly put aside in the first months of the war. For instance, there is concern about circumventing the rules in situations such as the firing of the prosecutor general, the security service chief (Katrychenko, 2022), the human rights ombudsman, and the social policy minister ("Viyna viynoyu, a porushennya Konstytutsiyi za rozkladom," 2022). Even though the West might choose not to notice some shortcuts in the time of war, this practice might still harm Ukraine's long-term reputation among its partners.

Another line of tensions can emerge between the central and local governments in Ukraine. The mayors were the first to openly speak against some government policies and emphasize that local leaders, with their awareness of the situation on the ground, would be a better fit for leading reconstruction efforts. Some mayors became well known in Ukraine and beyond for their efforts to protect their cities and rally support for local rebuilding projects (Berger and Khudov, 2022). In the summer of 2022, mayor criticism of government decisions signaled the return of political rivalry. For instance, the mayor of a badly damaged city in northern Ukraine was not allowed to leave the country for short-term fundraising trips (Berger and Khudov, 2022). Fears of the reversal of the decentralization process have also been exacerbated by a recent decision to limit the ability of local governments to redistribute funding among themselves to address urgent needs (Official Portal of the Kyiv City Administration, 2022).

Localization of decisionmaking has been suggested as a possible alternative that might minimize corruption, eliminate some links in the bureaucracy chain, and facilitate better oversight. Ukrainian local leaders argued that empowering communities to lead rebuilding efforts to the largest extent possible would be more efficient than any centralization of the process (Ozymok, 2022). Local government traditionally has more public trust in Ukraine and a better understanding of local needs (Association of Cities of Ukraine, 2022).³ However, the decentralization reform that empowered local communities for the first time in the history of independent Ukraine started only in 2014 (Cabinet of Ministers of Ukraine, undated). For decades, local communities lived with highly centralized authority in which decisions were passed down through many links in the chain before finally reaching the local level. Therefore, local governments are just learning to adopt a policymaking mindset, develop strategies, and conduct long-term planning (Samokhin and Kudelia, 2018). Very few local governments have experience in managing large projects or even in having a seat at the decisionmaking table. Research from 2019 (Baldych, Hnydyuk, and Trutkovs'k, 2019) showed that a lack of project management skills—all steps from proposal writing to implementation and reporting—were among the most frequently mentioned reasons why communities could not use the opportunities that opened to them. Various donor institutions have funded capacity-building efforts for the specialists working in communities, but these efforts have a long way to go. Moreover, as mentioned above, many of the individuals who possess these skills could have possibly been displaced, leaving communities even less likely to take the lead in recovery.

Despite concerns, Ukraine's government is the most likely to lead the reconstruction project. In addition to already implementing several initiatives to move reconstruction forward, the government is experienced in large-scale construction projects in Ukraine. Before the war, in 2019, a major infrastructure project allowed the nationwide construction of thousands of kilometers of roads and square meters of residential and other buildings (Velyke Budivnytstvo,

³ Surveys of Ukraine's population prior to Russia's full-scale invasion typically showed higher support for local government. The situation has changed the national government has been leading the country during the war.

undated). The government has a developed pipeline for selecting and executing projects that has been tested and refined. Despite similar fears of corruption and politicization arising throughout this project's implementation, the efforts were received positively by Ukrainians and foreign leaders (Byrne, 2021). This experience supports the argument for government control of reconstruction efforts.

The decision is still to be made. We observed a wide circulation of the idea of establishing a specialized EU agency to oversee and steer reconstruction (Becker et al., 2022), as well as calls to bring the decisionmaking process closer to those affected by empowering local communities. We also observed an assumption that the government remains the most likely "owner" of the reconstruction project. Since Ukraine's sovereignty and statehood are the targets of the war, the role of the West might likely be more focused on sharing experience and providing advice (which offers the added benefit of preventing the West becoming an arbiter between competing interests). The government also needs to account for any disparities among communities in their ability to apply and implement recovery projects to make the process of participation in reconstruction as accessible and equitable as possible.

Who Pays for Reconstruction?

Rebuilding Ukraine, similar to recovery from any large-scale disaster, will take a lot of money. Drawing lessons from RAND's work on forecasting rebuilding costs can help paint the clearest picture possible before money is sought (Strong et al., 2022). Such care is important given levels of public indebtedness that can arise following a major disaster and derail the development of middle-income countries (Schuler et al., 2018). Additionally, further RAND work on Hurricane Maria and other work on Hurricane Katrina hold lessons for trends such as privatization (Bond et al., 2020). While privatization itself is not a bad thing and could possibly be the source of needed speed and efficiency, it is a hotly contested topic after many disasters because of its role in potentially mortgaging the public good for private gain under the guise of quick recovery from a crisis.

From a substantive perspective, the source of funding for any recovery effort will certainly involve (and in many ways, already has involved) the private sector, even if privatization of infrastructure is limited. RAND analysis of private-sector support in disaster recovery points out that such support can come in many forms, ranging from short to long term, through public-private partnerships, direct assistance, or development efforts that supplement government action. However, such efforts come with challenges, including information gaps that traditionally keep many details on conditions and recovery needs out of the private sector; financing processes that might limit resources available for direct, charitable aid; and difficulties communicating the value of disaster recovery efforts to owners or shareholders (Chandra, Moen, and Sellers, 2016).

Finally, the above points about disaster recovery efforts as core expressions of sovereignty over territory and populations, especially those made in broader disaster literature and described

in detail (Bandopadhyay, 2022), stand as true in the context of examining who pays for recovery as in the context of who guides it. Donations, partnerships, and resources might all come with strings attached, taking decisionmaking on recovery details out of the hands of communities or the state and, in essence, turning it over to foreign entities or the private sector. Such a process can, in effect, redraw or reinforce the democratic dynamics and diplomatic positioning of a postdisaster country or community—an especially relevant consideration in the context of postconflict recovery. However, the private sector might offer speed, efficiency, and cost-effectiveness that outweigh these concerns.

Trade-Offs Between Feasibility, Sovereignty, Speed, and Long-Term Effects

In a national survey conducted in July 2022, when asked who should compensate Ukraine for economic and infrastructural damage caused by the war, almost 90 percent of Ukrainians responded it should be Russia. In addition, 21 percent of Ukrainians believed that European countries should also contribute, 18 percent pointed to international organizations, and 11 percent designated the United States (15 percent believe it should be Ukraine) (Sociological Group Rating, 2022).⁴ Many in the EU and the United States agree, on principle, that Russia should compensate Ukraine, and the EU is reportedly looking for a legal framework that would allow using Russian state and oligarchs' seized assets for reconstruction (Fleming, 2022). Forcing Russia to pay is also sometimes treated as a politically more attractive option as opposed to asking U.S. and European taxpayers to finance Ukraine's reconstruction for years to come (Nikolsko-Rzhevskyy and Gunter, 2022). However, in practice, it remains a politically and legally contentious issue ("Could Seizing Russian Assets Help Rebuild Ukraine?" 2022; Mortera-Martinez and Meyers, 2022; Zelikow, 2022).

