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# Ukraine's fiscal developments and needs for economic recovery, reconstruction and European integration

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# Abstract

This policy report provides an up-to-date assessment of Ukraine's fiscal situation and locates the analysis in the longer-term context of the needs to keep the state viable in the current war situation, but also to deal with the challenges of reconstruction after the war and on its path towards EU accession. It studies in detail the structure and evolution of Ukraine's budget revenue in a time of war and reveals social and economic needs of a war-torn country in the areas of social protection, housing recovery, health care and education reforms, transport infrastructure, energy sector, industry and agriculture. It outlines the necessity to increase public revenue and considers different tax policy initiatives for funding a reconstruction program and restoring fiscal sustainability. The study elaborates a methodology for assessment and medium-term projections of consolidated budget expenditure, which are required for meeting Ukraine's recovery and reconstruction needs. It also provides budget deficit projections and gross financing needs assessments over the period 2024-2028. It shows the substantial foreign financing gaps for 2025-2026 and following years and analyses in details the external and, especially, EU financial support pledged to Ukraine. Finally, it discusses the staged EU accession model in the context of addressing reconstruction challenges and Ukraine's progressing on the path to EU membership.

Keywords: Ukraine's economic reconstruction, Ukraine's fiscal situation, Ukraine's external financing needs, EU staged accession model

JEL classification: H3, H5, H6, O52, O11

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## INTRODUCTION

Western support for Ukraine is incredibly important for making Ukraine economically stronger and viable, sustaining Ukraine's defence, and protecting Western countries from Russian aggression. Ukraine critically needs financial and military aid from its Western allies in order to support it during the war and build the peace. Rebuilding Ukraine will work to both Ukraine's and the EU's advantage, while risks of economic, social and political instability in a country with the largest European army are pressing concerns for the EU.

Tackling the destructive consequences of the war and creating conditions for Ukraine's sustainable social and economic development in a post-war period should rely on a balanced approach from the EU and other donors. This approach should be combined with various legal and economic measures related to the confiscation of frozen Russian assets and the allocation of the proceeds to Ukraine's reconstruction.

International experience in addressing the numerous problems in war-torn countries highlights the strong and indispensable role of public finances in the restoration and modernisation of the public sector as well as in providing compensation for damaged private assets. The report provides insights into the various instruments of fiscal and public policy in a broad context that could be used by the Ukrainian government, foreign governments and international institutions to support Ukraine's economic recovery, reconstruction and integration into the EU.

The policy report is divided into five chapters encompassing the various aspects of the fiscal situation in Ukraine and the public policy tools that have been designed to support Ukraine on its long-term path to stability and prosperity.

Chapter 1 analyses the structure and evolution of Ukraine's budget revenue both before and during the war. It outlines the need to increase public revenue and considers various tax policy initiatives for funding the reconstruction programme and restoring fiscal sustainability. The author offers a medium-term forecast of consolidated budget revenue, which is essential for estimating fiscal deficits.

Chapter 2 (with further detail provided in the Annex) discusses the social and economic needs of the war-torn country in the areas of social protection, housing recovery, healthcare and education reforms, transport infrastructure, the energy sector, industry and agriculture. The author elaborates a methodology for making assessments and medium-term projections regarding consolidated budget expenditure required for the Ukraine to meet its recovery and reconstruction (R&R) needs, which has previously been estimated by international institutions.

Chapter 3 calculates budget deficit projections and estimates of gross financing needs over the 2024-2028 period. Considering the financial assurances in place to support Ukraine, the projections reveal substantial foreign financing gaps for the 2025-2026 period and the years after that in addition to the problem of profound risks related to shortfalls or delays in foreign financing.

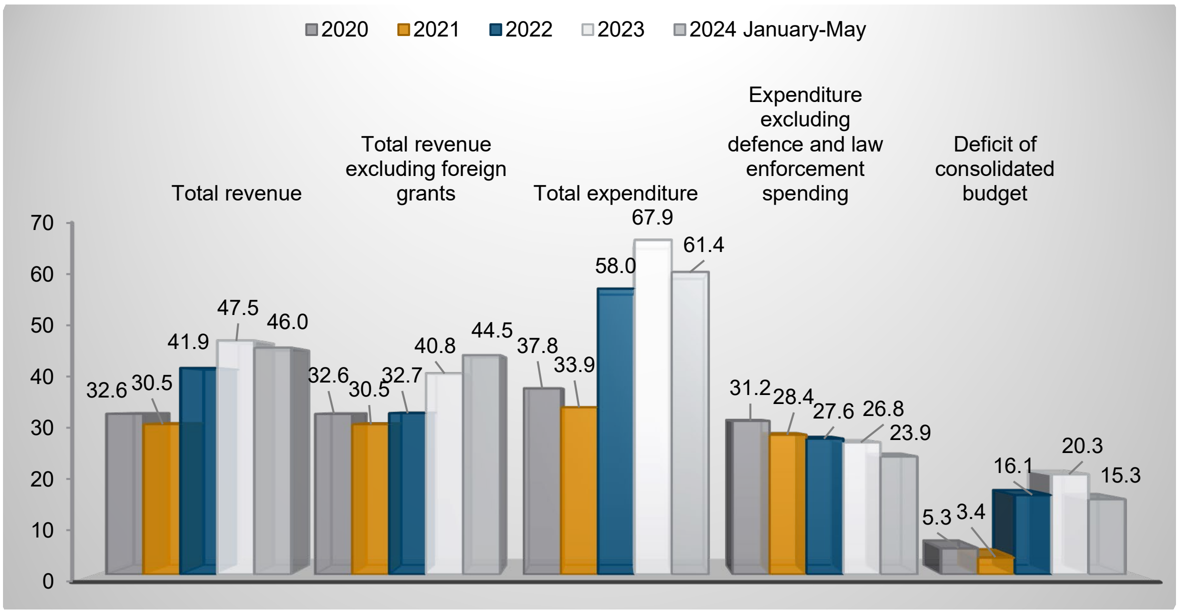
Chapter 4 analyses in detail the EU financial support pledged to Ukraine as well as potential tools for rebuilding and modernising the Ukrainian economy while the country implements key reforms on its path to EU accession. In Chapter 5 the staged accession model and EU Cohesion Policy are discussed in the context of addressing reconstruction challenges and Ukraine's progress towards EU membership.

## 1. DOMESTIC REVENUES OF UKRAINE'S CONSOLIDATED BUDGET AND THEIR FUTURE DEVELOPMENTS

Tax policy and raising public revenues are important both during (for maintaining defence capabilities) and after a war (for meeting reconstruction and social needs). The Ukrainian government is aware that budget expenditure will remain elevated due to objectives related to recovery, reconstruction and social protection. At the same time, fiscal adjustment – with a focus on revenue measures – will be needed.

In the framework of the Extended Fund Facility (EFF) programme supported by the International Monetary Fund (IMF), the Ukrainian government made commitments to implement tax policy changes and tax administration reforms aimed at mobilising 3% to 4% of GDP in additional public revenue during the 2024-2027 period. These reform efforts are aligned with the goal of restoring fiscal sustainability in the medium term. According to the IMF's memorandum on economic policy (IMF 2024), Ukraine's fiscal adjustment in the coming years will deliver a primary surplus in the medium term.

**Figure 1 / Evolution of revenues, expenditures and deficits of Ukraine's consolidated budget over the 2020-2024 period (% of GDP)**




Source: author's calculations based on data from the Ukrainian Ministry of Finance and the State Statistics Service of Ukraine (Derzhstat).

Since Russia's full-scale invasion of Ukraine in February 2022, the revenue of Ukraine's consolidated budget has grown sharply both in absolute terms and as a ratio to GDP. Figure 1 shows that total budget revenue skyrocketed from 30.5% of GDP in 2021 to 41.9% of GDP in 2022 and then to 47.5% of GDP in 2023. In the January-May 2024 period, budget revenue declined slightly, to 46% of GDP.

Growth in budget revenue excluding foreign grants was less pronounced, although substantial. Budget revenue without grants increased steadily: from 30.5% of GDP in 2021 to 32.7% of GDP in 2022 and, thereafter, to 40.8% of GDP in 2023 and, finally, to 44.5% of GDP in the January-May 2024 period.

A significant increase in budget revenue in recent years was mainly explained by non-tax revenue, which was raised for a special budgetary fund. Table 1 shows that own receipts of budget-funded entities increased from 2% of GDP in 2021 to 4.8% of GDP in 2022 and then to 12.8% of GDP in 2023. The main component of own receipts during the war appears to have been charitable donations to the Armed Forces of Ukraine (AFU). Legal rules require that cash contributions and weapon transfers to the AFU are evaluated and recorded in their budgetary accounts.

Meanwhile, tax revenue to Ukraine's consolidated budget was steady and experienced only minor fluctuations. Tax revenue declined slightly in 2022 – by 1.1 percentage points (pp) of GDP – and approached 25.6% of GDP at the end of year. In 2023, tax revenue decreased again by 0.5 pp of GDP, amounting to 25.1% of GDP. However, a noticeable rise was observed in 2024. Better collection of VAT and excise tax as well as higher taxation of bank profits resulted in an increase in tax revenue of almost 5 pp of GDP as compared to the January-May 2023 period.

Revenue collections to state and local budgets of Ukraine since 2022 have been impacted by economic decline, destruction of physical assets, human capital losses, shifts in production patterns, and shifts in the GDP structure on the expenditure side.

Declining consumption, the closure of some enterprises, an erosion of corporate profits, fluctuations in imports, a high degree of emigration from Ukraine, and the granting of tax exemptions in 2022 explained the evolution of major revenue items in the consolidated budget.

VAT revenue saw quite substantial reductions in the 2022-2023 period (by 0.9 pp of GDP), which was entirely attributable to lower VAT collections from imports. VAT on imported goods declined from 7% of GDP in 2021 to 5.6% of GDP in 2023. However, this item did recover to 6.9% of GDP in the January-March 2024 period.

Excise tax revenue plummeted from 3.3% of GDP in 2021 to 2.2% of GDP in 2022 and reversed to 2.9% of GDP in 2023. Temporary tax exemptions on fuel and deteriorating tax administration during the war contributed to these outcomes. In the January-May 2024 period, excise tax collections increased (approaching 3.1% of GDP) due to better tax administration and rising tax rates.

**Table 1 / Consolidated budget revenue, % of GDP**

| Revenue indicators | Annual | | | | | 5 months | |
|---|---|---|---|---|---|---|---|
| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 January-May | 2023 January-May |
| Tax revenue | 26.9 | 26.9 | 26.7 | 25.6 | 25.1 | 31.2 | 26.4 |
| Personal income tax | 6.9 | 7.0 | 6.4 | 8.0 | 7.6 | 7.8 | 7.8 |
| Corporate profit tax | 2.9 | 2.8 | 3.0 | 2.5 | 2.4 | 5.7 | 3.1 |
| Lessor's royalties | 1.3 | 1.4 | 1.6 | 1.8 | 1.0 | 0.9 | 1.3 |
| Excise tax | 3.4 | 3.6 | 3.3 | 2.2 | 2.9 | 3.1 | 3.0 |
| - on domestically produced goods | 1.8 | 1.9 | 1.6 | 1.2 | 1.4 | 1.3 | 1.5 |
| - on goods imported to Ukraine | 1.5 | 1.5 | 1.6 | 0.8 | 1.2 | 1.6 | 1.3 |
| - excise tax on retail trade | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Value added tax (VAT) | 9.5 | 9.5 | 9.8 | 8.9 | 8.9 | 11.0 | 8.7 |
| - VAT on domestically produced goods, including VAT reimbursements | 2.2 | 3.0 | 2.9 | 4.1 | 3.3 | 4.1 | 3.0 |
| of which: VAT reimbursements | -3.8 | -3.4 | -2.9 | -1.6 | -2.0 | -2.1 | -2.6 |
| - VAT on goods imported to Ukraine | 7.3 | 6.5 | 7.0 | 4.8 | 5.6 | 6.9 | 5.7 |
| Taxes on international trade | 0.8 | 0.7 | 0.7 | 0.5 | 0.6 | 0.7 | 0.6 |
| Local taxes and fees | 1.9 | 1.8 | 1.7 | 1.6 | 1.5 | 1.9 | 1.8 |
| Real estate tax | 1.0 | 0.9 | 0.8 | 0.7 | 0.7 | 0.7 | 0.8 |
| Single tax on entrepreneurs | 0.9 | 0.9 | 0.8 | 0.9 | 0.9 | 1.1 | 1.0 |
| Ecological tax | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Non-tax revenue | 5.4 | 5.6 | 3.7 | 7.0 | 15.7 | 13.2 | 16.8 |
| Revenues from properties & entrepreneurial activities | 2.9 | 2.9 | 1.1 | 1.7 | 1.9 | 2.9 | 4.7 |
| Net profit of SOEs and municipal enterprises transferred to budget | 1.2 | 1.7 | 0.5 | 0.9 | 0.5 | 1.3 | 1.1 |
| National Bank of Ukraine profit transfer | 1.6 | 1.0 | 0.4 | 0.4 | 1.1 | 1.4 | 3.1 |
| Administrative levies and fees; revenue from non-commercial activities | 0.4 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 |
| Extra collections to the state pension fund | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Own receipts of budgetary entities | 1.6 | 1.9 | 2.0 | 4.8 | 12.8 | 8.9 | 10.8 |
| Revenue from capital transactions | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| Official grants from the EU, foreign governments, IFIs, donor entities | 0.0 | 0.0 | 0.0 | 9.2 | 6.6 | 1.5 | 9.6 |
| State-targeted funds | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total revenue | 32.4 | 32.6 | 30.5 | 41.9 | 47.5 | 46.0 | 52.8 |
| Total revenue, excluding foreign grants | 32.4 | 32.6 | 30.5 | 32.7 | 40.8 | 44.5 | 43.2 |
| Total revenue, excluding grants & own receipts of budgetary units | 30.8 | 30.6 | 28.5 | 28.0 | 28.0 | 35.6 | 32.5 |

Source: author's calculations based on data from the Ukrainian Ministry of Finance and the State Statistics Service of Ukraine (Derzhstat).

The corporate profit tax, which is highly susceptible to economic conjuncture, experienced a sharp decline of between 0.5% and 0.6% of GDP in the 2022-2023 period. In 2024, the taxation of bank profits at a rate of 50% (applied to profits earned in 2023), along with a simultaneous rise in bank profits,[1] elevated

[1] In absolute terms, bank profits increased from UAH 77.5bn in 2021 to UAH 160bn in 2023. The main contributors to the bank profits have been generous interest payments from the NBU on banks' certificates of deposits. In this way, the NBU transferred fewer own profits to the state budget and subsidised the commercial banks at the expense of the state budget.

corporate profit tax collections substantially; they amounted to 5.7% of GDP in the January-May 2024 period, whereas revenue of this type was equivalent to 3% of GDP in 2021 and 2.4% of GDP in 2023.

The personal income tax dynamic was quite favourable, starting at 6.4% of GDP in 2021 and approaching roughly 8% of GDP during the war. Rising salaries of Ukraine's armed forces and the upward trend of average wages across the economy have been the main determinants of positive personal income tax collections.

The single tax for entrepreneurs (which is an alternative to general taxation for small businesses) and profit transfers from state-owned enterprises (SOEs) performed quite well. Since the outbreak of the war, more firms have been allowed to use a single tax (mainly a lump sum of 248-1300 Ukrainian hryvnias (UAH) per month or 5% of turnover) instead of the general taxation regime. These shifts have resulted in higher revenue from the single tax.

Net profit transfers from SOEs and municipal enterprises increased from 0.5% of GDP in 2021 to 0.9% of GDP in 2022 and then to 1.3% of GDP in 2024. Higher ratios of profit transfers to the budget have been imposed on SOEs during the war. Moreover, state-owned banks have recorded huge profits under the highly restrictive monetary policy of the National Bank of Ukraine (NBU) and low competitive pressure in the banking sector. Both factors have contributed to higher revenue collection from these sources.

Foreign grants to the Ukrainian budget were close to zero in the pre-war period but approached 9.2% of GDP in 2022. Financial aid to the Ukrainian government, provided by international financial institutions (IFIs) and bilateral donors, have strengthened Ukraine's economic resilience and social sustainability in time of war. Unfortunately, since 2023, foreign grants have steadily declined as a share of Ukraine's budget revenue. In the January-May 2024 period, foreign grants only amounted to 1.5% of GDP (9.2% of GDP in 2022).

Deducting foreign grants and own receipts of budgetary units from total budget revenue yields the adjusted budget revenue, which is shown in the bottom row of Table 1. We can see that ***budget revenue, excluding foreign grants and own receipts of budgetary units, was surprisingly stable throughout the 2021-2023 period and amounted to between 28% and 28.5% of GDP***.

However, in the January-May 2024 period, revenue collections excluding grants and own receipts improved considerably, approaching 35.6% of GDP. As mentioned above, in 2024, better collection of VAT and excise taxes on imported goods, higher taxation of bank profits, and a larger ratio of SOE profit transfers to the budget accounted for much of the growth in consolidated budget revenue.

Considering **future prospects** in the area of tax policy and fiscal management, we should note that the Ukrainian government is committed to focusing its efforts on raising adequate revenues to help meet reconstruction and social spending needs, with the underlying objective being to enhance the efficiency, fairness and simplicity of the tax system.

Government activities for raising revenue and improving tax administration are guided by the **National Revenue Strategy** (**NRS**), which was adopted in December 2023. Recently (in 2024), a detailed implementation plan for the NRS was developed with specific timetables for reforms to tax administration, customs and tax policy.

A **Budget Declaration for 2025-2027**, approved by the Cabinet of Minister on 28 June 2024 (Government of Ukraine 2024), states that the priorities of Ukraine's tax policy over the 2025-2027 period will focus on ensuring stable tax revenue necessary for financing primary expenditure, introducing modern digital solutions for tax administration, and complying with international obligations related to tax issues.

- In line with the NRS, the Budget Declaration envisages the implementation of the following tax policy and administrative measures in the 2025-2027 period:
- raising the *excise tax rates for tobacco and fuel products*, with gradual approximation to the EU minimums over the 2024-2028 period;
- introducing excise taxes on sugary drinks;
- changing taxation, such as with a *military levy* via a tax rate hike, an extension of the revenue base, and an increase in the coverage of taxpayers;
- advancing the gradual convergence of national laws related to *corporate profit taxation* and combating tax evasion to meet the requirements of the EU acquis;
- introducing international *automatic exchange of information* for tax purposes;
- revising the special investment regime with the aim of *eliminating corporate profit tax exemptions* and applying the full deductions of costs related to investments (immediate depreciation allowance);
- implementing an *electronic tax audit* (e-audit) system to improve the organisation of documentary and field audits.

In particular, the Ukrainian government committed to implementing rules for combating tax-evasion practices on the basis of the EU's Anti-Tax Avoidance Directive (EU ATAD) as well as to ensuring effective protection of the tax base from erosion and profit shifting.

Regarding **excise tax** rates, draft legislation (submitted by the Cabinet of Ministers) with core provisions on the gradual alignment of the excise taxes on tobacco and fuel products with EU requirements has already been registered in Parliament. Moreover, draft legislation to introduce excises on sugary drinks has also been prepared.

Nevertheless, improving excise tax administration, including for tobacco, remains essential. In order to avoid leakages and ensure equity, the Ministry of Finance of Ukraine is currently developing a track-and-trace system in cooperation with the Ministry of Digital Transformation, which is supposed to be operational by January 2026.

Under the EFF programme, the Ukrainian government is committed to aligning its tax policies with EU requirements, including by phasing out **preferential VAT rates and exemptions**. This provision follows from the NRS, which incorporates alignment of VAT taxation with the EU acquis. According to estimates presented in the NRS, cancellation of the preferential VAT rates and exemptions in compliance with the EU directive on VAT would generate 0.3% to 0.6% of GDP in extra revenue for Ukraine's state budget.

The Ukrainian government has also announced that rationalising **tax exemptions** and improving their targeting is an important focus of its medium-term tax policy. Under the EFF programme, Ukrainian authorities have committed to developing a methodology for assessing the effectiveness of tax privileges (including their costs to the budget) in order to have a unified reform approach. Thereafter, a new methodology targeting the most significant tax expenditures first will be applied to all relevant instruments.

In this vein, tax-related measures that are needed to support imports for national defence and security purposes are planned to be targeted, time-restricted (i.e. for the duration of the war), controlled and subject to oversight.

As a component of this strategy, the Ukrainian government plans to review the current regimes of the investment promotion via privileged taxation. The NSR provides for the new approach to privileged taxation of corporate profits to employ immediate depreciation. According to the available estimates, this would yield between 0.3% and 0.6% of GDP in extra budget revenue.

Thus, ***near-term tax policy measures will focus on raising revenues via excises and a military levy, further alignment with the EU acquis on VAT and profit tax issues, and streamlining available tax privileges***.

To prepare the forecast of consolidated budget revenue, the author starts with an analysis of the IMF's projections incorporated into the EFF programme and of the Ukrainian government's projections included in the Budget Declaration for 2025-2027 (Ministry of Finance of Ukraine 2004).

**Table 2 / Forecast of Ukraine's consolidated budget revenue, excluding foreign grants, % of GDP**

| | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|---|---|
| Author's forecast, baseline | 30.5 | 32.7 | 40.8 | 43.0 | 41.5 | 37.6 | 36.9 | 36.1 |
| Author's forecast, pessimistic | 30.5 | 32.7 | 40.8 | 41.4 | 39.7 | 36.0 | 35.5 | 34.7 |
| Government forecast (Budget Declaration) without additional tax measures | 30.5 | 32.7 | 40.8 | n.a. | 30.1 | 30.0 | 29.8 | n.a. |
| IMF's projections, baseline scenario adjusted for consolidated budget | 30.5 | 32.7 | 40.8 | 32.0 | 32.3 | 33.5 | 34.4 | 34.5 |

Sources: IMF 2024 and Government of Ukraine 2024; author's estimates.

Table 2 comprises the quantitative indicators of Ukraine's consolidated budget revenue over the 2021-2028 period across different forecasts and scenarios – namely, the author's baseline forecast, the author's pessimistic forecast, the Budget Declaration's projections, and the IMF's baseline scenario for the consolidated budget.

The Budget Declaration stipulates that redistribution of GDP through a consolidated budget (i.e. the budget revenue ratio) will be equal to 30.1% of GDP in 2025, 30% of GDP in 2026, and 29.8% of GDP in 2027. Although these figures do not take new tax measures into account, tax measures for boosting budget revenue are already being implemented at this time (in 2024). In addition, pressure stemming from the defence-expenditure needs and commitments in the framework of the EFF programme will remain in the medium term.