Some commentators insist that using Russian assets without due process could undermine the rule of law underlying the liberal international order (Tett, 2022). In the United States, there is a debate about whether the president could use the International Emergency Economic Powers Act of 1977 to disburse the funds to Ukraine, as it has been used in the past (Tribe and Lewin, 2022; Buchheit and Gulati, 2022). Consequently, Ukraine is calling for a new UN commission to create an international framework to seize aggressors' assets in a legal, transparent, and effective way (Tett, 2022). Ultimately, whether such a legal framework is enacted or not (on the UN or national level) will be a political decision. Western governments will have to weigh the costs of reconstruction and the political implications of letting Russia avoid bearing the costs against the risk that using seized Russian assets will encourage other countries to keep their reserves elsewhere (Rappeport and Sanger, 2022). Either way, it might be a lengthy process.

The Lugano conference analytic briefs also foresee reparations from Russia. However, there is little focus on that source of funding (Centre of Economic Recovery, 2022). It is understandable that the language on the sources of funding is vague; while the aims of recovery

⁴ More than one response was accepted.

are defined by the Ukrainian government and civil society, the structure and sources of funding mostly depend on external actors. The recovery blueprint presented in Lugano proposes that \$750 billion could come from three mechanisms: grants, debt and equity, and private investment. Each would provide a similar amount of money (\$200–300 billion) for different purposes: grants for defense, emergency budget financing, and housing. The funds would similarly insure private investment, debt and equity for big infrastructural and energy projects and co-financing private investment, and private investment for infrastructure and value-adding sectors (National Recovery Council, 2022).

More-recent estimates suggest that the main recovery goals could be achieved with smaller (and more realistic) amounts. The World Bank estimated at the end of July that the recovery efforts would total \$349 billion (World Bank, 2022). In advance of the Berlin International Conference on Reconstruction, the German government commissioned a report from the German Marshall Fund (Erlanger, 2022). In September 2022, the think tank concluded that \$100 billion spread over several years would be sufficient to handle the major infrastructure damages (Ganster et al., 2022). These reports also suggest that most funding would come through grants, with the EU stepping in as the main donor. The European Recovery Program (more commonly known as the Marshall Plan), frequently mentioned in discussions on Ukraine as a possible template to follow, also consisted primarily of grants (Eichengreen, 2022).

Diversification of funding sources for Ukraine’s rebuilding is key to ensuring sustainability. According to Ukraine’s plans, the mix would involve internal public finance sources (state and local budgets), external public finance sources (international organizations, foreign governments, reparations from Russia), and private finance sources (business enterprises, nongovernmental organizations, private individuals, investment funds) (Centre of Economic Recovery, 2022). Each of these sources comes with different strings attached.

Borrowing from international financial institutions would increase already high external debt. Since 2014, Ukraine has received massive loans from the IMF, the World Bank, the European Bank of Reconstruction and Development, and the EU. At the end of 2021, Ukraine owed \$13.4 billion to the IMF and \$6.5 billion to bilateral official creditors (total external debt amounted to \$57 billion) (Weiss, 2022). To ease the pressure of debt service commitments and allow Ukraine to redirect this funding to domestic needs, in mid-September, the Group of Creditors of Ukraine concluded a memorandum of understanding deferring these commitments until the end of 2023 (U.S. Department of the Treasury, 2022). Adding more debt might not be sustainable in the long term. However, the loans from these institutions might provide an oversight that could increase the country’s credibility in the eyes of private investors.

Bringing private investors into reconstruction can speed up the recovery process. However, selling assets to foreign investors requires a stricter rule of law and exacerbates the problem of sovereignty, while relying on Ukrainian capital would likely mean increasing the already problematic influence of the oligarchs. Meanwhile, the National Recovery Plan explicitly states that “strengthening institutional capacity and ‘de-oligarchization’ are fundamental prerequisites

of the Recovery Plan” (National Recovery Council, 2022, p. 9). In his pledge to foreign investors, Zelenskyy declared that his government has “already identified options for more than \$400 billion of potential investment, which reach from public-private partnerships to privatization and private ventures” (Zelensky, 2022).

Finally, the government might seek to empower internal investors: Ukrainian businesses. Although the scale of the efforts would be much smaller, the involvement of Ukrainian entrepreneurs might have long-term positive effects. A business that originated or operates in Ukraine has similar demands as foreign investors for transparency and anticorruption measures, the rule of law, and an independent judiciary. The business also has a much better understanding of the needs of the local population and can tailor operations to meet them. Success stories of Ukrainian businesses that managed to not only survive and adapt but do their part in rebuilding the country can inspire others to invest in Ukraine (Bender, 2022).

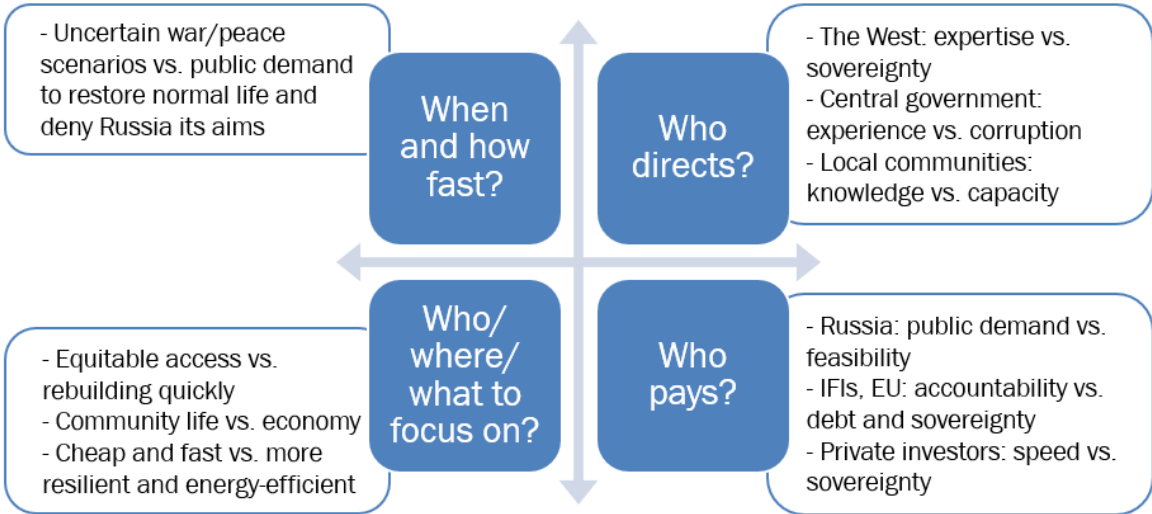
Given the uncertainty of future war scenarios, another space where private capital will require the government’s support is *war insurance*. Bringing new investment to regions under persistent threat of combat operations will be costly to insure on the private insurance market. Consequently, Ukraine plans to work with the Multilateral Investment Guarantee Agency to launch an investment insurance mechanism during hostilities. The pilot project worth \$30 million was announced in mid-September 2022. The minister of economy shared that the amount of funds allocated to Ukraine’s war insurance can be increased to \$1 billion in 2023, and the insurance will cover 90 percent of the sum invested (Ministry of Economy of Ukraine, 2022). This is an important development that shows that Ukraine’s government has a good understanding of the challenges that lie ahead.

Chapter 4. Conclusion

Ukraine did not enter this war by choice. Until Russia’s invasion, the country was slowly but steadily implementing democratic reforms and building prosperity. Some setbacks were apparent, but overall Ukraine was moving away from its Soviet and early postSoviet past and transitioning toward a more representative democracy. The end of this war is still uncertain. However, as of early 2023, both Ukraine and Russia (on occupied territories) were already planning how to rebuild, with some urgent projects already underway. Since the elimination of Ukraine’s sovereignty and existence are Russian goals, the ability to regain normalcy is an integral part of victory.

In this regard, the Ukrainian people and their government will face trade-offs regarding timelines, prioritization of efforts, leadership, and funding. Although accounting for local context is crucial for success, Ukraine can learn from broad examples of disaster research on both theory and real-world recovery, including RAND research into best practices and the effects of disasters ranging from hurricanes to technical accidents to armed conflicts and examples from literature and practice around the world. As laid out in Chapter 1, the aim of this report is not to offer specific recommendations. Instead, we used this literature to shed light on the trade-offs embedded in recovery choices. We believe that deliberating about ramifications will not only improve the decisionmaking process but also result in outcomes that are easier for the Ukrainian people and the broader international community to understand and accept. The summary of trade-offs is presented in Figure 4.1.

Figure 4.1. Trade-Offs of Recovery Decisions



NOTE: IFI = independent fiscal institutions.

Deciding when to start reconstruction involves facing a trade-off between the need to respond to public demand and the need to account for the uncertainty of war. The government must provide support for those who lost everything and incentivize those who fled to return. However, the attacks on Ukraine's infrastructure have continued into 2023, increasing the cost of rebuilding. Although the situation differed, much can be learned by turning to experiences such as those in Puerto Rico, where long histories of colonialization (De Onís, 2018; García-López, 2018) and outflow migration helped form vulnerabilities responsible for damage during and recovery after Hurricane Maria. Also of note, the distribution of the Marshall Plan funds in Europe began while some fighting was still underway (Eichengreen, 2022).

Decisions related to timelines, prioritization of efforts, leadership, and funding of reconstruction will have to weigh the demand to start reconstruction quickly against the risk of inequitable access to resources and its potential long-term consequences, as well as against the needs of communities and society to recover and process the war in fundamentally slower ways. Examples from broader scholarship that conceptualize and describe the importance of both rapid recovery and slower, deliberate timelines of healing in places such as postearthquake Japan, Türkiye, and Chile can offer insight into these trade-offs. Those places grappled with large earthquakes in 2010 and 2011 and, as mentioned above, engaged in recovery while making different choices around the questions of speed and deliberation (Platt and So, 2017). The most-damaged regions are those where active hostilities continue, and therefore they might benefit little from the first wave of recovery efforts. If the sources of reconstruction funds dry out before the frontline regions can be rebuilt, and there is a clear disparity between these regions and the rest of the country, national unity might crumble.

Another challenge will be synchronizing rebuilding housing and social life infrastructure with restoring economic opportunities. While many internally displaced persons hope to return to their cities, towns, and homes, bringing economic opportunities back might be a lengthier process that depends on different financial mechanisms. Furthermore, the structure of the local economy will likely change. Businesses that relocated might never return, and those that will grow need to be resilient to potential future hostilities. Finally, Ukraine wants to base its recovery on the principle of build back better to improve resilience and energy efficiency, but that requires more time and money than basic shelter to survive the winter.

The decision of who should direct reconstruction reveals trade-offs between sovereignty, capacity, and the risk of corruption. A somewhat similar scenario continues to unfold in places such as Puerto Rico, where disaster recovery is complicated by both persistent corruption in local government and the lack of representation in national government that comes with the island's colonialized past and modern territorial status (Fischbach et al., 2020). There is overall agreement that Ukraine should take the lead in recovery efforts. With its experience in major infrastructure projects, the government can likely serve as a platform coordinating financial and other aid from the West and the requests coming from local community members who are better

informed about the needs on the ground. However, there are risks of corruption and politicization of the recovery efforts.

Finally, the question of who pays for reconstruction presents trade-offs between the speed, sovereignty, and long-term effects of reconstruction, as witnessed before in large hurricanes in the U.S. Gulf Coast region. Borrowing from international financial institutions will increase already large external debt but comes with an oversight that can reassure foreign investors. Private capital can speed the process up, but the involvement of big investors exacerbates the sovereignty problem, while small investors can have problems with access to capital and insurance for their investments.

Ukraine decisionmakers and civil society will have to be mindful of these trade-offs, as there are no easy and universally beneficial solutions in recovery efforts of this magnitude. Being explicit and transparent about the risks and benefits of each option will be critical.