Consolidated budget revenue without foreign grants amounted to 30.5% of GDP in 2021 and 32.6% in 2020. Thus, for unknown reasons, the Ukrainian government projects smaller budget revenue as a percentage of GDP in the 2025-2027 period relative to the pre-war period.

According to the Budget Declaration, a package of tax measures is expected to annually generate UAH 340bn in extra funds for the central budget. A part of this amount is attributable to redistribution of the revenue sources among budgets of various levels.

The Ministry of Finance suggests that tax hikes for tobacco and fuel products will result in additional tax collections amounting to UAH 86bn (or 1.02% of GDP) in 2025, UAH 157.3bn (or 1.55% of GDP) in 2026, and UAH 217.3bn (or 1.84% of GDP) in 2027.

***Besides raising tax collections from excises, further alignment with the EU regulations on VAT and corporate taxes as well as streamlining tax privileges are expected to elevate budget revenue by between 2.2% and 3.5% of GDP during the 2025-2028 period.*** In general, such estimates reflect the government‘s obligations regarding a targeted increase in the tax-to-GDP ratio of 3pp to 4pp of GDP in the 2024-2027 period (as prescribed by the EFF programme). In addition, ***higher imposed rates and a higher military levy (or alternative temporary tax measures) in the 2024-2025 period are likely to yield up to 2% of GDP in extra revenue next year***.

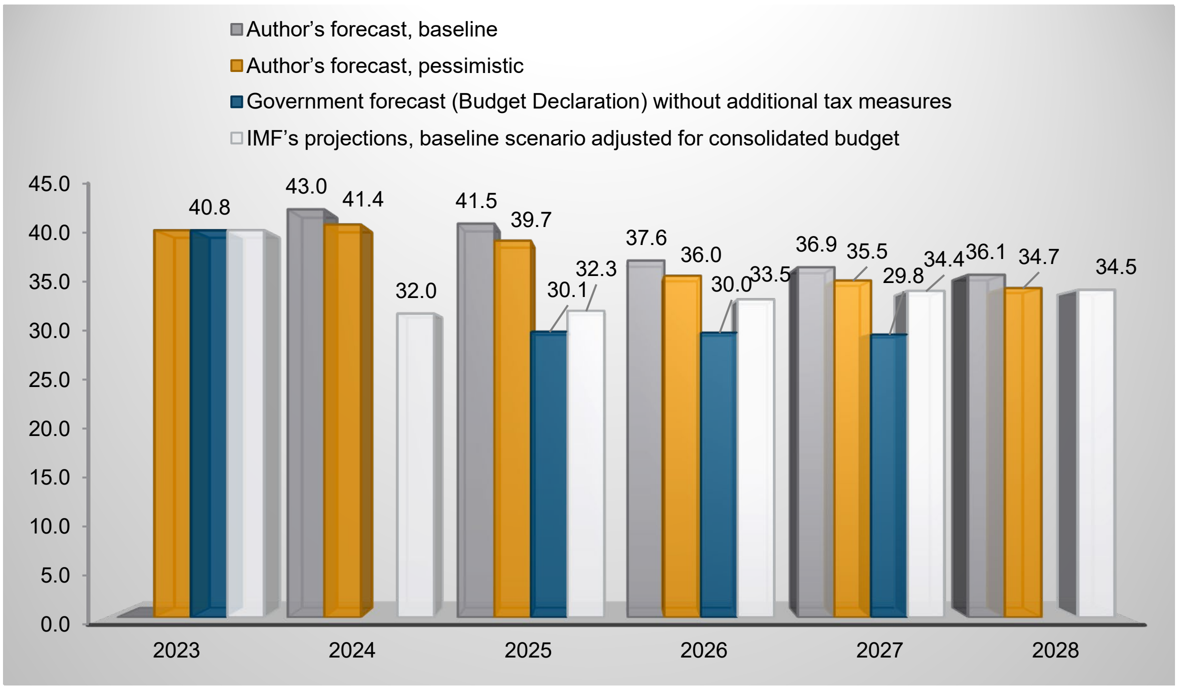
What is important for our assessments and projections is to focus on the indicator of consolidated budget revenue without foreign grants. This indicator is more predictable than total budget revenue (as it is not conditional on international commitments subject to political uncertainty), and it reflects the underlying macroeconomic trends in Ukraine in combination with the tax measures undertaken. According to the IMF projections, the volume of foreign grants will range between 1.2% and 2.9% of GDP during the 2025-2027 period in the baseline scenario and between 2.4% and 6.9% of GDP in the pessimistic scenario (without additional commitments from foreign donors or receipts from frozen Russian assets). Table 2 shows budget revenue without the grant component as a percentage of GDP across all scenarios.

Figure 2 depicts the author’s baseline and pessimistic forecasts of consolidated budget revenue (without foreign grants) in comparison with the IMF’s baseline forecast and the Ukrainian government’s forecast. According to the author’s baseline scenarios, ***Ukraine’s budget revenue ratio is projected to be 43% of GDP in 2024, 41.5% of GDP in 2025, 37.6% of GDP in 2026, 36.9% of GDP in 2027, and 36.1% of GDP in 2028.***

This scenario assumes a quicker economic recovery and more successful revenue collection relative to the pessimistic scenario. Both the baseline and pessimistic scenarios incorporate the effects of additional tax-mobilisation measures. Our assumptions and estimates underlying the budget revenue developments over the medium term yield higher levels of budget revenue than those in the Budget Declaration and the IMF‘s baseline scenario.

In addition, this scenario suggests that, after revenue collection of 40.8% of GDP in 2023, higher collections in 2024 will be attributable to new tax initiatives by the Ukrainian government that entered into force starting in October 2024. These initiatives encompass the new design and higher rates of the military tax as well as higher rates of the excise tax and the lump sum tax for small businesses.

**Figure 2 / Various forecasts of Ukraine's consolidated budget revenue, excluding foreign grants, % of GDP**




Source: author's presentation and projections.

The author's revenue projections for the 2024-2028 period differ from the official forecasts of the IMF and the Ukrainian government. In particular, the author presumes that the ***revenue ratio during the war and the period of post-war reconstruction will be substantially higher than the average ratio during the pre-war period***. This could be explained by the fact that Ukraine, as a war-torn country, receives a lot of **military, humanitarian and financial aid from abroad**. In addition, Ukrainian residents import more essential goods and services than they did before the war owing to higher needs and the destruction of domestic production capacities.

These kinds of transactions with non-residents are subject to taxation in some cases, which raises additional tax revenues. However, external resources and funds do not affect Ukraine's GDP at the initial stages of their mobilisation. A vivid example of this is grant support from Western donors to Ukrainian scientists (which has risen significantly since the beginning of the war). In many cases, R&D products of this kind are not recorded as a part of Ukrainian GDP, while a one-fifth share of grant income is subject to taxation according to the Tax Code of Ukraine (except grant programmes approved by the Ukrainian government and the respective foreign governments). Another channel of extending the tax base is the growing share of domestic consumption that is covered by imports. Goods imports are taxed via VAT (in most cases) and via excise taxes and import tariffs (in some cases), although such imports are deducted from GDP on the expenditure side.

Under the impact of these factors, budget revenues as a percentage of GDP are rising during the war and, according to the author's hypothesis, this trend will persist in the 2024-2028 period, although with declining speed. The evolution of the actual revenue ratio in the 2023-2024 period confirms this hypothesis. Whereas the average budget revenue ratio (excluding foreign grants) in Ukraine in the three years before the war (2019-2021) constituted 31.8% of GDP, it reached 40.8% of GDP in 2023 and 44.5% of GDP in the January-May 2024 period (see Table 1).

Another driving force of a higher projected budget revenue ratio during and immediately after the war is huge **own receipts of budgetary units**, including Armed Forces of Ukraine (AFU) units. As we have shown above, these receipts may be as high as 12.8% of GDP and, naturally, they elevate total budget revenue. However, these two factors (***i.e. assistance to the AFU and inflows of foreign resources) are omitted by the IMF and the Ukrainian government as revenue-enhancing drivers, which results in underestimation of the domestic revenue potential over the 2024-2028 period***.

We should note, however, that forecasts of consolidated budget revenue (as presented in Table 2) do not take into consideration a set of tax initiatives that are currently in the early stages of discussion and elaboration. For now, only rough outlines of these initiatives are available in the NRS and the EFF programme as potential directions for reforms, and they do not contain valuable measures.

For instance, in the longer term (i.e. one that goes beyond the time frame of the EFF programme), the NSR provides for reforming **simplified taxation of small businesses**. The announced components of this reform are excluding legal entities from the simplified system, introducing safeguards against tax abuses under this system, raising the threshold for the registration of VAT payers, and bringing the effective rates of the single tax closer to the standard tax rates.

What's more, guided by the NRS, the Ukrainian government has declared its intention to strengthen revenue mobilisation over the next few years by developing a comprehensive package of measures for the post-war period that are associated with the **taxation of carbon emissions**. These measures are supposed to be based on a concept of environmental protection. In line with the guidelines of the EFF programme, Ukrainian authorities will evaluate options for reforming the hydrocarbon tax regime. These efforts will be supported by IMF technical assistance. However, the tangible effects on the budget revenue of the activities related to the taxation of carbon emissions will only be observed outside the scope of the medium-term forecasts (and therefore not be included in our projections).

The Ukrainian government has also announced that, once permitted by future conditions, it will consider other reforms for making the tax system more equitable, including a reform to make **personal income tax** more progressive. However, as explained in the NRS, such a reform will require efficient tax administration and safeguarding the confidentiality of tax data in the systems of the State Tax Service (STS) of Ukraine.

Summing up, even though budget revenue declined substantially in real terms in 2022, when real GDP shrank by 28.8%, there has been an upward trend in the trajectory of the budget revenue ratio since the beginning of the war due to the macroeconomic effects of the war and the restructuring of Ukraine's economy. ***In the medium term, raising revenues sufficient to meet nation-wide economic and social needs will require additional tax-mobilisation efforts and enhancing the efficiency and fairness of the Ukrainian tax system***. An adequate and balanced package of additional tax measures will be indispensable for achieving Ukraine's post-war development goals and maintaining debt sustainability.

# 2. SOCIAL AND ECONOMIC NEEDS OF A WAR-TORN COUNTRY AND PUBLIC EXPENDITURE PROJECTIONS FOR THE 2024-2028 PERIOD

Addressing the significant financing needs in housing, transport, industry, energy, social protection and other sectors will be pivotal for restoring the production capacity of Ukraine's economy, boosting employment, and delivering essential public services to the population and businesses. The starting points of our investigation will be an analysis of the time series of the historical trajectory of budget expenditures in Ukraine and an identification of their driving forces.

## 2.1. The evolution of Ukraine's budget expenditures in the 2019-2024 period

Prior to the full-scale war, Ukraine experienced a moderate public expenditure level relative to GDP; consolidated budget expenditure amounted to 37.8% of GDP in 2020 and 33.9% of GDP in 2021 (see Table 3). In the 2019-2021 period, key expenditure items by the functions of government were fairly stable or enjoyed a downward trend. Notable exceptions to this pattern were government spending on road-transport infrastructure and health care. Rising expenditure in these two sectors was driven by the COVID-19 pandemic and the high prioritisation given to constructing roads by Ukrainian President Volodymyr Zelenskyy as part of the 'Great Construction' programme.

During the war, the public expenditure ratio has increased almost twofold. Total budget expenditure approached 67.9% of GDP in 2023 and 61.4% of GDP in the January-May 2024 period. Predictably, such a rise in spending was attributed to defence needs, public order, safety and the judiciary. Budget financing of the defence sector skyrocketed, from 2.3% of GDP in 2021 to 21.8% of GDP in 2022 and 32.1% of GDP in 2023. Expenditure on public order, safety and the judiciary tripled after the outbreak of war and reached 9% of GDP in the 2023-2024 period.

After deducting spending on defence and public order from the total budget expenditure, we obtain a magnitude of budget spending on social and economic programmes. Figure 1 (above) shows that this type of spending (as a percentage of GDP) saw a downward trend during the 2020-2024 period, whereas expenditure on social and economic programmes constituted 28.4% of GDP in 2021 and contracted to 23.9% of GDP in the January-May 2024 period.

Figure 3 depicts expenditure of the consolidated budget across governmental functions during the 2020-2024 period. We can see that expenditure on defence rose to an extremely high level. However, public debt service also increased substantially, from 2.9% of GDP in 2020 to 3.8% of GDP in 2023. We should note, however, that without the debt service standstill that foreign creditors granted to the Ukrainian government in 2022, the situation regarding public debt service would be much worse for Ukraine.

To accommodate the increased defence spending, the Ukrainian government was compelled to reduce expenditures on economic activity (from 5.4% of GDP in 2021 to 2% in 2024) and on education (from 5.7% of GDP in 2021 to 4.6% in 2024). Protracted and shrinking state investments in human capital raise serious concerns, as they will have irreversible destructive consequences for Ukraine in the long run.

**Table 3 / Evolution of consolidated budget expenditure across functions of government, % of GDP**

| Categories of expenditure | Annual data 2019 | 2020 | 2021 | 2022 | 2023 | 5 months 2024 January-May | 2023 January-May |
|---|---|---|---|---|---|---|---|
| Defence | 2.7 | 2.9 | 2.3 | 21.8 | 32.1 | 28.7 | 31.8 |
| Public order, safety and judiciary | 3.6 | 3.8 | 3.2 | 8.7 | 9.0 | 8.8 | 7.6 |
| General state functions | 2.1 | 2.0 | 1.7 | 1.7 | 1.5 | 1.5 | 1.4 |
| Public debt service | 3.0 | 2.9 | 2.9 | 3.1 | 3.8 | 3.7 | 3.6 |
| domestic debt service | 1.9 | 1.8 | 1.9 | 2.4 | 3.1 | 2.6 | 2.9 |
| foreign debt service | 1.1 | 1.0 | 1.0 | 0.7 | 0.7 | 1.2 | 0.7 |
| Economic activity | 3.9 | 6.2 | 5.4 | 2.9 | 3.8 | 2.0 | 2.3 |
| agriculture | 0.3 | 0.3 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 |
| energy sector | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.1 | 0.1 |
| manufacturing | 0.1 | 0.1 | 0.0 | 0.2 | 0.2 | 0.0 | 0.0 |
| construction | 0.4 | 0.6 | 0.4 | 0.1 | 0.2 | 0.1 | 0.1 |
| railway | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |
| road transport | 1.7 | 3.1 | 3.3 | 1.1 | 1.5 | 0.7 | 0.9 |
| Environment protection | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Housing and communal amenities | 0.9 | 0.8 | 1.1 | 0.8 | 1.1 | 0.8 | 0.6 |
| Health care | 3.2 | 4.2 | 3.7 | 4.1 | 3.3 | 3.1 | 3.4 |
| Culture, arts and sports | 0.8 | 0.8 | 0.8 | 0.6 | 0.6 | 0.6 | 0.6 |
| Education | 6.0 | 6.0 | 5.7 | 5.5 | 4.7 | 4.6 | 4.8 |
| preschool education | 0.9 | 0.9 | 0.9 | 0.8 | 0.7 | 0.7 | 0.7 |
| general secondary education | 2.9 | 2.9 | 2.8 | 2.8 | 2.3 | 2.3 | 2.3 |
| professional & vocational training | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 |
| higher education | 1.3 | 1.3 | 1.2 | 1.2 | 0.9 | 0.9 | 1.0 |
| of which: funded by the general budget | 0.8 | 0.8 | 0.8 | 0.8 | 0.6 | 0.5 | 0.6 |
| Social protection and provision | 8.1 | 8.2 | 6.7 | 8.7 | 7.9 | 7.5 | 8.9 |
| transfers to the pension fund | 4.6 | 4.8 | 3.7 | 4.0 | 3.8 | 4.2 | 4.8 |
| housing subsidies | 1.1 | 0.9 | 0.9 | 0.6 | 0.6 | 0.8 | n.a. |
| other programmes | 2.4 | 2.6 | 2.2 | 3.6 | 3.5 | 2.5 | 3.2 |
| Total expenditure | 34.4 | 37.8 | 33.9 | 58.0 | 67.9 | 61.4 | 65.0 |

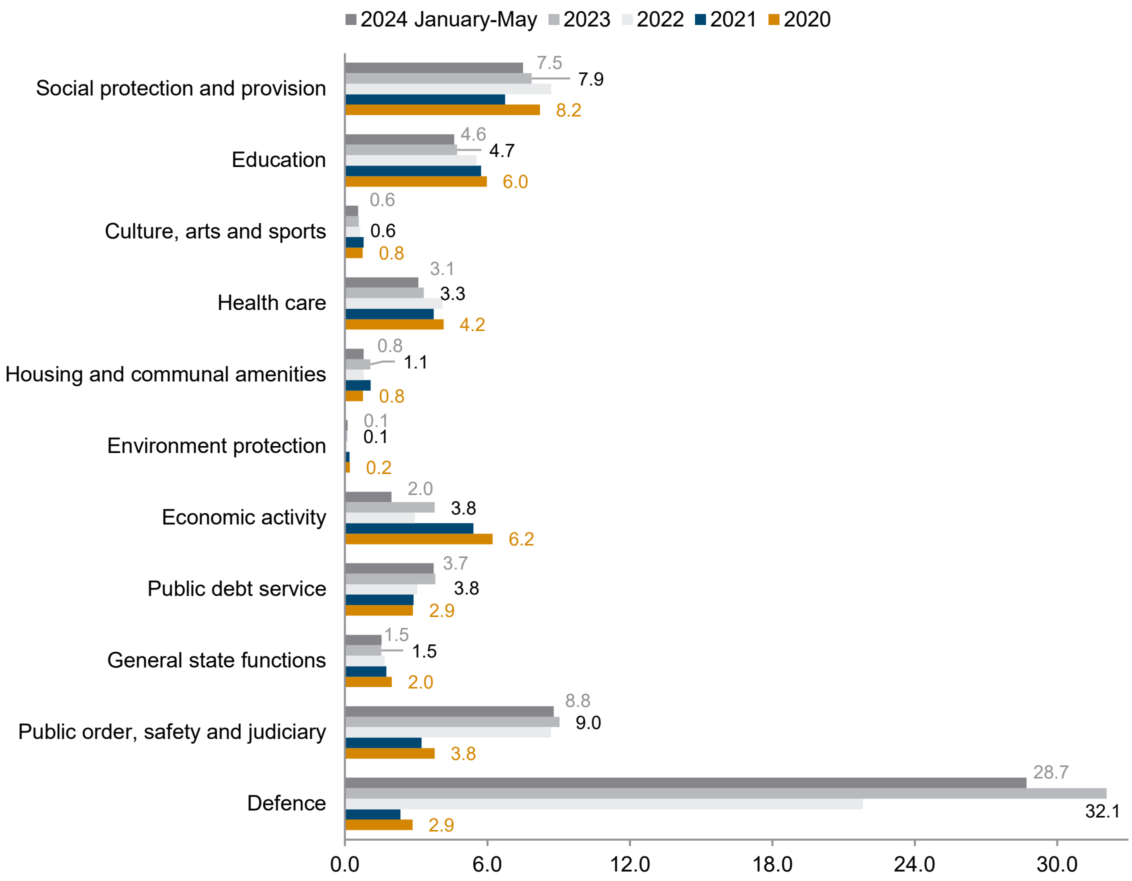
Sources: author's calculations on the basis of Ministry of Finance and State Statistics Committee data.

Healthcare expenditures plummeted from 3.7% of GDP in 2021 to 3.1% in 2024. In this regard, the really worrisome problem is that, under scarce budgetary funding, the state healthcare institutions are unable to provide quality medical care to wounded soldiers, war veterans and the civilian population.

Expenditures on social protection were financed at the level of 7.9% of GDP in 2023 and of 7.5% of GDP in the January-May 2024 period, which is slightly higher than in 2021, although it does not reach the level of 2022 (8.7% of GDP). Expenditures on social programmes have increased during the war as a result of payments to internally displaced persons (IDPs), people with disabilities, and orphans, whose numbers have substantially increased.

This general picture provides us with a starting point for understanding the driving forces of the public expenditure trajectory as well as for forecasting their future developments in the 2024-2028 period. Naturally, the future path of expenditure has to take into account the country's short-term emergency needs as well as potential long-term requirements and challenges for the government.

**Figure 3 / Expenditure of consolidated budget across functions of government over the 2020-2024 period, % of GDP**



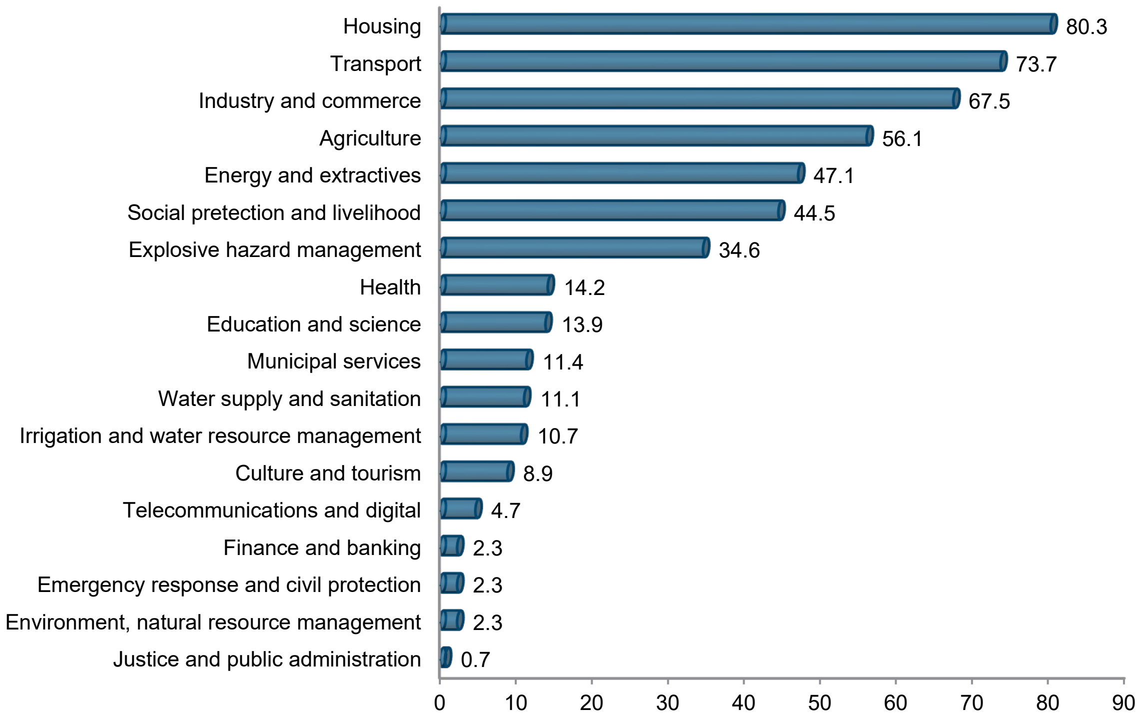

Sources: author's calculations based on data from the Ukrainian Ministry of Finance and the State Statistics Service of Ukraine (Derzhstat).