Abbreviations

COVID-19	coronavirus disease 2019
EU	European Union
GDP	gross domestic product
IFI	independent financial institution
IMF	International Monetary Foundation
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees

References

- Acosta, Joie D., Anita Chandra, Vivian L. Towe, Yandong Zhao, and Yangxu Lu, *ENGAGED Toolkit: Improving the Role of Nongovernmental Organizations in Disaster Response and Recovery*, RAND Corporation, TL-202-FF, 2016. As of March 6, 2023: <https://www.rand.org/pubs/tools/TL202.html>
- Alderman, Liz, and Erika Solomon, “To Escape the War, Ukraine’s Factories Are Moving West,” *New York Times*, August 15, 2022.
- Association of Cities of Ukraine, “Ukrayintsi doviryayut’ mistseviy vladi bil’she, nizh tsentral’niy—doslidzhennya ‘Active Group’ [Ukrainians Trust Local Authorities More Than the Central Ones—Research by ‘Active Group’],” December 2020.
- Baldych, Nataliya, Nataliya Hnydyuk, and Tsezariy Trutkovs’ky, “Doslidzhennya navchal’nykh potreb predstavnykiv orhaniv mistsevoho samovryaduvannya ukrayiny [Educational Needs Assessment of Representatives of Local Government of Ukraine],” Council of Europe, April 2019.
- Bandopadhyay, Saptarishi, *All Is Well: Catastrophe and the Making of the Normal State*, Oxford University Press, 2022.
- Becker, Torbjörn, Barry Eichengreen, Yuriy Gorodnichenko, Sergei Guriev, Simon Johnson, Tymofiy Mylovanov, Kenneth Rogoff, and Beatrice Weder di Mauro, eds., *A Blueprint for the Reconstruction of Ukraine*, Centre for Economic Policy Research, April 2022.
- “Behind the Frontlines, Ukrainians Find World of Ways to Help,” *Kyiv Post*, April 17, 2022.
- Bender, Yuri, “Young Entrepreneurs Pivot to Battle on Ukraine’s Economic Frontline,” *Financial Times*, May 8, 2022.
- Benedysyuk, Serhiy, “Povoyenna vidbudova: Pershi zakonodavchi kroky [Post-War Reconstruction: First Legislative Steps],” *NV Business*, March 23, 2022.
- Berger, Miriam, and Kostiantyn Khudov, “As War Grinds on, Old Ukrainian Political Divisions Are Reemerging,” *Washington Post*, August 3, 2022.
- Bohuslavets, Martyna, “Khid Zelens’koho: stsenariyi velykoho vidnovlennya [Zelenskyy’s Move: Scenarios of the Great Recovery],” *Dzerkalo Tyzhnya [Mirror Weekly]*, September 18, 2022.

- Bond, Craig A., Aaron Strong, Troy D. Smith, Megan Andrew, John S. Crown, Kathryn A. Edwards, Gabriella C. Gonzalez, Italo A. Gutierrez, Lauren Kendrick, Jill E. Luoto, Kyle Pratt, Karishma Patel, Alexander D. Rothenberg, Mark Stalczyński, Patricia K. Tong, and Melanie A. Zaber, *Challenges and Opportunities for the Puerto Rico Economy: A Review of Evidence and Options Following Hurricanes Irma and Maria in 2017*, Homeland Security Operational Analysis Center operated by the RAND Corporation, RR-2600-DHS, 2020. As of March 7, 2023:
https://www.rand.org/pubs/research_reports/RR2600.html
- Bondarchuk, Anatolyy, “The Occupied: Russianization of Ukrainian Education in the Temporarily Occupied Territories,” *Mirror Weekly*, October 3, 2022.
- Buchheit, Lee, and Mitu Gulati, “Alphaville’s Guide to Seizing Russian Assets,” *Financial Times*, March 29, 2022.
- Byrne, Peter, “Ukraine’s Infrastructure Upgrade Set to Continue,” Atlantic Council, September 20, 2021.
- Cabinet of Ministers of Ukraine, “Decentralization Reform,” webpage, undated. As of October 15, 2022:
<https://www.kmu.gov.ua/en/reformi/efektivne-vryaduvannya/reforma-decentralizaciyi>
- Cabinet of Ministers of Ukraine, *Pro zatverdzhennya derzhavnoyi stratehiyi rehional'noho rozvytku na 2021–2027 Roky*, On Approval of the State Strategy for Regional Development for 2021–2027], Resolution of August 5, 2020, No. 695, August 5, 2020.
- Cabinet of Ministers of Ukraine, “Statement by Prime Minister During the Plenary Session Framework for Smart and Sustainable Recovery Process in Ukraine, Lugano, Switzerland, July 4, 2022,” press release, July 4, 2022.
- Cedos, “Yak viyna vplynula na sferu sotsial'noho zakhystu [How the War Affected the Social Security System],” May 23, 2022. As of September 30, 2022:
<https://cedos.org.ua/events/yak-vijna-vplynula-na-sferu-soczialnogo-zahystu/>
- Centre for Democracy and Rule of Law, “4,365 NGOs and Charitable Organizations Established in Ukraine During the Full-Scale War,” July 21, 2022.
- Centre of Economic Recovery, *Policy Briefs on Ukraine’s Recovery: Extended Background Analytics*, Ukraine Recovery Conference, July 2022.
- Chandra, Anita, Shaela Moen, and Clarissa Sellers, *What Role Does the Private Sector Have in Supporting Disaster Recovery, and What Challenges Does It Face in Doing So?* RAND Corporation, PE-187-CCRMC, 2016. As of March 7, 2023:
<https://www.rand.org/pubs/perspectives/PE187.html>

- Chumachenko, Dmytro, and Tetyana Chumachenko, “Impact of War on the Dynamics of COVID-19 in Ukraine,” *British Medical Journal*, Vol. 7, No. 4, March 2022.
- Clark-Ginsberg, Aaron, David DeSmet, Ismael A. Rueda, Ryan Hagen, and Brian Hayduk, “Disaster Risk Creation and Cascading Disasters Within Large Technological Systems: COVID-19 and the 2021 Texas Blackouts,” *Journal of Contingencies and Crisis Management*, Vol. 29, No. 4, December 2021.
- Clark-Ginsberg, Aaron, Lena C. Easton-Calabria, Sonny S. Patel, Jay Balagna, and Leslie A. Payne, “When Disaster Management Agencies Create Disaster Risk: A Case Study of the US’s Federal Emergency Management Agency,” *Disaster Prevention and Management: An International Journal*, Vol. 30, Nos. 4–5, October 2021.
- Colborne, Michael, “Ukrainians Battle Escalating HIV Epidemic,” *Canadian Medical Association Journal*, Vol. 186, No. 26, July 4, 2017.
- “Could Seizing Russian Assets Help Rebuild Ukraine?” *The Economist*, June 6, 2022.
- Cretney, Raven, “Resilience for Whom? Emerging Critical Geographies of Socioecological Resilience,” *Geography Compass*, Vol. 8, No. 9, September 11, 2014.
- Cutter, Susan L., “Resilience to What? Resilience for Whom?” *Geographical Journal*, Vol. 182, No. 2, April 17, 2016.
- De Freytas-Tamura, Kimiko, “What It’s Like When Your Loved Ones Won’t Leave Ukraine,” *New York Times*, April 6, 2022.
- De Onís, Catalina M., “Energy Colonialism Powers the Ongoing Unnatural Disaster in Puerto Rico,” *Frontiers in Communication*, Vol. 3, 2018.
- Dumanska, Vita, “Khytri plany zabudovnykiv na ‘pisylya viyny’ [Cunning Plans of Developers for ‘After the War’],” *Ukrayinska Pravda*, March 31, 2022a.
- Dumanska, Vita, “Pryntsypy Luhano: Yaka rol’ hromadyans’koho suspil’stva? [The Lugano Principles: What Is the Role of Civil Society?],” LB.ua, July 25, 2022b.
- Eichengreen, Barry, “How Should a Marshall Plan for Ukraine Work?” *The Guardian*, May 12, 2022.
- Erlanger, Steven, “How Will Ukraine Rebuild (and Who Should Pay)?” *New York Times*, September 7, 2022.
- Erlanger, Steven, Jim Tankersley, Michael D. Shear, and Alan Yuhas, “Biden Vows to Back Ukraine ‘as Long as It Takes’ Despite Economic Toll,” *New York Times*, June 30, 2022.
- European Commission, “Solidarity with Ukraine: EU Takes New Steps to Provide Certainty and Access to Employment to Beneficiaries of Temporary Protection,” press release, October 10, 2022a.

- European Commission, “Speech by the President at the Ukraine Recovery Conference,” transcript, July 4, 2022b.
- European Commission, “Ukraine’s Financing Gap and Longer-Term Reconstruction,” press release, May 18, 2022c.
- European Commission, “What Is Smart Specialisation?” webpage, undated. As of September 20, 2022:
<https://s3platform.jrc.ec.europa.eu/what-we-do>
- European Council and Council of the European Union, “EU Solidarity with Ukraine,” webpage, undated. As of September 20, 2022:
<https://www.consilium.europa.eu/en/policies/eu-response-ukraine-invasion/eu-solidarity-ukraine/>
- “Explainer: Why the Black Sea Grain Deal Is Vital for Global Food Security,” Voice of America, November 2, 2022. As of March 13, 2023:
<https://www.voanews.com/a/explainer-why-the-black-sea-grain-deal-is-vital-for-global-food-security/6817425.html>
- Fernandez, Glenn, and Iftekhar Ahmed, “‘Build Back Better’ Approach to Disaster Recovery: Research Trends Since 2006,” *Progress in Disaster Science*, Vol. 1, May 15, 2019.
- Fischbach, Jordan R., Linnea Warren May, Katie Whipkey, Shoshana R. Shelton, Christine Anne Vaughan, Devin Tierney, Kristin J. Leuschner, Lisa S. Meredith, and Hilary J. Peterson, *After Hurricane Maria: Predisaster Conditions, Hurricane Damage, and Recovery Needs in Puerto Rico*, Homeland Security Operational Analysis Center operated by the RAND Corporation, RR-2595-DHS, 2020. As of March 7, 2023:
https://www.rand.org/pubs/research_reports/RR2595.html
- Fleming, Sam, “EU Should Seize Russian Reserves to Rebuild Ukraine, Top Diplomat Says,” *Financial Times*, May 8, 2022.
- Francis, Ellen, and Annabelle Timsit, “As Prices Rise, Europeans Divided over How Ukraine War Should End,” *Washington Post*, June 15, 2022.
- Ganster, Ronja, Jacob Kirkegaard, Thomas Kleine-Brockhoff, and Bruce Stokes, *Designing Ukraine’s Recovery in the Spirit of the Marshall Plan*, German Marshall Fund, September 2022.
- García-López, Gustavo A., “The Multiple Layers of Environmental Injustice in Contexts of (Un)natural Disasters: The Case of Puerto Rico Post-Hurricane Maria,” *Environmental Justice*, Vol. 11, No. 3, June 1, 2018.
- “Germany Plans International Conference on Ukraine Reconstruction—Source,” Reuters, August 11, 2022.

- Grayson, Catherine-Lune, and Angela Cotroneo, “Displaced in Cities: Experiencing and Responding to Urban Internal Displacement Outside Camps,” International Committee of the Red Cross, 2018.
- Hall, Ben, and Sam Fleming, “Who Will Pay to Put Ukraine Back Together Again?” *Financial Times*, May 11, 2022.
- International Chamber of Shipping, “500 Seafarers Remain Trapped on Vessels Stuck in Ukrainian Ports, 1,500 Evacuated Since March,” press release, May 3, 2022.
- International Monetary Fund, *World Economic Outlook: War Sets Back the Global Recovery*, April 2022.
- International Organization for Migration, “Ukraine: Internally Displaced Persons Estimates,” dataset, undated. As of April 4, 2023:
<https://data.humdata.org/dataset/ukraine-idp-estimates>
- International Republican Institute, *Public Opinion Survey of Residents of Ukraine: June 2022*, August 11, 2022.
- Ivanova, Aleksandra, “Donbass i smena vlasti v Kiyeve: kak menyalis’ tseli RF v voyne [Donbass and the Change of Government in Kyiv: How the Russian Federation’s Goals Changed During the War],” Deutsche Welle, July 25, 2022.
- Jarábik, Balázs, Gwendolyn Sasse, Natalia Shapovalova, and Thomas de Waal, “The EU and Ukraine: Taking a Breath,” Carnegie Endowment for International Peace, February 27, 2018.
- Katrychenko, Tetyana, “Vol’ove rishennya: Chomu Zelens’kyy vyrishyv pozbutysya Venediktovoyi ta Bakanova [A Resolute Decision: Why Zelenskyy Decided to Get Rid of Venediktova and Bakanov],” *Focus*, July 19, 2022.
- Kelman, Ilan, “Connecting Theories of Cascading Disasters and Disaster Diplomacy,” *International Journal of Disaster Risk Reduction*, Vol. 30, Part B, September 2018.
- Klyuzhev, Aleksandr, and Anatolyy Bondarchuk, “Okkupirovannye: Kak menyayutsya zhiteli VOT i pochemu vremya imeyet znacheniye [The Occupied: How Residents of the Temporarily Occupied Territories Are Changing and Why Time Matters],” *Mirror Weekly*, August 30, 2022.
- Knowles, Scott Gabriel, “Slow Disaster in the Anthropocene: A Historian Witnesses Climate Change on the Korean Peninsula,” *Dædalus*, Vol. 149, No. 4, October 2020.