In the next section, we will elaborate a methodology for assessing the budget expenditure needed to cover the economic and social needs of Ukraine during the 2024-2028 period. We will also examine in detail the current and potentially future government activities related to R&R in such areas as social protection of the population, financing transport infrastructure, housing recovery, financing education and health care, support for the energy sector, industry and agriculture.

## 2.2. Methodology for assessing budget expenditure needed to cover the economic and social needs of Ukraine in the 2024-2028 period

Experts from the World Bank, the European Commission, the United Nations (UN) and the Ukrainian government estimated that Ukraine's R&R will cost USD 486.3bn over a 10-year period (as of 31 December 2023). These estimates and their justifications are presented in the third Rapid Damage and Needs Assessment (RDNA3) report published at the beginning of 2024 (World Bank Group 2024). The RDNA3 report's assessments of financing needs include the critical steps for short-term recovery as well as medium-term reconstruction to modern, low-carbon and climate-resilient standards in keeping with the 'build back better' principle.

**Figure 4 / RDNA3 assessments of recovery & reconstruction needs by sector, as of 31 December 2023, USD bn**




Source: World Bank Group 2024; author's presentation.

According to the RDNA3 report, the highest estimated needs will be for housing (over USD 80bn, or 17% of the total), followed by transport (almost USD 74bn, or 15%), commerce and industry (USD 67.5bn, or 14%), agriculture (USD 56bn, or 12%), energy (USD 47bn, or 10%), social protection and livelihoods (USD 44bn, or 9%), and explosive hazard management (almost USD 35bn, or 7%). The RDNA3 report's sectoral distribution of R&R needs is depicted in Figure 4.

**Methodology for assessing and projecting Ukraine's consolidated budget expenditure in the 2024-2028 period:**

1. Conventional expenditures of Ukraine's consolidated budget across functions of government are considered as a starting point of our assessments. Our indicators of conventional expenditures do not account for recovery and reconstruction (R&R) needs and are guided by actual expenditures (annual average) as a percentage of GDP in the 2019-2021 period. However, the scope for public expenditure calibration (i.e. rationalisation) in a post-war period was included in our calculations.
2. Estimates of the R&R needs of Ukraine across sectors are found in the third Rapid Damage and Needs Assessments (RDNA3) report of the World Bank, the European Commission, the Ukrainian government and others. All indicators are estimated in USD (total USD 486.3bn) and rely on a variety of funding sources (beyond just public funds) to meet the R&R needs.
3. Noticeably, 2024 damages and needs are not covered by the RDNA3 report even though Russian attacks continue to affect Ukraine's economy as well as kill and wound its citizens. In order to cover this gap, we multiplied the R&R needs at the end of 2023 by 1.25 (thus, a rise by 25% over one

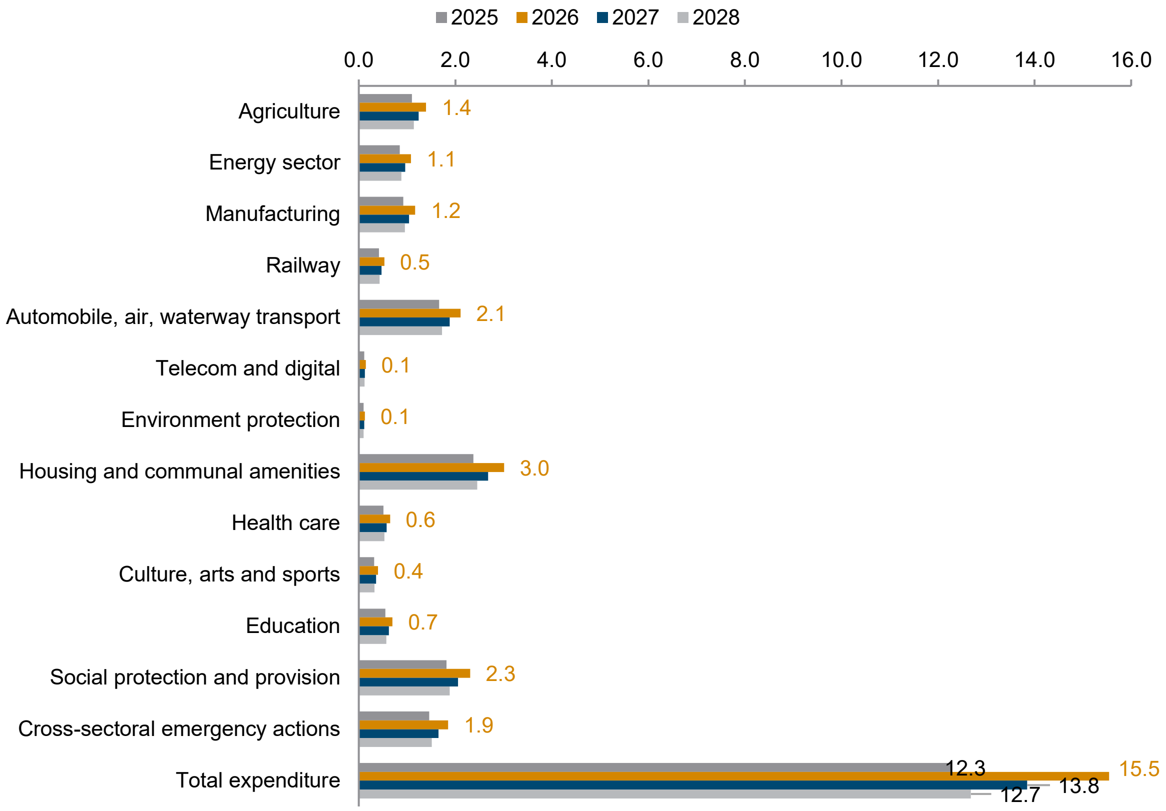
year of warfare is presumed). In this way, we derive the rough estimates of total R&R needs as of 31 December 2024. The total amount of USD 607.9bn is presented in Table 4 with a sectoral distribution.

4. After that, we deducted expected expenses for recovery in 2024 (USD 15.3bn) from the total (USD 607.9bn). This step allowed us to assess the net R&R needs over a 10-year period encompassing 2025 to 2034. The authors of the RDNA3 report use USD 15.3bn as the figure for R&R priorities in 2024. Since we assume that they will be entirely covered over the course of 2024, the net R&R needs will amount to USD 592.6bn at the end of 2024.
5. The R&R priorities for 2024 (USD 15.3bn) are already incorporated into a budget plan for the ongoing year. Therefore, our methodology for assessing public expenditure across sectors in 2024 differs from a methodology elaborated for the 2025-2028 period. Computation of budget indicators of 2024 relies on extrapolation of the current trends in budget execution and considers the legislative provisions.
6. Next, we estimate the shares of Ukraine's consolidated budget in financing R&R needs across functions of government; these shares are to include foreign donor financing disbursed to the Ukrainian budget. The potential level of private-sector contribution to financing recovery as well as its concentration in industry, commerce, agriculture, housing and other sectors are taken into account. Estimates from the International Finance Corporation (IFC 2023) were very useful in this regard. The IFC provides an estimate of the share of private-sector financing in Ukraine's recovery needs, depending on reforms and public interventions.

   Moreover, our estimates of a share of Ukraine's consolidated budget also address the involvement of international institutions in meeting the social and humanitarian needs of Ukrainians (e.g. the EU Civil Protection Mechanism, the UN development funds, the Red Cross and others, which operate beyond Ukraine's budget). The same is true for the involvement of funds from private donors. The engagement of private-sector entities and international humanitarian organisations will reduce the requirements for Ukrainian public funds and lower the share of Ukraine's consolidated budget that goes towards financing R&R to below 100%. Our estimates, presented in Table 4, reveal that the shares of Ukraine's budget expenditure in meeting R&R needs will range between 35% in agriculture, 40% in the energy sector, 87% in social protection, and 90% in education and environmental protection.

7. The total amount of net R&R needs, estimated at USD 592.6bn, were distributed across 10 years (following the approach employed by the RDNA3 report). Thus, annual average needs by sector are calculated as one tenth of the total amount. However, a specific provision is used for 2025, as we assume that the war will continue until March or April 2025. Since armed hostilities inevitably hamper reconstruction processes, we multiply annual average needs in public expenditure by 0.7 to derive the 2025 indicators. For this reason, we assume that the remaining 30% of annual needs (not covered in 2025) will be shifted closer to the end of the reconstruction period, which is beyond our forecasting period.

**Figure 5 / Estimated recovery & reconstruction needs for Ukraine's budget (total and across sectors) in the 2025-2028 period, % of GDP**




Source: author's calculations based on initial assessments in the RDNA3 report.

8. Given the annual R&R needs for Ukraine's budget in terms of USD, we recalculate these in terms of GDP ratios for the 2025-2028 period. Nominal GDP projections are available in the Budget Declaration of the Ukrainian government (Government of Ukraine 2024), while exchange rate forecasts have been derived from IMF tables. Thus, our estimates for annual R&R needs (which rely on initial assessments from the RDNA3 report) range between 12.3% of GDP in 2025 and 15.5% of GDP in 2026. All annual numbers are distributed across economic sectors and depicted in Figure 5. Furthermore, detailed data are presented in Table 4.

9. Financing the ordinary governmental functions (e.g. defence, public order, safety and the judiciary), general state functions and public debt service are estimated separately from the major part of the functions that refer to R&R needs. To forecast ordinary functions, we use the methods of expert assessments, extrapolations and the guidelines in Ukraine's Budget Declaration and the EFF programme. We have assumed that defence expenditure (envisioned in the Budget Declaration at 26.3% of GDP in 2025 and 16.1% of GDP in 2026) are unbearable for the Ukrainian budget alone at a stage of huge expenditure needs for reconstruction.

   However, Ukraine will need to strengthen its defence capabilities in the final stage of war as well as after the end of the war. For this, 70% of specified volumes of defence expenditure could be covered by the Ukrainian budget and 30% by foreign partners (via NATO, bilateral contributions of

Western allies, and receipts from frozen Russian assets) in the 2027-2028 period. In 2025 and 2026, the ratio of the domestic financing of Ukraine's defence sector could be higher (i.e. 80% and 75%, respectively). The participation of foreign partners could take the shape of direct deliveries of weapons and ammunition to Ukraine, purchases of ammunitions and other inputs for Ukraine's armed forces, and/or direct monetary contributions to Ukraine's budget for defence purposes.

10. Estimates of R&R needs in terms of GDP ratios (differentiated across sectors) are then combined with the conventional expenditure of Ukraine's consolidated budget (see Point 1 above). In this way, our projections regarding budget expenditure (including for financing R&R needs) are finalised. The last columns of Table 4 show that projected budget expenditures over the course of Ukraine's R&R could amount to 68% of GDP in 2025, 59.5% of GDP in 2026, 54.3% of GDP in 2027, and 51.4% of GDP in 2028.

A formula for calculating a projected annual budget expenditure for the i^th function through the 2026-2028 period can be summarised as follows:

$$Exp\_pr_i^{rat} = Exp\_con_i^{rat} + (RRN_i^{usd} \times 1.25 - Prior_i^{2024}) \times \frac{Share_i}{100} \times 0.1 \times \frac{ER_{UAH/USD}}{GDP}$$

$Exp\_pr_i^{rat}$– projected budget expenditure for the i^th function as a ratio to GDP;

$Exp\_con_i^{rat}$– conventional budget expenditure for the i^th function (average in peacetime, adjusted for potential of rationalisation) as a ratio to GDP;

$RRN_i^{usd}$ – R&R needs for the i^th function, estimated by the RDNA3 report (as of 31 December 2023) in USD;

$Prior_i^{2024}$ – R&R priorities for the i^th function in 2024, estimated by the RDNA3 report in USD;

$Share_i$ – the share of Ukraine's consolidated budget in financing R&R needs for the i^th function of government spending;

$ER_{UAH/USD}$ – nominal UAH/USD exchange rate, annual average in respective year, forecast by the IMF;

$GDP$ – Ukrainian nominal GDP, as projected by the Ukrainian government in UAH.

A formula for calculating the projected budget expenditure for the i^th function in 2025 can be expressed as:

$$Exp\_pr_i^{rat} = Exp\_con_i^{rat} + 0.7 \times (RRN_i^{usd} \times 1.25 - Prior_i^{2024}) \times \frac{Share_i}{100} \times 0.1 \times \frac{ER_{UAH/USD}}{GDP}$$

The numerical results of the application of the methodology above and derived estimates of the budgetary expenditure for meeting Ukraine's R&R needs are shown in Table 4

**Table 4 / Data used for and results of the assessment of the budgetary expenditure needed to meet Ukraine's recovery and reconstruction (R&R) needs in the 2024-2028 period**

| | 2019-2021 actual expenditure (annual average), % of GDP | 2024-2033 R&R needs (RDNA3), all funding sources, USD bn | 2024-2033 R&R needs, incl. 2024 damage, all sources, USD bn | 2025-2034 R&R needs with 2024 damage minus 2024 priorities, USD bn | Share of Ukraine's consoled. budget in financing total needs (incl. donor funds to budget),% | 2025-2034 R&R needs for Ukraine's consolidated budget, USD bn | Annual average 2025-2034 R&R needs for Ukraine's budget, USD bn |
|---|---|---|---|---|---|---|---|
| Defence | 2.6 | - | - | - | - | - | - |
| Public order, safety, judiciary | 3.5 | 0.7 | 0.88 | 0.85 | 100 | 0.85 | 0.09 |
| General state functions | 1.9 | 2.3 | 2.88 | 2.88 | 20 | 0.58 | 0.06 |
| Public debt service | 2.9 | - | - | - | - | - | - |
| Economic activity | 5.2 | 259.8 | 324.73 | 316.15 | - | - | - |
| Agriculture | 0.3 | 66.8 | 83.50 | 83.02 | 35 | 29.06 | 2.91 |
| Energy sector | 0.1 | 47.1 | 58.88 | 56.22 | 40 | 22.49 | 2.25 |
| Manufacturing | 0.1 | 67.5 | 84.38 | 81.26 | 30 | 24.38 | 2.44 |
| Railway | 0.2 | 18.0 | 22.51 | 22.09 | 50 | 11.05 | 1.10 |
| Automobile, air, waterway transportation | 2.7 | 55.7 | 69.59 | 67.68 | 65 | 43.99 | 4.40 |
| Telecom and digital | - | 4.7 | 5.88 | 5.48 | 55 | 3.01 | 0.30 |
| Environment protection | 0.2 | 2.3 | 2.88 | 2.88 | 90 | 2.59 | 0.26 |
| Housing and communal amenities | 0.9 | 102.8 | 128.50 | 125.42 | 50 | 62.71 | 6.27 |
| Health care | 3.7 | 14.2 | 17.75 | 16.88 | 80 | 13.50 | 1.35 |
| Culture, arts and sports | 0.8 | 8.9 | 11.13 | 11.12 | 75 | 8.34 | 0.83 |
| Education | 5.9 | 13.9 | 17.38 | 16.18 | 90 | 14.56 | 1.46 |
| Social protection and provision | 7.7 | 44.5 | 55.63 | 55.26 | 87 | 48.07 | 4.81 |
| Cross-sectoral emergency actions | - | 36.9 | 46.13 | 45.36 | 85 | 38.56 | 3.86 |
| **Total expenditure** | **35.4** | **486.29** | **607.86** | **592.57** | **-** | **323.74** | **32.37** |

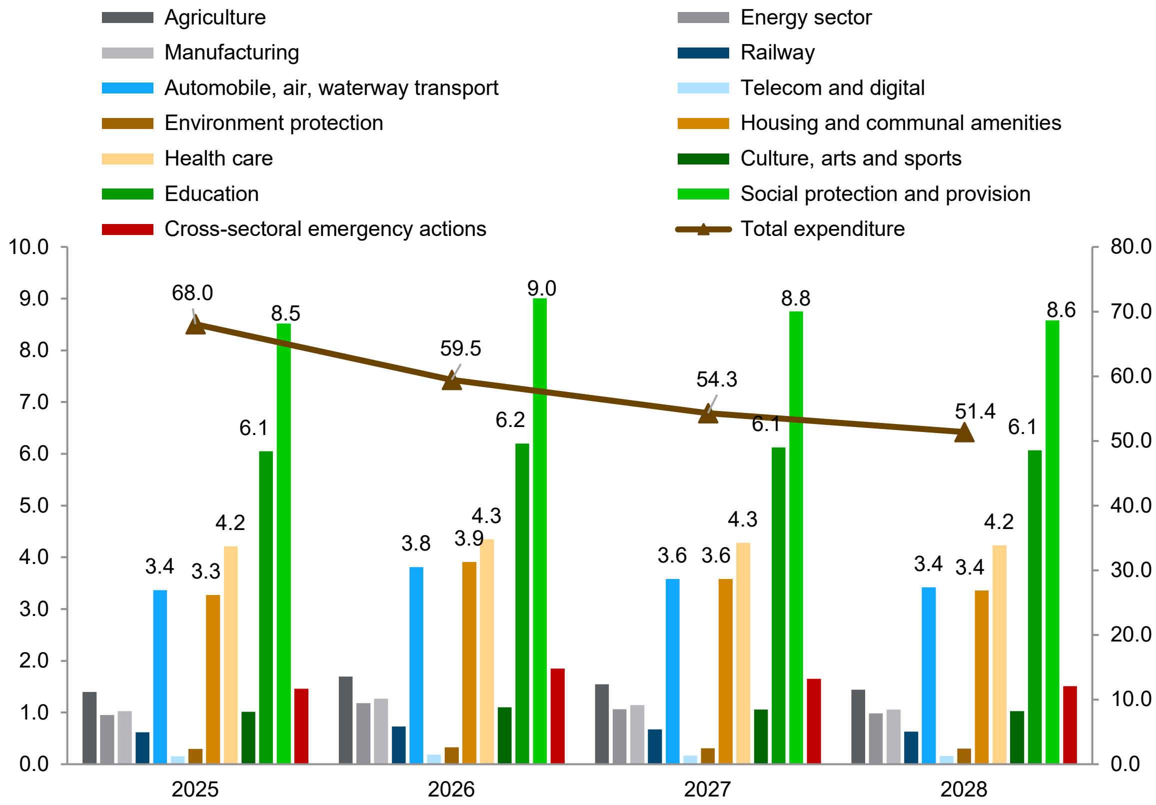
Condt.

**Table 4 / Continued**

| | 2024 plan (Budget Law) | Annual 2025-2028 R&R obligations for Ukraine's budget, % of GDP | | | | Conventional budget expend. without meeting R&R needs, % of GDP | Projected budget expenditure with incorporated financing for R&R needs, % of GDP | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2025 | 2026 | 2027 | 2028 | | 2025 | 2026 | 2027 | 2028 |
| Defence | 26.8 | - | - | - | - | | 21.0 | 12.1 | 9.1 | 8.1 |
| Public order, safety and judiciary | 8.0 | 0.03 | 0.04 | 0.04 | 0.03 | 4.5 | 7.53 | 5.04 | 5.04 | 4.53 |
| General state functions | 1.8 | 0.02 | 0.03 | 0.02 | 0.02 | 1.7 | 1.82 | 1.73 | 1.72 | 1.72 |
| Public debt service | 5.6 | - | - | - | - | n.a. | 5.3 | 5 | 4.5 | 4.3 |
| Economic activity | 3.9 | - | - | - | - | | - | - | - | - |
| Agriculture | 0.1 | 1.10 | 1.40 | 1.24 | 1.14 | 0.3 | 1.40 | 1.70 | 1.54 | 1.44 |
| Energy sector | 0.2 | 0.85 | 1.08 | 0.96 | 0.88 | 0.1 | 0.95 | 1.18 | 1.06 | 0.98 |
| Manufacturing | 0.7 | 0.92 | 1.17 | 1.04 | 0.95 | 0.1 | 1.02 | 1.27 | 1.14 | 1.05 |
| Railway | 0.2 | 0.42 | 0.53 | 0.47 | 0.43 | 0.2 | 0.62 | 0.73 | 0.67 | 0.63 |
| Automobile, air, waterway transportation | 1.0 | 1.67 | 2.11 | 1.88 | 1.72 | 1.7 | 3.37 | 3.81 | 3.58 | 3.42 |
| Telecom and digital | | 0.11 | 0.14 | 0.13 | 0.12 | 0.04 | 0.15 | 0.18 | 0.17 | 0.16 |
| Environment protection | 0.2 | 0.10 | 0.12 | 0.11 | 0.10 | 0.2 | 0.30 | 0.32 | 0.31 | 0.30 |
| Housing and communal amenities | 0.7 | 2.37 | 3.01 | 2.68 | 2.46 | 0.9 | 3.27 | 3.91 | 3.58 | 3.36 |
| Health care | 3.2 | 0.51 | 0.65 | 0.58 | 0.53 | 3.7 | 4.21 | 4.35 | 4.28 | 4.23 |
| Culture, arts and sports | 0.6 | 0.32 | 0.40 | 0.36 | 0.33 | 0.7 | 1.02 | 1.10 | 1.06 | 1.03 |
| Education | 4.7 | 0.55 | 0.70 | 0.62 | 0.57 | 5.5 | 6.05 | 6.20 | 6.12 | 6.07 |
| Social protection and provision | 7.0 | 1.82 | 2.31 | 2.06 | 1.88 | 6.7 | 8.58 | 9.09 | 8.83 | 8.65 |
| Cross-sectoral emergency actions | | 1.46 | 1.85 | 1.65 | 1.51 | n.a. | 1.46 | 1.85 | 1.65 | 1.51 |
| **Total expenditure** | **62.6** | **12.3** | **15.5** | **13.8** | **12.7** | | **68.0** | **59.5** | **54.3** | **51.4** |

Consolidated budget expenditures, which could support the process of Ukraine's R&R, are projected at 68% of GDP in 2025, 59.5% of GDP in 2026, 54.3% of GDP in 2027, and 51.4% of GDP in 2028.

**Figure 6 / Projected budget expenditure with incorporated financing of recovery & reconstruction needs in the 2025-2028 period, % of GDP**




Source: author's calculations.

The most significant sectors that will absorb budgetary funds for maintaining regular government functions and meeting R&R needs are calculated to be:

› social protection and provision (expenditure is projected at 8.5% to 9% of GDP)

› education (6.1% to 6.2% of GDP)

› health care (4.2% to 4.3% of GDP)

› housing and communal amenities (3.3% to 3.9% of GDP)

› automobile, air and waterway transport (3.4% to 3.8% of GDP)

In the Annex we present a detailed assessment of the requirements and priorities of the main sectors that are essential for the efficient fulfilment of state functions and for meeting Ukraine's R&R needs on the basis of applying the 'build back better' principle.

## 2.3. Ukraine's economic and social reconstruction: institutional aspects

Restoring Ukraine's productive capacity and reversing the destructive impact of the war will require significant **public interventions**. This will include, among other things, the rebuilding and modernisation of essential infrastructure, assistance with purchases or rebuilding of damaged houses, demining land and restoring water irrigation systems, supporting the business sector and promoting employment.

Targeted government policies and reforms will also be critical for creating an economic and institutional environment that is conducive to donor support for and private-sector investment in Ukraine's R&R.

In the framework of the IMF-supported EFF programme, the Ukrainian government has committed to involving **foreign donors into the budgetary financing** of Ukraine's R&R to the greatest extent possible. In particular, the government has announced that the mechanisms used for reconstruction financing will be consistent with the principles of integrated public investment management and that crucial reconstruction projects will fit into the medium-term budget framework.

A successful example of foreign donors' contributions to the national budget for tackling Ukraine's urgent needs is the Ukraine Relief, Recovery, Reconstruction and Reform Trust Fund (URTF), which was set up by the World Bank in December 2022. The URTF provides coordinated financing and support, which helps the Ukraine's government to sustain its service delivery capacity, pursue relief efforts, and plan/implement its R&R agenda. The URTF is funding a number of projects with a focus on repairing damaged infrastructure, restoring public services, and supporting economic activities in the areas of health care, energy, agriculture, logistics and housing. In early 2024, the URTF received over USD 1.5bn in grants from 14 donor countries to facilitate early recovery and preserve the administrative capacity of the Ukrainian government.

The readiness of the private sector to make capital investments will also be important for the speed and scope of the reconstruction process. The (IFC 2023) concludes that private investment will be more easily attracted to commercial sectors (e.g. agriculture, industry, banking and housing). In addition, the IFC estimates suggest that between one sixth and one third of the R&R needs identified in the second Rapid Damage and Needs Assessment (RDNA2) (World Bank Group 2023) could be financed by the private sector, depending on reforms and public interventions.

According to the IFC study, reforms that can boost private-sector investment and enable the private sector to play a bigger role in reconstruction include the liberalisation of energy prices, the privatisation of (or private participation in) the transport and banking sectors, and public-private partnerships (PPPs) in a variety of sectors.

The Ukrainian government has already approved a '**Ukraine Plan**' as a set of actions for the 2024-2027 period covering major sectoral reforms. These will focus on priority areas and cross-cutting issues, such as European integration, the green transition and human capital (Cabinet of Ministers of Ukraine et al. 2024). This programme of reforms is being supported by European Commission's Ukraine Facility. The plan's preparation was coordinated by the Ministry of Economy of Ukraine in cooperation with regional authorities, private-sector representatives and experts.

The Ukraine Plan also includes a reform agenda for the public finance sector in the 2024-2027 period. If properly designed and implemented, the prescribed reforms are supposed to establish a high-quality institutional environment for the efficient allocation of resources dedicated to reconstruction purposes. The envisioned reforms include: (i) a comprehensive reform of public investment management aimed at strategic alignment and transparent project selection; (ii) restoring medium-term budget planning to facilitate stability and resource-allocation efficiency; (iii) regular spending reviews to boost the efficiency of budget expenditures and public service delivery; (iv) implementing a National Revenue Strategy to increase tax revenues; and (v) enhancing transparency and accountability in budgetary resource utilisation.

The Cabinet of Ministers of Ukraine identifies the priority areas for the recovery on an annual basis, raises considerable financial resources, and ensures the participation of international partners. **Strengthening institutions**, guiding a process of economic recovery, gains momentum in 2024. The National Council for the Recovery of Ukraine from the War (established in Lugano in 2022) has been assigned to play a role in this process. This council is co-chaired by the prime minister and tasked with developing proposals for priority reforms.

**Figure 7 / Schematic illustration of national- and local-level institutions engaged in recovery and reconstruction**


Source: RDNA3 (World Bank Group 2024), p.24.

The RDNA3 report indicates that the Ministry for Communities, Territories and Infrastructure Development (MCTID) facilitates coordination and efficient reconstruction of war-affected regions. The position of deputy prime minister for restoration of Ukraine was established (with parallel chairing of the MCTID). This deputy prime minister's main responsibility is employing a systematic approach to plan the restoration of Ukraine. The State Agency for Infrastructure Restoration and Development (or the Agency for Restoration, for short) is in charge of the largest infrastructure projects at the national level in addition to supporting recovery projects at the local level based on the requests of the project customers. The activities of the Agency for Restoration are coordinated by the MCTID (see Figure 7).

The Ukrainian government has currently opted for a sector-level approach to R&R planning. While developing a plan for 2024, line ministries worked across 20 sectors to identify project-level priorities, determine financing needs, and monitor project funding and implementation. The activities of the line ministries have been coordinated by the MCTID, the Ministry of Economy, and the Reforms Office of the Cabinet of Ministers.

The R&R priorities for 2024 have been formulated by the line ministries in a bottom-up manner with required financing of USD 15.3bn or EUR 13.6bn. The sectoral distribution of total financing requirements is as follows: industry and services (USD 3.6bn); housing and utilities (USD 3.1bn); energy (USD 2.7bn); social infrastructure, education and health care (USD 2.4bn); transport (USD 2.3bn); and cross-sectoral priorities (USD 1.2bn).

The priorities identified for 2024 encompass the following projects:

› *housing and utilities*: routine repair and capital reconstruction of housing; reconstruction and service restoration of central heating, energy efficiency, water supply and sanitation services, and waste management services;

› *energy*: restoration and repair of transmission and distribution lines; restoration and decentralisation of generation capacity, such as through the development of renewables; protection of the power grid;

› *industry and services*: multi-faceted support to the private sector, including industry and commerce, agribusiness and irrigation, with a focus on de-risking investment and trade;

› *transport*: several projects of internal and cross-border connectivity, including repair and reconstruction of roads, railways, bridges, ports, border crossings and postal services;

› *social infrastructure and services*: repair, reconstruction and service restoration of schools and healthcare facilities as well as of social and cultural infrastructure;

› *cross-sectoral priorities*: demining; telecommunications; digital and cybersecurity; emergency response and civil protection; and democracy and human rights.

According to the RDNA3 report, meeting the above-mentioned priorities (USD 15.3bn) will require: USD 8.2bn in budget and SOE investments; USD 5bn in subsidies, guarantees and other financial support to de-risk and overcome constraints to private investment; and USD 2bn in public non-capital expenditure. Public investments include funds from IFIs and other development partners.

## 3. GROSS FINANCING NEEDS OF THE UKRAINIAN GOVERNMENT: ESTIMATION OF MAGNITUDES, COVERAGE BY CURRENT COMMITMENTS, AND FUTURE RISKS

Ukraine had quite a modest deficit of the consolidated budget in the pre-war period. Figure 1 in Chapter 1 indicates that the overall budget balance constituted 3.4% of GDP in 2021. However, the budget balance deteriorated significantly after the outbreak of war. Narrowing tax bases along with simultaneous increases in public expenditure resulted in a considerable budget deficit, which amounted to 16.1% of GDP in 2022 and 20.3% of GDP in 2023.

Within the framework of the conventional methodology of budget deficit assessment, foreign grants are recorded as a component of budget revenue and their disbursements by donors reduce the budget deficit in a recipient economy. In contrast, government borrowings are treated as items of budget deficit financing, and more borrowings imply a larger budget deficit. Budget deficit indicators, depicted in Figure 1 of Chapter I, rely on the conventional methodology and are close to the overall balance indicator, as suggested by the Government Financial Statistics Manual (GFSM) standard.

Since 2022, the Ukrainian government and IFIs have supplemented the 'overall budget balance' indicator with the 'budget balance excluding grants' indicator, mainly for analytical purposes. Usually, in terms of absolute value, the latter is higher than the former and the difference between them is equal to the amount of foreign grants disbursed to the Ukrainian budget.

In what follows, we will mainly work with the indicator of the 'budget balance excluding grants' as a more appropriate measure for assessing gross financing needs. In the case of Ukraine, these needs should explicitly reveal the magnitudes of the public borrowings and foreign grants (rather than the public borrowings alone) required to cover fiscal gaps.

Table 5 summarises our projections of consolidated budget revenue (baseline scenario) and consolidated budget expenditure with financing for R&R needs through the 2024-2028 period, as explained and presented in Chapters 1 and 2 of this report. The budget balance (excluding foreign grants) is computed as the difference between budget revenue (not counting foreign grants) and expenditure.

**Table 5 / Budget deficit projections in the 2024-2028 period, % of GDP**

| Fiscal indicators | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|
| Projected budget expenditure with financing recovery & reconstruction needs | 62.6 | 68.0 | 59.5 | 54.3 | 51.4 |
| Consolidated budget revenue, baseline forecast | 43.0 | 41.5 | 37.6 | 36.9 | 36.1 |
| **Budget balance, excluding foreign grants** | **-19.6** | **-26.5** | **-21.9** | **-17.4** | **-15.3** |

Source: author's calculations and projections.

Our forecast of consolidated budget revenue and expenditure required to meet R&R needs yields the following projections of budget deficits (excluding foreign grants): 19.6% of GDP in 2024, 26.5% of GDP in 2025, 21.9% in 2026, 17.4% in 2027, and 15.3% of GDP in 2028.

It is worth highlighting that projected budget deficits for 2025 and 2026 are not extra-ordinarily large in the Ukrainian context, as actual deficits were equivalent to 24.8% and 26.1% of GDP, respectively, in 2022 and 2023.

To assess the gross financing needs (GFNs) of the Ukrainian government, we will stick to the formula:

$$GFN_{total} = \text{Budget Deficit (excluding grants)} + \text{Public Debt Redemption} \qquad (1)$$

One goal of this study is to assess the foreign financing needs of the Ukrainian government. As a rule, domestic borrowings on Ukraine's financial market are volatile and an expensive source of funds for the government owing to Ukraine's chronically restrictive monetary policy and a shortage of capital in the Ukrainian economy.

In addition, the gross savings rate in Ukraine is much lower than in the EU. For instance, within the household sector, gross savings divided by gross disposable income equalled 2.9% in Ukraine and 14.1% in the EU (in 2021). For the economy as a whole, gross savings divided by GDP constituted 12.6% in Ukraine and 23% in the EU.

Thus, in view of the structural macroeconomic conditions and the shallow financial market, domestic sources cannot be significantly relied upon to cover the budget deficit. For our medium-term scenario, we assume that residents of Ukraine will mainly contribute to the country's R&R efforts in the form of elevated tax contributions to the national budget and, in the case of higher-income/wealthy individuals, by investing into the projects and areas that are not covered by public expenditure and foreign donors.

In view of this, formula (1) has been adjusted to:

$$GFN_{foreign} = Share_{foreign} * \text{Budget Deficit (excluding grants)} + \text{External Debt Redemption} \qquad (2)$$

where $GFN_{foreign}$ refers to the gross financing needs of the Ukrainian government to be covered by foreign donors, and $Share_{foreign}$ refers to the share of external sources (including grants) in total budget deficit financing.

**Table 6 / Gross financing needs projections in the 2025-2028 period, % of GDP and USD bn**

| Fiscal indicators | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|
| Budget deficit, excluding grants, % of GDP | 26.5 | 21.9 | 17.4 | 15.3 |
| Budget deficit, excluding grants, USD bn | 49.1 | 45.5 | 40.6 | 39.0 |
| External debt redemption, % of GDP | 1.5 | 1.5 | 1.5 | 1.4 |
| Gross financing needs (with grants) = budget deficit financed from external sources + external debt redemption, % of GDP | 26.7 | 22.2 | 17.5 | 15.2 |
| Gross financing needs (with grants) = budget deficit financed from external sources + external debt redemption, USD bn | 49.4 | 46.3 | 41.0 | 38.7 |

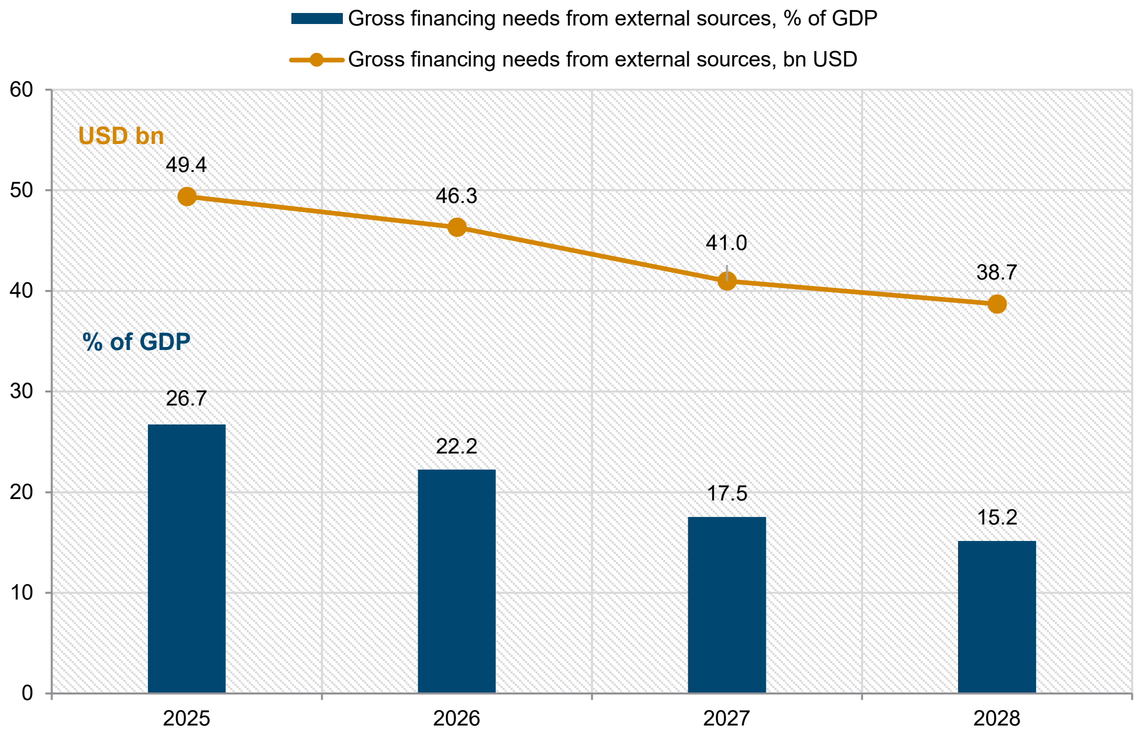
Source: author's calculations and projections.

Table 6 reveals our projections of GFNs (including grants) to be covered by foreign donors. Projected indicators of GFNs assume the varying shares of external sources (in terms of net financing) in total budget deficit financing: 0.95 in the 2025-2026 period, 0.92 in 2027, and 0.90 in 2028. External debt redemptions were assessed on the basis of data from the Ukrainian Ministry of Finance, compiled after the debt restructuring in 2024.

We can see that ***projected GFNs from external sources for the Ukrainian government have a downward trend, although their magnitudes remain significant: 26.7% of GDP in 2025, 22.2% of GDP in 2026, 17.5% of GDP in 2027, and 15.2% of GDP in 2028. Translated into USD terms, GFNs from external sources will amount to USD 49.4bn in 2025, USD 46.3bn in 2026, USD 41bn in 2027, and USD 38.7bn in 2028***. We should note, however, that these projections rely on our own assessments of government financing of R&R needs, as described in Chapter II of this report.

To visualise our assessments and move forward with our investigation, we construct Figure 8, which shows the development of GFNs over the medium term.

**Figure 8 / The Ukrainian government's gross financing needs from external sources in the 2025-2028 period, % of GDP and USD bn**




Source: author's projections.

Since the beginning of Russia's full-scale invasion in 2022, Ukraine has received considerable financial support from bilateral donors and international institutions to cover its economic and social needs. Budget support amounted to USD 31.15bn in 2022 and USD 42.48bn in 2023, and it is foreseen to amount to USD 42.3bn in 2024.

The disbursements from the largest donors to the Ukrainian budget in 2024 (as a whole year) are expected to be:

EU – USD 18.9bn;
USA – USD 7.31bn;
IMF – USD 5.31bn;
Japan – USD 4.32bn;
Canada – USD 1.77bn;
World Bank – USD 3.25bn;
UK – USD 1bn;
Norway – USD 0.3bn; and
South Korea – USD 0.1bn.

In order to determine the degree to which Ukraine's R&R needs will be covered by the commitments of donors over the next few years, we compare foreign financing sources pledged for respective periods (as of November 2024) and our estimates of gross financing needs ($GFN_{foreign}$), as shown in Table 6 and Figure 8.

The last row of Table 7 reveals the differences between donors' financial assurances and our estimated GFNs in billions of USD during the 2025-2026 period. We should note that the commitments of the EU, the IMF and the International Bank for Reconstruction and Development (IBRD), as well as planned project financing within special budgetary funds, are disclosed in Ukraine's budgetary documents. The projected amounts of ERA (Extraordinary Revenue Acceleration) loan appeared recently in the IMF foreign financing plan for Ukraine.

Ukraine's draft budget for 2025 incorporates USD 13.7bn of the planned financing from the EU, USD 2.7bn from the IMF, and USD 3.1bn from the IBRD (to a general budget fund) as well as USD 0.3bn in grant financing from other donors. Data from Ukraine's Ministry of Finance and the IMF suggest that total financial commitments from foreign donors and creditors will constitute USD 41.2bn in 2025. For 2026, data from the IMF's country report for Ukraine shows USD 21bn in total financial assurances from donors.

**Table 7 / Estimated deficit of foreign financing in the 2025-2026 period, as of September 2024, USD bn**

| | 2025 | 2026 |
|---|---|---|
| ***Donors' commitments (financing plan from the 2025 draft budget and the IMF-supported programme)*** | | |
| EU | 13.7 | 7.9 |
| ERA | 19.1 | 9.2 |
| IMF | 2.7 | 1.9 |
| IBRD | 3.1 | n.a. |
| UK | 1.0 | 1.0 |
| Project financing to special budget funds | 1.3 | n.a. |
| Grants from other donors | 0.3 | n.a. |
| Other creditors/ donors | n.a. | 1.0 |
| **Total financial assurances** | **41.2** | **21.0** |
| **Financial commitments minus estimated gross financing needs** | **-8.2** | **-25.3** |

Source: IMF 2024b; Cabinet of Ministers of Ukraine 2024; author's calculations.

We can see that our preliminary assessments of the ***foreign financing deficit as of November 2024 yield a shortfall of funds amounting to USD 8.2bn in 2025 and USD 25.3bn in 2026***. Here, we should reiterate that the core assumptions of our quantitative assessments are that: (i) the reconstruction process will start in Q2 of 2025; (ii) reconstruction needs will be met in full by contributions from foreign donors, reparations from Russia, Ukrainian public funds and a reasonable attraction of private capital; and (iii) R&R costs will be distributed evenly over a 10-year period.[2]

The deficit of foreign financing for the Ukraine's budget of 2025 and 2026 decreased considerably due to political decisions made in the framework of the G7's ERA plan for Ukraine, that is supposed to be secured by proceeds from seized Russian assets.

On 13 June 2024, at a summit held in Italy, the G7 leaders confirmed their intention to provide Ukraine with loans totalling about USD 50bn. On 14 June, a joint communiqué from the United States and other G7 members indicated that this assistance will be in the form of ERA loans 'that will be serviced and repaid by future flows of extraordinary revenues stemming from the immobilization of Russian sovereign assets held in the EU and other relevant jurisdictions' (G7 2024: 3). The G7 plan would essentially front-load the income stream of the frozen assets; from the Ukrainian perspective, this general scheme implies that it effectively functions more as a grant than a loan (Anderson 2024).

Under the ERA plan, each contributor (Canada, Japan, the European Union, the UK, and the United States) determines its own financing modality. The maximum amount of ERA loan from the EU side was set at EUR 35bn and was approved by the European Parliament on 22 October 2024. On 23 October, the Ministers of Finance of Ukraine and of the United States signed a joint statement, which recorded the agreement to provide Ukraine with 20 billion USD as a part of the ERA mechanism.

The Ukraine Loan Cooperation Mechanism (ULCM) will provide Ukraine non-repayable financial support to repay the financing provided under the ERA initiative over time. The ULCM will be funded by the extraordinary revenue stream generated from immobilised Russian assets, which are currently held mainly in Euroclear. The size of the underlying immobilised assets would be much larger than the USD 50bn, as would the interest to be generated, supporting the sufficiency of the waterfall mechanism.

The uncovered deficit of foreign financing over the 2025-2026 period might grow significantly after Q1 2027, i.e. the end date of the current IMF programme. A serious matter of concern is a lack of firm financial commitments from external donors to Ukraine. IMF experts project that budget support disbursements from foreign partners to Ukraine will only range between USD 5bn and USD 12bn per year and that the Ukrainian government's return to market access will only happen in 2029.

Ukraine's 2025 draft budget incorporates gross foreign borrowings in the magnitude of USD 38.4bn and grant financing in the magnitude of USD 1.9bn (USD 40.3bn total). Thus, foreign donors have already pledged for 2025 an amount, that is appropriate for supporting planned budget expenditure and debt redemption in 2025 (see Table 7).

However, planned disbursements from foreign donors to the Ukrainian budget would not be sufficient to cover the country's R&R needs and the financing of ordinary government functions in 2025. As

[2] The last assumption simplifies our projections and assessments, but actual disbursements and allocations of the resources (necessary for an optimal economic and social reconstruction) might differ from it.

mentioned above, the foreign financing needs for these purposes will amount to USD 49.4bn in 2025. Due to the dramatic fiscal constraints faced by the Ukrainian government, the R&R needs are only partially included in the expenditure part of the budget plan.

In view of the volatility of the domestic financial market and the high market interest rates, the Ukrainian government plans to raise domestic loans in 2025 in an amount barely equivalent to their redemption, which amounts to USD 0.4bn of net financing from domestic sources.

The structure of foreign financing of Ukraine's budget deficit (in terms of loans and grants) is a crucial issue for the Ukrainian government's solvency and maintenance of debt sustainability. If financed predominantly from loans, the series of high budget deficits (19.6% of GDP in 2024, 26.5% of GDP in 2025, 21.9% of GDP in 2026, 17.4% of GDP in 2026, and 15.3% of GDP in 2028) would result in a rapid accumulation of public debt.