- Kyiv City Administration, “Vitaliy Klychko: Asotsiatsiya mist Ukrayiny zvernulasya do Uryadu dlya rozblokuvannya mozhlyvosti nadannya finansovoyi dopomohy napryamu mizh hromadamy [Vitaliy Klitschko: The Association of Cities of Ukraine Appealed to the Government to Unlock the Possibility of Providing Financial Assistance Directly Between Communities],” press release, October 5, 2022.
- Kyiv School of Economics, “Direct Damage Caused to Ukraine’s Infrastructure During the War Has Reached \$88 Billion,” April 27, 2022a.
- Kyiv School of Economics, “Damage Caused to Ukraine’s Infrastructure During the War Increased to \$113.5 Bln, Minimum Recovery Needs for Destroyed Assets Is Almost \$200 Bln,” August 22, 2022b.
- Lakhtionov, Ivan, “Yak zastrakhuvatys’ vid koruptsiyi pid chas vidbudovy krayiny [How to Insure Against Corruption During the Reconstruction of the Country],” *Ekonomichna Pravda*, July 8, 2022.
- Lamova, Yelizaveta, “Regiony nazvali istochniki finansirovaniya shefskoy pomoshchi Donbassu [Regions Named Sources of Financing Sponsorship Assistance to Donbas],” *RBC*, June 29, 2022.
- Litvinov, Valentyn, “Foreign Trade in Agricultural Products,” dataset, undated. As of April 4, 2023:
<https://public.tableau.com/app/profile/fsuw/viz/ENGExportofAgriproducts/Dashboard1>
- Lomonosova, Natalia, and Kateryna Babych, “Social Security and War in Ukraine (February 24–April 30, 2022),” Cedos, May 17, 2022.
- Lovett, Ian, “With No Work or Money, Ukrainians Return Home to Russian-Controlled Territory,” *Wall Street Journal*, July 26, 2022.
- Madden, David J., “Disaster Urbanization: The City Between Crisis and Calamity,” *Sociologica*, Vol. 15, No. 1, May 2021.
- Meerow, Sara, and Joshua P. Newell, “Urban Resilience for Whom, What, When, Where, and Why?” *Urban Geography*, Vol. 40, No. 3, July 2016.
- Mika, Kasia, and Ilan Kelman, “Shealing: Post-Disaster Slow Healing and Later Recovery,” *Area*, Vol. 52, No. 3, September 2020.
- Ministry of Agrarian Policy and Food of Ukraine, “10 M Tons of Agricultural Products and Commodities Have Crossed the Border of Ukraine Since the Invasion Began,” press release, August 23, 2022.

Ministry of Economy of Ukraine, “The Ministry of Economy of Ukraine Has Agreed with MIGA to Launch a Mechanism for Insurance of Investments During the War,” press release, September 16, 2022.

Ministry of Education and Science of Ukraine, “Metodychni rekomendatsiyi shchodo orhanizatsiyi osvith'oho protsesu v shkolakh u 2022/2023 navchal'nomu rotsi [Methodological Recommendations for Organizing the Educational Process in Schools in the 2022/2023 Academic Year],” August 21, 2022a. As of September 20, 2022: <https://mon.gov.ua/ua/news/metodichni-rekomendaciyi-shodo-organizaciyi-osvitnogo-procesu-v-shkolah-u-20222023-navchalnomu-roci>

Ministry of Education and Science of Ukraine, “MON i YUNISEF zapochatkovuyut' initsiatyvu ‘Spil'no do navchannya,’ shchob pidtrymaty ditey u novomu navchal'nomu rotsi [MES and UNICEF Launch the ‘Together to Study’ Initiative to Support Children in the New Academic Year],” August 22, 2022b. As of September 20, 2022: <https://mon.gov.ua/ua/news/mon-i-yunisef-zapochatkovuyut-iniciativu-spilno-do-navchannya-shob-pidtrimati-ditej-u-novomu-navchalnomu-roci>

“Monitoryng Miscevyh Vyboriv 2020: Pidsumky [Monitoring of Local Elections 2020: Results],” Sociological Group Rating, November 23, 2020.

Mortera-Martinez, Camino, and Zach Meyers, “Using Sanctioned Russian Assets to Rebuild Ukraine Will Not Be Easy,” Centre for European Reform, August 3, 2022.

National Centers for Environmental Information, “Costliest U.S. Tropical Cyclones,” dataset, last updated January 10, 2023.

National Council for the Recovery of Ukraine from the Consequences of the War, *Draft Ukraine Recovery Plan: Materials of the “Audit of War Damage” Working Group*, July 2022.

National Recovery Council, “Ukraine’s National Recovery Plan,” slides presented at the Ukraine Recovery Conference 2022, July 2022.

Naumova, Maryna, “Khto ne vyyikhav, toy kolaborant? Bolyuche pytannya dlya tykh, khto zalyshyvsya v okupovanykh mistakh i selakh [Who Didn’t Leave, Are They Collaborators? A Painful Question for Those Who Stayed in the Occupied Cities and Villages],” Texty.org.ua, June 1, 2022.

Nikolsko-Rzhevskyy, Alex, and Frank Gunter, “Plan Marshalla Ta Reparatsiyi [Marshall Plan and Reparations],” *Vox Ukraine*, April 20, 2022.

“Opytuvannya IRI: Suspil'no-politychni pohlyady v Ukrayini (Cherven', 2022) [IRI Survey: Socio-Political Views in Ukraine (June, 2022)],” Sociological Group Rating, August 15, 2022.