In October 2024, the IMF conducted a debt sustainability analysis (DSA) of Ukraine's public debt encompassing the 2024-2033 period (IMF 2024b). The IMF's baseline scenario generates a public debt peak of 107.6% of GDP in 2026 along with a slow downward trend thereafter. Public debt is projected by the IMF at 98.5% of GDP in 2028 and at 74.5% of GDP in 2033. In general, the public debt level is projected to surpass the indicative threshold (70% of GDP) over the entire forecasting horizon.

The IMF's downside scenario produces much worse results, with the debt level approaching 132.1% of GDP and the GFNs reaching 30.7% of GDP in 2026. In parallel, over the entire forecasting period, public debt would be higher than 100% of GDP and therefore substantially higher than the indicative debt threshold.

The IMF concludes that the DSA clearly indicates that Ukraine's public debt is unsustainable in the framework of baseline and downside scenarios. Nevertheless, Ukraine's public debt was assessed by IMF experts as sustainable on a forward-looking basis, being contingent on strong policy commitments, treatment of the remaining commercial claims following the Eurobond exchange, financing commitments from donors and credible assurances of debt relief that achieves financing needs at 8% of GDP on average over the period 2028-2033 leading to an estimated public debt level of 65% of GDP by 2033 (post-restructuring and excluding the ERA loans).

We suggest, however, that the actual debt burden and debt-related risks are likely to be larger than anticipated by the IMF in its baseline scenario. One of the reasons is inadequate recording of fiscal accounts of the USD 7.849bn in budget support from the United States, which was approved in the form of a loan with the enactment of the Ukraine Security Supplemental Appropriations Act (USSAA) in April 2024. The USSAA gives the US president the power to cancel repayments on this loan – one half of them at any time after 15 November 2024 and any remaining amounts after 15 January 2026.

In the framework of above-mentioned DSA, the IMF modelled potential repayments stemming from the USD 7.85bn loan not as regular debt repayments, but as a contingent liability that could materialise after 40 years. The Ukrainian Ministry of Finance also records the respective flows as grants. However, if debt repayments are not cancelled by the US president in part after 15 November 2024 and in full after 15 January 2026, the actual public debt burden of Ukraine will be higher (than projected in the DSA) by USD 7.85bn.

**Debt restructuring** is incorporated as an important item in the IMF-supported programme, and it will be essential for restoring Ukraine's debt sustainability and ensuring its macro-financial stability. According to the IMF, the envisaged debt treatment comprises two main elements:

› *Official bilateral debt*: Creditors in the Group of Creditors of Ukraine have committed to a two-step process involving an extension of the debt standstill until 2027, coupled with a separate assurance to deliver a final debt treatment sufficient to restore debt sustainability before the final review of the IMF programme. The Group of Creditors of Ukraine has also committed to providing additional debt relief to restore sustainability should the downside scenario emerge.

› *External commercial debt*: The agreement with bondholders of August 2024 envisioned that debt with a nominal value of USD 20.4bn and total value of 24.3bn (including capitalised postponed interests) went through restructuring. The euro-bonds in circulation were exchanged for a package of new bonds with a nominal reduction in face value of 37% at the initial stage. As a result of this transaction, Ukraine's state and state guaranteed debt has been reduced by close to USD 9bn. The newly-issued euro-bonds have a face value of USD 15.2bn. For the future, it was prescribed, that should the macroeconomic outlook worsen, the Ukrainian government is committed to undertaking a further external commercial debt treatment as needed to restore debt sustainability in line with programme parameters. For this, the government will continue engaging in regular consultations with creditors, which will include the sharing of updated information (IMF 2024a, IMF 2024b).

Our preliminary assessments show that the ***modest debt write-off*** agreed with commercial creditors in August 2024 and the ***quite optimistic macroeconomic assumptions*** underlying the IMF's baseline scenario ***would make a second external commercial debt treatment inevitable in 2026***. The above-mentioned agreement with bond-holders stipulates, that if Ukrainian real GDP approaches a higher level in 2028 as compared to the one projected by the IMF, the Ukrainian government will be obliged to pay an extra premium to bondholders equal to 12% of the face value of the initial bonds. Thus, the actual haircut to face value (agreed in August 2024) may turn out to be 25% instead of 37%.

In addition to repeated debt-restructuring, restoring Ukraine's public debt sustainability while simultaneously meeting R&R needs would also require a considerable increase in foreign grants as a component of foreign financing. The actual share of grants in the structure of the foreign financing of Ukraine's budget amounted to 45.6% in 2022, 27.3% in 2023, and 25% roughly in 2024.

***Increasing the share of grants to above 50% in the form of new foreign disbursements could mitigate Ukraine's debt-sustainability problem and contribute to making the future reconstruction of its economy a success story***. Regarding international experience supporting this scenario, Bosnia and Herzegovina received external official development assistance for post-war rehabilitation with an 82% grant component. In the case of the post-Second World War Marshall Plan for Europe, the share of grants and other non-refundable aid from the US exceeded 90%.

Thus, **only a substantial extension of foreign grants and a significant foreign debt write-off by private creditors would ensure a full restoration of Ukraine's public debt sustainability and give it an opportunity for effective post-war reconstruction**.

Summing up, ***our calculations and considerations suggest that providing sufficient resources for carrying out Ukraine's R&R programme and restoring the country's debt sustainability should rely on additional financial assurances from international partners. Our preliminary assessments of foreign financing deficit*** as of November 2024 ***yield a shortfall of foreign funds amounting to USD 8.2bn for 2025 and USD 25.3bn for 2026***.

Under such circumstances, the ***EU authorities, the EU member states, the US administration and the IMF would have to play their roles in mobilising larger foreign financing for Ukraine's needs***, including proceeds from immobilised Russian assets. Official bi- and multilateral donors should provide commitments for exceptional financial support to Ukraine on highly concessional terms with a significant share of grants. Apart from this, sustained efforts to strengthen the revenue base of Ukraine's consolidated budget would have to be undertaken by the Ukrainian government.

If mobilisation of additional foreign funds for financing Ukraine's R&R and integration into the EU is not launched or yields only shallow results, adverse medium-term risks would materialise. Absent or inadequate external support to Ukraine would result in larger financing gaps and could force Ukraine to resort to sub-optimal policy measures. In particular, a shortfall or delay in external financing could necessitate financial repression, monetary financing and a very sizeable contraction in public spending, which in turn would dampen the economic recovery and jeopardise social stability.

Moreover, if shortfalls in foreign financing occur in a time of intense fighting, after enduring immense human and economic losses in the 2022-2024 period, Ukraine's ability to persevere in its military struggle with Russia will be jeopardised. This flawed scenario would have catastrophic effects for the sustainability of a rules-based international order and, in the long run, for European security and prosperity, as well.

## 4. EU FINANCIAL SUPPORT PLEDGED TO UKRAINE AND WAYS AHEAD DURING AND AFTER THE WAR

The EU (i.e. its collective institutions and member states) has been the largest donor to Ukraine in the period following Russia's full-scale invasion. As of 30 June 2024, the amount of their commitments to support Ukraine amounted to EUR 160.5bn, including EUR 84.3bn in financial aid and EUR 65.9bn in military aid (data of the Kiel Institute for the World Economy, in Antezza et al. 2024, Table 8). By providing significant and multi-faceted assistance to Ukraine, the EU has supported the economic resilience of Ukraine and its fighting against Russia.

**Table 8 / Financial, humanitarian and military aid to Ukraine from bilateral donors between 24 January 2022 and 30 June 2024, in EUR bn**

| Country (group of countries) | Financial aid, *allocated* | Financial aid, *committed* | Humanitarian aid, *allocated* | Military aid, *allocated* | 3 types of aid, *allocated* | 3 types of aid, *com-mitted* |
|---|---|---|---|---|---|---|
| **EU, collective institutions and member states** | **43.49** | **84.3** | **8.98** | **41.38** | **93.85** | **160.45** |
| ***Collective institutions of the EU*** | **37.04** | **77.29** | **2.34** | **0** | **39.38** | **79.63** |
| EU (European Commission and Council) | 34.56 | 74.82 | 2.34 | 0 | 36.91 | 77.16 |
| European Investment Bank | 2.47 | 2.47 | 0 | 0 | 2.47 | 2.47 |
| ***EU member states*** | **6.45** | **7.01** | **6.63** | **41.38** | **54.47** | **80.81** |
| *Germany* | *1.51* | *1.51* | *3.28* | *11.01* | *15.8* | *24.82* |
| *Netherlands* | *0.77* | *1.14* | *0.61* | *4.74* | *6.12* | *11.69* |
| *Denmark* | *0.13* | *0.14* | *0.31* | *6.86* | *7.3* | *10.08* |
| *Sweden* | *0.37* | *0.33* | *0.28* | *4.21* | *4.86* | *11.04* |
| *France* | *0.86* | *0.86* | *0.64* | *3.27* | *4.77* | *7.58* |
| **Anglo-Saxon countries** | **29.02** | **42.08** | **3.98** | **63.11** | **96.11** | **124.22** |
| *United States* | *20.91* | *30.92* | *2.61* | *51.58* | *75.1* | *98.4* |
| *United Kingdom* | *3.34* | *6.13* | *0.84* | *8.92* | *13.1* | *16.9* |
| *Canada* | *4.76* | *5.03* | *0.4* | *2.01* | *7.18* | *8.2* |
| **Other bilateral donors** | **8.41** | **10.94** | **1.34** | **0.14** | **9.89** | **15.58** |
| *Japan* | *8.03* | *10.31* | *1.02* | *0.06* | *9.11* | *12.41* |
| *South Korea* | *0.38* | *0.62* | *0.29* | *0.01* | *0.68* | *3.03* |
| **Total bilateral donors** | ***80.92*** | ***137.32*** | ***14.3*** | ***104.63*** | ***199.85*** | ***300.25*** |

Source: composed by author based on Antezza et al. (2024).

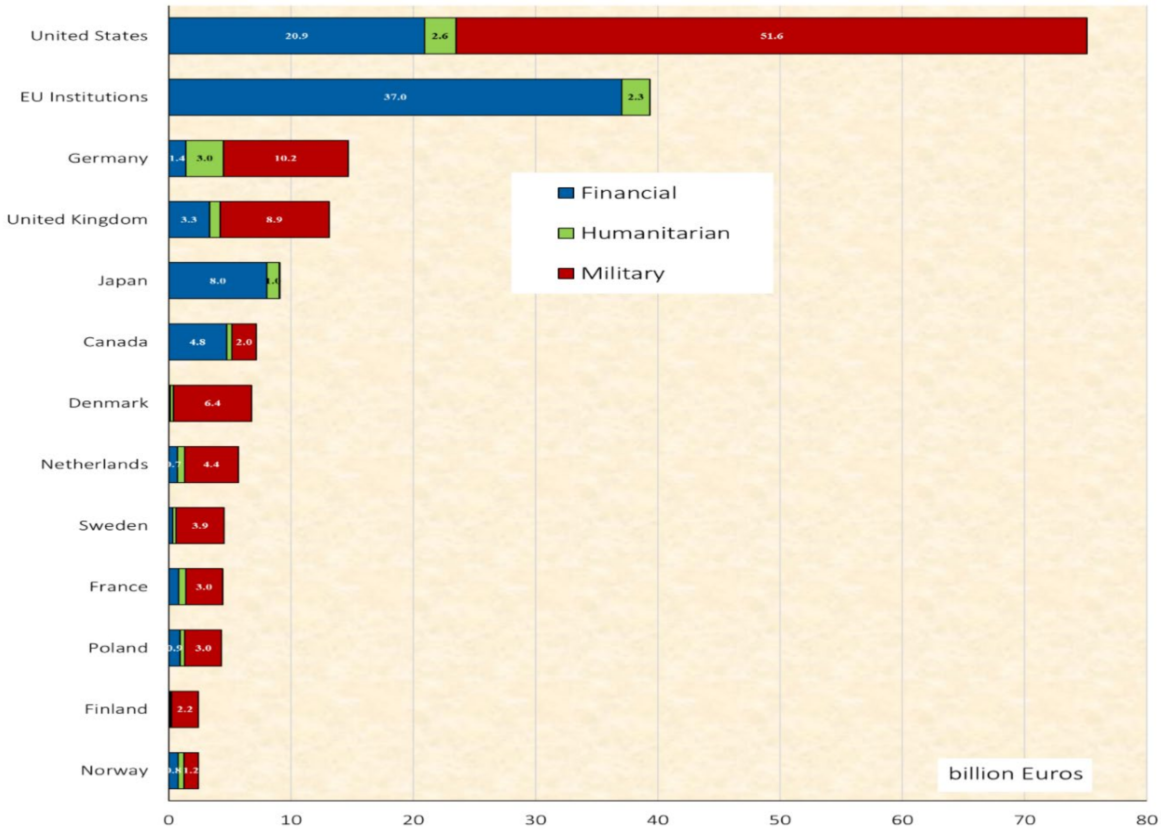
Over the January 2022-June 2024 period, the European Commission and the Council approved EUR 77.2bn in aid to Ukraine, the governments of the EU member states approved EUR 80.8bn, and the European Investment Bank (EIB) approved EUR 2.5bn. The share of the EU and its member states in total commitments to support Ukraine constituted 53.5%, while the total amount of international bilateral commitments (including those of the United States, Japan and other donors) approached EUR 300.3bn.

Total bilateral allocations to Ukraine in the course of the January 2022-June 2024 period amounted to almost EUR 200bn. The EU collective institutions and its member states allocated EUR 93.9bn in military, financial and humanitarian aid to Ukraine. Out of this amount, the EU member states disbursed a larger amount to Ukraine (EUR 54.5bn) than the collective institutions of the EU (EUR 39.4bn). Among the three types of EU aid to Ukraine, financial aid accounted for 46.3% of the total, while military aid accounted for 44.1%.

In terms of individual countries, the leaders in providing financial, military and humanitarian aid to Ukraine have been the United States (EUR 98.4bn in commitments), Germany (EUR 24.8bn), the United Kingdom (EUR 16.9bn), Japan (EUR 12.4bn), the Netherlands (EUR 11.7bn), Sweden (EUR 11bn), Denmark (EUR 10.1bn) and Canada (EUR 8.2bn).

While the EU collective institutions have focused their efforts on providing financial aid to Ukraine, individual countries – including the United States, Germany, the United Kingdom, Denmark and the Netherlands – have granted substantial volumes of military aid (see Figure 9).

**Figure 9 / Total bilateral allocations by type of assistance, EUR bn**




Source: Antezza et al. (2024).

Regarding the latest donor decisions, in April 2024, the United States approved a USD 61bn package of military and financial support to Ukraine (including USD 7.8bn in budget support). In May 2024, the European Council agreed to channel to Ukraine EUR 3bn in extraordinary returns arising from holdings of frozen Russian assets in Europe. On 13 June, the leaders of G7 announced their intention to provide Ukraine with loans totalling about USD 50bn, which are to be secured by proceeds from seized Russian assets.

Before that, on 27 February 2024, the European Parliament adopted a decision to introduce the **Ukraine Facility**, a new support mechanism for the 2024-2027 period in the amount of EUR 50bn (EU Monitor 2023). The Facility is to become a flexible tool that will be adjusted to the unprecedented challenges of supporting a war-torn country. The Facility's resources are dedicated to maintaining macro-financial stability in Ukraine and mitigating external financial constraints on the country.

The Ukraine Plan, under which financing for the Ukraine Facility will be allocated, aims to accelerate economic growth, reduce social inequality, bring Ukraine closer to EU standards, and remove obstacles to joining the EU.

The **Ukraine Facility** has three pillars:

**Pillar I** – Direct financial support to the state budget in the amount of EUR 38.27bn, of which EUR 33bn is loans and EUR 5.27bn is grants; it focuses on providing immediate and essential financial assistance to help stabilise the Ukrainian economy during the ongoing conflict and rebuilding efforts.

**Pillar II** – A Specific Investment Framework (with a planned budget of EUR 6.97bn), which is entitled to support investments in Ukraine, including provisions for payments under the EU guarantees; funds will be accessible to investors via the EBRD, the EIB, and other international institutions; at least 20% of the guarantees (or EUR 1.56bn) will be allocated towards green goals (e.g. climate change, biodiversity and environmental initiatives).

**Pillar III** – Accession assistance for supporting Ukraine's path to EU membership by providing targeted aid to meet political, economic and institutional standards; EUR 4.76bn from the EU budget will be allocated to cover interest on loans to Ukraine, to support technical assistance to Ukraine, and to fund administrative costs of the EU programmes.

To cover the loan portion of the Ukraine Facility, the European Commission, on behalf of the EU, is authorised to borrow the required amounts on the capital markets or from financial institutions. Loans to Ukraine have a repayment period of 35 years, with principal repayments starting in 10 years. Throughout the period of running the Ukraine Facility, the European Council will have the option to suspend financing to Ukraine if the latter does not comply with the agreed conditions.

In 2024, EUR 17bn are expected to be released to Ukraine from the Ukraine Facility and other funds as a total amount of appropriations in the form of loans and grants. In 2023, the Ukrainian government received EUR 18bn of a macro-financial assistance loan.

Emerson (2023), from the Center for European Policy Studies (CEPS), estimated that if Ukraine had already been a full member of the EU, it would have received about EUR 18.9bn per year of net financing from the EU cohesion funds. Thus, over the course of the 2023-2024 period, Ukraine has already been receiving financial support from the EU in the amount that a new member state would receive.

However, in the 2026-2027 period, the financial potential of the Ukrainian Facility is likely to decline dramatically, since the main part of the planned funding will be used in the 2024-2025 period. If we assume that payments from the Facility will amount to EUR 29bn in the 2024-2025 period, then Ukraine will only be able to receive between EUR 10bn and EUR 11bn per year in the 2026-2027 period.

We should also note that the self-screening of Ukrainian legislation, undertaken by the Cabinet of Ministers of Ukraine in 2023, revealed the systemic problems that inhibit the adoption of the EU acquis; solving such problems would require technical and financial assistance from the EU. They include insufficient institutional capacity of the responsible authorities and a lack of the expertise needed to develop the necessary legislative and regulatory acts (A4U n.d.).

Ukraine will therefore need significant funding from abroad to facilitate institutional changes to advance on the path towards EU accession as well as to restore and modernise the domestic assets damaged by the aggressor. As mentioned earlier, RDNA3 experts estimated Ukraine's R&R needs at EUR 44bn annually (including contributions from private investors and international NGOs) over the course of 10 years.

Regrettably, currently available mechanisms of donor support to Ukraine (including the Ukraine Facility from the EU) do not provide sufficient resources and adequate instruments for financing reconstruction of the Ukrainian economy and implementation of EU standards after 2026.

In conclusion, ***as a candidate country for EU membership and a country affected by armed aggression, Ukraine will need larger funding from the EU and other donors than current commitments would cover***. From the EU side, ***increasing fiscal capacities (planned budget) for the Ukraine Facility, starting from 2026, may be an appropriate solution***. Although the EU's medium-term fiscal framework is already determined for this period, some scope for manoeuvre will arise in connection with the termination in 2026 of the borrowing authorities by the European Commission for the Recovery and Resilience Facility.

The G7 financing plan for Ukraine is a reasonable tool for supporting the resilience of Ukraine's economy during the war and part of its reconstruction efforts. A loan to Ukraine of USD 50bn, backed by proceeds from frozen Russian assets, will cover some of the military and economic needs of Ukraine, as a country ravaged by war. However, although they represent a valuable supporting mechanism in the short and medium terms, these proceeds would not be sufficient in the long run.

From the standpoint of Ukraine's financing needs, ***the successful design and implementation of the G7's plan would not eliminate the need for an innovative EU approach to supporting Ukraine in its economic recovery, reconstruction and institutional reforms on its path to EU membership***. According to our assessments, starting in 2028, a ***new EU medium-term fiscal framework should provide for the establishment of new facilities to finance the economic R&R of Ukraine and for broadening the EU's Cohesion Policy towards Ukraine***.

## 5. THE STAGED ACCESSION MODEL AND EU COHESION POLICY AS THE PROSPECTIVE TOOLS FOR REBUILDING UKRAINE'S ECONOMY

In the context of supporting Ukraine's reconstruction, **a model of a staged accession** to the EU has a lot of advantages related to accelering the integration of candidate countries into the EU and providing them with substantial financial support out of the EU cohesion funds (even during the process of accession negotiations).

We should emphasise that benefiting from the EU Cohesion Policy by a candidate country before the official date of membership will only be possible if fundamental changes are made to the EU accession process.

Since 2022, Ukraine has been following the 'classical accession' path to the EU, which involves compliance with the Copenhagen criteria and adoption of the common EU legislation (acquis) in 33 policy areas/chapters. In this scenario advancement has traditionally entailed a long and resource-intensive process.

At present, the procedures for opening and closing chapters and clusters of the negotiations are quite cumbersome, as unanimity among the EU's 27 member states is required at every step. Moveover, such steps are not directly related to the financial or institutional incentives that the EU can offer to a candidate country in the process of classical accession.

Even during the war, Ukraine is facing the need to fulfil the multifaceted tasks of building a stable democracy and market economy as well as to implement far-reaching political, socioeconomic, legal and institutional reforms. Making progress on this path will require more advanced organisational and institutional mechanisms as well as adequate long-term financial support from the EU.

In this context, the model of staged accession to the EU has many potential advantages. First of all, it could speed up Ukraine's accession to the EU and bring tangible benefits to the citizens of the candidate country even in the process of joining the bloc. Some experts acknowledge that the staged accession model is the most comprehensive and logically structured concept for providing needed financial incentives for progressing through the stages towards achieving EU membership.

Lazarevic (2018) and Mirel (2019) were the first to put forward the idea of staged accession while discussing the methodological and practical problems involved in integrating the WB countries into the EU. In particular, Lazarevic´suggests that instead of immediately benefiting from a full range of the EU policies after acquiring membership, access to specific benefits of membership could be made more gradual and dependent on the achievement of benchmark indicators. Moreover, the new accession model should be supported by a complex monitoring and reporting mechanism, which would belong to the competences of the European Commission.