- Organisation for Economic Co-Operation and Development, “The Architecture of Infrastructure Recovery in Ukraine,” July 1, 2022.
- Ozymok, Iryna, “‘DNK mista’: khto vidbudovuvatyme Ukrayinu? [‘City’s DNA’: Who Will Rebuild Ukraine?],” *Ukrainska Pravda*, August 13, 2022.
- Park, Hans, “The Power of Cities,” United Nations High Commissioner for Refugees Innovation Service, November 2016.
- Patel, Sonny S., Bernard McCaul, Gabriela Cáceres, Laura E. R. Peters, Ronak B. Patel, and Aaron Clark-Ginsberg, “Delivering the Promise of the Sendai Framework for Disaster Risk Reduction in Fragile and Conflict-Affected Contexts (FCAC): A Case Study of the NGO GOAL’s Response to the Syria Conflict,” *Progress in Disaster Science*, Vol. 10, April 2021.
- Pescaroli, Gianluca, and David Alexander, “A Definition of Cascading Disasters and Cascading Effects: Going Beyond the ‘Toppling Dominos’ Metaphor,” *Planet@Risk*, Vol. 3, No. 1, March 2015.
- Peters, Laura E. R., “Beyond Disaster Vulnerabilities: An Empirical Investigation of the Causal Pathways Linking Conflict to Disaster Risks,” *International Journal of Disaster Risk Reduction*, Vol. 55, March 1, 2021.
- Peters, Laura E. R., Aaron Clark-Ginsberg, Bernard McCaul, Gabriela Cáceres, Ana Luisa Nuñez, Jay Balagna, Alejandra López, Sonny S. Patel, Ronak B. Patel, and Jamon Van Den Hoek, “Informality, Violence, and Disaster Risks: Coproducing Inclusive Early Warning and Response Systems in Urban Informal Settlements in Honduras,” *Frontiers in Climate*, Vol. 4, August 2022.
- Platt, Stephen, and Emily So, “Speed or Deliberation: A Comparison of Post-Disaster Recovery in Japan, Turkey, and Chile,” *Disasters*, Vol. 41, No. 4, October 2017.
- Polishchuk, Viktoriya, “Misiyi hromads'kykh orhanizatsiy pid chas viyny: zmina napryamkiv, zaluchennya mizhnarodnoyi dopomohy, intehratsiya VPO [Missions of Non-Governmental Organizations During the War: Changing Directions, Attracting International Aid, Integration of IDPs],” *Hromads'kyi Prostir [Public Space]*, September 8, 2022.
- President of Ukraine, “Andriy Yermak and Kyrylo Tymoshenko Presented the Project of the Ukraine Recovery Fund to the Ambassadors of Foreign Countries,” press release, September 13, 2022a.
- President of Ukraine, “President: Special Funds Are Being Formed for the Reconstruction of Ukraine After the War,” press release, March 6, 2022b.
- President of Ukraine, “The Reconstruction of Ukraine Will Be the Greatest Contribution to the Maintenance of Global Peace—President’s Speech at the Ukraine Recovery Conference in Lugano,” press release, July 4, 2022c.

President of Ukraine, “Ukraine Receives Support from Partners Backed by Concrete Steps—Address by President Volodymyr Zelenskyy,” press release, March 6, 2022d.

President of Ukraine, “We All Equally Want to Win, but There Will Be Battles Ahead—Address by President Volodymyr Zelenskyy,” press release, April 1, 2022e.

President of Ukraine, “We Are Fighting for a Free Future and the Development of Our Country—Address of the President of Ukraine,” press release, April 16, 2022f.

President of Ukraine, “We Withstood: Address by the President of Ukraine on the Third Day of the War,” press release, February 26, 2022g.

Rappeport, Alan, and David E. Sanger, “Seizing Russian Assets to Help Ukraine Sets Off White House Debate,” *New York Times*, May 31, 2022.

Razumkov Center, “Otsinka hromadyanamy sytuatsiyi v krayini, dovira do sotsial’nykh instytutiv, polityko-ideolohichni oriyentatsiyi hromadyan Ukrayiny v umovakh rosiys’koyi ahresiyi (veresen’–zhovten’ 2022r.) [Citizens’ Assessment of the Situation in the Country, Trust in Social Institutions, Political and Ideological Orientations of Ukrainian Citizens in the Conditions of Russian Aggression (September–October 2022)],” October 28, 2022. As of November 30, 2022:

<https://razumkov.org.ua/napriamky/sotsiologichni-doslidzhennia/otsinka-gromadianamy-sytuatsii-v-kraini-dovira-do-sotsialnykh-instytutiv-politykoideologichni-orientatsii-gromadian-ukrainy-v-umovakh-rosiiskoi-agresii-veresen-zhovten-2022r>

ReliefWeb, “Outcome Document of the Ukraine Recovery Conference URC2022: ‘Lugano Declaration’ (Lugano, 4–5 July 2022),” press release, July 6, 2022.

Ringel, Jeanne S., Anita Chandra, Kristin J. Leuschner, Yee-Wei Lim, Nicole Lurie, Karen A. Ricci, Agnes Gereben Schaefer, Molly Shea, Lisa R. Shugarman, and Jeffrey Wasserman, “Lessons Learned from the State and Local Public Health Response to Hurricane Katrina,” RAND Corporation, WR-473-DHHS, 2007. As of March 27, 2023:
https://www.rand.org/pubs/working_papers/WR473.html

Rosiya Zaplatyt’ [Russia Will Pay], homepage, undated. As of October 15, 2022:
<https://damaged.in.ua/>

Samayeva, Yuliya, “Andriy Gaidutsky: ‘30% of Those Who Left for Poland After February 24 Are Already Working There,’” *Mirror Weekly*, September 26, 2022.

Samokhin, Ihor, and Mariia Kudelia, “Education in the Hands of Communities in Ukraine: What Has Changed So Far?” Cedoss, October 16, 2018.

Schuler, Philip, Luiz Edgard Oliviera, Gianluca Mele, and Matias Antonio, “Managing the Fiscal Risks Associated with Natural Disasters,” in Miria A. Pigato, ed., *Fiscal Policies for Development and Climate Action*, World Bank, 2018.

- Semenova, Kseniya, “Shcho robyty, yakshcho pid chas viyny vtratyly zhytlo chy transport Alhorytm diy dlya tykh, chyeye mayno bulo poshkodzhene abo znyshchene vnaslidok voyennykh diy [What to Do If You Lost Your Home or Vehicle During the War: An Algorithm of Actions for Those Whose Property Was Damaged or Destroyed as a Result of Hostilities],” *Ekonomichna Pravda*, March 18, 2022.
- Sezer, Can, and Orhan Coskun, “Ukraine Grain Export Coordination Centre Opens in Istanbul,” Reuters, July 27, 2022.
- Shen, Guoqiang, and Seong Nam Hwang. “Revealing Global Hot Spots of Technological Disasters: 1900–2013,” *Journal of Risk Research*, Vol. 21, No. 3, December 2015.
- “Simnadtsyate Zahal’nonatsional’ne Opytuvannya: Identychnist’. Patriotyzm. Tsinnosti (17–18 Serpnya 2022) [Seventeenth National Survey: Identity. Patriotism. Values (August 17–18, 2022)],” Sociological Group Rating, August 23, 2022.
- “SMI: gollandskiye stroiteli ne ispytyvayut bol’shogo zhelaniya vosstanavlivat’ Ukrainu [Media: Dutch Builders Do Not Have a Strong Desire to Restore Ukraine],” TASS, July 13, 2022.
- Sneidermane, Anna, “Ukraine Agri-Export Rail Capacity Up, but Remains Scant,” Argus, May 18, 2022.
- Sociological Group Rating, “P’yatnadtsyate Zahal’nonatsional’ne Opytuvannya: Ukrayina Pid Chas Viyny; Zaynyatist’ I Dokhody (23–24 Lypnya 2022) [Fifteenth General National Survey: Ukraine During the War; Employment and Income (July 23–24, 2022)],” July 27, 2022.
- State Statistics Service of Ukraine, “All-Ukrainian Population Census,” webpage, undated. As of September 19, 2022:
<http://www.ukrcensus.gov.ua/eng/>
- Strong, Aaron, Jeffrey B. Wenger, Isaac M. Opper, Drew M. Anderson, Kathryn A. Edwards, Kyle Siler-Evans, Jessie Coe, and R. J. Briggs, “Future Price Forecasting in the Wake of Large-Scale Disasters: The Case of Puerto Rico After Hurricane María,” Homeland Security Operational Analysis Center operated by the RAND Corporation, RB-A1116-4, 2022. As of March 7, 2023:
https://www.rand.org/pubs/research_briefs/RBA1116-4.html
- Svetov, Piotr, ““Podderzhka nashikh brat’sdyev’: kak rossiyskiye regiony budut vosstanavlivat’ mirnuyu zhizn’ v Donbasse ‘[Support for Our Brothers’: How the Russian Regions Will Restore Peaceful Life in the Donbass],” RT na Russkom [RT in Russian], June 10, 2022.
- Tamilina, Larysa, “Why Do Ukrainians Want to Go Back Home? Possible Causes Behind the Return of War Refugees to Ukraine,” *Vox Ukraine*, August 4, 2022.