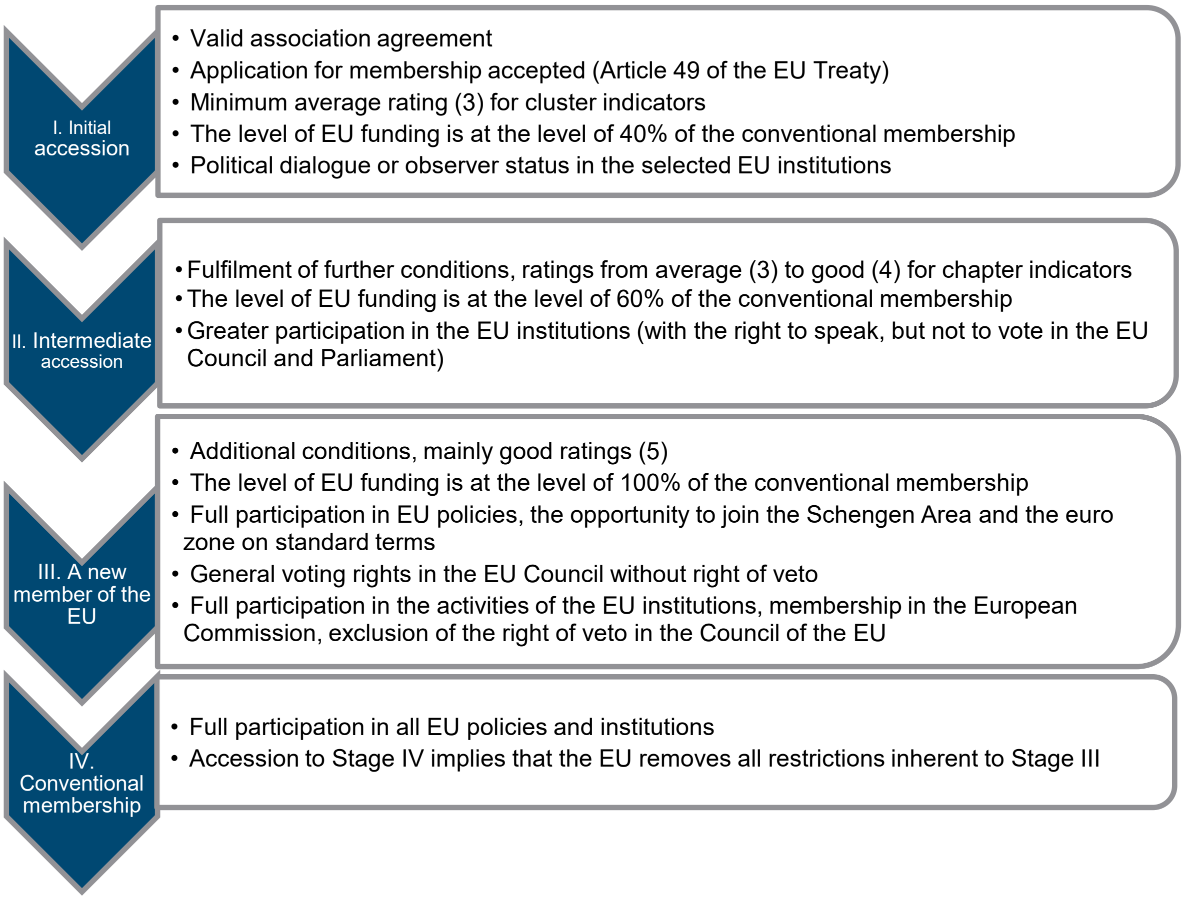
The most thorough and detailed settings for a staged accession model were worked out by the Center for European Policy Studies (CEPS) in Brussels and the Center for European Policy (CEP) in Belgrade. Their experts – Emerson, Lazarević, Blockmans and Subotić – also elaborated the template for a staged accession (Emerson et al. 2021).

In a number of policy papers, they advance their vision of a gradual opening of the obligations and benefits of EU membership to a candidate country (e.g. participation in the EU institutions and gaining access to the EU structural funds).

In the same vein, Alesina (2023) notes that step-by-step integration would offer the candidate state progressive participation in the EU funds and institutions, predicated on successful performance across a number of clusters, involving legal approximation, market rules and fundamental reforms that enshrine the rule of law and democratic principles in the laws and actual policies of the country.

In a subsequent version of the staged accession model, Emerson and Blockmans (2023) emphasise that accelerated and gradual accession should be based on the fulfilment of strict conditions using a merit-based approach. Deeper integration should be linked to clearly defined 'stages' with predetermined benchmarks.

**Figure 10 / Four stages of gaining EU membership in a framework of the staged accession model**




Source: compiled by the author based on Emerson et al. 2021, p.2.

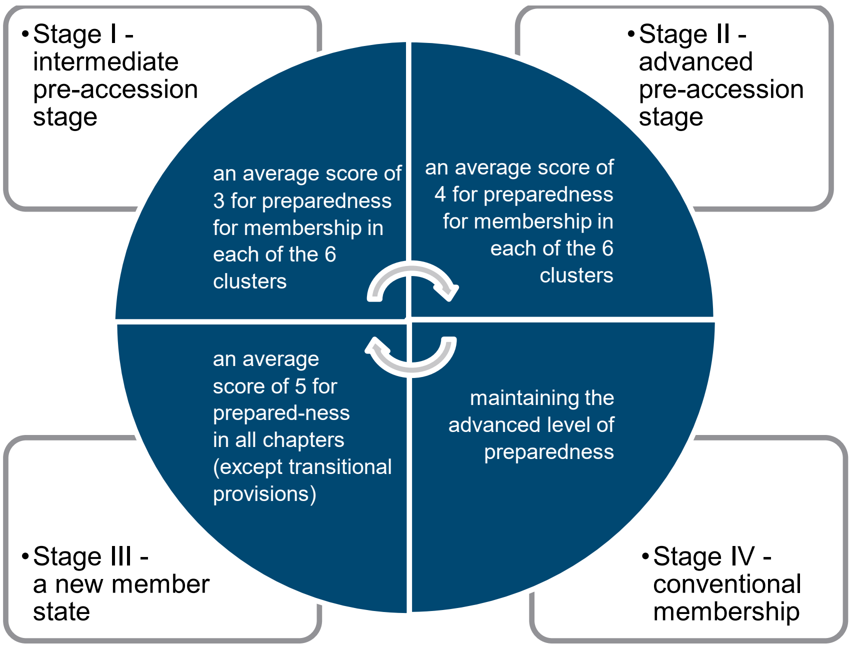
The model of staged accession offers a clear structure of requirements, incentives and rewards. Every stage envisages certain rewards for achieving pre-determined targets. The third stage involves gaining access to 100% EU funding per capita (currently only available to member states), but with certain restrictions on participating in decision making at the EU level.

Stages I and II are the pre-entry stages, where participating in EU policies, institutions and funding mechanisms becomes possible. Entering Stage III signifies achieving the major part of the benchmarks (targets) necessary for EU accession and being granted the status of 'new member state'. However, several transitional institutional exceptions will remain in place at this stage. Finally, Stage IV corresponds to conventional membership (Emerson and Blockmans 2022).

Each of the four stages of the accession process is based on a certain level of preparation for EU membership, according to assessments made by the European Commission (see Figure 11). When evaluating the advancement of a candidate country, the European Commission will first consider the average scores (ratings) for each cluster. Decisions on entering a certain stage of the accession process will be made based on these evaluations.

In the framework of the staged accession model, the candidate country's performance across 33 chapters of the negotiation process is to be assessed quantitatively. What matters is that such estimates are consistent with the qualitative assessments prepared by the European Commission in the annual accession reports.

**Figure 11 / Stages of accession to the EU and quantitative assessments by section and clusters of negotiations with the EU**




Source: compiled by the author.

To enter Stage I, each cluster must have a minimum average rating of three (medium level of preparedness). The cluster of fundamental values is subject to stricter requirements, as each chapter in this cluster must have a rating of three or higher. The requirements for the other clusters are more lenient; they must have an average rating of three, and their separate chapter ratings cannot be lower than two.

To transition to Stage II, a candidate country must achieve a minimum average rating of four (good level of preparedness) across all clusters, while none of the chapters of each cluster can have a rating lower than three. At this stage, the cluster of fundamental values is again evaluated separately; each of its chapters must have a rating of four or higher.

Entering Stage III presumes achieving a high level of preparedness with a rating of five in each chapter. However, transitional measures are not taken into consideration.

Thus, transition of the qualitative ratings of the European Commission into the quantitative evaluations (scores) may look like: score of one (initial preparedness); score of two (certain level of preparedness); score of three (medium level of preparedness); score of four (good level of preparedness); and score of five (advanced level of preparedness).

The entire process of EU accession is meant to follow the principle of horizontal progression without favouring sectoral approaches. This means that candidate countries must demonstrate adequate performance across all clusters, and only then will they be able to progress through the stages of European integration. By structuring the accession process into clearly defined stages, the EU can already provide specific visible advantages to the citizens of the candidate country during the negotiation process.

Acknowledging that EU financial assistance will serve as a strong incentive to accelerate reforms and support the socioeconomic development of the candidate country, the authors of the concept of staged accession suggest that, after the candidate countries reach a higher degree of preparedness for EU membership, new opportunities for financing should be opened up to them.

In 2023, Mihajlović et al. (2023), including some of the authors of the original staged accession model, developed an updated template (Template 2.0) for the model's implementation. The new funding scheme envisages that a candidate country could receive up to 40% of the standard funding of a member state in Stage I and then up to 60% in Stage II, with a transition to full funding in Stage III.

In fact, with the transition to Stage III, new member states would assume all the obligations and enjoy most of the rights associated with EU membership. Accordingly, new members would become full participants in the EU's single market and customs union in addition to being able to join the Schengen Area and the euro zone if standard conditions are met. Their citizens would have the right to obtain EU citizenship and to vote during European elections. New members would also have to pay mandatory contributions to the EU budget.

Emerson and Blockmans (2022) emphasise that a staged accession model is the only structured elaboration that builds on the clusters and chapters of the operational accession methodology. Rather than hindering the negotiation process between the EU and the candidate countries, they argue, application of the model would add incentives to the candidates to implement the EU acquis more quickly.

In November 2023, the EU enlargement process gained fresh impetus after the European Commission adopted the so-called Enlargement Package. This package proposed the opening of accession negotiations with Bosnia and Herzegovina, Moldova and Ukraine. However, this package did not become a component of a more comprehensive reform of the enlargement process incorporating the pillars of a staged accession model (European Commission 2023).

The conclusions of the European Council meeting on 23-24 June 2022 that were related to the Western Balkans called for the gradual integration of the countries of this region (covered by the EU enlargement process) using the merit-based approach (European Council 2022). However, the gradual integration of the Western Balkans referred to in the conclusions is not the same as the staged accession and may only involve sectoral initiatives (embodied in the vertical integration process).

It is also important to note that, in some papers, the idea of staged accession is discussed in the context of deepening Ukraine’s relations with the EU. In particular, Delcour and Wolczuk (2023) suggest that a staged accession model is a viable solution for Ukraine and other candidate countries whose EU accession process is stalled. The authors emphasise that a well-structured accession to the EU with adequately defined benchmark indicators would mitigate the risk that accession negotiations devolve into an endless process of approving and responding to the requests of individual member states.

In order to operationalise the staged accession model, the EU institutions – first of all, the European Commission – will need to take a series of practical steps. The first step would be for the European Commission to make quantitative assessments of the quality ratings that are prepared every year in the framework of the Enlargement Package and report on the progress that candidate countries have made in satisfying the specified criteria. Most of the chapters and clusters of the negotiation process are to be assessed by the European Commission on the basis of the five-score standardised scale discussed above (from ‘initial level of preparedness’ to ‘advanced level of preparedness’), which allows data to be generated in a transparent and predictable way in the context of operationalising the stages of the EU accession process.

What is important is the availability of the financial and institutional incentives for the candidate countries that will encourage them to advance through the stages of the accession process. These incentives would need to be associated with the (preferably quantitative) benchmarks that will record a candidate’s advancements, thereby allowing allocations of resources from the EU structural funds and for the candidate country to be offered a chance to participate in EU institutions. As noted above, each new stage of integration would enable a candidate country to receive more EU funding and to participate more broadly in EU policies and institutions.

EU Cohesion Policy institutions, procedures, allocation, evaluation mechanisms and financial scope could assist in guiding Ukraine’s R&R towards an economically diversified and self-sustaining growth trajectory.

The authors of Kochnev et al. (2023), who are experts from the Vienna Institute for International Economic Studies (wiiw), show that EU enlargements in Southern and Eastern Europe have demonstrated the strength of the cohesion policy. Although the new member states showed significantly lower levels of infrastructure development and economic competitiveness when they joined the EU, they have gained ground over time. The experts suggest that Ukraine’s reconstruction needs are comparable given that infrastructure, public services, employment and, more generally, social and human capital remain key areas of intervention.

The European Regional Development Fund (ERDF), the Cohesion Fund (CF), the European Social Fund Plus (ESF+) and the Just Transition Fund (JTF) make up the EU Cohesion Policy funds for the 2021-2027 programming period. The goals of these funds are fairly diversified and encompass boosting employment, fostering inclusion and gender equality, strengthening connectivity, building trans-European networks, reducing regional disparities and promoting the green transition.

Medium-term budgets (for the 2021-2027 period) of the EU cohesion funds are the following: the ERDF (EUR 215.2bn), the ESF+ (EUR 98bn), the CF (EUR 36.6bn) and the JTF (EUR 19.2bn). Kochnev et al. (2023) emphasise that Poland is a top recipient of EU cohesion policy funds and can be taken as a benchmark for Ukraine, mainly because of the geographic and cultural proximity of the two countries and their similar population sizes. In the 2021-2027 period, EUR 75.5bn of EU cohesion policy funds were earmarked for Poland.

The wiiw experts also put forward their ideas on how Ukraine's integration into the EU Cohesion Policy could materialise. They suggest that ESF+ funds could be used for skills upgrading and retraining of the workforce to meet new emerging challenges, labour market integration of war veterans, and re-integration of children into the national educational system. The ERDF could be targeted at reducing economic disparities within Ukraine and fostering cross-border cooperation. The JTF could focus on combining reconstruction with an upgrading of the energy performance of buildings and social dimension of housing provision. Ukraine's housing sector, which has suffered severe damage during the war, could come under the jurisdiction of two funds (the ERDF and the ESF+) and could be covered by two policy objectives (i.e. rebuilding and greening Ukrainian housing).

Summing up, ***the practical implementation of the staged accession model along with opening of access to EU structural funds would allow Ukraine to enjoy the financial and institutional advantages of EU membership, yet – importantly – it would do so in the process of joining the EU. A step-by-step approach would help the Ukrainian population to reap the benefits of EU integration much earlier than in the case of waiting for eventual membership***. What's more, Ukraine's modernisation and successful integration into the EU would be of decisive importance for both Ukraine as a state and for the security and prosperity of the European continent as a whole.

***During the 2026-2027 period, additional financial assurances from the EU collective institutions and/or the EU member states will be needed beyond the financial potential of the Ukraine Facility. These assurances will be even more vital starting in 2028, when the Ukraine Facility expires*** and a new medium-term fiscal framework of the EU comes into force.

Potential sources of funding for carrying out reforms and overcoming the consequences of the war in Ukraine may be pledged by the EU, the United States, the IFIs, Canada, Japan and other donors. ***EU support for Ukraine's R&R should involve the creation of new facilities, which may be incorporated (fully or partially) into the EU's Cohesion Policy.***

***A model of the staged accession, elaborated by the CEPS and the CEP, offers a lot of advantages in this regard***. This model relies on a holistic system of quantitative performance indicators that record progress during the stages of EU accession and will lay the foundation for disbursements from the EU cohesion funds to Ukraine.

## 6. CONCLUSIONS AND POLICY RECOMMENDATIONS

Revenue collections to the consolidated budget of Ukraine over the course of the 2022-2024 period were affected by economic decline, the destruction of physical assets and human capital, and shifts in production and expenditure patterns of GDP. Declining consumption, the closure of enterprises, the erosion of corporate profits, fluctuations in imports, and large-scale emigration are all factors that explain the evolution of major revenue items to the consolidated budget.

Although **budget revenues** declined substantially in real terms in 2022 (when real GDP shrank by 28.8%), there has been an upward trend in the trajectory of the revenue to GDP ratio since the beginning of the war due to the fiscal effects of restructuring the national economy.

Going forward, the Ukrainian government is committed to focusing its efforts on raising adequate revenues to help meet reconstruction and social-spending needs, with the underlying objective being to enhance the efficiency, fairness and simplicity of the tax system. Near-term tax policy measures will focus on raising revenues from excises and the military levy, further alignment with the EU acquis on VAT and profit tax issues, and streamlining tax privileges.

To elaborate the medium-term budget revenue projections, our analysis used consolidated budget revenue excluding foreign grants as its core indicator. Ukraine's budget revenue ratios without foreign grants are projected at 43% of GDP in 2024, 41.5% of GDP in 2025, 37.6% of GDP in 2026, 36.9% of GDP in 2027, and 36.1% of GDP in 2028.

It was assumed that raising tax collections from excises, alignment with the EU regulations on VAT, and higher corporate taxes can be expected to elevate budget revenue by 2.2% to 3.5% of GDP in the 2025-2028 period. Moreover, imposing the military levy at higher rates and other temporary tax measures in the 2024-2025 period are likely to add up to 2% of GDP in extra revenue to the national budget.

Our assumptions and estimates generate higher levels of projected budget revenue in the medium term than those found in Ukraine's official Budget Declaration for 2025-2027 and the IMF's baseline scenario. Such discrepancies are explained by two important factors, namely, assistance to the Armed Forces of Ukraine (AFU) as a revenue item and the macroeconomic effects of the inflows of foreign resources. These factors are omitted by the IMF and the Ukrainian government as revenue-enhancing drivers, which results in their underestimation of the domestic revenue potential in the 2024-2028 period.

Prior to the war, Ukraine had a moderate level of **public expenditure** relative to GDP: 37.8% of GDP in 2020 and 33.9% in 2021. Since the war began, the public expenditure ratio has increased almost twofold. Total budget expenditure approached 67.9% of GDP in 2023 and 61.4% of GDP in the January-May 2024 period. Predictably, this kind of increase in spending was attributable to budgetary financing of the defence sector, which skyrocketed from 2.3% of GDP in 2021 to 21.8% in 2022 and then to 32.1% of GDP in 2023. At the same time, expenditure on social and economic programmes constituted 28.4% of GDP in 2021 and contracted to 23.9% of GDP in the January-May 2024 period.

Addressing the significant financing needs for the housing, transport, industry, energy, social protection and other sectors will be pivotal for restoring the Ukrainian economy's productive capacity, boosting employment and delivering essential public services to the population and businesses. This report suggests a methodology for assessing the budget expenditure required to cover the economic and social needs of Ukraine in the 2024-2028 period.

Initially, estimates for the recovery and reconstruction (R&R) needs across sectors are offered by the latest Rapid Damage and Needs Assessments Report of the World Bank, the European Commission and the Ukrainian government (RDNA3). All indicators are estimated in USD (total: USD 486.3bn) as of December 2023 and rely on a variety of funding sources for meeting Ukraine's R&R needs (not public funds alone).

The damages and needs of 2024 are not covered by the RDNA3 report, although Russian attacks continue to impact the Ukrainian economy. In order to cover this gap, we multiplied the R&R needs from the RDNA3 report by 1.25. In this way, we derive the rough estimates of total R&R needs as of December 2024. Then, we deducted expected expenses for recovery in 2024 (USD 15.3bn)

Next, we estimated the shares of Ukraine's consolidated budget in financing its R&R needs across functions of government; these shares are to include financing from foreign donors that is disbursed to the Ukrainian budget. The potential level of private-sector contribution to financing industry, commerce, agriculture, housing and other sectors were also considered.

The total amount of net R&R needs, estimated at USD 592.6bn, was distributed across 10 years. Thus, the average annual needs by sectors are calculated as one tenth of the total amount. However, a specific provision is used for 2025, as we assume that the war will continue until March or April 2025. Annual numbers for Ukraine's budget (in terms of USD) were recalculated to arrive at an expenditure to GDP ratio for the 2025-2028 period.

Financing the ordinary governmental functions (i.e. conventional budget expenditure) is estimated separately from the R&R needs. To forecast conventional expenditure, we use the methods of expert assessments, extrapolations and guidelines from Ukraine's Budget Declaration and the IMF-supported Extended Fund Facility (EFF) programme.

Budget expenditure for R&R in terms of GDP ratios are eventually combined with the conventional expenditure in the consolidated budget. In this way, we arrive at our projections of budget expenditure (including for financing R&R needs). The resulting estimates found that consolidated budget expenditures that could support the process of Ukraine's R&R will require financing at 68% of GDP in 2025, 59.5% of GDP in 2026, 54.3% of GDP in 2027, and 51.4% of GDP in 2028.

The significant R&R needs in the **housing sector**, along with limited public resources, necessitates the development of a housing strategy and associated action plans. We are in favour of adopting a programmatic approach based on a shared vision of recovery and prioritisation criteria. The R&R needs in the housing sector that must be covered by the Ukrainian budget would range between 2.4% and 3% of GDP annually. This implies that consolidated budget expenditure with incorporated R&R needs must be planned at the level of 3.3% to 3.9% of GDP over the course of the 2025-2028 period.

Rebuilding Ukraine's **road infrastructure** and boosting its logistics potential would involve budgetary funds, private investments, funds from donor organisations, and international technical assistance. The author's estimates yield R&R requirements for the transport sector (funded out of Ukraine's consolidated budget) in the magnitude of 2.1% to 2.6% of GDP annually over the 2025-2028 period. Consequently, total budget expenditure for transport infrastructure with incorporated R&R needs are projected at 4.0% to 4.5% of GDP annually.

The R&R needs in the **energy sector** that must be covered by the Ukrainian budget and donor funds (committed to the budget) range between 0.85% and 1.1% of GDP in the 2025-2028 period. This implies that consolidated budget expenditure on the energy sector with incorporated R&R needs must be planned at 0.95% to 1.2% of GDP annually.

The estimates suggest that R&R financing needs for **industry support** (linked to the Ukrainian budget) will range between 0.9% and 1.2% of GDP annually in the 2025-2028 period. This implies that consolidated budget expenditure with incorporated needs is expected to reach 1% to 1.3% of GDP annually over the same period.

Furthermore, R&R needs in the **agricultural sector** (that must be covered by the Ukrainian budget) would range between 1.1% and 1.4% of GDP annually over the 2025-2028 period. This implies that consolidated budget expenditure with incorporated R&R needs must be planned at the level of 1.4% to 1.7% of GDP annually over the same period.