- Tett, Gillian, “Using Russian Assets to Rebuild Ukraine Won’t Be Easy,” *Financial Times*, May 26, 2022.
- Towe, Vivian L., Elizabeth L. Petrun Sayers, Edward W. Chan, Alice Y. Kim, Ashlyn Tom, Wing Yi Chan, Jefferson P. Marquis, Michael W. Robbins, Lisa Saum-Manning, Margaret M. Weden, and Leslie Adrienne Payne, *Community Planning and Capacity Building in Puerto Rico After Hurricane Maria: Predisaster Condition, Hurricane Damage, and Courses of Action*, Homeland Security Operational Analysis Center operated by the RAND Corporation, RR-2598-DHS, 2020. As of March 7, 2023:
https://www.rand.org/pubs/research_reports/RR2598.html
- Transparency International, “2021 Corruption Perceptions Index,” webpage, undated. As of September 23, 2022:
<https://www.transparency.org/en/cpi/2021>
- Tribe, Laurence H., and Jeremy Lewin, “\$100 Billion: Russia’s Treasure in the U.S. Should Be Turned Against Putin,” *New York Times*, April 15, 2022.
- Tymoshenko, Kyrylo, Facebook post, July 4, 2022. As of September 20, 2022:
<https://www.facebook.com/kirill.timoshenko/posts/pfbid0q4HNgyufzh2FDMzxdNSz2nMeyEeDaM4NSWd4WhVMZy5eSaQDJRQ21U3oTDUJhGtl>
- “U ‘Diya’ vzhe mozhna podaty zayavky na vidshkoduvannya mayna, vtrachenoho pid chas viyny —Zelens’kyy [In ‘Diya’ You Can Already Submit Applications for Compensation of Property Lost During the War—Zelensky],” Ukrinform, March 29, 2022.
- UNCHR—See UN High Commissioner for Refugees.
- United Nations High Commissioner for Refugees, “Operational Data Portal: Ukraine Refugee Situation,” webpage, undated. As of September 20, 2022:
<https://data.unhcr.org/en/situations/ukraine>
- United Nations Human Rights Council Regional Bureau for Europe, *Lives on Hold: Profiles and Intentions of Refugees from Ukraine*, July 2022.
- U.S. Department of the Treasury, “Statement by Secretary of the Treasury Janet L. Yellen on Debt Service Relief by Group of Creditors of Ukraine,” press release, September 14, 2022.
- Usmani, Moiz, Kyle D. Brumfield, Bailey M. Magers, Anwar Huq, Rosa Barciela, Thanh H. Nguyen, Rita R. Colwell, and Antarpreet Jutla, “Predictive Intelligence for Cholera in Ukraine?” *GeoHealth*, Vol. 6, No. 9, September 2022.
- Velyke Budivnytstvo [The Great Construction], homepage, undated. As of October 15, 2022:
<https://bigbud.kmu.gov.ua/>

- Velyke Budivnytstvo [The Great Construction], image, February 11, 2022. As of September 20, 2022:
<https://www.facebook.com/velyke.bud/photos/pcb.520125902942306/520124999609063>
- Vindman, Alexander, and Dominic Cruz Bustillos, “Build Ukraine Back Better,” *Foreign Affairs*, July 18, 2022.
- “Viyna viynoyu, a porushennya Konstytutsiyi za rozkladom [War Is the War, but the Violations of the Constitution Are on Schedule],” *Agency for Legislative Initiatives*, July 25, 2022.
- Vorobiov, Mykola, “Putin’s Invasion of Ukraine Decimates Influence of Local Pro-Russian Parties,” *Eurasia Daily Monitor*, Vol. 19, No. 85, June 8, 2022.
- Weiss, Martin A., *Ukraine and International Financial Institutions*, Congressional Research Service, IF12107, June 10, 2022.
- Wisner, Ben, Piers Blaikie, Terry Cannon, and Ian Davis, *At Risk: Natural Hazards, People’s Vulnerability and Disasters*, 2nd ed., Routledge, 2004.
- World Bank, Worldwide Governance Indicators, database, undated.
- World Bank, *War in the Region: Europe and Central Asia Economic Update*, 2022.
- World Bank, Climate Change Knowledge Portal, “Ukraine: Vulnerability,” webpage, undated. As of December 1, 2022:
<https://climateknowledgeportal.worldbank.org/country/ukraine/vulnerability>
- World Trade Organization, “Ukraine Trade Profile,” fact sheet, 2013.
- Zelensky, Volodymyr, “Invest in the Future of Ukraine,” *Wall Street Journal*, September 5, 2022.
- Zelikow, Philip, “A Legal Approach to the Transfer of Russian Assets to Rebuild Ukraine,” *Lawfare*, May 12, 2022.
- Zetter, Roger, “Refugees and Their Return Home: Unsettling Matters,” *Journal of Refugee Studies*, Vol. 24, No. 1, March 2021.



In making decisions about reconstruction, the Ukrainian people and their government will face trade-offs regarding timelines, prioritization of efforts, leadership, and funding. Ukraine decisionmakers and civil society will have to be mindful of these trade-offs, as there are no easy and universally beneficial solutions in recovery efforts of this magnitude. Being explicit and transparent about the risks and benefits of each option will be critical.

This report aims to advance the understanding of these trade-offs and their ramifications. This will not only improve the decisionmaking process but also result in outcomes that are easier for the Ukrainian people and the broader international community to understand and accept.

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