It is foreseen that the **social protection system** will focus its efforts on rehabilitating war-affected groups, such as children (displaced children, orphans), IDPs and persons with disabilities as well as on reintegrating war veterans into society. This means the restructuring and modernisation of the relevant benefits while maintaining targeted approaches. Employment promotion policy would require additional efforts and funding, such as for mobility grants, settling-in grants, skilling programmes, return migration policy and immigration schemes. The R&R needs for the social protection system (that must be covered by the Ukrainian budget) would range between 1.8% of GDP and 2.3% of GDP annually in the 2025-2028 period. This implies that consolidated budget expenditure for social protection and livelihood with incorporated R&R needs will amount to 8.5% to 9% of GDP in that same period.

Budgetary financing of R&R needs in the **education sector** would range between 0.55% of GDP and 0.7% of GDP annually in the 2025-2028 period. Thus, consolidated budget expenditure with incorporated needs will amount to between 6.1% and 6.2% of GDP annually over the same period.

R&R needs in the **healthcare sector** (backed by budgetary financing) would range between 0.51% and 0.65%% of GDP in the 2025-2028 period. Consequently, consolidated budget expenditure with incorporated R&R needs will amount to between 4.2% and 4.3% of GDP in that same period.

Our combined forecast of consolidated budget revenue and expenditure required for meeting R&R needs yields the following projections of **budget deficits**: 19.6% of GDP in 2024, 26.5% of GDP in 2025, 21.9% of GDP in 2026, 17.4% of GDP in 2027, and 15.3% of GDP in 2028. These figures are not extraordinarily large in the Ukrainian context, since actual deficits (excluding grants) were equivalent to 24.8% and 26.1% of GDP, respectively, in 2022 and 2023.

Projected **gross financing needs** from external sources will have a downward trend, although their magnitudes will remain significant: 26.7% of GDP in 2025, 22.2% of GDP in 2026, 17.5% of GDP in

2027, and 15.2% of GDP in 2028. Translated into USD terms, gross financing needs will amount to USD 49.4bn in 2025, USD 46.3bn in 2026, USD 41bn in 2027, and USD 38.7bn in 2028.

In order to find out the extent to which Ukraine's R&R needs will be covered by donor commitments, we compare foreign financing sources pledged for respective periods and our estimates of gross financing needs. Our preliminary assessments (as of November 2024) yield **shortfalls in funding from foreign donors** amounting to USD 8.2bn for 2025 and USD 25.3bn for 2026.

The **Extraordinary Revenue Acceleration (ERA) loan** to Ukraine in the amount USD 50bn is reduces the deficit of foreign financing for Ukraine significantly. This type of loan, backed by proceeds from frozen Russian assets, would cover some military and economic needs of Ukraine, although these proceeds would not be sufficient in the long run.

The successful design and implementation of the ERA plan will not eliminate the need for the EU to take an innovative approach to supporting Ukraine with its economic recovery, reconstruction and institutional reforms on its path to EU membership. Our calculations and considerations suggest that providing sufficient resources for carrying out Ukraine's R&R programme and restoring the country's debt sustainability should rely on **additional financial assurances to Ukraine from its international partners** and taking legal steps, aimed at **confiscation of Russian sovereign assets**.

The EU authorities, the US administration and the IMF should play their roles in mobilising larger foreign financing for Ukraine's needs. In this process, official bi- and multilateral donors should provide commitments for exceptional financial support to Ukraine on highly concessional terms with a significant share of grants.

Only a **substantial extension of foreign grants** and a **significant write-off of Ukraine's foreign debt** (with a repeated debt restructuring in 2026) will ensure the restoration of Ukraine's public debt sustainability and give the country an opportunity for effective post-war reconstruction. Increasing the share of grants in the structure of new foreign disbursements to above 50% could contribute to making Ukraine's future reconstruction a success story.

As a candidate country for EU membership and a country combating armed aggression, Ukraine will need funding from the EU and other donors that is larger than what has been committed to date for the 2026-2033 period. From the EU side, increasing the planned budget for the **Ukraine Facility** may be an appropriate solution. Starting in 2028, a new EU medium-term fiscal framework should provide for the formation of new facilities to finance the economic R&R of Ukraine and for broadening the EU's Cohesion Policy towards Ukraine.

The practical implementation of the **staged accession model** along with opening access to the EU structural funds (and **EU Cohesion Policy**, accordingly) would allow Ukraine to enjoy the financial and institutional advantages of EU membership, yet – importantly – in the process of joining the EU. A step-by-step approach would make it easier to reap the benefits of EU integration and EU Cohesion Policy much earlier than in the case of waiting for eventual membership. And Ukraine's reconstruction and successful integration into the EU will be of decisive importance both for Ukraine as a state and for the security and prosperity of the European continent as a whole.

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# ANNEX

In this Annex we present a detailed assessment of the requirements and priorities of the main sectors that are essential for the efficient fulfilment of state functions and for meeting Ukraine's R&R needs on the basis of applying the 'build back better' principle.

## A.1 Restoration of human capital and social protection of the population over the course of Ukraine's reconstruction

### A) SOCIAL PROTECTION AND EMPLOYMENT PROMOTION

The social protection system in Ukraine is under considerable and growing pressure due to the increased number of vulnerable groups and limited fiscal resources.

The war has exacerbated the problems of children, women, older persons, people with disabilities, and war veterans. As of December 2023, the number of individuals officially registered as IDPs with the Ministry of Social Policy was 4.9 million, of whom 60% were women.

Even before the war, one third of families with children in Ukraine lived in poverty and there were 2.7 million people with disabilities, accounting for 6% of the total population. The war has led to a rapid rise in cases of trauma and injuries, which in turn has resulted in a dramatic growth in the number of people with disabilities. In the 18 months following February 2022, when Russian launched its full-scale invasion of Ukraine, the number of people with disabilities increased by 300,000.

The war has brought about a considerable reduction in the labour supply in Ukraine, from around 17.4 million people in 2021 to 14.6 million in 2022.

The total cost of damage to the social protection system in Ukraine is estimated by the RDNA3 report at 0.2bn USD. Damage in this area mostly consists of destroyed or damaged infrastructure, such as residential care units, sanatoriums and social service delivery centres.

The estimated needs for the social protection system amount to USD 44.5bn over 10 years. This consists of:

› service delivery restoration (means-tested benefits) – USD 21.4bn;

› employment-related measures – USD 14.7bn;

› military pensions and other long-term benefits related to the war – USD 4.2bn; and

› social benefits to IDPs – USD 2.8bn.

At present, the main categories of public expenditures on social assistance in Ukraine capture spending on the guaranteed minimum income (GMI), the housing utility subsidy, child and family benefits, disability and care benefits, and benefits to IDPs.

A social assistance programme for IDPs was introduced in March 2022 to help cover their living expenses. Government spending on assistance for IDPs in 2023 amounted to UAH 73.3bn (or USD 2bn). As of January 2024, about 2.5 million beneficiaries had received monthly support as IDPs. Budget expenditures for this programme decreased sharply in 2024 following a review of IDP support criteria and the introduction of means testing.

In addition to the Ukrainian government, foreign donors, international organisations and humanitarian NGOs are playing an active role in supporting vulnerable categories of the Ukrainian population. For instance, in partnership with the humanitarian community, the UN supported 16 million people in 2022 with USD 3.4bn in assistance, including in the form of cash, emergency shelters, house repairs, food, medicine, generators and winter supplies. In 2023, the UN provided life-saving assistance to 11 million Ukrainians, particularly in frontline areas, in the form of humanitarian funding of around USD 2.7bn provided by 38 UN member states and many private donors.

In 2024, the Ukrainian government has been working on a better-designed GMI-type programme that could integrate other benefits into the single social assistance to low-income families.

As part of the EFF programme, the Ukrainian government has committed to improving the targeting and means testing of social benefits to vulnerable population groups. There are plans to prepare draft legislation for the consolidation of multiple types of social entitlements, which will rely on support from the World Bank. More specifically, the government is exploring several options for integrating various social assistance programmes under a single unified package based on individual needs rather than a recipient's status. In this vein, the income threshold for eligibility under the GMI programme has been increased by 10%.

The Ukrainian government's Budget Declaration for 2025-2027 outlines the need to support citizens in overcoming difficult life circumstances and to preserve targeted approaches while preventing passive adjustment of social policy to a limited fiscal capacity. The tasks for the 2025-2027 period are defined as:

› ensuring maximum targeting and proximity of providing social support to those who need it;
› transformation of various social assistance programmes into a single unified package based on individual needs regardless of the recipient's status;
› ensuring transparency and maximum objectivity of the criteria for receiving social support;
› ensuring the protection of children's rights;
› supporting persons with disabilities, particularly by providing them with auxiliary means of rehabilitation as well as prosthetic and orthopaedic tools of improved functionality based on new technologies; and
› reforming the pension system to make it fairer and employing uniform approaches to calculating the regular pensions for insured citizens as well as the annual indexation of pensions to inflation rates.

RDNA3 experts recommend focusing efforts related to the social protection system on the rehabilitation of war-affected groups, such as children (e.g. displaced children and orphans), IDPs and persons with disabilities, and the reintegration of war veterans into society will also be crucial. Such an approach could include the restructuring and modernisation of related benefits.

The Ukraine Plan, which was prepared by national government, identifies the following priorities of social support for **war veterans**:

› rendering quality rehabilitation and medical assistance, including psychological support;

› introducing programmes for training, retraining and skills enhancement;

› creating the conditions needed for their employment as a separate category; and

› establishing support measures for veteran-owned businesses.

In 2023, the Institute for Veterans' Assistance was introduced as a pilot programme focused on facilitating the transition from military service to civilian life. In 2024, the institute will be expanded across Ukraine.

International experts recommend that war veterans be granted guaranteed access to housing and health services, rehabilitation services, prostheses, essential medications, employment opportunities and education/retraining options as well as priority consideration of their needs and personal life circumstances as a basis for any community support.

The Budget Declaration for 2025-2027 envisages supporting the employment/self-employment of war veterans by providing grants and micro-grants for the creation or development of one's own business, carrying out professional adaptation, and issuing vouchers to increase competitiveness.

Enhancing professional reorientation programmes with a focus on short-term qualification training and small business development support will be essential for the economic reintegration of war veterans into civilian life. Training courses should naturally respond to current labour market demands. In addition, mentoring, coaching, and employment and business start-up support will be needed to complement technical training.

**IDPs and returnees** from abroad are large and weakly protected population groups. During and after the war, the central government and local communities will have to invest in providing housing, basic services, social protection, and means to support the livelihoods of IDPs and vulnerable returnees. Partnerships between central and local authorities, civil society and the private sector will be essential for properly designing and efficiently implementing the support programmes. Support packages could also offer assistance with livelihoods and business financing, psychosocial support, technical assistance to facilitate return, and the integration of returnees.

Taking into account the needs of **persons with disabilities**, socialisation and adaptation should be at the core of measures taken by the Ukrainian government and foreign donors. The primary focus of social assistance programmes for this population category should be their return to active socioeconomic activities in their community.

For Ukraine, the transition from the medical model of disability to the biopsychosocial model will be challenging. Such a model assesses a person's healthcare, social, educational and employment needs; identifies the individual's state of functionality and limitations; and suggests methods of support to meet the individual's specific needs.

For local governments and humanitarian NGOs, creating an accessible and barrier-free environment for individuals with various impairments should be a priority. Their efforts should also be aimed at strengthening community-level facilitation so that individuals with disabilities can live as independently as possible.

Across a wide range of social programmes, incentives to encourage a return to the labour market should be introduced as part of social benefits and services. Expanding cooperation between social and employment services would be very useful in this regard, so incorporating labour incentives into social assistance programmes should be one of the priority tasks.

Redesigning social assistance programmes can contribute to restoring jobs as an important driver of economic recovery. However, **employment promotion** policy would require additional efforts and funding, such as for mobility grants, settling-in grants, skilling programmes, wage subsidies, and return-migration and immigration schemes.

Our assessments suggest that the R&R needs for the social protection system (which must be covered by Ukrainian budget) will range between 1.8% of GDP and 2.3% of GDP annually in the 2025-2028 period. This implies that consolidated budget expenditure for social protection- and livelihood-related measures with incorporated R&R needs will amount to between 8.5% and 9% of GDP in this period.

### B) HOUSING RECOVERY AND RECONSTRUCTION

According to the RDNA3 report, 10% of Ukraine's total housing stock of Ukraine has been either damaged or destroyed, impacting more than 2 million housing units across the country. As a result, millions of people have lost their homes and need to secure shelter from a limited pool of homes.

At the end of 2023, the total damage to the housing sector was estimated to be USD 55.9bn. Over one fourth of the damaged units are categorised as destroyed, and the other three fourths as partially damaged. Of the latter, 880,528 units have minor damage (damage of up to 10%) and 679,382 units have medium damage (of 10% to 40%).

The needs for the housing sector are estimated at USD 80.3bn for the 2024-2033 period. This is made up of the following components:

- housing repair and reconstruction – USD 72.1bn;
- demolition and debris removal – USD 5.7bn;
- technical inspections, designs, documentation and studies – USD 1.7bn; and
- provision of temporary housing and emergency support – USD 0.8bn.

RDNA3 experts argue that a primary focus in the housing sector should be on the rapid repair and recovery of the partially damaged assets, supporting owners with destroyed housing, providing temporary housing and providing emergency support.

In 2023, the equivalent of USD 1bn was disbursed from budget and donor funds towards the recovery of the housing sector, with the lion's share being dedicated to the repair and reconstruction of damaged assets. These funds were channelled through state and municipal budgets or via loans and grants provided by donors and IFIs.

Among others, the UN development system provided over USD 1bn in the 2022-2023 period to support the government's early recovery efforts focusing on community-recovery investments in housing, energy, social infrastructure, humanitarian demining, local economic development and psychological support.

Critical housing support from international donors – in the form of emergency shelters, operation of collective centres, and basic housing refurbishment for winterisation – amounted to an estimated USD 104m USD at the end of 2023. In addition, together with donors, the Ukrainian government provided homeowners with around USD 141m in compensation for temporary housing and basic service delivery for IDPs.

The Ukrainian government has initiated a range of programmes for affected homeowners, including the 'eRecovery' programme, which caters to residential property owners with damaged or destroyed units. The Ministry for Communities and Territories Development of Ukraine, which is responsible for implementing this programme, focuses on providing compensation for the restoration of damaged housing (light repairs) as well as for destroyed housing. This ministry is also involved in soliciting funds from the Council of Europe Development Bank (CEB) for housing construction in Ukraine.

As of January 2024, almost 600,000 citizens have submitted information reports about damaged or destroyed housing and more than 74,000 have applied for compensation. The Ukrainian government has set up the Register of Damaged and Destroyed Property (RDDP), which mandates the verification and registration of damaged assets by territorial communities and allows for monitoring the extent, nature and location of damaged assets. This damage inventory is managed by the Ministry for Communities and Territories Development and included approximately 60% of damaged assets as of December 2023. The government has also offered an additional tool to affected households in the form of the affordable mortgage loan programme 'eOselya', which was expanded in order to be able to issue loans with a 7% interest rate to the following population segments: IDPs, war veterans and their family members, and other citizens without their own housing. The eOselya programme is important given the limited access that Ukrainian citizens have to temporary and social housing. The share of 'social housing' in the housing stock of Ukraine is only 1% to 1.5%, and there is not any free social housing in most communities.

Affordable and accessible housing is an acute challenge for IDPs and especially for the most vulnerable among them. Many IDPs temporarily reside with family and friends or find rental or other long-term accommodations. However, around 120,000 IDPs continue to live in collective sites on a permanent basis. More than 80% of these individuals are among the most vulnerable and include the elderly, disabled persons, solitary persons, and those unable to rent or buy housing at market prices.

RDNA3 experts argue that a time-limited action plan is needed to ***relocate vulnerable individuals to affordable and accessible housing and/or to convert collective site buildings into suitable long-term housing***. Instruments for subsidising rent for IDPs and other vulnerable persons should be developed as one of the tools for providing social housing.

The significant R&R needs in the housing sector, along with the limited public resources, underline the importance of reforming the sector in a comprehensive manner. This, in turn, will require the ***development of a housing strategy and associated action plans***.

RDNA3 experts suggest adopting a programmatic approach to determine investments over time that is based on a ***shared vision for housing recovery and prioritisation criteria***. These should be embodied in an agreed strategy, a lack of which may lead to ad hoc solutions and a lack of coordination. To avoid this scenario, the Ukrainian government needs to adopt the Basic Principles of Housing Policy law. After approving this law and selecting prioritisation criteria, ***the Ukrainian government could provide compensation to entitled persons*** (whose housing was damaged or destroyed as a result of hostilities) ***for their damaged or destroyed property*** by:

› transferring funds to the current account of the recipient with a special regime of targeted use for the construction of a dacha, garden house or country house; and

› using a housing certificate associated with the purchase of an apartment, other residential premises, a dacha or a country house (including investing in/financing their construction).

To facilitate R&R in the housing sector while simultaneously ensuring social justice and respecting human rights, the Ukrainian government needs to:

› increase the amount of housing available to IDPs, returning refugees and others who are currently unable to rent or purchase housing, including persons with disabilities.

› develop a mechanism for offsetting the costs paid by vulnerable IDPs that are associated with renting accommodations; and

› extend the scope of the eOselya programme to include IDPs, returning migrants, war veterans and others who are entitled to receive mortgage loans on favourable terms.

According to the author's estimates, the R&R needs in the housing sector that must be covered by Ukrainian budget range between 2.4% and 3% of GDP annually through the 2025-2028 period. This implies that consolidated budget expenditure with incorporated R&R needs must be planned at the level of 3.3% to 3.9% of GDP for this same period.

### C) HEALTH CARE RECONSTRUCTION

The war has caused around USD 1.4bn in damage to the healthcare sector. As of the time of the RDNA3 assessment, 1,242 public facilities throughout Ukraine (12.5% of all facilities) had been partially or fully damaged.

The total R&R needs in this sector are estimated to be USD 14.2bn over 10 years. In particular, for the restoration of service delivery, an estimated USD 6bn is needed. Of this amount, restoration of additional primary healthcare services and medicines will cost USD 3.9bn. While needs for building new secondary care facilities will amount to USD 3.7bn, needs for constructing new centres of excellence for secondary care will amount to USD 1.8bn.

The urgent and implementable needs for 2024 are estimated to be USD 872.6m. According to the RDNA3 report, the immediate priorities include strengthening primary health care as the foundation for people-centred services as well as making smaller-scale repairs to restore the functionality of healthcare facilities.

During the war, the Ukrainian government has continued its efforts to sustain the most essential and critical healthcare services, which are desperately needed. Even in a time of war, the government has continued its reform of the healthcare sector, which was launched in 2017 to improve health outcomes, boost system efficiency and protect patients financially. The reforms include: improving the functioning of the National Health Service of Ukraine, which commissions the medical services; defining health entitlements in the Program of Medical Guarantees; consolidating financing sources; introducing output-based financing; and digitalising medical records. In the medium term, the important R&R tasks related to the healthcare sector include repairing damaged facilities, reconstructing outdated facilities to better support rehabilitation, and upgrading infrastructure of critical importance to the overall healthcare system.

The Ukraine Facility plan envisages the following priority measures in the healthcare sector:

› investing in the restoration and modernisation of state and municipal healthcare facilities damaged by hostilities;
› ensuring access to medical services for civilians and the military, developing services to meet the growing need for physical and psychological rehabilitation, providing prosthetics, and facilitating the transition of military personnel to civilian life; and
› developing IT infrastructure and digital information-management systems, including digital patient registers and records, and putting in place a more efficient and effective management structure and workflow processes.

The medium-term Budget Declaration, which has been approved by the Ukrainian government, prescribes the following actions in the healthcare sector:

› planning the provision of medical services in accordance with the needs of the population while also considering demographic and migration trends;
› improving the quality of medical care provision to patients in emergency situations with the aim of reducing premature mortality;
› strengthening systems of epidemiological surveillance; monitoring threats of biological, chemical, radiation and nuclear origin; and designing responses to infectious diseases and epidemics;
› lowering child mortality and scaling up early diagnosis services and early intervention technologies;
› extending the medical guarantee programme to the healthcare institutions of the Ministry of Health, the National Academy of Medical Sciences, and the National Academy of Sciences; and
› ensuring the transparency of the allocation of budgetary funds by accounting for all medical services and medicines through the electronic healthcare system.

The author's assessments, presented in the previous section, suggest that the R&R needs in the healthcare sector (which are relevant for the Ukrainian budget) will range from 0.51% to 0.65% of GDP annually in the 2025-2028 period. Consequently, consolidated budget expenditure with incorporated R&R needs are projected to range between 4.2% and 4.3% of GDP for the same period.

## D) EDUCATION REFORMS AND RECOVERY

According to the RDNA3 report, between February 2022 and December 2023, 13% of Ukraine's education infrastructure was damaged or destroyed by hostilities, representing an estimated damage of USD 5.6bn. The 13% share includes 3,583 damaged educational institutions and 394 destroyed ones. Secondary schools account for most of the damage, with 1,888 institutions affected.

Experts argue that the combination of stress, trauma and online learning is leading to substantial learning losses for Ukrainian students. The needs related to infrastructure reconstruction and restoration of high-quality in-person education are estimated by the RDNA3 at USD 13.9bn for the 2024-2033 period.

A considerable portion of the needs is linked to building bomb shelters and funding interim measures to provide access to in-person education (e.g. school transportation and digital learning centres). RDNA3 experts estimate that ensuring safe access to education for all will cost USD 2.4bn.

In 2023 and 2024, schools, preschools and other educational facilities have been actively rebuilt by local governments. Since January 2023, the share of educational institutions with shelters has risen from 68% to 80%, while the share of schools offering fully in-person education has increased from 25% to 57%.

Budget expenditure for education amounted to 5.5% of GDP in 2022 and 4.7% of GDP in 2023. However, the needs of the education sector exceed by far what is currently being provided.

Since 2022, international partners have been supporting Ukrainian students and teachers by providing them with educational materials, opportunities for catch-up learning and mental health support.

Four **priorities** – to be implemented jointly by the Ministry of Education and Science, local governments and international partners – have been identified for **2024**:

› reconstructing damaged education assets in line with demographic projections;

› providing safe access to education by building bomb shelters, organising school transportation and providing online learning;

› ensuring the provision of high-quality education and the continuation of the launched reforms, including investments for the rollout of the 'New Ukrainian School' programme; and

› tackling the accumulation of learning losses and trauma, especially for vulnerable children, by organising catch-up classes and mental health support.

Two urgent challenges for the education sector are supporting online education in zones of recent or ongoing hostilities as well as enhancing opportunities for distance learning with access to suitable technologies and devices. In areas where schools have been damaged, digital education centres could provide reliable and secure access to online education.

RDNA3 experts argue that, in the medium term, Ukrainian authorities must prioritise the provision of high-quality education and the resumption of pre-war reforms at all education levels – from preschool to university – to 'build back better' in the education sector and respond to the needs of the post-war economy. Apart from these, investments in modern teaching methods (including digitalisation) will also be essential, as they will form the foundation for raising the overall quality of education.

The Budget Declaration for 2025-2027 establishes a set of **tasks in the education sector** that would require budgetary financing and aid from international partners:

› restoring destroyed (damaged) buildings of educational institutions; creating conditions for the formation of an effective network of educational institutions on the basis of the interests of participants in the educational process and the needs of the state;

› creating safe conditions for carrying out the educational process in educational institutions; ensuring the continuity of education regardless of the security situation;

› increasing the number of preschool facilities, including rebuilding damaged infrastructure; extending the coverage of preschool education; introducing new ways to organise preschool education;

› developing a new model of organisation of the educational process in specialised schools; developing a network of specialised lyceums in the framework of the 'New Ukrainian School' programme;

› creating a modern system of professional (vocational and technical) education; creating educational and practical centres and centres of professional excellence; developing partnerships with businesses;

› modernising the network of higher education institutions; creating consolidated regional universities and world-class universities;

› reforming the system of financing higher education; ensuring targeted state support for students; diversifying the means of financial support for students' education;

› digitally transforming the education system; developing analytical information systems for education management and databases for making quality management decisions; and

› digitally supporting participants in the educational process by introducing more digital educational platforms; creating interactive educational materials and electronic supplements to textbooks.

Partnerships of the Ukrainian government with international organisations, donor countries and civil society groups will be essential for sharing expertise, mobilising resources and undertaking effective measures.

Our own assessments suggest that the R&R needs in the education sector (that must be covered by the Ukrainian budget) will range between 0.55% of GDP and 0.7% of GDP annually in the 2025-2028 period. This implies that the projected consolidated budget expenditure with incorporated R&R needs will range between 6.1% and 6.2% of GDP in this same period.

## A.2 Ukraine's economic recovery and reconstruction across the main sectors

### A) TRANSPORT INFRASTRUCTURE

RDNA3 experts estimate the total cost of damage to the transport sector to be USD 33.6bn. Direct damage in the sector includes 8,400 kilometres (km) of motorways, highways and other national roads; over 140 bridges on the national road network; 150 bridges on oblast and village roads; more than 50 km of railways; and 83 railway bridges.

The total R&R needs in the sector are estimated at USD 73.7bn over 10 years. Estimated needs consist of (i) motorways, highways and other national roads (USD 21.5bn, or 29% of total needs); (ii) railway infrastructure, rolling stock, equipment and other related assets (USD 17.6bn, or 24%); and (iii) local oblast, village and communal roads (USD 13.0bn, or 17%). The reconstruction efforts are expected to have decarbonisation, transport efficiency and multimodality as some of their main focuses.

Since the early stages of the R&R process, the Ukrainian government and foreign donors have followed the principle that the lion's share of investment in transport infrastructure should focus on core networks. According to RDNA3 estimates, a greater emphasis on restoring core services and completing repairs will lead to a 20% reduction in needs.

Since mid-2022, basic road and rail connectivity has been restored in areas severely affected by Russian missiles and where Ukraine has regained control after Russian occupation. In the Kharkiv, Chernihiv, Kyiv and Sumy oblasts, over 2,000 km of emergency road repairs have been performed.

Another finding of the RDNA3 report is that 40% of the Ukrainian rail network is categorised as 'core railways', which means that higher BBB standards (i.e. higher design speed, higher capacity and, in some cases, electrification) apply to them.

The Ukraine Plan, supported by the EU's Ukraine Facility, makes provisions for the following measures in the transport sector in the 2024-2027 period:

- restoring essential connectivity and logistics; reinstating lifeline transport services, urban public transport, regional passenger and supply connectivity; restoring road and rail infrastructure; procuring equipment for repair and maintenance;
- reconstructing and upgrading a number of key bridges in line with Trans-European Transport Network (TEN-T) standards;
- purchasing new rolling stock, including with zero emissions, to replace the old fleet;
- reconstructing and upgrading capacities in certain seaports and inland ports, including the development of a multimodal container transportation system;
- boosting the efficiency of the border infrastructure by enhancing physical infrastructure and access routes as well as digitalising border control points (BCPs) with the EU and Moldova;
- restoring airport infrastructure, air navigation and air traffic management systems.

Upgrading the TEN-T networks across transport modes is recognised as a critical goal. The TEN-T network is to become the backbone of the transport system, connecting big cities, BCPs with the EU and Moldova, and major ports and airports.

The Ukrainian government has also committed to gradually implementing the EU acquis in the transport sector in order to advance on its path to EU integration and to follow up on the EU-Ukraine Association Agreement.

Regarding modernisation of the **railway transport** system, the strategic priorities (i.e. those that require adequate financing) are: (i) developing a set of 1,435-millemetre (mm) gauge lines in Western Ukraine to integrate the Ukrainian (and Moldovan) rail system into the EU system; (ii) purchasing new (including zero-emission) rolling stock to replace the ageing fleet; (iii) upgrading certain rail corridors in line with TEN-T standards, such as with electrification; replacing rails, sleepers and substrates; consolidating/constructing bridges; introducing the European Rail Traffic Management System (ERTMS); and replacing the railway substructure.

In particular, the Ukraine Recovery Plan envisages the construction of about 200 km of railway with a gauge of 1,435 mm and 330 km of railway with a gauge of 1,520 mm to the border with the EU and to the Danube ports.

Other challenging priorities in the area of R&R of the railway transport system are:

› constructing, reconstructing and modernising railway tracks and bridges;

› electrifying railway tracks;

› repairing and modernising railway sorting stations on main routes (especially export routes);

› modernising 12 existing EU road border points and constructing three additional ones;

› constructing green charging power stations (including network renewal); and

› constructing the Kyiv-Warsaw high-speed railway.

The strategic direction of **road infrastructure** development is repairing existing and constructing new automobile roads, including modern autobahns, to be integrated into the trans-European network.

In the short term, modernising the infrastructure of BCPs for road connections with neighbouring EU member states will be of critical importance. Such work should be carried out within the framework of cooperation with international partners, in particular with application of the European financing tool known as the Connecting Europe Facility (CEF).

The Budget Declaration of Ukraine's government stipulates that, for implementation of state policy in the field of road and transport infrastructure in the 2025-2027 period, the Ukrainian State Road Fund is to be re-established and strengthened. Resources for the fund are planned in the amount of UAH 43.8 billion in 2025, UAH 124 billion in 2026, and UAH 233.8 billion in 2027.

Regarding **waterway transport**, a full restoration of access to Black Sea ports and of the safe transportation of goods through the Black Sea Corridor remain the most important factors for Ukraine's economic success. In the future, the main efforts should be directed towards supporting existing and creating new transport routes through the Black Sea.

Other major tasks in the area of waterway transport concern:

- restoring damaged or destroyed seaport infrastructure;
- ensuring the functioning of the River Information Service (RIS) and automating navigation on inland waterways; and
- repairing (modernising) the Kakhovka shipping lock as well as building an additional branch of the navigable lock.

The author's estimates in the framework of overall methodology for assessing the budget expenditure for financing Ukraine's needs yield R&R requirements for the transport sector of between 2.1% and 2.6% of GDP annually in the 2025-2028 period. Consequently, consolidated budget expenditure with incorporated R&R needs are projected at between 4.0% and 4.5% of GDP annually over the same period.

Rebuilding Ukraine's road infrastructure and boosting its logistics potential would involve budgetary funds, private investments, funds from donor organisations, and international technical and humanitarian assistance. For attracting private investments, putting legal mechanisms in place for building concession roads and operating a system for collecting tolls from trucks will be essential.

Technical and financial assistance from the EU in the form of preparing projects, conducting technical and economic feasibility studies, and elaborating the regulatory and legal frameworks will also be very important for strengthening Ukraine's institutional capacity and modernising Ukraine's transport infrastructure.

### B) ENERGY SECTOR

Around 50% of Ukraine's total power-generation capacities were damaged or destroyed in the period between February 2022 (i.e. the start of the full-scale war) and April 2023. As the energy sector provides critical services, investments in its rehabilitation and recovery are considered urgent.

Unfortunately, the latest estimates of damage, losses and needs for Ukraine's energy sector from the RDNA team are only available for the period up until the end of 2023. Damage (including to the district heating sector) was estimated at USD 10.6bn at that date. In the electricity sector, the largest contributor to damage-repair costs is the generation segment (at USD 4.9bn), followed by the transmission segment (USD 2.15bn).

The RDNA3 report estimates the total R&R needs in the sector at USD 47.1bn over 10 years. The amount of total needs is made up of:

- USD 40.4bn for rebuilding the electricity sector, including the transmission system operator (TSO), the distribution system operators and power generation;
- USD 3.4bn for rebuilding the fuel oil sector, including oil refinery facilities and distribution networks; and
- USD 3bn for rebuilding the gas transportation system, including the gas TSO and the distribution system.

In the last two years, the energy sector has seen the most significant recovery efforts in the following areas: (i) developing structures to protect key power grid infrastructure; (ii) arranging the restoration and emergency supply of equipment for the electricity TSO, building transmission connections, and installing STATCOMs (i.e. devices that help regulate voltage); (iii) securing gas purchasing for the heating season; and (iv) repairing hydropower plants and constructing new small-scale/ distributed generation.

Since 2022, the Fund for Liquidation of the Consequences of Armed Aggression has been in place in Ukraine in the form of a special budget fund. In 2023, UAH 61.8bn was accumulated in it. The fund is funded by a share of the profits of the National Bank of Ukraine and proceeds from property of the Russian Federation in Ukraine that has been forcibly seized. In 2023, UAH 18.9bn was allocated from the fund for the construction, repair, and execution of engineering and technical measures to protect the critical infrastructure of the energy sector.

Overall, the fund served its purpose in 2023 by supporting the restoration of destroyed and damaged property in the amount of UAH 38.1bn. In 2024, the fund will continue serving its purpose, as stated in Article 28 of the 2024 State Budget Law.

As part of the state budget, the government also plans to establish a state fund for decarbonisation and energy-efficient transformation, which will be dedicated to boosting energy efficiency, reducing the emissions of carbon dioxide into the air, and more actively using renewable energy sources. The main source for this fund will be the environmental tax, which is paid for emissions of carbon dioxide into the air by stationary sources. Resources for the fund are planned in the amount of UAH 1.75bn in 2025, UAH 1.87bn in 2026, and UAH 1.87bn in 2027.

Funds for decarbonisation will be allocated to, among others things: compensation; reimbursement; lowering the obligations of the individuals and legal entities under credit and leasing agreements concluded for the implementation of energy-efficient measures; expanding renewable energy sources and alternative types of energy; and lowering emissions of carbon dioxide.

Many experts argue that restoring the energy sector in post-war Ukraine will require investments that are too large to be covered by the country on its own. The Ukrainian government is facing the challenge of attracting funding from a variety of public and private sources. At the moment, the government needs to focus on policies that minimise fiscal liabilities in the energy sector, catalyse external financing and enhance transparency.

The Ukrainian government has announced a range of short-term priorities in this area, including:

› repairing damage to the power grid, power generation facilities and other energy infrastructure to ensure access to energy for citizens and enable recovery, including by making emergency repairs to power plants, repairing and replacing the equipment of the TSO and the distribution system operators, and physically protecting energy infrastructure;

› advancing the R&R of damaged thermal-generation facilities, hydropower plants (including the Kaniv and Kakhovka hydroelectric power plants) in five key economic regions;

› increasing generation capacity, including by starting the project to build two additional units at the nuclear power plant in Khmelnytskyi and by undertaking preparatory measures for two more units on top of that;

- enhancing distributed local generation by installing at least 300 MW of gas-turbine and gas-engine generators as well as implementing modern projects for modular gas-turbine and gas-piston installations with minimal indicators of negative impacts on the environment; and
- developing renewable energy sources while increasing the share of flexible and highly flexible capacities (energy storage, hydropower plants, pumped storage power plants, biomass, combined heat and power plants, and high-efficiency modern gas peakers) to balance renewables.

In the medium and long terms, the Ukrainian government's policy should rely on a 'build back better' approach and focus on actions that align Ukraine's energy model with EU energy policies and move toward a decarbonised economy.

The Ukraine Plan, supported by the EU, includes the following strategic goals for the energy sector:

- supporting a green transition and promoting an increase in the share of renewable energies; strengthening the decentralisation of the energy system; and increasing energy security;
- developing and building interconnections between the integrated energy system of Ukraine and the energy systems of the EU countries in continental Europe's synchronous network so as to increase cross-border trade and enhance the security of the gas and electricity markets;
- creating legal, organisational and technical conditions for the sustainable development of renewable energy on a competitive market basis in order to increase the share of renewable energy in Ukraine's energy balance in accordance with international obligations; and
- modernising heat-generating enterprises; identifying measures to improve the resilience, quality and availability of heat supply services; undertaking measures to support decarbonisation; and expanding renewable energy sources.

The private sector is likely to play a significant role in the green and resilient recovery of Ukraine's energy sector. In the framework of our methodology, we have assumed that the share of Ukraine's consolidated budget (including donor funds disbursed to the state budget) required to meet the needs of the energy sector over a 10-year period will be as high as 40%.

Potential for private investments is particularly large in the following areas:

- developing renewable energy sources and generation capacities;
- expanding electricity transmission and distribution networks to provide the capacity for new connections;
- setting up energy storage capacities to support the integration of intermittent renewable energy sources; and
- constructing peak and semi-peak (flexible) generation infrastructure to add generation capacity and to help balance the power system.

The author calculates that R&R needs in the energy sector that must be covered by the Ukrainian budget (including donor funds disbursed to the state budget) will range between 0.85% and 1.1% of GDP annually in the 2025-2028 period. This implies that consolidated budget expenditure on the energy sector with incorporated R&R needs must be planned at between 0.95% and 1.2% of GDP over the course of the same period.

### C) INDUSTRY AND COMMERCE

The RDNA3 report assesses total damage to Ukraine's commerce and industry facilities between February 2022 and 31 December 2023 at up to USD 15.6bn. Approximately USD 4.2bn in damage is attributable to the destruction of two steel plants in Mariupol: the Azov Iron and Steel Works and the Ilyich Iron and Steel Works.

Total R&R needs for the commerce and industry sector are estimated at USD 67.5bn until 2034. Of this amount, 31% is associated with rebuilding and modernising buildings, equipment and inventory.

RDNA3 experts recommend a set of well-justified measures to support industry and commerce in the short term, including:

- providing ***financial support to viable firms in the form of loans, grants and guarantees*** to allow them to survive, relocate (if needed), and reconstruct and modernise their assets in addition to allowing the emergence of new entrants;
- issuing financial support (loans, grants and guarantees*)* to ***high-value manufacturing*** and agroindustry as well as ***export-oriented enterprises***;
- devising and deploying de-risking instruments and support to improve ***interest rate affordability*** across all sectors;
- boosting ***war-risk insurance*** and increasing risk coverage for new investments;
- supporting the ***retraining and upskilling of labour*** to address skills required by businesses to access new markets;
- assisting firms in accessing new markets with tools to ***meet standards in international markets***, facilitating international partnerships and learning, and expanding the availability of ***trade finance*** and insurance instruments;
- restoring the logistics infrastructure needed for access to input and sales markets; and
- streamlining ***business regulations*** to make it easier to start (and restart) businesses, to develop new product lines and to adopt new delivery models.

Apart from these, the Ukraine Plan, which is financially backed by the EU via the Ukraine Facility, envisages state support for the introduction of ***industrial parks*** as a tool for attracting investments in the de-occupied areas. Presumably, this will stimulate the transition to the production of goods with greater added value and will be an additional incentive for attracting foreign direct investment (FDI).

Moreover, the Ukraine Plan considers in detail the ***war insurance*** mechanism, which aims to help Ukrainian businesses to lower the risks associated with the destruction or loss of property. The government plans: (i) to expand and introduce property insurance and freight insurance programmes specifically designed to cover war risks for new investment and for existing businesses; and (ii) to broaden existing programmes provided by the World Bank Group's Multilateral Investment Guarantee Agency (MIGA) and the US International Development Finance Corporation (DFC), leveraging donor funding to implement effective de-risking mechanisms, such as a first-loss layer. This would absorb a portion of the risk, enabling MIGA to offer affordable premiums, although private reinsurance will be needed, too.

Approximately 84% of firms in Ukraine report facing constraints in ***accessing finance***, driven by high interest rates on market-based loans. In order to mitigate these constraints, the priority instruments implemented by the Ukrainian government include: grants for small businesses; the eRobota programme (see below); subsidised lending through the 'Affordable loans 5-7-9%' programme; a programme of portfolio guarantees; lines of credit and other support from multilateral donors; and guarantees, reinsurance and export support programmes through the Export Credit Agency.

Access to grants or preferential loans, particularly for SMEs, is intended to facilitate relocation, essential repairs, the replacement or purchasing of equipment, the acquisition of raw materials, software expenses and salary payments. In particular, the ***eRobota*** programme provides non-repayable financial support for, among other things: launching new or expanding existing businesses; planting a garden, growing berries and engaging in viticulture; and the creation or development of a processing enterprise.

In addition to maintaining the 'Affordable Loans 5-7-9%' programme, the government intends to introduce specialised initiatives, such as ***supportive loans for SMEs*** operating in de-occupied regions and areas at high risk of shelling.

The importance of the efficient functioning of state infrastructure that supports SMEs is recognised in the official documents. In addition to grant-support programmes and the preferential loans programme, promoting entrepreneurial education has to be reinitiated, too.

Ongoing support to SMEs, both from domestic and foreign sources, should be extended to a wider range of enterprises and sectors, such as the production of food products and beverages, light industry, oil refining, chemicals, pharmaceuticals, green metallurgy and metal processing, non-metallic products, machinery, furniture, woodworking, education, logistics and other services.

RDNA3 experts argue that while support to SMEs remains vital (as they constitute the backbone of the economy), larger and more ***capital-intensive investments in key industries*** (e.g. green metallurgy, machine building and pharmaceuticals) should also be encouraged. These could be achieved through ***de-risking*** instruments and ***co-financing facilities*** with the backing of donors.

In addition, direct ***technical assistance*** from international organisations or foreign governments could help Ukrainian firms to enter new markets, move into higher-value-added products and adopt more sustainable practices.

Nowadays, IFIs mainly operate through targeted support programmes based on sector or enterprise size, covering areas like trade facilitation, municipality and critical infrastructure, and support for SMEs. Changing the design of the IFIs' financing programmes to make them cover a wider range of companies, projects and sectors would admittedly be challenging. Nevertheless, these programmes could encompass direct **financing for the large and medium-sized companies** provided by the IFIs and the extension of IFI loans through Ukrainian banks, and the proper design and implementation of new IFI financing programmes could be a powerful lever for business development and economic reconstruction. As a rule, IFIs offer the advantage of providing financing at lower interest rates. In addition, relatively cheap financing is expected from Pillar II of the the Ukraine Facility for the 2024-2027 period.

The author's assessments, presented in Section 2.2 (above), suggest that R&R needs in industry (linked to the Ukrainian budget) will range from 0.9% to 1.2% of GDP annually in the 2025-2028 period. Consequently, consolidated budget expenditure with incorporated R&R needs is expected to reach between 1% and 1.3% of GDP over the same period of time.

### D) AGRICULTURE

The RDNA3 report finds that total damage to Ukraine's agriculture sector amounts to USD 10.3bn. The damage consists of the partial or complete destruction of storage facilities, fisheries and aquaculture facilities, and perennial crops as well as the forced slaughter of livestock. It also encompasses the destruction and theft of machinery and equipment as well as the theft of inputs and outputs of agricultural production. Notably, the destruction of the Kakhovka Dam in June 2023 resulted in a threefold increase in damage to the aquaculture and fishery industries.

The total R&R needs (that will put a pressure on the public sector) are estimated at USD 56.1bn by the RDNA3 team. The components of this amount are:

› support for the longer-term recovery of the agriculture sector – USD 35.5bn;

› support for reconstruction – USD 9.4bn;

› assistance to immediate agriculture production recovery – USD 6.1bn; and

› maintenance of public agricultural institutions and programmes, including for EU accession – USD 5.0bn.

The RDNA3 experts estimate that total R&R needs for taking a 'build back better' approach for irrigation, drainage and flood-protection assets would require USD 10.7bn over the next decade.

In the short term, the main reforms and investment areas in agriculture are:

› demining and decontaminating agricultural land and rehabilitating irrigation and drainage infrastructure for liquidation of the fallout of the war; reconstructing pipelines, pumping stations and on-farm infrastructure; and restoring vital structures;

› revitalising and modernising the sector after the damages of war as well as promoting shifts towards higher-value-added products; ensuring compliance with relevant food-safety, animal-welfare and environmental standards; and

› strengthening the regulatory framework of the agri-food sector by continuing efforts to align with the EU acquis and advancing institutional reforms; increasing capacities for enforcing agri-food as well as sanitary and phytosanitary (SPS) regulations to meet EU standards.

In the medium and long terms, the significant challenge will be completing the reconstruction and replacement of war-damaged assets in agriculture in accordance with the 'build back better' principle.

RDNA3 experts identify the following long-term priorities:

- addressing liquidity constraints on agricultural producers;
- investing in resilience to disasters and climate change;
- investing in integrated food-energy systems;
- strengthening the public agricultural institutions to effectively support R&R as well as EU accession; and
- modernising operational irrigation systems and upgrading multifunctional drainage systems, which will broaden irrigation options during dry periods and bolster the protection of forests and other natural areas.

If successfully implemented, all of these measures would increase diversification of agricultural production, inclusiveness, climate resilience, food-energy integration, and environmental and social sustainability in line with the European Green Deal.

The Ukraine government has committed to providing direct financial support to farmers through public programmes. Official documents stipulate that this support would combine grants and inputs for small farms, interest-rate compensation for agricultural production loans, and matching investment grants for horticulture production.

The Budget Declaration for 2025-2027 contains special provisions on government financial support to farmers, particularly through the mechanism of preferential lending, to strengthen their material and technical bases. Moreover, the Budget Declaration envisions support to agricultural commodity producers who use ameliorative land and to water user entities. This kind of support is meant to stimulate not only an increase in the amount of ameliorative land, but also an increase in the gross output of agriculture.

The author calculates that R&R needs in the agricultural sector (that must be covered by the Ukrainian budget) range between 1.1% and 1.4% of GDP annually through the 2025-2028 period. This implies that consolidated budget expenditure with incorporated R&R needs must be planned at the level of between 1.4% and 1.7% of GDP in this same period.

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